**CURRICULUM VITAE**

October 1, 2019

Daren Keith Heyland MD, FRCPC, MSc.

**I.** **PERSONAL INFORMATION**

Name: Daren Keith Heyland

Office Address: Watkins 5c Room 4-5-318

Kingston General Hospital

76 Stuart Street

Kingston, ON K7L 2V7

613-549-6666 x4679 (Phone)

Email: [dkh2@queensu.ca](mailto:dkh2@queensu.ca)

Personally maintained websites:

[www.ceru.ca](http://www.ceru.ca)

[www.criticalcarenutrition.com](http://www.criticalcarenutrition.com)

[www.myicuguide.ca](http://www.myicuguide.ca)

[www.planwellguide.com](http://www.planwellguide.com)

www.fsicu.ca

**I**I. **PRESENT ACADEMIC RANK AND POSITION**

Full Professor of Medicine, Queen’s University (tenured, July 2005)

**III.** **EDUCATION**

1987 Bachelor of Medical Science, University of Alberta.

1989 Doctor of Medicine with distinction, University of Alberta.

Licentiate with Medical Council of Canada.

1994 Master's Degree in Health Sciences, Design, Measurement, and Evaluation Program, McMaster University.

IV. **ROYAL COLLEGE CERTIFICATION, CERTIFICATE OF COMPETENCY, AMERICAN BOARD CERTIFICATION**

1995 Fellow, Royal College of Physicians and Surgeons of Canada, Internal Medicine.

1996 Royal College of Physicians and Surgeons of Canada Specialty in Critical Care

V. **HONORS AND AWARDS**

1980, 1983-85 Presidential Scholarship, Brigham Young University.

1990 Regional Medical Associates Research Scholarship

1993 E. Garner King Award from Canadian Critical Care Society for Best Young Investigator.

1994 Internal Medicine Resident's Research Competition- Third Prize.

1994 Regional Medical Associates Research Scholarship

1995 Internal Medicine Resident's Research Competition- First Prize, David L. Sackett Award.

1996 E. Garner King Award from Canadian Critical Care Society for Best Young Investigator.

* 1. Career Scientist Award, Ministry of Health, Ontario, Canada (a multi-year award that provides approximately $60,000/year for salary support)

2005 Excellence in Research Award, Department of Medicine, Queen’s University.

2017 Rhoads Research Lecture and Award American Society of Parenteral and Enteral Nutrition, February 21, 2017

2018 Inducted into the Academy of Nutrition and Dietitcs as an Honorary Member,

FNCE, Washington DC, October 22, 2018

VI. **PREVIOUS PROFESSIONAL POSITIONS AND APPOINTMENTS**

1991-92 Emergency Physician, Med-Emerg Inc., Ontario.

1991-94 Temporary Staff, Greater Niagara Regional Hospital, Ontario.

Locums in Family practice.

1991-96 Critical Care Clinical Assistant, McMaster University Affiliated Hospitals, Hamilton, Ontario.

1996 Staff Physician, Kingston General Hospital, Hotel Dieu, and St. Mary’s of the Lake Hospital, Kingston, Ontario.

1996-2001 Assistant Professor, Department of Medicine, Queen’s University, Kingston, Ontario.

* 1. Associate Professor, Department of Medicine, Queen’s University, Kingston, Ontario.

1. Full Professor, Department of Medicine, Queen’s University, Kingston, Ontario

VII. **EDUCATION – TEACHING**

Medical School

Taught Critical Appraisal to 2nd year Medical Students, Queen’s University.

Involved 6, 2 hour small group sessions per year.

Graduate School

Teach “Decision Making Near the End of Life” seminars to house staff at Kingston General Hospital.

Involves 6, 1 hour small group sessions per year with all the house staff rotating through the ICU

Teach core subjects to ICU Residents, approximately 20/year

Other institutions (prior to current position)

1992-1993 - Tutor for "How to teach critical appraisal" workshop at McMaster University.

VIII. **EDUCATION – JOURNALS**

Scientific Reviewer for the Following Journals:

1. Journal of the American Medical Association
2. Chest
3. American Journal of Respiratory and Critical Care Medicine
4. Intensive Care Medicine
5. Critical Care
6. Journal of Palliative Care

IX. **GRADUATE STUDENT/POSTDOCTORAL FELLOWS**

1. Jim Lavery, 1 year, SSHRC Postdoctoral award
2. Shaun MacDonald, 1 year, Critical Care Research Fellow
3. Frantisek Novak, 1 year, Critical Care Research Fellow
4. Rupinder Dhaliwal, 2 years, Nutrition Research Fellow
5. Dianne Groll, 2 years, CIHR Postdoctoral award
6. Naomi Jones, 2 years, MSc Epidemiology student
7. Jeanette Suurdt, 2 years, Masters of Nursing
8. Naomi Jones, 4 years, PhD, Epidemiology
9. Carolina Aguilar, 4 years PhD, Health Economics
10. Jen Kryworuchko, 4 years, PhD, Nursing
11. Raymond Fong, 4 years, PhD, Community Health & Clinical Epidemiology
12. Shelly Wei, 2 years, MSc, Community Health & Clinical Epidemiology
13. Roger Leung, 2 years, MSc, Community Health & Clinical Epidemiology
14. Sarah Bailie, 1 year MSc,Gerentology

X. **INSTITUTIONAL, DEPARTMENTAL, AND DIVISIONAL ADMINISTRATIVE RESPONSIBILITIES, COMMITTEE MEMBERSHIPS AND OTHER ACTIVITIES**

1996-2008 Director of Research, Critical Care Program, Kingston General Hospital

1997-1999 Research and Development Committee, Kingston General Hospital

1998-2001 Critical Care Medicine Residency Training Committee, KGH

1999-2001 Pastoral Care Committee, Kingston General Hospital

1999-2000 Withdrawing and Withholding Life Supports Committee, KGH

1999-2000 Ad Hoc Committee on Research Overheads and Clinical Trials Unit

2000-2009 Director of Research, General Internal Medicine Group

2004-2009 Head, Division of General Internal Medicine

2004-2010 Member, Research Committee, Department of Medicine

2004- Director, Clinical Evaluation Research Unit

**XI**. **PROFESSIONAL AND SOCIETY MEMBERSHIPS**

1993- Canadian Critical Care Trials Group

1994- Canadian Critical Care Society

1995- Society of Critical Care Medicine

1996- American Society of Parenteral and Enteral Nutrition

2002- Canadian Society for Clinical Nutrition

2018- American Society of Nutriton and Dietetics (Honorary Membership)

**XII.** **NATIONAL LEADERSHIP**

1996 Member of the Executive of Canadian Critical Care Trials Group

-Organized End of Life Care Symposium in conjunction with the Critical Care Trials Group Annual meeting, Lake Louise, April 1999.

2001 Member of the Governing Council of Canadian Society of Clinical Nutrition and Chair of Practice Guidelines Committee.

-Organized Nutrition Support Research Working Group at the American Society for Parenteral and Enteral Nutrition, Chicago, January 23, 2001.

-Organized and Chaired a Multidisciplinary National Research Meeting on Nutrition Support funded by Nestle, Abbott Laboratories and Canadian Institutes of Health Research, Toronto, Oct 16-17, 2001.

-Organized and Co-chaired a Multidisciplinary National Meeting to develop guidelines for nutrition support in the ICU. In conjunction with Canadian Society for Clinical Nutrition Annual Meeting, sponsored by Canadian Institutes of Health Research, Toronto, May 1-2, 2002.

2002 Member of the CIHR/Health Canada Palliative Care Research Working Group, member of the steering committee for the Canadian Palliative/End of Life Research Network (CaNPER), and Co-Chair of the Health Canada, National Strategy on End of Life Care, Research Working Group.

-Organized National End of Life Care Research Meeting (New Frontiers Program) sponsored by CIHR, Kingston ON, March 27-29, 2003.

-Organized and chaired CaNPER protocol development meeting, Toronto, October 28, 2003.

-Organized and chaired symposium on Nutrition Support in Critical Care at 2002, 2003, and 2004 National meeting

1. Member of the CIHR Advisory Committee for the National Research Forum for Young Investigators in Circulatory and Respiratory Health, Winnipeg, MB, May 6-9, 2004.

2004-2008 Reviewer, CIHR Clinical Trials Committee

1. Invited participant to National Knowledge Translation for Palliative and End of life Care meeting, Ottawa September 14, 2005.

2005 Invited participant to International Palliative and End of life Care Research meeting, Birmingham, United Kingdom, October 5-6, 2005.

2006 Invited by Society of Critical Care Medicine to serve on planning committee for 2007 and 2008 summer conference on nutrition therapy.

2007 Appointed to 2008 Nutrition Conference Task Force for Society of Critical Care Medicine

2008 Organized and Chaired “Nutrition Therapy in ICU” Educational and Research sessions at the 2008 Canadian Society of Clinical Nutrition Annual Scientific Meeting, Toronto, May 29-31, 2008.

2009 Organized and Chaired 2-day multidisciplinary national research meeting on aging, critical care, and end of life care funded by CIHR, Kingston, April 2,3.

2009 Chair, Planning Committee, Post Conference Symposium, Society for Critical Care Medicine.

Planning Committee for annual ASPEN Scientific Meeting.

Invited Participant and discussant to Summit Addressing the Physician Nutrition Shortage sponsored by ASPEN, Orlando, Florida, Dec 4-6, 2009.

2010 Member of National Advance Care Planning Task Force sponsored by the Canadian Hospice and Palliative Care Association.

2011 Lead and organized a group of 44 researchers from across Canada to apply for a Network Centers of Excellence in Technology Evaluation in seriously ill Elderly Patients (TECH VALUE NET). This grant was awarded and I became the founding Scientific Director.

2012 Co-Chair of North American Surgical Nutrition Summit held in Phoenix Arizona, September 21-23, 2012.

2013 Invitee to “Deliberate Dialogue” on improving end of life care in Ontario and member of the Steering Committee, co-sponsored by Ontario Medical Association and McMaster Health Forum.

2013 Member of President’s Working Group on improving end of life care in Ontario, sponsored by the Ontario Medical Association.

2013 Member of Expert Panel on end of life care sponsored by Health Quality Ontario.

**XIII**. **INVITED VISITING PROFESSORSHIPS Total Visits: 148**

1. “A Systematic Review of Nutrition Support in the Critically Ill Patient: Transferring Research-Based Findings into Practical Hospital Applications.” Ajax and Pickering Health Center, November 25, 1998.
2. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Chest Rounds, London Health Sciences Center, London, Ontario, May 26, 1999.
3. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Ottawa Hospitals, Ottawa, Ontario, May 27, 1999.
4. “Nutrition Support in the Critically Ill Patient: A Systematic Review of the Literature” Kentucky Chapter of American Society of Parenteral and Enteral Nutrition, Louisville, Kentucky, June 18, 1999.
5. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Ottawa Hospitals, Ottawa, Ontario, May 28, 2000.
6. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, St. John Regional Hospital, St. John, New Brunswick, Sept 6, 2000.
7. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Royal Alexandra Hospitals, Edmonton, Alberta, September 20, 2000.
8. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Cook County Hospital, Chicago, Illinois, January 9, 2001.
9. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Sunnybrook Hospital, Toronto, April 19, 2001.
10. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Oregon Health Sciences University, Portland, Oregon. May 17, 2001.
11. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Expert Panel, AstraZeneca, Wilmington, Delaware, May 23, 2001.
12. “Sepsis: New Insights into New Molecules, Mechanisms, Monitoring and Improved outcomes.” Duke Medical Center, Durham, North Carolina, November 5, 2001.
13. “Enhancing Delivery of Enteral Nutrition in the Critically Ill.” Grand Rounds, North York General Hospital, November 8, 2001.
14. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Grand Rounds, Windsor, Ontario, Nov 13, 2001.
15. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Grand Rounds, St John’s General Hospital, St John’s, Newfoundland, Nov 20, 2001.
16. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Grand Rounds, University Hospital, Saskatoon, Saskatchewan, Dec 7, 2001.
17. “Optimizing Nutrition Support in the Critically Ill/Surgical Patient” Surgical Grand Rounds, University Hospital, Saskatoon, Saskatchewan, Dec 7, 2001.
18. “Merging Evidence-based Medicine and Nutrition Support Practice for Critically Ill Patients: The (Mis)interpretation of Randomized Trials and Meta-analyses.” Nutrition Grand Rounds, University Hospital, Saskatoon, Saskatchewan, Dec 7, 2001.
19. “Dying in Canada: A Quality Finish?”, Chest Rounds, Royal Columbian Hospital, New Westminister, British Columbia, Jan 29, 2002.
20. “Dying in Canada: A Quality Finish?” Grand Medical Rounds, St. Paul’s Hospital, Vancouver, British Columbia, Jan 30, 2002.
21. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, University of British Columbia, Vancouver, Jan 31, 2002.
22. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Sunnybrook Hospital, Toronto, Ontario. March 28, 2002.
23. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Foothills Hospital, Calgary, Alberta, April 16, 2002.
24. “Dying in Canada: A Quality Finish?” Grand Rounds, Foothills Hospital, Calgary, Alberta, April 17, 2002.
25. “Waveform Abnormalities of aPTT in Critically Ill Hospitalized Patients: The WATTCH study. John Raddcliffe Hospital, Oxford, UK, Sept 13, 2002.
26. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, University of Montreal Hospitals (CHUM), St. Luke’s Hospital, October 23, 2002.
27. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Combined Critical Care and Respirology Rounds, Montreal Jewish General Hospital, October 24, 2002.
28. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Hopital Sacre du Couer, Montreal, Quebec, February 4, 2003.
29. “Nutrition Makes a Difference to Clinical Outcomes!” Critical Care Fellows Rounds. Ottawa General Hospital, Ottawa, ON, May 6, 2003.
30. “Ventilator-Associated Pneumonia: Optimal Management.” University of Laval, Quebec City, Quebec, May 27, 2003.
31. “Sepsis: New Insights into Mechanisms, Molecules, Monitoring and Maximizing Outcome” Charles Lemoyne Hospital, Montreal, Quebec, May 27, 2003.
32. “Ventilator-Associated Pneumonia: Optimal Management.” McGill University Health, Montreal, Quebec, May 29, 2003.
33. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Queen Elizabeth II Hospital, Halifax, Nova Scotia, September 5, 2003.
34. “Ventilator-Associated Pneumonia: Optimal Management.” University of Manitoba, Winnipeg, September 23, 2003.
35. “Immunonutrition: Separating Fact From Fiction.” New York Long Island Society of Parenteral and Enteral Nutrition, Manhasset, New York, November 3, 2003.
36. “Nutrition Support in the Critically Ill Patient: The way you feed them impacts their outcome”. Critical Care Rounds, Hamilton General Hospital, McMaster University, Hamilton, May 3, 2004.
37. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Cite de la Sante de Laval, Laval, Quebec, May 4, 2004.
38. “Nutrition Support in the Critically Ill: If you feed them they will leave (alive!)” Respiratory and Critical Care Conference, University of Washington, Harborview Hospital, Seattle, Washington, July 22, 2004
39. “Immunonutrition: From old approaches to new paradigms”. University of Louisville, Kentucky, September 9, 2004.
40. “Nutrition support in the critically ill: translating research evidence into practice”. University of Louisville, Kentucky, September 9, 2004.
41. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” City Wide Critical Care Medicine Rounds, University of Montreal, Montreal, Quebec, April 13, 2005.
42. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Sacre Couer Hospital, University of Montreal, Montreal, Quebec, September 8, 2005.
43. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Vancouver General Hospital, University of British Columbia, October 13, 2005.
44. “Zap the VAP: A program of research to reduce the burden of illness related to VAP.” Geisinger Health Care Systems, Dansville, Pennsylvania, January 26, 2006.
45. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, University of Toronto, Toronto, Ontario, January 31, 2006.
46. “Ventilator Associated Pneumonia: Observations and Experiments. The Results of the Canadian VAP Study and more…” Critical Care Rounds, University Of Ottawa, Ottawa, April 11, 2006.
47. “Developing a Clinical Research Unit: The Clinical Evaluation Research Unit at the Kingston General Hospital.” Interdepartmental Research Retreat, University of Toronto, Toronto, July 5, 2006.
48. “Maximizing the benefits and minimizing the risks of nutrition support in the critically ill: Evidence-based clinical practice guidelines.” Sunnybrook Critical Care Rounds, Toronto, September 11, 2006.
49. “Maximizing the benefits and minimizing the risks of nutrition support in the critically ill: Evidence-based clinical practice guidelines.” Postgraduate Medical Research Institute, Chandrigarh, India, February 12, 2007.
50. “Effective Communication with Patients and Families.” William Osler Health Science Center ICU Day: Decision Making at the End of Life. March 9, 2007.
51. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, CHU University, Leige, Brussels, March 27, 2007.
52. “End of life care in Canada: A quality finish?” Jane Poulson Visiting Professorship, Grand Medical Rounds, Montreal General Hospital, McGill University, April 3-4, 2007.
53. “Educating medical residents in end of life care: Results from a recent national survey.” Jane Poulson Visiting Professorship, Palliative Care Rounds, Montreal General Hospital, McGill University, April 3-4, 2007.
54. “Improving end of life care in the ICU.” Jane Poulson Visiting Professorship, Critical Care Rounds, Montreal General Hospital, McGill University, April 3-4, 2007.
55. “End of life care in Canada: A quality finish?” Grand Medical Rounds, Ottawa Hospitals, University of Ottawa, June 20, 2007.
56. “End of life care in Canada: A quality finish?” Cardiology Rounds, South Lake Regional Hospital, New Market, Ontario, October 17, 2007.
57. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Winnipeg Health Science Center, Winnipeg, Manitoba, November 5, 2007.
58. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Miami Valley Medical Center, Dayton, Ohio, January 14,2008.
59. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Critical Care Rounds, L Enfant Jesus Hospital, Quebec City, Quebec, March 13, 2008.
60. “End of life care in Canada: A quality finish?” Grand Medical Rounds, L Enfant Jesus Hospital, Quebec City, Quebec, March 13, 2008.
61. “Nutrition Therapy in the ICU: The clock is ticking!” Critical Care Rounds, Sacre Couer Hospital, Montreal, Quebec, April 24, 2008.
62. “End of life care in Canada: A quality finish?” Critical Care Rounds, North Humberland Regional Hospital, Cobourg, Ontario, April 30, 2008.
63. “End of life care in Canada: A quality finish?” Grand Medical Rounds, Victoria Hospital, University of Western Ontario, London ON, June 13, 2008.
64. “Nutrition Therapy in the ICU: The clock is ticking!” Critical Care Rounds, Victoria Hospital, University of Western Ontario, London ON, June 13, 2008.
65. “End of life care in Canada: A quality finish?” Grand Medical Rounds, Royal Jubilee Hospital, Victoria, British Columbia, Oct 9, 2008.
66. “Nutrition Therapy in the ICU: The clock is ticking!” Critical Care Rounds, Royal Jubilee Hospital, Victoria, British Columbia, Oct 9, 2008.
67. “Nutrition Therapy in the ICU: The clock is ticking!” Critical Care Rounds, Nanaimo Regional Hospital, Nanaimo, British Columbia, Oct 9, 2008.
68. “Critical Care Nutrition Research: A programmatic approach to research.” Department of Epidemiology and Preventive Medicine School of Public Health and Preventive Medicine Monash University, Melbourne Australia, November 6th, 2008.
69. “End of life care in Canada: A quality finish?” Critical Care Rounds, Alfred Hospital, Melbourne Australia, November 7th, 2008.
70. “Nutrition Therapy in the ICU” AuSPEN Regional Meeting, Melbourne Australia, November 7th, 2008.
71. “Pharmaconutrition: A new emerging paradigm.” Zurich University Hospital, Zurich, Switzerland, May 27, 2009.
72. “Critical Care Nutrition as Therapy: a new emerging paradigm.” Department of Human Health and Nutrition, University of Guelph, March 31, 2009.
73. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Critical Care Rounds, University Hospital, London, Ontario, April 1, 2009.
74. “Narrowing the Gap: Improving the Practice of Nutrition in the ICU Setting- the time to act is now!” Patient Safety Day, Ottawa, Ontario, May 29, 2009.
75. “Nutrition Therapy in the ICU Setting.” Pulmonary/Critical Care Rounds, University of Louisville, Louisville, Kentucky, June 11, 2009.
76. “Systematic Reviews of the Literature: Problems or Panacea?” KYSPEN Annual Educational Conference, Louisville, Kentucky, June 12, 2009.
77. “Nutrition Therapy in the ICU Setting.” Surgical/Critical Care Rounds, Department of Surgery, Hershey Medical Center, Hershey Pennsylvania, Dec 2, 2009.
78. “Nutrition Therapy in the ICU Setting.” Surgical/Critical Care Rounds, Department of Surgery, Thomas Jefferson University, Philadelphia Pennsylvania, Dec 3, 2009.
79. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Surgical/ Critical Care Medicine Rounds, AtlanticCare Regional Medical Center, Atlantic City, New Jersey, Dec 03, 2009.
80. “Nutrition Therapy in the ICU Setting.” Surgical/Critical Care Rounds, Department of Surgery, Hermann Hospital, Texas Medic al Center, Houston, Texas, December 6, 2009.
81. “Improving End of Life Care in Acute Care Settings: Lessons learned from the Canadian Experience.” Department of Surgery Grand Rounds, The University of Texas Medical School at Houston, Houston, Texas, July 15, 2010.
82. “Malnutrition in the ICU.” Critical Care Rounds, CVICU, Toronto General Hospital, Toronto, Ontario, February 14, 2011.
83. “Malnutrition in the ICU.” Critical Care Rounds, Erasme Hospital, University of Brussels, Belgium, February 28th, 2011.
84. “Nutrition as therapy: the time to act is now!” Uruguayan Society of Parenteral and Enteral Nutrition, Montevideo, Uruguay, May 13, 2011.
85. “Malnutrition in the ICU.” Critical Care Rounds, Fernandes Tavora Hospital, Forteleza, Brazil, June 20, 2011.
86. “Nutrition Therapy in the ICU: the time to act is now!” Critical Care Rounds, Mackay Memorial Hospital, Taipei, Taiwan, October 13th, 2011.
87. “Nutrition Therapy in the ICU: the time to act is now!” Critical Care Rounds, Tri-services General Hospital, Taipei, Taiwan, October 13th, 2011.
88. “Nutrition Therapy in the ICU: the time to act is now!” Critical Care Rounds, Chimei Hospital, Tainan, Taiwan, October 17th, 2011.
89. “Nutrition Therapy in the ICU: the time to act is now!” Critical Care Rounds, Kaohsiung Medical Center, Kaohsiung, Taiwan, October 17th, 2011.
90. “Strategies on Optimizing Delivery of EN in the ICU.” Critical Care Rounds, Island Hospital, Penang, Malaysia, October 19, 2011.
91. “Malnutrition in the ICU.” Critical Care Rounds, Island Hospital, Penang, Malaysia, October 19, 2011.
92. “Malnutrition in the ICU.” Critical Care Rounds, University Hospital of Malaysia, Kuala Lampur, Malaysia, October 24, 2011.
93. “End of life care in Canada: A quality finish?” Critical Care Rounds, Alberta Health Care Services, Calgary, Alberta, November 18, 2011.
94. “Advance care planning in Canada: Time to start a conversation about end of life care!” Geriatric and Palliative Care Rounds, Lethbridge Regional Hospital, April 20, 2012.
95. “Malnutrition in the ICU: Time for a change!” May 6, 2012, Hangzhou, China.
96. “Malnutrition in the ICU: Time for a change!” May 8, 2012, Wuhan, China.
97. “Malnutrition in the ICU: Time for a change!” May 9, 2012, Shanghai, China.
98. “Malnutrition in the ICU: Time for a change!” Long Island Chapter of Society of Parenteral and Enteral Nutrition, Long Island, New York, May 14, 2012.
99. “Malnutrition in the ICU: Time for a change!” Surgical Grand Rounds, Nassua University Medical Center, Long Island, New York, May 15, 2012.
100. “Living like you are dying! Supporting seniors to a quality finish.” Beulah Salt Seniors Conference, University of Lethbridge, Lethbridge, Alberta, June 22 2012.
101. “Malnutrition in ICU”. Royal Adelaide Hospital, Adelaide, Australia, Oct 29, 2012.
102. “Decision aid improves quality of care!” Royal Adelaide Hospital, Adelaide, Australia, Oct 29, 2012.
103. “Dying in Canada: A quality finish?” Royal Adelaide Hospital, Adelaide, Australia, Oct 30, 2012.
104. “Advance care planning in Canada: Time to start a conversation about end of life care!” Royal Adelaide Hospital, Adelaide, Australia, Oct 30, 2012.
105. “Decision aid improves quality of care!” Royal Adelaide Hospital, Adelaide, Australia, Oct 31, 2012.
106. “Technology evaluation in the seriously ill elderly”. Royal Adelaide Hospital, Adelaide, Australia, Nov 1, 2012.
107. “ACCEPT Study”. Royal Adelaide Hospital, Adelaide, Australia, Nov 1, 2012.
108. “Optimising nutrition delivery in the critically ill.” Royal Adelaide Hospital, Adelaide, Australia, Nov 2, 2012.
109. “Advanced Care Planning”. Royal Adelaide Hospital, Adelaide, Australia, Nov 5, 2012.
110. “Optimising nutrition delivery in the critically ill.” Royal Adelaide Hospital, Adelaide, Australia, Nov 7, 2012.
111. “Malnutrition in ICU: Time for a change!” Royal Adelaide Hospital, Adelaide, Australia, Nov 8, 2012.
112. “ACCEPT Study”. Royal Adelaide Hospital, Adelaide, Australia, Nov 8, 2012.
113. “A Multicenter, Cluster Randomized Trial of Enhanced Protein-Energy Provision via the Enteral Route Feeding Protocol in Critically Ill Patients: The PEP uP Protocol”. Hopital du Sacre-Coeur de Montreal, Critical Care Rounds, Montreal, QC, Feb 14, 2013.
114. “Advanced Care Planning: From scientific evidence to implementation. Centre Hospitalier Universitaire de Sherbrooke, Sherbrooke, QC, Grand Medical Rounds, Feb 15, 2013.
115. “Advance Care Planning in Canada: Time to start the conversation about end of life care. University of Ottawa. City Wide Ground Rounds (Dept of Med), Feb 26, 2013.
116. “A Multicenter, Cluster Randomized Trial of Enhanced Protein-Energy Provision via the Enteral Route Feeding Protocol in Critically Ill Patients: The PEP uP Protocol”. Critical Care Rounds, Sharp Grossmount Hospital, La Mesa, California, April 28, 2013.
117. “Reducing death due to oxidative stress (REDOX Study): glutamine and antioxidants supplementation in the critically ill”. )”. Tan Tock Seng Hospital, Singapore, July 14, 2013.
118. “(C)Iatrogenic malnutrition in the ICU”. Singapore General Hospital, Singapore, July 15, 2013.
119. “Optimizing nutrition delivery in the critically ill”. 2nd Singapore-ANZICS Intensive Care Forum. Koo Teck Puat Hosptial, Singapore, July 15, 2013.
120. “Role of pharmaconutrition in ICU in relation to reducing death due to oxidative stress. Singapore Nutrition Support Team Meeting Sheraton Hotel, July 15, 2013.
121. “Update of the 2013 Canadian Critical Care Nutrition Guidelines – the facts & evidence”. Singapore Nutrition Support Team Meeting Sheraton Hotel Singapore, July 15, 2013.
122. “Optimizing nutrition delivery in the critically ill & iatrogenic. Malnutrition in the ICU”. National University Hospital, Singapore, July 16, 2013.
123. “Optimizing nutrition delivery in the critically ill”. Jurong Hospital, Singapore, July 16, 2013.
124. “Optimizing nutrition delivery in the critically ill”. Singapore General Hospital, Singapore, July 15, 2013.
125. “Optimizing nutrition delivery in the critically ill”. Chengi General Hospital, Singapore, July 17, 2013.
126. “PEP uP protocol: increased protein and energy delivery”. Critical Care Rounds, Hamilton General Hospital, September 10, 2013.
127. “Talk now for ever hold your peace: the importance of talking about care at the end of life”. McMaster Health Forum, Hamilton, ON, September 10, 2013.
128. “Talk now for ever hold your peace: the importance of talking about care at the end of life.” Pulmonary/Critical Care Rounds, University of Pennsylvania, Philadelphia, USA, November 20, 2013.
129. “Iatrogenic Malnutrition in the Critically Ill: Time for a change!” Surgical/Critical Care Rounds, University of Pennsylvania, Philadelphia, USA, November 20, 2013.
130. “Just because you can count it doesn’t mean it is the right thing to count!” Department of Clinical Epidemiology Rounds, University of Pennsylvania, Philadelphia, USA, November 21, 2013.
131. “Dying in Canada: A quality finish?” Surgical Grand Rounds, Department of Surgery, Hamilton, ON, November 27, 2013.
132. “Talk now for ever hold your peace: the importance of talking about care at the end of life.” William Sibbald Visiting Professorship, Grand Medical Rounds, Sunnybrook Hospital, Toronto, ON, November 27, 2013.
133. “Improving Communication and Decision-making at the End of Life.” William Sibbald Visiting Professorship, Grand Medical Rounds, University Hospital, London Ontario, November 28, 2013.
134. “Talk now for ever hold your peace: the importance of talking about care at the end of life.” William Sibbald Visiting Professorship, Critical Care Rounds, Victoria Campus, University Hospital, London, ON, November 29, 2013.
135. “Improving Communication and Decision-making at the End of Life.” William Sibbald Visiting Professorship, Grand Medical Rounds, Victoria Campus, University Hospital, London, ON, November 29, 2013.
136. “Novel Methods to Diagnose and Treat Malnutrition in the ICU”, Decatur Medical Center, Atlanta Georgia Jan 21, 2014.
137. “Novel Methods to Diagnose and Treat Malnutrition in the ICU”, Ehrlman Medical Center, Chattanooga, Tennessee, Jan 22, 2014.
138. “Underfeeding in the ICU and Different Means to Overcome This” 2nd Annual Cleveland Clinic Center for Human Nutrtition Spring Symposium, April 11, 2014
139. “Iatrogenic Malnutrition in the ICU: Time for a Change!” Hospital Nutrtional Support Symposium, Buenos Aires, Argentina, April 23, 2014.
140. “Optimizing Nutrition Delivery in the ICU” Hospital Nutrtional Support Symposium, Buenos Aires, Argentina, April 23, 2014.
141. “Glutamine: What are the Reconmendations?” Hospital Nutrtional Support Symposium, Buenos Aires, Argentina, April 23, 2014.
142. “Underfeeding Critically Ill ‘High-risk’ Patients Is Harmful!” Critical Care Rounds, Rabin Medical Center, Tel Aviv, Israel, November 30, 2015.
143. “Current Controversies in Critical Care Nutrition.” Critical Care Rounds, CTO (Orthopedic and Trauma Center), Turin, Italy, March 10, 2016.
144. “To Die Well, You Need to Plan Well: The importance of end of life communication and decision-making.” Critical Care Rounds, Medizinische Universitat Graz, Graz, Austria, March 14, 2016.
145. “Current Controversies in Critical Care Nutrition.” Critical Care Rounds, Military Medical Academy, Belgrade, Serbia, March 15, 2016.
146. “Patient and Family-Centred Research: From Concepts to Challenges” Patient and family centred research colloquium, Griffith University Gold Coast Campus, Gold Coast, Australia, April 10,11 2019.
147. “Dying in Canada: A Quality Finish?" Medical Grand Rounds, Gold Coast University Hospital, Gold Coast, Australia, April 12, 2019.
148. “Just Ask: Talking with your patients regarding serious illness" Resident teaching session, Gold Coast University Hospital, Gold Coast, Australia, April 13, 2019.

**XIV**. **PRESENTATIONS AT NATIONAL MEETINGS** **Total Presentations: 49**

1. "The Effect of Acidified Enteral Feeds on Colonization and Pneumonia in the Critically Ill Patient". Canadian Critical Care Trials Group Meeting, Montreal, Quebec, April 1993.
2. “Introduction to Evidence-Based Medicine” and “How to Use an Economic Evaluation”. Bayer National Sales Representative Meeting, Toronto, May 7, 1998.
3. “Patient participation in health care decisions near the end of life: A research program.” Tranmer, J & Heyland, D. The Canadian Association of Medical Colleges (CAME), Ottawa, Ontario. May 1998.
4. "The Effect of Antimicrobial Tube Feeds on Nosocomial Infections in the Critically Ill Patient". Canadian Critical Care Trials Group Meeting, Toronto, Ontario, September, 1998.
5. "A Randomized Trial of Empiric Broad Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia". Canadian Critical Care Trials Group Meeting, Toronto, Ontario, September, 1998.
6. “Outcomes Research: Linking Clinical Practice with Research Evidence.” Combining Evidence-Based Health Care and Utilization Review, Brampton, Ontario, Jan 13, 1999.
7. “Dying in Canada: Is it an Institutionalized, Technologically Supported Experience? Canadian Critical Care Trials Group End-of-Life Symposium, Lake Louise, Alberta, April 10, 1999.
8. “End of Life Decision Making”. Critical Care Society Resident’s Half-Day Symposium on End of Life Issues. Royal College of Physicians and Surgeons Annual Scientific Meeting. Montreal, September 1999.
9. “Nutrition Support in the Critically Ill Patient: A Systematic Review of the Literature” Critical Care Research Network 2nd Annual Meeting. Mississauga, Ontario; Jan 20, 2000.
10. “Nutrition Support in the Critically Ill Patient: Current Topics.” Postgraduate Course, Canadian Critical Care Society and Canadian Association of General Surgeons, Edmonton, September 21, 2000.
11. “Ventilator-Associated Pneumonia: Observations and Experiments.” Royal College of Physicians and Surgeons of Canada. Edmonton, September 23, 2000.
12. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Astrazeneca National Sales Meeting, Mississauga, Ontario, April 25, 2001.
13. “Sepsis: New Insights into Mechanisms, Treatments, and Monitoring” Organon Technika, Durham, North Carolina, May 25, 2001.
14. “Prevention of Ventilator-associated Pneumonia: Current Practice in Canada.” Wyeth-Ayerst Consultants Forum. Mississauga, Ontario, June 16, 2001.
15. “Tazocin: Clinical Review” Wyeth-Ayerst Consultants Forum. Mississauga, Ontario, June 16, 2001.
16. “Nutrition Support Research in ICU: A multidisciplinary, national research plan.” Multidisciplinary National Research Meeting on Nutrition Support funded by Nestle, Abbott Laboratories and Canadian Institutes of Heath Research, Toronto, Oct 16-17, 2001.
17. “Merits and Limitations of Meta-analyses in Nutrition Support” Western Canada Nutrition Day, Edmonton, Alberta, Oct 26, 2001.
18. “Nutrition Support: Best Care for the Critically Ill” Canadian Society for Clinical Nutrition Annual Meeting, Toronto, Ontario, May 4, 2002.
19. “Quality of Life in Survivors of Critical Illness: Moving Beyond Survival” Critical Care Research Network Annual Meeting, Ingersoll, Ontario, May 9, 2002.
20. “Family Satisfaction with Care in the Critical Care Setting” Critical Care Research Network Annual Meeting, Ingersoll, Ontario, May 9, 2002.
21. “Dying in ICUs in Canada: A Quality Finish?” Kingston- Ottawa Critical Care Symposium, Ottawa, May 24, 2002.
22. “Feeding in the ICU: Myths and Misconceptions. What is the Evidence?” Canadian Association of Critical Care Nurses, Niagara Falls, Ontario, October 2, 2002.
23. “Best Practice in ICU Nutrition Support” Hamilton Health Sciences 6th Annual Nutrition Workshop, Hamilton, Ontario, November 22, 2002.
24. “Towards Building a National Research Center of Excellence in End of Life/Palliative Care” National Coordinating Council, National Strategy on EOL/Palliative Care, Ottawa, Jan 22-24, 2003.
25. “Nutrition Support in the Critically Ill Patient” UBC Whistler Critical Care Conference, Whistler BC, April 12, 2003.
26. “Optimal Management of Ventilator-Associated Pneumonia” UBC Whistler Critical Care Conference, Whistler BC, April 12, 2003.
27. “Ventilator-Associated Pneumonia: Optimal Management” 2nd Annual Atlantic Critical Care Conference, Halifax, Nova Scotia, September 5-7, 2003.
28. “Nutrition Support in the Critically Ill Patient: Achieving Best Practice.” 2nd Annual Atlantic Critical Care Conference, Halifax, Nova Scotia, September 5-7, 2003.
29. “Improving the Quality of End of Life Care in Canada: Understanding the Perspectives of Seriously Ill Hospitalized Patients and Their Caregivers.” CaNPER Protocol Development Meeting, October 28, 2003.
30. “Ventilator-Associated Pneumonia: Getting it right the first time!” Academy of Infection Meeting sponsored by AstraZeneca, Boston, Massachusetts, November 21, 2003.
31. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Canadian Critical Care Trials Group Annual Scientific Meeting, Lake Louise, Jan 20th, 2004.
32. “End of Life Care in Canada: A Quality Finish?” CIHR, National Research Forum for Young Investigators. Winnipeg, MB, May 8, 2004.
33. “ZAP the VAP”, VAP Investigators Meeting, Scottsdale, Arizona, Jan 13-14, 2005.
34. “A Randomized Trial of Invasive Diagnostic Techniques and Empiric Broad-Spectrum Antibiotics in the Setting of Ventilator-Associated Pneumonia: Preliminary Results.” Quebec Society of Intensive Care Medicine Annual Meeting, Montreal Quebec, May 5, 2005.
35. “REducing Deaths from OXidative Stress: The REDOXS Study. A randomized trial of glutamine and antioxidant supplementation in critically ill patients. Canadian Critical Care Trials Group Annual Scientific Meeting, Lake Louise, Jan 16-19, 2006.
36. “End of Life Care in the ICU: Patient Perspectives.” Alberta Intensive Care Society Annual Meeting. Lake Louise, Alberta, January 20, 2006.
37. “Dying in Canada: A quality finish?” Last Days of Living: Hope, Comfort, and Compassion at the End of Life, Health Care Conferences Canada, Inc. Toronto, ON, April 11, 2008.
38. “Palliative/End of Life Care in the ICU.” Canadian Society for Internal Medicine, Annual Scientific Meeting, Montreal, Quebec, October 15-18, 2008.
39. “How to build an academic clinical research program.” Canadian Critical Care Trials Group Annual Resident’s Research Day, Picton, Ontario, June 15, 2009.
40. “Nutrition in Sepsis: What is the evidence.” Sepsis Update, University of Western Ontario, London, Ontario, September 15th, 2010.
41. “Nutrition Therapy in the ICU” Canadian Nutrition Society Annual Meeting, Guelph, Ontario, June 2-4, 2011.
42. “Advance care planning in Canada: Time to start a conversation about end of life care!” CARENET Annual Research meeting, Calgary, Alberta, April 16, 2012.
43. “Iatrogenic Malnutrition in the ICU: Time for a change! Canadian Institute of Nutrition Excellence, Calgary, Alberta, April 19, 2012.
44. “Dying in Canada: A quality finish?” Plenary Lecture, Canadian Academy of Health Sciences National Meeting, Ottawa, September 20, 2012.
45. “It’s time to get the end of life conversation going in Canada! 11th Congres Annuel, Societe des intensivistes du Quebec, Feb 16, 2013.
46. “Advance Care Planning in Canada. Time to start the conversation about end of life care!” Ontario Medical Association Annual General Council Meeting, Hamilton, Ontario, May 3, 2013.
47. “Optimizing nutrition delivery in the critically ill patient”. Nestle Critical Care Nutrition Conference, Burlington, Ontario, September 18, 2013.
48. “Care at the End Of Life: Improving Communication and Decision Making” WRHA Critical Care Program: Outcomes Improvement Symposium, Winnipeg, Manitoba, May 21, 2015.
49. “Critical Care Quality Improvement through Patient and Family Experiences” CCSO Annual Quality Conference- Toronto, Ontario March 9, 2017

**XV.** **PRESENTATIONS AT INTERNATIONAL MEETINGS** **Total Presentations: 351**

1. “The Effect of Cisapride on Gastric Emptying in Critically Ill Patients.” Digestive Diseases Week, San Francisco, California, May 1996.
2. “The Frequency and Methodological Rigor of Quality of Life Assessments in the Critical Care Literature.” The 7th World Congress of Intensive & Critical Care Medicine, Ottawa, Ontario, July 1997.
3. The Third Annual Ross Enteral Device Conference, Winston-Salem, NC, September 19-21,1997. Chaired conference and presented “Making Inferences From Scientific Research” and “The Effect of Acidified Enteral Feeds on Contamination of the Enteral Feeding Delivery System and Subsequent Colonization and Infection in Critically Ill Patients.”
4. “Nutrition Support in the Critically Ill Patient: A Systematic Review of the Literature. 1997 Toronto Critical Care Medicine Symposium, Toronto, Canada, November, 1997.
5. “The Effect of Acidified Enteral Feeds on Gastric Colonization and Pneumonia in Critically Ill Patients: Results of a Multicenter Randomized Trial.” American Thoracic Society/American Lung Association Annual Meeting, Chicago, April, 1998.
6. "Gastrointestinal Motility, Enteral Nutrition and Infection in Critical Illness". Expert’s Panel sponsored by Janssen Pharmaceutica, Boston, August 26, 1998.
7. “Morbidity and Mortality Criteria: Are They Relevant to Establish the Efficacy of Nutritional Interventions?” European Society of Parenteral and Enteral Nutrition, Nice, France, September, 1998.
8. “Nutrition Support in the Critically Ill Patient: A Systematic Review of the Literature” European Society of Parenteral and Enteral Nutrition, Nice, France, September, 1998.
9. “Ventilator-Associated Pneumonia IS a Clinically Important Entity!” Pro/Con Debate. Toronto International Critical Care Symposium, Toronto, Canada, Oct 31, 1998.
10. “Clinical and Economic Consequences of ARDS: An international, multi-center pharmaco-economic and quality of life evaluation.” Byk-Gulden Investigator’s Meeting, Toronto, Ontario, Oct 4-5, 1999.
11. “Empiric, Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia”. Toronto Critical Care Medicine Symposium, Toronto, Canada, Oct 30, 1999.
12. “Parenteral Nutrition in the Critically Ill Patient: More Harm than Good?” British Association of American Society of Parenteral and Enteral Nutrition, Bournemouth, UK, December 8-9, 1999.
13. “Immunonutrition in the Critically Ill Patient: A Meta-analysis” and “The Effect of Acidified Enteral Feeds on Gastric Colonization in the Critically Ill Patient” Expert’s Meeting, Novartis, Minnesota; Jan 21, 2000.
14. “Supplemental Parenteral Nutrition in the Critically Ill Patient: Benefit or Harm?” 29th Educational & Scientific Symposium, Society of Critical Care Medicine, Orlando Florida, February 11-15, 2000.
15. “Merging Evidence-based Medicine and Nutrition Support Practice for Critically Ill Patients: The (Mis)interpretation of Randomized Trials and Meta-analyses.” Evidence-Based Medicine Post-graduate course, 29th Educational & Scientific Symposium, Society of Critical Care Medicine, Orlando Florida, February 11-15, 2000.
16. “What are the Results? Using Systematic Reviews to Inform Decision Makers.” Round Table Conference “Evaluating Critical Care: Using Health Services Research to Improve Quality”. Brussels, Belgium, March 19-21, 2000.
17. “Supplemental Parenteral Nutrition: More Harm than Good? 20th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-24, 2000.
18. “End of Life Care in the ICU: Round Table Discussion.” 20th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-24, 2000.
19. “Empiric Broad Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator- Associated Pneumonia.” 20th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-24, 2000.
20. “Nutrition Support in the Critical Care Setting: An Update” 20th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-24,2000.
21. “Immunonutrition in the Critically Ill: Some Evidence-based Medicine Considerations” Immune-enhancing Diet Consensus Conference. San Diego, California, USA. May 25-26.
22. “In Search of the Magic Nutraceutical: Problems with Current Approaches” Glutamine Symposium, Bermuda, Oct 2-4, 2000.
23. “The Impossible Nasojejunal tube: Practical Procedures” The 25th Australian and New Zealand Annual Scientific Meeting on Intensive Care. Canberra, Australia, Oct 19-22, 2000.
24. “What We Have Learned From Multi-center Clinical Trials: The Experience of the Canadian Critical Care Trials Group” The 25th Australian and New Zealand Annual Scientific Meeting on Intensive Care. Canberra, Australia, Oct 19-22, 2000.
25. “Optimizing the Delivery of Enteral Nutrition in the Critically Ill” The Australasian Parenteral and Enteral Society Annual Scientific Meeting. Lorne, Australia, Oct 26-29, 2000.
26. “A Systematic Review of Nutrition Support in the Critically Ill” The Australasian Parenteral and Enteral Society Annual Scientific Meeting. Lorne, Australia, Oct 26-29, 2000.
27. “Nutrition Support in the Critically Ill Patient: Current Topics” Chicago Thoracic Society Annual Meeting, Chicago, Illinois, January 9, 2001.
28. “Does Nutrition Support Influence Patient Outcome” American Society of Parenteral and Enteral Nutrition, Chicago, Illinois, January 20, 2001.
29. “Why We Need Multicenter Randomized Clinical Trials: The Experience of the Canadian Critical Care Trials Group.” American Society of Parenteral and Enteral Nutrition, Chicago, Illinois, January 23, 2001
30. “Effect of Glutamine in Critical Illness: A Systematic Review.” American Society of Parenteral and Enteral Nutrition, Chicago, Illinois, January 23, 2001.
31. “Clinical Research Design: Critical Care- Randomized Trials and Meta-analyses” Society of Critical Care Medicine 30th International Educational and Scientific Symposium, San Francisco, February 11-13, 2001.
32. “Measuring Outcomes in Critical Care: Quality of Life” Society of Critical Care Medicine 30th International Educational and Scientific Symposium, San Francisco, February 11-13, 2001.
33. “Immunonutrition in the Critically Ill: More Harm than Good?” Society of Critical Care Medicine 30th International Educational and Scientific Symposium, San Francisco, February 11-13, 2001.
34. “Systematic Reviews as a Research Tool: Strategies for the Underfunded” American Thoracic Society Meeting, Postgraduate Course, San Francisco, May 19, 2001.
35. “Merits and Limitations of Meta-analysis Illustrated by Examples from Nutrition Support.” European Society of Parenteral and Enteral Nutrition, Munich, Germany, Sept 8-12,2001.
36. “Immunonutrition: What is the Evidence?” European Society of Parenteral and Enteral Nutrition, Munich, Germany, Sept 8-12,2001.
37. “Immunonutrition: Pro-Con Debate” Toronto International Critical Care Symposium, Toronto, Sept 18-21, 2001.
38. “Diagnosis of Ventilator-Associated Pneumonia” Toronto International Critical Care Symposium, Toronto, Sept 18-21, 2001.
39. “Sepsis: New Insights into New Molecules, Mechanisms, Monitoring and Improved outcomes.” Southeast Association of Clinical Microbiologists, Myrtle Beach, South Carolina, November 7, 2001.
40. “Does Nutrition Support Influence Outcome? 26th ASPEN Clinical Congress, Nutrition for the Practicing Clinician, San Diego, February 22, 2002.
41. “Immune Enhancing Formulas: Beneficial or Harmful? 26th ASPEN Clinical Congress, Postgraduate Course, San Diego, February 23, 2002.
42. “Should Immunonutrition be Routine in the Critically Ill?” 26th ASPEN Clinical Congress, San Diego, February 24, 2002.
43. “Optimizing the Benefits and Minimizing the Risks of Enteral Nutrition in the Critically Ill: Role of Small Bowel Feeding” Summit on Aspiration Pneumonia, In conjunction with Digestive Diseases Week, San Francisco, May 18,19, 2002.
44. “Should Immunonutrition be Routine in the Critically Ill?” Digestive Diseases Week, San Francisco, May 18,19, 2002.
45. “Alternative Methods for Diagnosing Sepsis” American Society of Microbiology Annual Meeting, Salt Lake City, May 21, 2002.
46. “Waveform Analysis of the aPTT in Critically Ill Hospitalized Patients with Sepsis: The WaTTCH study.” International Society on Thrombosis and Haemostasis, Boston, July 18, 2002.
47. Sepsis: New Insights into Molecules, Mechanisms, Monitoring, and Maximizing Outcomes.” Biomerieux, Marcy, France, September 20, 2002.
48. “Waveform Abnormalities of aPTT in Critically Ill Hospitalized Patients: The WATTCH study.” Biomerieux, Marcy, France, September 20, 2002.
49. “Empiric Antibiotics are Needed. Pro/Con Debate.” Toronto Critical Care Medicine Symposium, Toronto, ON, November 1, 2002.
50. “Quality End of Life Care: The importance of communication.” Toronto Critical Care Medicine Symposium, Toronto, ON, November 1, 2002.
51. “Which Patients Benefit from Immunonutrition?” Nutrition Week, San Antonio, Texas, January 18-22, 2003.
52. “Minimizing the Risks of Enteral Nutrition in the Critically Ill: Effect of Small Bowel Feedings.”Nutrition Week, San Antonio, Texas, January 18-22, 2003.
53. “Achieving Best Practice: Nutrition Support in the ICU” Canadian Night, Ross- sponsored event at Nutrition Week, San Antonio, Texas, January 18-22, 2003.
54. “Diagnosis of Ventilator-Associated Pneumonia” 32nd Critical Care Congress, Society of Critical Care Medicine, San Antonio, Texas, Jan 28-Feb 3, 2003.
55. “Dying in Canada: A Quality Finish?” 32nd Critical Care Congress, Society of Critical Care Medicine, San Antonio, Texas, Jan 28-Feb 3, 2003.
56. “Immunonutrition: Pro/Con Debate” 32nd Critical Care Congress, Society of Critical Care Medicine, San Antonio, Texas, Jan 28-Feb 3, 2003.
57. “Nutrition Support in the Critically Ill” American Thoracic Society 2003 State of the Art Review Course, San Juan, Puerto Rico, February 27-March 2, 2003.
58. “Immunonutrition: What is the evidence?” 27th Congress of the Scandinavian Society of Anesthesiology and Intensive Care Medicine, Helsinki, Finland, August 16-20, 2003.
59. “Dying in Canada: A Quality Finish.” Toronto Critical Care Medicine Symposium, Toronto, Ontario, Oct 29-November 1, 2003.
60. “Diagnosis of Ventilator-Associated Pneumonia: Impact on Outcome” Toronto Critical Care Medicine Symposium, Toronto, Ontario, Oct 29-November 1, 2003.
61. “Dissemination of the Canadian Clinical Practice Guidelines for Nutrition Support for Mechanically Ventilated Patients.” Toronto Critical Care Medicine Symposium, Toronto, Ontario, Oct 29-November 1, 2003.
62. “Background and Scientific Rationale for Long-term follow up study: VALID study.” Investigator’s meeting, Altana Pharmaceuticals, Miami Florida January 17, 2004.
63. “Nutrition Support in the Critically Ill Patient: “Narrowing the GAP!” Experts Roundtable sponsored by Nutricia, Inc. Frankfurt, Germany, Jan 23, 2004.
64. “Canadian Clinical Practice Guidelines for Nutrition Support in the Critically Ill Patient.” Nutrition Week. Las Vegas, Nevada, February 9-12, 2004.
65. “Enteral Nutrition vs Parenteral Nutrition: Nutrition for the Practicing Clinician.” Nutrition Week. Las Vegas, Nevada, February 9-12, 2004.
66. “Role of Immunonutrition in ICU”. Society of Critical Care Medicine. 33rd Critical Care Congress. Orlando, Florida, February 19-25, 2004.
67. “Immunonutrition – where have we come from and where are we going?” 6th World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany, March 2-6, 2004.
68. “Optimal regimen of perioperative nutrition – What makes sense?” 6th World Congress on Trauma, Shock, Inflammation and Sepsis. Munich, Germany, March 2-6, 2004.
69. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Canadian Society for Clinical Nutrition 3rd Annual Scientific Meeting. Toronto, Ontario, April 22-24, 2004.
70. “Nutrition support in the critically ill: evidence-based clinical practice guidelines”. European Society of Intensive Care Medicine, 17th Annual Congress, Berlin, Germany, 10-13 October 2004.
71. “Use of total parenteral nutrition (TPN)”. European Society of Intensive Care Medicine, 17th Annual Congress, Berlin, Germany, 10-13 October 2004.
72. “Ventilator-associated pneumonia: Optimal management.” Critical Care Medicine Symposium, Toronto, 21-23 October 2004.
73. “The patient’s and family’s perspectives on end of life care in Canada”. Critical Care Medicine Symposium, Toronto, 21-23 October 2004.
74. “Reducing Deaths from Oxidative Stress: The REDOXS study”. Critical Care Medicine Symposium, Toronto, 21-23 October 2004.
75. “Nutrition support in the critically ill: Evidence-based clinical practice guidelines”. Critical Care Medicine Symposium, Toronto, 21-23 October 2004.
76. “End of Life Care in Canada: A Quality Finish?” Society of Critical Care Medicine Annual Scientific Congress, Phoenix, Arizona. Jan 15-19, 2005.
77. “Immnunonutrition: The Canadian Clinical Practice Guidelines for Nutrition Support” Society of Critical Care Medicine Annual Scientific Congress, Phoenix, Arizona. Jan 15-19, 2005.
78. “Immunonutrition: From old approaches to new paradigms” Japanese Society for Perenteral and Enteral Nutrition Congress, Japan, February 10-20, 2005.
79. “Sepsis markers. Modified APTT”. 25th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-25, 2005.
80. “Optimal management of VAP”. 25th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-25, 2005.
81. “End of life care”. 25th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-25, 2005.
82. “Optimal nutritional support”. 25th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 21-25, 2005.
83. “Nutrition and Infection: What is the evidence?” American Thoracic Society Annual Scientific Meeting, San Diego, May 21-25, 2005.
84. “Patient’s Perceptions at the End of Life” Resident’s Day, Toronto Critical Care Medicine Symposium, Oct 25, 2005.
85. “A Randomized Trial of Invasive Diagnostic Techniques and Empiric Broad-Spectrum Antibiotics in the Setting of Ventilator-Associated Pneumonia.” Toronto Critical Care Medicine Symposium, Oct 26-28, 2005.
86. “Preventing oxidant injury”. Toronto Critical Care Medicine Symposium, Oct 26-28, 2005.
87. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Toronto Critical Care Medicine Symposium, Oct 26-28, 2005.
88. Biomarkers in sepsis: Modified APTT. International Sepsis Forum Colloquium on Biomarkers in Sepsis, Mississauga, Ontario, October 28-30, 2005.
89. “Canadian Clinical Practice Guidelines for Nutrition Support in the Mechanically Ventilated, Critically Ill Patient.” 1rst Slovenian Conference on Clinical Nutrition and Metabolism. Maribor, Slovenia, November 11-12, 2005.
90. “Pharmaconutrition: A New Emerging Paradigm.” Austrian Intensive Care Society, Salzburg Austria, November 14, 2005.
91. “Pharmconutrition: Improving the morbidity and mortality of critically ill patients.” Groshaber Clinic, Munich University, Munich Germany, November 15, 2005.
92. “Immunonutrition: From old approaches to new paradigms” British Association of Parenteral and Enteral Nutrition Annual Scientific Meeting, Telford, UK, November 16-17, 2005.
93. “Canadian Guidelines for Nutrition Support in the Mechanically Ventilated Critically Ill Patient” beFRANC Symposium. Valkenburg, the Netherlands, December 8-9, 2005.
94. “Nutrition in the ICU” The 2006 ATS State of the Art Course in Pulmonary and Critical Care Medicine. Chicago, March 2, 2006.
95. “Is it worthwhile to sample the lower respiratory tract to diagnosis VAP? Pro/Con Debate” The Atlanta Summit on VAP, Atlanta Georgia, July 7,8, 2006.
96. “Pharmaconutrition: A new emerging paradigm.” European Society of Intensive Care Medicine Annual Meeting, Barcelona, Spain, September 24-27, 2006.
97. “A Randomized Trial of Empiric Antibiotics and Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” European Society of Intensive Care Medicine Annual Meeting, Barcelona, Spain, September 24-27, 2006.
98. “Pharmaconutrition: A new emerging paradigm.” European Society of Enteral and Parenteral Nutrition Annual Meeting, Istanbul, Turkey, October 18-22, 2006.
99. “Pharmaconutrients: Selected nutrients and their influence on patient outcomes” ACCP Chest Annual Scientific Meeting, Salt Lake City Utah, October 19-25, 2006.
100. “VAP: The value of invasive diagnostic techniques.” Discovering the New World of Hospital Infection. Lisbon, Portugal, Nov 11, 2006.
101. “Ventilator-Associated Pneumonia: Optimal Management.” 13th Annual Scientific Conference of the Indian Society of Critical Care Medicine, Cochin, India, February 7-11, 2007.
102. “Pharmaconutrition: A New Emerging Paradigm.” Keynote Address. 13th Annual Scientific Conference of the Indian Society of Critical Care Medicine, Cochin, India, February 7-11, 2007.
103. “How Do I Implement Change in my ICU? A Case Study of Nutrition Therapy.” 13th Annual Scientific Conference of the Indian Society of Critical Care Medicine, Cochin, India, February 7-11, 2007.
104. “The Canadian Critical Care Trials Group: A Case Study in Research Networks.” 13th Annual Scientific Conference of the Indian Society of Critical Care Medicine, Cochin, India, February 7-11, 2007.
105. “EN vs PN: Pro Con.” 13th Annual Scientific Conference of the Indian Society of Critical Care Medicine, Cochin, India, February 7-11, 2007.
106. “Pharmaconutrition: A New Emerging Paradigm.” Plenary Address. 36th Annual Critical Care Congress, Society of Critical Care Medicine, Orlando Florida, February 17-21, 2007.
107. “Hypocaloric nutrition in the critically ill.” 27th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 27-30, 2007.
108. “Arginine and glutamine.” 27th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 27-30, 2007.
109. “Antioxidants: What is the evidence of benefit?” 27th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 27-30, 2007.
110. “Sepsis markers.” 27th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 27-30, 2007.
111. “Intensive insulin therapy. Pro/Con Debate (CON).” 27th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 27-30, 2007.
112. “We do not need protected sampling.” 27th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 27-30, 2007.
113. “Informing the patient.” 27th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium, March 27-30, 2007.
114. “Pharmaconutrition: A New Emerging Paradigm.” Plenary Address. 2nd Chilean Critical Care Conference, Santiago, Chile, April 26-28, 2007.
115. “Maximizing the Benefits and Minimizing the Risk of Nutrition in the Critically Ill.” 2nd Chilean Critical Care Conference, Santiago, Chile, April 26-28, 2007.
116. “Optimal Management of VAP.” 2nd Chilean Critical Care Conference, Santiago, Chile, April 26-28, 2007.
117. “Glutamine: results of meta-analyses and other studies.” Fresenius Kabi Advanced Nutrition Course, Bad Homburg, Germany, May 22-25, 2007.
118. “Update in the management of serious infection.” Pathways 2007, Bangalore, India, May 27-28, 2007.
119. “Permissive underfeeding in the critically ill patient: an “over-rated” approach.” 6th Summer Conference in Intensive Care Medicine, Toronto, Canada, June 14-16, 2007.
120. “Guidelines development process”. 6th Summer Conference in Intensive Care Medicine, Toronto, Canada, June 14-16, 2007.
121. “Critical care nutrition survey: preliminary results”. 6th Summer Conference in Intensive Care Medicine, Toronto, Canada, June 14-16, 2007.
122. “Pharmaconutrition: A New Emerging Paradigm.” Plenary Address. Critical Care Congress, Critical Care Society of South Africa, Sun City, August 14th-17th, 2007.
123. “VAP: Getting it right the first time!” Critical Care Congress, Critical Care Society of South Africa, Sun City, August 14th-17th, 2007.
124. “The Diagnosis of VAP.” Critical Care Congress, Critical Care Society of South Africa, Sun City, August 14th-17th, 2007.
125. “Maximizing the benefits and minimizing the risks of nutrition therapy in the ICU.” Critical Care Congress, Critical Care Society of South Africa, Sun City, August 14th-17th, 2007.
126. “Maximizing the benefits and minimizing the risks of nutrition therapy in the ICU.” Critical Care Symposium sponsored by Fresenius Kabi, University of Stellanbosch, Cape Town, South Africa, August 23, 2007.
127. “Immunonutrition: New insights?” Critical Care Issues 2007, 6th Symposium on Intensive Care, Brugge, Belgium, Oct 20, 2007.
128. “End of life- How I communicate, What I say, and How I teach it to others” Critical Care Canada Forum, Toronto Oct 30-Nov 1, 2007.
129. “Pharmaconutrients for Severe Sepsis” Critical Care Canada Forum, Toronto Oct 30-Nov 1, 2007.
130. “Implementation of Clinical Practice Guidelines for Nutrition in the Critical Care Setting: The time to act is NOW!” Society for Critical Care Medicine Annual Scientific Conference, Honolulu, Hawaii, February 2-6, 2008.
131. “Selenium: The new magic bullet?” Society for Critical Care Medicine Annual Scientific Conference, Honolulu, Hawaii, February 2-6, 2008.
132. “The Canadian Clinical Practice Guidelines for Nutrition Support in the Mechanically Ventilated, Critically Ill Patient.” Abbott Nutrition Workshop at Society for Critical Care Medicine Annual Scientific Conference, Honolulu, Hawaii, February 2-6, 2008.
133. “Pharmaconutrition: A New Emerging Paradigm.” Pediatric Refresher course at Society for Critical Care Medicine Annual Scientific Conference, Honolulu, Hawaii, February 2-6, 2008.
134. “Tight Glycemic Control is NOT the Standard of Care: Pro/Con debate.” 1rst Intensive Therapy Forum, Vienna, Austria, February 28-29, 2008.
135. “Quantitative cultures are NOT necessary for the diagnosis of VAP: Pro/Con debate.” 1rst Intensive Therapy Forum, Vienna, Austria, February 28-29, 2008.
136. “Implementation of Clinical Practice Guidelines for Nutrition in the Critical Care Setting: Time to act is now!” Spanish Society of Parenteral and Enteral Nutrition, Valencia, Spain, May 16, 2008.
137. “End of Life Care for Advanced Heart Failure” 11th Annual Toronto International Heart Failure Summit, Toronto, ON, June 14, 2008.
138. “Implementation of Clinical Practice Guidelines for Nutrition in the Critical Care Setting: Time to act is now!” Nutrition Therapy in the ICU- Saving Lives Safely, Society of Critical Care Medicine Summer Academy, Chicago, Illinois, Aug 3-5, 2008.
139. “Nutrition Therapy is a Critical Care Emergency!” Nutrition Therapy in the ICU- Saving Lives Safely, Society of Critical Care Medicine Summer Academy, Chicago, Illinois, Aug 3-5, 2008.
140. “Optimal Diagnostic Approach to VAP.” Turkish Thoracic Society Meeting, Girne, Cyprus, September 10-12, 2008.
141. “Educating medical residents in end-of-life care: Results of a national survey.” 17th International Congress on Palliative Care, Montreal, September 23-26, 2008.
142. “Satisfaction with end of life care: a longitudinal study of patients and their family caregivers in the last months of life.” 17th International Congress on Palliative Care, Montreal, September 23-26, 2008.
143. “Dying in ICU: A quality finish?” 17th International Congress on Palliative Care, Montreal, September 23-26, 2008.
144. “How do we practice critical care nutrition in 2008: Results of an international survey.” AuSPEN/ANZICS Pan Asian Critical Care Conference, Sydney Australia, Oct 30-Nov 2, 2008.
145. “Pharmaconutrition: A new emerging paradigm.” AuSPEN/ANZICS Pan Asian Critical Care Conference, Sydney Australia, Oct 30-Nov 2, 2008.
146. “Debate: Immunonutrition has no role in critical care; PRO.” AuSPEN/ANZICS Pan Asian Critical Care Conference, Sydney Australia, Oct 30-Nov 2, 2008.
147. “Using guidelines to improve the quality of nutrition therapy in the ICU.” AuSPEN/ANZICS Pan Asian Critical Care Conference, Sydney Australia, Oct 30-Nov 2, 2008.
148. “VAP- A new diagnostic approach.” AuSPEN/ANZICS Pan Asian Critical Care Conference, Sydney Australia, Oct 30-Nov 2, 2008.
149. “Reorganizing critical care deliver: Pre and post analysis of a step-down unit consolidation project.” McColl C, Muscedere J, Drover J, Squires M, Heyland DK. Critical Care Canada Forum, Toronto, Ontario, Nov 2008.
150. “2008 Nutrition Survey Results: Are we still failing to deliver what our patients need?” 38th Society for Critical Care Medicine Annual Critical Care Congress, Jan 31-February 3, 2009, Nashville, Tennessee.
151. “Feeding Around the World.” 38th Society for Critical Care Medicine Annual Critical Care Congress, Jan 31-February 3, 2009, Nashville, Tennessee.
152. “Nutrition Therapy: A new paradigm.” 38th Society for Critical Care Medicine Annual Critical Care Congress, Jan 31-February 3, 2009, Nashville, Tennessee.
153. “Glutamine: A life saving therapy?” Kuala Lampur, Malaysia, February 24, 2009.
154. “A Canadian Perspective on Critical Care Nutrition.” Philippine Society for Enteral and Parenteral Nutrition, Kota Kinabalu, Malaysia, Feb 26, 2009.
155. Glutamine: A life saving therapy?” Fresenius Kabi Advanced Nutrition Course, Kota Kinabalu, Malaysia, Feb 26, 2009.
156. Glutamine: a message from the guidelines” Fresenius Kabi Advanced Nutrition Course, Kota Kinabalu, Malaysia, Feb 26, 2009.
157. “Pharmaconutrition: A new emerging paradigm.” PALISI Scientific Meeting, Snowbird, Utah, March 4-6, 2009.
158. “End of life research program in the ICU.” PALISI Scientific Meeting, Snowbird, Utah, March 4-6, 2009.
159. “Candida in the airways does matter!” Pro/Con debate, 29th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 24-27th, 2009.
160. “Pharmaconutrition: A new emerging paradigm.” 29th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 24-27th, 2009.
161. “Feeding should always be started early!” Pro/Con debate, 29th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 24-27th, 2009.
162. “Has VAP become entirely preventable?” Roundtable, 29th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 24-27th, 2009.
163. “What about culture-negative infections”. 29th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 24-27th, 2009.
164. “Teaching End of Life Care to housestaff.” 29th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 24-27th, 2009.
165. “Selenium in Sepsis: A magic bullet?” German Sepsis Society Conference, Weimar, September 9-12, 2009.
166. “Lessons from the NICE SUGAR Trial.” German Sepsis Society Conference, Weimar, September 9-12, 2009.
167. “Mono- or Combination Therapy in Sepsis.” German Sepsis Society Conference, Weimar, September 9-12, 2009.
168. “Nutrition as Therapy in the Critical Care Setting: The clock is ticking!” German Sepsis Society Conference, Weimar, September 9-12, 2009.
169. “Critical Care For an Aging Population.” Critical Care Canada Forum, Toronto, Ontario, Canada, October 25-28, 2009.
170. “Early Enteral Nutrition in the ICU: The clock is ticking!” Society of Critical Care Medicine Annual Scientific and Education Meeting, Miami Beach, January 13, 2010.
171. “Tight Glycemic Control should be Abandoned (PRO)” Pro/Con debate. SCCM Post Conference Symposium on Hyperglycemia and Critical Illness, Key West, Florida, Jan 14-17, 2010.
172. “Early Parenteral Nutrition Should be Used in Critically Ill Patients. (CON)” Pro/Con debate. SCCM Post Conference Symposium on Hyperglycemia and Critical Illness, Key West, Florida, Jan 14-17, 2010.
173. “Early Parenteral Nutrition Should NOT be Used in Critically Ill Patients.” Pro/Con debate. Clinical Nutrition Week, Las Vegas, February 8-12, 2010.
174. “Barriers and Facilitators to Making it Happen!” Clinical Nutrition Week, Las Vegas, February 8-12, 2010.
175. “Lost in (Knowledge) Translation.” Clinical Nutrition Week, Las Vegas, February 8-12, 2010.
176. “Tight Glycemic Control in Critically ill Adults.” Clinical Nutrition Week, Las Vegas, February 8-12, 2010.
177. “Second Generation Enteral Feeding Protocols: Taking us to the next level of performance.” Clinical Nutrition Week, Las Vegas, February 8-12, 2010.
178. “Pharmaconutrition: One size does not fit all.” 30th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 9-12th, 2010.
179. “Adding Parenteral to Enteral” Pro/Con debate (CON). 30th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 9-12th, 2010.
180. “Selenium in the Intensive Care Unit- A review of studies.” 30th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 9-12th, 2010.
181. “Tight Glycemic Control in the Critically Ill Patient: From clinical trials to clinical practice Guidelines.” Italian Parenteral and Enteral Nutrition Society Spring Meeting, Trieste, Italy, March 12, 2010.
182. “Satisfaction with end of life care: Rural vs. urban experience.” Moving Palliative and End of life Care Forward: Focus on Rural Health, Edmonton, Alberta, May 17-20, 2010.
183. “Second generation feeding protocols: Taking us to the next level of performance.” German Nutrition Society 2010, Leipzig German June 17-19, 2010.
184. “Feeding the hypotensive patient”. German Nutrition Society 2010, Leipzig German June 17-19, 2010.
185. “Implementing clinical practice guidelines: the Canadian Experience.” German Nutrition Society 2010, Leipzig German June 17-19, 2010.
186. “Nutrition as Therapy in the Critical Care Setting: The clock is ticking!” Update in Critical Care, University of Minnesota, Minneapolis Minnesota, September 17, 18, 2010.
187. “Optimal Decision-Making at the End of Life” Update in Critical Care, University of Minnesota, Minneapolis Minnesota, September 17, 18, 2010.
188. “Nutrition as Therapy in the Critical Care Setting: The clock is ticking!” Annual Scientific Conference of the Russian Critical Care Society, Moscow, Russia, September 20-22, 2010.
189. “Narrowing the Gap: Improving adherence to clinical practice guidelines in critical care.” Annual Scientific Conference of the Russian Critical Care Society, Moscow, Russia, September 20-22, 2010.
190. “International Nutrition Survey 2011” Annual Scientific Conference of the Russian Critical Care Society, Moscow, Russia, September 20-22, 2010.
191. “Antioxidants in the Critically ill.” Annual Scientific Conference of the Federacion Latinoamericana de Nutricion Clinica y Metabolismo (FELANPE), Asuncion, Paraguay, October 2-6, 2010.
192. “Nutrition as Therapy in the Critical Care Setting: The clock is ticking!” Annual Scientific Conference of the Federacion Latinoamericana de Nutricion Clinica y Metabolismo (FELANPE), Asuncion, Paraguay, October 2-6, 2010.
193. “Narrowing the Gap: Improving adherence to clinical practice guidelines in critical care.” Annual Scientific Conference of the Federacion Latinoamericana de Nutricion Clinica y Metabolismo (FELANPE), Asuncion, Paraguay, October 2-6, 2010.
194. “Case Studies in Critical Illness” Annual Scientific Conference of the Federacion Latinoamericana de Nutricion Clinica y Metabolismo (FELANPE), Asuncion, Paraguay, October 2-6, 2010.
195. “Defining priorities to improve end of life care in Canada.” 18th International Congress on Palliative Care, Montreal Canada, October 5-8, 2010.
196. “Optimizing end-of-life care on medical clinical teaching units: The role of the CANHELP questionnaire and a nurse facilitator.” 18th International Congress on Palliative Care, Montreal Canada, October 5-8, 2010.
197. “Nutrition as Therapy in the Critical Care Setting: The clock is ticking!” 2010 National Chinese Critical Care Meeting, Beijing, China, October 16-18, 2010.
198. “Feeding Practices Around the World: Results of an international survey of nutrition practice” 2010 National Chinese Critical Care Meeting, Beijing, China, October 16-18, 2010.
199. “Nutrition as therapy: the time to act is now!” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Auckland, New Zealand, November 3, 2010.
200. “Narrowing the Gap: Improving adherence to clinical practice guidelines in critical care” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Auckland, New Zealand, November 3, 2010.
201. “Evidence-based nutrition therapy in the ICU” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Melbourne, Australia, November 3-4, 2010.
202. “Malnutrition in the ICU: Can we reliably detect it?” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Melbourne, Australia, November 3-4, 2010.
203. “Pharmaconutrition in the ICU: the modern concept in critical illness” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Melbourne, Australia, November 3-4, 2010.
204. “How do we cement the importance of nutrition therapy in the ICU” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Melbourne, Australia, November 3-4, 2010.
205. “Nutrition as Therapy: One size does not fit all.” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Royal Prince Alfred Hospital, Sydney, Australia, November 8th, 2010.
206. “Nutrition as Therapy: One size does not fit all.” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Westmeade Hospital, Sydney, Australia, November 9th, 2010.
207. “Nutrition as Therapy: One size does not fit all.” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Gold Coast Hospital, Gold Coast, Australia, November 10th, 2010.
208. “Nutrition as Therapy: One size does not fit all.” AuSPEN-ANZICS Combined Meeting on Nutrition therapy in the ICU, Brisbane, Australia, November 10th, 2010.
209. “Nutrition Therapy in Sepsis: What is the evidence?” 16th International Symposium of Infections in the Critically Ill Patient. Porto, Portugal, February 24-26, 2011.
210. “Malnutrition in the ICU.” XV Congreso Argentino de Soporte Nutritional y Metabolismo, Buenos Aires, Argentina, May 16-18, 2011.
211. “Narrowing the Gap in Nutrition: The time to act is now!” XV Congreso Argentino de Soporte Nutritional y Metabolismo, Buenos Aires, Argentina, May 16-18, 2011.
212. “Narrowing the Gap: Improving adherence to clinical practice guidelines in critical care” IV Brazilian Conference on Integrated Nutrition and Ganepao, Sao Paulo, Brazil, June 15-18, 2011.
213. “Enhanced Protein-Energy Provision via the Enteral Route in Critically ill Patients: The PEP uP protocol.” IV Brazilian Conference on Integrated Nutrition and Ganepao, Sao Paulo, Brazil, June 15-18, 2011.
214. “Immunonutrition: From Old Approaches to New Paradigms.”XI Congreso Internacional De Medicina Intensiva, Sociedad Peruana de Medicina Intensiva, Lima Peru, June 23-25, 2011.
215. “Narrowing the Gap: Improving adherence to clinical practice guidelines in critical care.” XI Congreso Internacional De Medicina Intensiva, Sociedad Peruana de Medicina Intensiva, Lima Peru, June 23-25, 2011.
216. “Nutrition as Therapy” XI Congreso Internacional De Medicina Intensiva, Sociedad Peruana de Medicina Intensiva, Lima Peru, June 23-25, 2011.
217. “Effect of Glutamine in the Critically ill Patient.” XI Congreso Internacional De Medicina Intensiva, Sociedad Peruana de Medicina Intensiva, Lima Peru, June 23-25, 2011.
218. “Nutrition Therapy in the ICU” 14th Congress of PENSA, Taipei, Taiwan, October 14-16, 2011.
219. “Malnutrition in the ICU” 14th Congress of PENSA, Taipei, Taiwan, October 14-16, 2011.
220. “Strategies to Optimize Enteral Nutrition in the ICU” 14th Congress of PENSA, Taipei, Taiwan, October 14-16, 2011.
221. “Malnutrition in the ICU.” Malaysian Critical Care Society Nutrition Workshop, Kuala Lampur, Malaysia, October 22, 2011.
222. “Strategies on Optimizing Delivery of EN in the ICU.” Malaysian Critical Care Society Nutrition Workshop, Kuala Lampur, Malaysia, October 22, 2011.
223. “Malnutrition in the ICU” Xll Congreso Uruguayo de Medicina Intensiva, Montevideo, Uruguay, November 2-5, 2011.
224. “Narrowing the Gap: Improving adherence to clinical practice guidelines in critical care.” Xll Congreso Uruguayo de Medicina Intensiva, Montevideo, Uruguay, November 2-5, 2011.
225. “Glutamine in the critically ill: who, when, and how”. Xll Congreso Uruguayo de Medicina Intensiva, Montevideo, Uruguay, November 2-5, 2011.
226. “Optimizing EN delivery in the critically ill.” Post Graduate Course, Clinical Nutrition Week, Orlando, Florida, Jan 22-25, 2012.
227. “Malnutrition in the ICU: Time for change”. Clinical Nutrition Week, Orlando, Florida, Jan 22-25, 2012.
228. “A multicenter, cluster randomized trial of enhanced protein-energy provision via the enteral route feeding protocol in critically ill patients: The PEP uP protocol.” Clinical Nutrition Week, Orlando, Florida, Jan 22-25, 2012.
229. “A multicenter, cluster randomized trial of enhanced protein-energy provision via the enteral route feeding protocol in critically ill patients: The PEP uP protocol.” 32nd International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 20-23, 2012.
230. “Decision Aid improve quality of care!” 32nd International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 20-23, 2012.
231. “Feeding the obese critically ill patient.” 32nd International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 20-23, 2012.
232. “What are the nutrition targets? And should we struggle to meet them?” 32nd International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 20-23, 2012.
233. “Malnutrition in the ICU: Time for a change!” Korean Society of Enteral and Parenteral Nutrition, May 3, 2012, Seoul, South Korea.
234. “Malnutrition in the ICU: Time for a change!” 2012 Nutrition Asia-Pacific Academy (NutriPAC), May 4-5, 2012, Seoul, South Korea.
235. “Optimizing Nutrition Delivery in the Critically Ill”. 2012 Nutrition Asia-Pacific Academy (NutriPAC), May 4-5, 2012, Seoul, South Korea.
236. “Driving Process Improvement in Surgical Nutrition: Lessons learned from Critical Care Nutrition.” North American Summit on Surgical Nutrition, Phoenix Arizona, September 21-23, 2012.
237. “Moving beyond survival: The importance of adequate nutrition in enhancing the recovery of ICU patients”. 13th Scientific Conference of FELANPE, Panama City, Panama, October 1-6, 2012.
238. “A Randomized trial of high-dose glutamine and antioxidants in critically ill patients with multi organ failure: The REDOXs Study”. 13th Scientific Conference of FELANPE, Panama City, Panama, October 1-6, 2012.
239. “Iatrogenic malnutrition in the ICU: Time for a change!” 13th Scientific Conference of FELANPE, Panama City, Panama, October 1-6, 2012.
240. “Do antioxidants have a benefit? REDOXs study results.” 37th Annual ANZICS/ACCCN Intensive Care ASM 2012, Adelaide, Australia, October 25–27, 2012.
241. “Iatrogenic malnutrition in the ICU: Time for a change!” 37th Annual ANZICS/ACCCN Intensive Care ASM 2012, Adelaide, Australia, October 25–27, 2012.
242. “Enteral nutrition – what works?” 37th Annual ANZICS/ACCCN Intensive Care ASM 2012, Adelaide, Australia, October 25–27, 2012.
243. “REDOXS study – glutamine and antioxidants”. 3rd Alfred ICU Nutrition in the Critically Ill Symposium, Melbourne, Australia, November 9, 2012.
244. “Identifying the Best of the Best to improve performance”. 3rd Alfred ICU Nutrition in the Critically Ill Symposium, Melbourne, Australia, November 9, 2012.
245. “What you can do in your ICU, panel discussion”. 3rd Alfred ICU Nutrition in the Critically Ill Symposium, Melbourne, Australia, November 9, 2012.
246. “Using the NUTRIC score to optimize ICU nutrition”. 3rd Alfred ICU Nutrition in the Critically Ill Symposium, Melbourne, Australia, November 9, 2012.
247. “Feeding: How and when? Optimal amount of calories”. Update on Metabolism and Nutrition in Intensive Care Medicine, Rome, December 17, 2012.
248. “Round Table: When to start feeding?” Update on Metabolism and Nutrition in Intensive Care Medicine, Rome, December 17, 2012.
249. “Enteral nutrition. Enhanced protein-energy provision: PEPUP protocol”. Update on Metabolism and Nutrition in Intensive Care Medicine, Rome, December 17, 2012.
250. “Pharmaconutrition. Glutamine and antioxidants: Results of the REDOXS study”. Update on Metabolism and Nutrition in Intensive Care Medicine, Rome, December 18, 2012.
251. “How much is enough: Can we predict who needs nutrition most?” Clinical Nutrition Week, Phoenix, AZ, February 9, 2013.
252. “The effect of high dose glutamine and antioxidant supplementation in critically ill patients: secondary subgroup analysis of the REDOXS trial”. Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
253. “An economic analysis of enteral and parenteral nutrition”. Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
254. “Canadian Clinical Practice Guidelines for nutrition support in the critically ill in 2013: what are the latest recommendations?” Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
255. “Skeletal muscle mass predicts ventilator-free days, ICU-free days, and mortality in elderly ICU patients”. Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
256. “Alternative lipid strategies in the critically ill: a systematic review and meta-analysis”. Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
257. “Use of intravenous fat emulsions in critically ill patients – a secondary analysis of an international observational multicenter study”. Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
258. “The impact of feeding route on clinical outcomes in critically ill neurologically injured patients”. Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
259. “Implementing a multifaceted tailored intervention to improve nutritional adequacy in critically ill patients: results of a multicenter feasibility study”. Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
260. “Evaluation of educational strategies for implementation of the enhanced protein-energy provision via the enteral route feeding protocol (The PEP uP Protocol). Clinical Nutrition Week, Phoenix, AZ, February 9, 2013
261. “REDOXs trial”. Clinical Nutrition Week, Phoenix, AZ, February 10, 2013
262. “The inter-rater reliability and intra-rater reliability of bedside untrasounds of the femoral muscle thickness”. Clinical Nutrition Week, Phoenix, AZ, February 10, 2013
263. “The limits and strengths of meta-analyses”. Clinical Nutrition Week, Phoenix, AZ, February 10, 2013
264. “Novel ideas to diagnose malnutrition and enhance enteral feeding in the ICU”. Clinical Nutrition Week, Phoenix, AZ, February 11, 2013.
265. “Fish oil: creating clarity from confusion”. Clinical Nutrition Week, Phoenix, AZ, February 11, 2013.
266. “The role of energy and protein in modulating ICU-acquired muscle weakness”. Clinical Nutrition Week, Phoenix, AZ, February 11, 2013.
267. “Hot topics and morning tea: PEP uP with Daren Heyland. Clinical Nutrition Week, Phoenix, AZ, February 12, 2013.
268. “Can we optimize the amount of protein and calories: predicting who need nutrition most.” Clinical Nutrition Week, Phoenix, AZ, February 12, 2013.
269. “Optimizing ICU nutrition”. 8th KEPAN Congress, Antalya, Turkey. March 28, 2013.
270. “Identifying critically ill patients who benefit the most from ICU nutrition therapy”. 8th KEPAN Congress, Antalya, Turkey. March 30, 2013.
271. “Results of REDOXS Study: Secondary analysis”. Fresenius Kabi Expert Panel Review, Bad Homburg, Germany, April 24/25, 2013.
272. “The role of glutamine and antioxidants in the ICU: results of the REDOXS study”. 2nd Singapore-ANZICS Intensive Care Forum 2013. Singapore. July 12, 2013.
273. “Advance care planning”. 2nd Singapore-ANZICS Intensive Care Forum 2013. Singapore. July 12, 2013.
274. “Optimizing nutrition delivery in the critically ill: The role of supplemental parenteral nutrition”. 2nd Singapore-ANZICS Intensive Care Forum 2013, Singapore. July 12, 2013.
275. “Optimizing nutrition delivery in the critically ill patient”. Colorado Parenteral and Enteral Nutrition Society Meeting, Denver, Colorado, September 20, 2013.
276. “Recent Clinical Trials: What have we learned?” Clinical Nutrition Week, American Society for Enteral and Parenteral Nutrition, Savannah, Georgia, January 18-21, 2014.
277. “Controveries in Nutrient-Specific Therapies: Effective or ineffective?” Clinical Nutrition Week, American Society for Enteral and Parenteral Nutrition, Savannah, Georgia, January 18-21, 2014.
278. “Optimizing outcomes of critically ill and surgical patients: The importance of nutrition and exercise.” Clinical Nutrition Week, American Society for Enteral and Parenteral Nutrition, Savannah, Georgia, January 18-21, 2014.
279. “REDOXS- A secondary analysis: What have we learned?” Clinical Nutrition Week, American Society for Enteral and Parenteral Nutrition, Savannah, Georgia, January 18-21, 2014.
280. “Innovative Approaches to Overcoming Barriers to Improving Nutrition Practices.” Clinical Nutrition Week, American Society for Enteral and Parenteral Nutrition, Savannah, Georgia, January 18-21, 2014.
281. “Electrolyte and acid-base-Standard presentation” International Symposium on Intensive Care and Emergency Medicine March 18, 2014
282. “Glutamine and antioxidants: An update” International Symposium on Intensive Care and Emergency Medicine March 19, 2014
283. “Candida in the lung: Should we treat it? International Symposium on Intensive Care and Emergency Medicine March 19, 2014
284. “Optimal amounts of calories and protein” International Symposium on Intensive Care and Emergency Medicine March 19, 2014
285. “We do not know enough about patients’ preferences?” International Symposium on Intensive Care and Emergency Medicine, March 19, 2014
286. “Outcomes of the very elderly” International Symposium on Intensive Care and Emergency Medicine March 20, 2014
287. “Not all ICU patients will benefit” International Symposium on Intensive Care and Emergency Medicine March 20, 2014
288. “Nutritional Support” International Symposium on Intensive Care and Emergency Medicine March 20, 2014
289. “Controversies in specific nutritional therapies in ICU: Effective In the effective” XXVIII Annual Conference Advances in Metabolism and Nutritional Support, Bogota D.C., Columbia, May 1, 2014
290. “What about lipids?” XXVIII Annual Conference Advances in Metabolism and Nutritional Support, Bogota D.C., Columbia, May 1, 2014
291. “International Nutrition Survey: A Global Experience” XXVIII Annual Conference Advances in Metabolism and Nutritional Support, Bogota D.C., Columbia, May 2, 2014
292. “Recent Clinical Trials in critical care: What have we learned?” 16th Congress and 28th International Conference of Polish Society for Parenteral, Enteral Nutrition and Metabolism (POLSPEN), Jachrnka, Poland, June 20, 2014.
293. “Controversies in Nutrient-Specific Therapies: Effective or Ineffective?” 16th Congress and 28th International Conference of Polish Society for Parenteral, Enteral Nutrition and Metabolism (POLSPEN
294. “Glutamine: What are the remaining questions?” 36th ESPEN Congress on Clinical Nutrition and Metabolism, Geneva, Switzerland, September 6-9, 2014.
295. “Iatrogenic Underfeeding is Harmful to High Risk Critically Ill Patients” The State of the Art Meeting 2014, London, UK, Dec 8, 2014.
296. “Pharmaconutrition” The State of the Art Meeting 2014, London, UK, Dec 8, 2014.
297. “Feeding a Heterogenous ICU Population: What is the Evidence?” ASPEN Clinical Nutrition Week, Long Beach, California, Feb 16, 2015.
298. “Optimizing the Use of Lipid Emulsions in Parenteral Nutrition: Biochemistry, Physiology and Patient Selection” ASPEN Clinical Nutrition Week, Long Beach, California, Feb 16, 2015.
299. “Iatrogenic underfeeding is harmful in the ICU setting: Strategies to improve nutrition delivery” Klinik Enteral ve Parenteral Nutrisyon Kongresi 2015, Antalya, Turkey, Mar 20, 2015.
300. “Glutamine and Antioxidants in ICU: End of an era?” Klinik Enteral ve Parenteral Nutrisyon Kongresi 2015, Antalya, Turkey, Mar 20, 2015.
301. “Iatrogenic Underfeeding is Harmful to ‘High-Risk’ Critically ill Patients!” ESPEN Congress 2015, Lisbon, Portugal. Sep 6, 2015.
302. “Long-term Outcomes of the Very Elderly Admitted to ICUs in Canada: A Quality Finish?” The 7th Weimar Sepsis Congress of the German Sepsis Society, Weimar, Germany. Sep 10, 2015.
303. “Feeding the Obese Critically Ill”. The 7th Weimar Sepsis Congress of the German Sepsis Society, Weimar, Germany. Sep 10, 2015.
304. “Nutrition Risk Assessment in Critically ill Patients!”. Congresso Brasileiro de Nutrição Paraenteral e Enteral, Brasilia, Brazil. Oct 19, 2015.
305. “Iatrogenic Underfeeding is Harmful to ‘High-Risk’ Critically ill Patients!”. Congresso Brasileiro de Nutrição Paraenteral e Enteral, Brasilia, Brazil. Oct 19, 2015.
306. “Glutamine and Antioxidants in the ICU: End of an era?” Symposium on Clinical Nutrition in the ICU; University of Bern, Bern Switzerland, November 19th, 2015.
307. “Advances in ultrasound technology for quantifying skeletal muscle mass” The 8th International Conference on Cachexia, Sarcopenia and Muscle Wasting, Paris, France. Dec 5, 2015.
308. “Nutrition Risk and Trophic Feeding: What Does it Mean?” ASPEN Clinical Nutrition Week 2016, Austin, Texas, January 16 2016.
309. “Feeding the Obese Criticall ill” Society of Critical Care Medicine 2016, Orlando, Florida., February 2016.
310. “Current Concepts and Controversies in Nutrition” Critical Care Congress, Orlando, Florida, February 19, 2016
311. “Nutrition Support in Special Populations – Panel Discussion” Critical Care Congress, Orlando, Florida, February 24, 2016
312. “Glutamine and antioxidants in the ICU. End of an era? 10th Symposium on Intensive Care; AZ Sint-Jan Brugge-Oostende Av, campus Brugge, Belgium, October 22, 2016
313. “Enhancing clinical care through palliative care Research-6th International Seminar of the European Pallitiave Care Research Organization, Banff, AB, Canada , December 1-3, 2016
314. “Micronutrients-do they help our patients?” Society for Critical Care Medicine Annual Scientific Meeting, Honolulu, Hawaii, Jan. 20-23 ,2017
315. “Protein Delivery in the ICU: Optimal or Sub-optimal?, Clinical Nutrition Week- Orlando, Florida, February 17- 21, 2017
316. “Clinical Research in an Age of Collaboration-Together We Can Do Bigger and Better”, Rhoads Research Lecture and Awards Ceremony, Clinical Nutrition Week –Orlando, Florida, February 17-21, 2017.
317. “Influence of an ACP intervention on documentation of end-of-life issues- a cluster randomized clinical trial; International Society of Advance Care Planning & End of Life Care Conference, Banff, Alberta, Canada, September 6-9, 2017
318. “How do Recent Clinical Trials Inform Future Research in the ICU”?, Espen Congress on Clinical Nutrition & Metabolism, The Hague, Netherlands, September 9-12, 2017
319. “Using Ultrasound Technology to Measure Sarcopenia”, Brazillian Society of Parenteral and Enternal Nutrition , Brazil, October 21-25, 2017
320. “The Effort Trial”; Critical Care Specialist Group Study Day, London, November 24, 2017
321. “Strategies to improve feeding tolerance”, International Symposium on Intensive Care and Emergency Medicine- Brussels- March 20-23 ,2018
322. “Protein delivery: Optimal or Sub-optima, l International Symposium on Intensive Care and Emergency Medicine- Brussels- March 20-23, 2018
323. “Optimal Feeding”, International Symposium on Intensive Care and Emergency Medicine- Brussels- March 20-23, 2018
324. “Strategies to improve end-of-life decision-making, International Symposium on Intensive Care and Emergency Medicine-Brussels-March 20-23, 2018
325. “What happened to pharmaconutrition?”, International Symposium on Intensive Care and Emergency Medicine-Brussels-March 20-23, 2018
326. “How to run a smooth and effective clinical trial Research, 1st Congress of the Asian Wound Care Association, Bangkok, March 28, 2018
327. “Controversies of nutrition in burn and critical care patients? 1st Congress of the Asian Wound Care Associaiton , Bangkok, March 28, 2018
328. “Protein requirements in critically ill patients optium and suboptimus?” Panama International Critical Care Congress 2018, Panama City, Panama, April 19-21, 2018
329. “Too elder in the ICU”, Panama International Critical Care Congress 2018, Panama City, Panama, April 19-21, 2018
330. “How to optimize enteral nutrition therapy”, Panama International Critical Care Congress 2018, Panama City, Panama, April 19-21, 2018
331. “Current Evidence and Controversies in Critical Care Nutrition”, Nestle HealthScience Critical Care Nutrition Seminar, Copenhagen, Denmark, May 30, 2018
332. “Strategies to Enhance the Physical Recovery of the Critical ill Patient” Nestle HealthScience Critical Care Nutrition Seminar, Copenhagen, Denmark, May 30, 2018
333. “Pharmaconutrition:An end of an era?”, 20th Congress and 32nd International Conference of Polish Society for Parenteral, Enteral Nutrition and Metabolism Polspen, Poland, June 14-16, 2018
334. “Protein Needs of Critically Ill Pateints: More is Better?” Maine Medical Center Nutrition Symposium, Maine September 11-12, 2018
335. “Strategies to Enhance for the Physical Recovery of ICU Survivors” Maine Medical Center Nutrition Symposium, Maine September 11-12, 2018
336. “Optimal Protein Dosage for Patients in the ICU?” XVI Latin American Nutriiton Congress, FELANPE, Guadalajara, Mexico, September 23, 2018
337. “Strategies to Minimize Intolerance Towards Enteral Nutrition.” XVI Latin American Nutrition Congress, FELANPE, Guadalajara, Mexico September 24, 2018
338. “Strategies to Optimize Enteral Nutrition Therapy”, XVI Latin American Congress, FELANPE, Guadalajara, Mexico September 24, 2018
339. “Indivdualizing nutrition therapy in the ICU.” XVI Latin American Congress, FELANPE, Guadalajara,Mexico, September 25, 2018
340. “Current Controversies in Nutritional Mangement of Burn Patients” German-speaking Burn Society, Schladming, Austria, January 9, 2019
341. “Current Controversies in Critical Care Nutrition” Forum Interdisziplinäre Intensivmedizin – TIFONet Meeting, Berlin, Germany, January 23, 2019.
342. “Current Controversies in Critical Care Nutrition” Malaysian Association Dietiticans, Kuala Lumpur, Malaysia, March 1, 2019
343. “Capacitating patients to be better prepaired for ACP” 7th ACPi Conference, Rottendam, The Netherlands, March 13-16, 2019
344. “What Happened to Pharmaconutrition?”, V Science-Practial Conference, Novosibirsk, Russia, September 20-21, 2019
345. “Strategies to enhance the physical recovery of the critically ill patients”, V Science-Practial Conference, Norvosibrisk, Russia, September 20-21, 2019
346. “Evolving role of the family in the care of the critically ill patient”, V Science-Practial Conference, Novosibirsk, Russia, September 20-21, 2019
347. “Vitamin C”, V Congreso de la Región Norte de FELANPE, Panama, October 2-5, 2019
348. “Glutamine”, V Congreso de la Región Norte de FELANPE, Panama, October 2-5, 2019
349. “EFFORT”-Exercise and Nutrition”, V Congreso de la Región Norte de FELANPE, Panama, October 2-5, 2019
350. “The Sendero Protocol”-Safe Early Nutrition Delivery Via Enterla Route, V Congreso de la Región Norte de FELANPE, October 2-5, 2019
351. “The Challenges of Randomized Controlled Trials in Nutrtion”, V Congreso de la Región Norte de FELANPE, Panama, October 2-5, 2019

**XVI**. **INTRAMURAL PRESENTATIONS** **Total Presentations: 36**

1. "Effect of Acidified Enteral Feeds on Gastric Colonization". Regional Critical Care Research Rounds, Hamilton Ontario, Feb 1991.
2. "Enteral Nutrition: Past, Present and Future Research Directions". Regional Critical Care Research Rounds, Hamilton, Ontario, May 1993.
3. "Gastrointestinal Dysfunction, Enteral Nutrition and Infection in Critical Illness". Regional Critical Care Rounds, Hamilton, Ontario, Feb 1996.
4. “Is the High Cost of Intensive Care Worthwhile?” Department of Medicine Rounds, Queen’s University, Kingston, Ontario, May 1996.
5. “A Randomized Trial of Empiric Broad Spectrum Antibiotics and Invasive Bronchoscopy in the Setting of Ventilator-Associated Pneumonia”. Critical Care Rounds, Kingston, Ontario, September, 1998.
6. “The Attributable Morbidity and Mortality of Ventilator-Associated Pneumonia in the Critically Ill Patient”. Critical Care Rounds, Kingston, Ontario, October, 1998.
7. “Decision Making Near the End of Life”, Internal Medicine Resident’s Academic Half Day, Kingston, Ontario, Jan 20, 1999.
8. “Systematic Reviews of the Literature: Problems or Panacea?” Department of Medicine Grand Rounds, Kingston, Ontario, Jan 21, 1999.
9. “A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.” Critical Care Rounds, Kingston General Hospital, Ontario, September 7, 1999.
10. “End of Life Care In Canada: A Quality Finish?” Department of Medicine Grand Rounds, Kingston, Ontario, Nov 25, 1999.
11. “Dying In Canada: A Quality Finish?” Critical Care Rounds, Kingston General Hospital, Kingston, Ontario, Dec 7, 2000.
12. “Dying In Canada: A Quality Finish?” Ethics for Lunch Rounds, Kingston General Hospital, Kingston, Ontario, January 18th, 2001.
13. “Evidence-Based Medicine” Radiology Rounds, Kingston General Hospital, May 30, 2001.
14. “Gastrointestinal (Dys)function in Critical Illness”. Research in progress rounds, Division of Gastroenterology, Hotel Dieu Hospital, Oct 23, 2001.
15. “The Potential of Proteomics” Department of Medicine Research Rounds, Kingston General Hospital, April 26, 2002.
16. “Is Reading an Economic Evaluation an Efficient Use of Your Time?” Critical Care Medicine Journal Club, November 14, 2002.
17. “Clinical Evaluation Research Unit” KGH Research Advisory Committee Board Meeting, December 5, 2002.
18. “Dying in Canada: A Quality Finish?” Department of Family Medicine Rounds, Queen’s University, June 12, 2003.
19. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Critical Care Rounds, Queen’s University, September 22, 2003.
20. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Gastrointestinal Diseases Research Unit Research in Progress, Queen’s University, September 23, 2003.
21. “Communication and Decision Making at the End of Life: Patients’ and Families’ Perspectives.” Palliative Care Rounds, Queen’s University, January 28, 2005.
22. “Dying in Canada: A Quality Finish?” Medicine Grand Rounds, Queen’s University, February 03, 2005.
23. “Systematic Reviews: Problems or Panacea? Clinical Research Centre Seminar Series, Queen’s University, March 30, 2005.
24. “REducing Deaths from OXidative Stress: A randomized trial of glutamine and antioxidant supplementation in critically ill patients. The REDOXS study.” Critical Care Medicine Rounds, Queen’s University, April 4, 2005.
25. “Optimizing the Dose of Glutamine Dipeptides and Antioxidants in Critically Ill Patients: A phase 1 dose finding study of glutamine and antioxidant supplementation in critical illness.” GIDRU Research In Progress Rounds, April 5, 2005.
26. “Optimizing the Dose of Glutamine Dipeptides and Antioxidants in Critically Ill Patients: A phase 1 dose finding study of glutamine and antioxidant supplementation in critical illness.” Kingston-Ottawa Symposium. Kingston, ON, April 29, 2005.
27. “A Randomized Trial of Invasive Diagnostic Techniques and Empiric Broad-Spectrum Antibiotics in the Setting of Ventilator-Associated Pneumonia: Preliminary Results.” Critical Care Rounds, Kingston General Hospital, Kingston, Ontario, May 9, 2005.
28. “Realities, Expectations and Attitudes related to LIfe Support Technologies in Intensive Care for Octogenarians: The REALISTIC 80 Study.” Critical Care Rounds, Kingston General Hospital, February 21, 2008.
29. “Critical Care Nutrition Applied to Enhanced Care Unit: Some principles and practices” Internal Medicine Continuing Medical Education, Kingston General Hospital, Mar 28, 2008.
30. “The PEP uP Trial.” Critical Care Rounds, January 8th, 2009.
31. “The TOP UP Trial.” Gastrointestinal Disease’s Research In Progress Rounds, January 13, 2009.
32. “Knowledge Mobilization and Grant Writing Proposals: what do the funding agencies want?” Knowledge Mobilization Seminar, Queen’s University, June 2, 2009.
33. “Candida in the Airways: causual organism or innocent bystander?” Critical Care Rounds, Kingston General Hospital, June 4, 2009.
34. “Dying in Canada: A quality finish.” CCAC Palliative Care Delivery Committee, CCAC, Kingston, Ontario, September 14, 2009.
35. “Advance Care Planning: Let’s get the dialogue going!” Department of Medicine Grand Rounds, Kingston, Ontario, December 2, 2010.
36. Improving partnerships with Family Members of ICU Patients: The IMPACT Trial “Department of Critical Care Grand Rounds Dec. 7th , 2016

**XVII**. **BIBLIOGRAPHY**

Publications – Peer-reviewed Journals **Total = 381**

1. **Heyland DK**, Sauve M. A case of Neuroleptic Malignant Syndrome without the use of neuroleptics. Can Med Assoc J 1991 Oct.;145(7):817-819. (PMD 1913410)
2. **Heyland DK**, Mandell LA. Gastric colonization and Nosocomial Pneumonia: Evidence for causation. Chest 1992 Jan.;101:187-93. (PMD 1729067)
3. **Heyland DK**, Bradley C, Mandell LA. Effect of Acidified Enteral Feeds on Gastric Colonization in the Critically Ill Patient. Crit Care Med, 1992;20:1388-1394.
4. **Heyland DK**, Cook DJ, Guyatt G. Enteral Nutrition in the Critically Ill Patient: A Review. Int Care Med, 1993;19:435-442.
5. **Heyland DK**, Cook DJ, Jaeschke R, Griffith L, Lee HN, Guyatt GH. Selective Decontamination of the Digestive Tract: An Overview. Chest 1994;105:1221-9.
6. **Heyland DK**, Cook DJ, Guyatt G. Does the Formulation of Enteral Feeding Products Influence Infectious Morbidity and Mortality in the Critically Ill Patient: A Critical Review of the Evidence. Crit Care Med 1994;22:1192-1202.
7. **Heyland DK**, Winder B, Cook DJ, Brylowski L, van der Mark H, Guyatt G. Enteral Nutrition in the Critically Ill Patient: A Prospective Survey. Crit Care Med 1995;23:1055-1060.
8. Cronin L, Cook DJ, Carlet J, **Heyland DK**, King D, Fisher CJ. Corticosteroid Treatment for Sepsis: A Critical Appraisal and Meta-analysis of the Literature. Crit Care Med 1995;23:1430-1439.
9. Cook DJ, Reeve BK, Guyatt GH, **Heyland DK**, Griffith LE, Buckingham L, Tryba M. Stress Ulcer Prophylaxis in the Critically Ill: Resolving Discordant Meta-analyses. JAMA 1996;275:308-314.
10. **Heyland DK**, Cook D, King D, Kernerman P, Bruin-Buisson C. Maximizing Oxygen Delivery in Critically ill Patients: A Methodologic Appraisal of the Evidence. Crit Care Med 1996;24:517-524.
11. **Heyland DK**, Winder B, Cook DJ, Guyatt G. Do Critically Ill Patients Tolerate Early, Intragastric Nutrition. Clin Int Care 1996;7:68-73.
12. **Heyland DK**, Kernerman P, Gafni A, Cook DJ. Economic Evaluations in the Intensive Care Unit: Do they help us improve the efficiency of our Unit? Crit Care Med 1996;24:1591-1598.

1. **Heyland DK**, Gafni A, Griffith L, Cook DJ, for the Canadian Critical Care Trials Group. The Clinical and Economic Consequences of Clinically Important Bleeding in Critically Ill Patients. Clin Int Care 1996;7:121-125.
2. **Heyland DK**, Tougas G, Cook DJ, Guyatt GH. Cisapride Improves Gastric Emptying in Mechanically Ventilated, Critically Ill Patients: A Randomized, Double-blind Trial. Am J Respir Crit Care Med 1996;154:1678-1683.
3. **Heyland DK**, Tougas G, Cook DJ. Impaired Gastric Emptying in Critically Ill Patient. Intensive Care Med 1996;22:1339-1344.
4. Naylor CD, Guyatt GH, **Heyland DK** for the Evidence-Based Medicine Working Group. User’s Guides to the medical literature. X. How to use an article reporting variations in the outcomes of health services. JAMA 1996;275;554-558.
5. Naylor CD, Guyatt GH, **Heyland DK** for the Evidence-Based Medicine Working Group. User’s Guides to the medical literature. IX. How to use an article about a clinical utilization review. JAMA 1996;275;1435-1439.

1. Guyatt GH, Naylor CD, Juniper L, **Heyland DK**, Cook DJ for the Evidence-Based Medicine Working Group. User’s Guides to the medical literature. XII. How to use an article about health-related quality of life. JAMA 1997;277:1232-1236.
2. Drummond MF, Richardson WS, O’Brien B, Levine M, **Heyland DK** for the Evidence-Based Medicine Working Group. User’s Guides to the medical literature. XI. How to use an economic analysis of clinical practice: A. Are the results of the study valid? JAMA 1997;277:1552-1557.
3. O’Brien B, **Heyland DK**, Richardson WS, Levine M, Drummond MF for the Evidence-Based Medicine Working Group. User’s Guides to the medical literature. XI. How to use an economic analysis of clinical practice: B. What are the results and will they help me in caring for my patients? JAMA 1997;277:1802-1806.
4. Cook DJ, Hebert PC, **Heyland DK**, Brun-Buisson C, Marshall JC, Russell J, Sprung C. For the Evidence-Based Medicine in Critical Care Working Group. How to use an Article on Therapy or Prevention: Pneumonia Prevention Using Subglottic Secretion Drainage. Crit Care Med 1997;25:1502-1513.
5. Cook DJ, De Jonge B, **Heyland DK.** The relationship between nutrition and nosocomial pneumonia: Randomized trials in critically ill patients. Crit Care 1997;1:3-9.
6. Cook DJ, Levy MM, **Heyland DK**. For the Evidence-Based Medicine in Critical Care Working Group. How to Use a Review Article: Prophylactic endoscopic sclerotherapy for esophageal varices. Crit Care Med 1998:26;692-700.
7. **Heyland DK**, Meade M, Cook D, Guyatt GH, Gafni A. The frequency and methodological rigor of quality of life assessments in the critical care literature. Crit Care Med 1998:26;591-598.
8. **Heyland DK**, Wood G. The effect of acidified enteral feeds on contamination of the enteral nutrition feeding system. Nutr Clin Pract 1998: 13:S33-37.
9. **Heyland DK**. Making inferences from scientific research. Nutr Clin Pract 1998:13:S1-7.
10. **Heyland DK**, Konopad E, Noseworthy T, Shustack A, Johnston R, A Gafni. Is it worthwhile to continue treating patients with a prolonged stay (>14 days) in the Intensive Care Unit: An economic evaluation. Chest 1998:114:192-198.
11. **Heyland DK**, MacDonald S, Keefe L, Drover JW. Total parenteral nutrition in the critically ill patient: A meta-analysis. JAMA 1998;280:2013-2019.
12. **Heyland DK**, Konopad E, Alberda C, Keefe L, Cooper C, Cantwell B. How well do critically ill patients tolerate early, intragastric enteral feeding? Results of a prospective multicenter trial. Nutrition in Clinical Practice 1999;14:23-28.
13. **Heyland DK**, Cook DJ, Heule M, Marshall J, Guslits B, Lang J, Jaeschke R. The clinical utility of invasive diagnostic techniques in the setting of ventilator-associated pneumonia. Chest 1999;115:1076-1084.
14. **Heyland DK**, Cook DJ, Griffith L, Keenan S, Brun-Buisson C. The attributable morbidity and mortality of ventilator-associated pneumonia in the critically ill patient. Am J Resp Crit Care Med 1999;159:1249-1256.
15. **Heyland DK**. Nutritional support in the seriously ill hospitalized patient: A systematic review of the literature. Brazilian J Clin Nutrition 1999;14(2):95-112.
16. **Heyland DK**, MacDonald S, Keefe L, Drover JW. Total parenteral nutrition in the critically ill patient: A systematic review of the literature. Crit Care International 1999;9:10-12.
17. **Heyland DK**, Gafni A, Kernerman P, Keenan S, Chalfin D. For the Evidence-Based Medicine in Critical Care Working Group. How to use an economic evaluation. Crit Care Med 1999;27;1195-1202.
18. Deegan H, Dent S, **Heyland DK**, Keefe L, Drover JW. Supplemental parenteral nutrition in the critically ill patient: A retrospective study. Clinical Intensive Care 1999;10:131-136.
19. **Heyland DK**, Cook DJ, Schoenfeld PS, Frietag A, Varon J, Wood G. The effect of acidified enteral feeds on gastric colonization in the critically ill patient: Results of a multicenter randomized trial. Crit Care Med 1999;27:2399-2406.
20. Taylor JS, **Heyland DK**, Taylor SJ. How advance directives affect hospital resource use. Systematic review of the literature. Can Fam Physician 1999;45:2408-2413.
21. Keenan SP, Guyatt GG, Sibbald WJ, Cook DJ, **Heyland DK**, Jaeschke R. For the Evidence-Based Medicine in Critical Care Working Group. How to use an article about diagnostic technology. Crit Care Med 1999;27:1726-1731.
22. Cook DJ, **Heyland DK**, Griffith L, Cook R, Marshall JM, for the Canadian Critical Care Trials Group. Risk factors for clinically important gastrointestinal bleeding in patients requiring mechanical ventilation. Crit Care Med 1999;27(12):2812-2817.
23. **Heyland DK**. Enteral and parenteral nutrition in the seriously ill hospitalized patient: A critical review of the evidence. J Nutrition, Health & Aging 2000;4:31-41.
24. **Heyland DK**. Parenteral nutrition in the critically ill patient: More harm than good? Proceedings of the Nutrition Society 2000;59:457-466.
25. **Heyland DK**, Lavery JV, Tranmer J, Shortt SED, for the Queen’s/KGH End of Life Research Working Group. The final days: An analysis of the dying experience in Ontario. Annals of Royal College of Physicians and Surgeons of Canada 2000; Annals 2000;33:356-361.
26. **Heyland DK**, Gafni A, Levine MAH. Do potential patients prefer tissue plasminogen activator (TPA) over streptokinase (SK)? An evaluation of the risks and benefits of TPA from the patient’s perspective. J Clinical Epidemiology 2000;53:888-894.
27. Giacomini MK, Cook DJ, **Heyland DK** for the Evidence-Based Medicine Working Group. User’s Guides to the medical literature. XXIII. Qualitative research in health care: A. Are the results of the study valid? JAMA 2000;284:357-362.
28. Giacomini MK, Cook DJ, **Heyland DK** for the Evidence-Based Medicine Working Group. User’s Guides to the medical literature. XXIII. Qualitative research in health care: B. What are the results and how do they help me care for my patients? JAMA 2000;284:478-482.
29. **Heyland DK**, Hopman W, Coo H, Tranmer J, McColl MA. Long-term health-related quality of life (HRQL) in survivors of sepsis: Short Form 36 - A Valid and Reliable Measure of HRQL. Crit Care Med 2000;28:3599-3605.
30. **Heyland DK,** Tranmer J, Feldman-Stewart Deborah. End of life decision making in the seriously ill hospitalized patient. An organizing framework and results of a preliminary study. J Palliative Care 2000;16:S31-S39.
31. **Heyland DK**, Lavery JV, Tranmer J, Shortt SED, SJ Taylor for the Queen’s/KGH End of Life Research Working Group. Dying in Canada: Is it an institutionalized, technologically supported experience? J Palliative Care 2000;16:S10-S16.
32. **Heyland DK**, Novak F. Immunonutrition in the critically ill patient: More harm than good? JPEN 2001;25:S51-55.
33. **Heyland DK**, Montalvo M, MacDonald S, Keefe L, Drover JW. Total parenteral nutrition in the surgical patient: A meta-analysis. Canadian J Surg 2001;44:102-111.
34. Wright F, **Heyland DK**, Drover JW. MacDonald S, Zoutman D. Antibiotic-coated central lines: Do they work in the critical care setting? Clinical Intensive Care 2001;12:21-28.
35. **Heyland DK**, Wood G, Cook DJ for the Canadian Critical Care Trials Group. Is the stomach an important source of tracheal contamination and subsequent pneumonia? Clinical Intensive Care 2001;12(1):29-36.
36. Cook DJ, **Heyland DK**, Marshall J for the Canadian Critical Care Trials Group. On The Need For Observational Studies To Design And Interpret Randomized Trials: A Case Study in Stress Ulcer Prophylaxis. Intensive Care Med 2001;27:347-354.
37. Tranmer JE, **Heyland DK**. Decisional role in seriously ill hospitalized patients near the end of life: The patient’s and provider’s perspective. Can Oncol Nurs J 2001;11:8-13.
38. **Heyland DK**, Novak F, Drover J, Jain M, Suchner U. Should immunonutrition become routine in critically ill patients: A systematic review of the evidence. JAMA 2001;286:944-953.
39. **Heyland DK**, Drover J, MacDonald S, Novak F, Lam M. Effect of post-pyloric feeding on gastroesophageal regurgitation and pulmonary microaspiration: Results of a randomized controlled trial. Critical Care Med 2001;29:1495-1501.
40. Kindopp S, Drover JD, **Heyland DK**. Capnography confirms correct feeding tube placement in intensive care unit patients. Can J Anesth 2001; 48:705-710.
41. Suchner U, **Heyland DK**, Peter K. Immune-modulatory actions of arginine in the critically ill. British Journal of Nutrition 2001;87:S121-132.
42. **Heyland DK**. In search of the magic nutraceutical: Problems with the current approaches. Journal of Nutrition 2001;131:2591S-2595S.
43. Cook DJ, Griffith L, Walter S, Guyatt GH, Meade MO, **Heyland DK**, Kirby A, Tryba M, Canadian Critical Care Trials Group. The attributable mortality and length of ICU stay of clinically important gastrointestinal bleeding in critically ill patients. Crit Care 2001;5:368-375.
44. **Heyland DK**, Tranmer J, for the KGH ICU Research Working Group. Measuring family satisfaction with care in the intensive care unit: The development of a questionnaire and preliminary results. J Crit Care 2001;16:142-149.
45. **Heyland DK**, Rocker GM, Dodek PM, Kutsogiannis DJ, Konopad E, Cook DJ, Peters S, Tranmer JE, O’Callaghan CJ. Family satisfaction with care in the ICU: The results of a multicenter study. Crit Care Med 2002;30:1413-1418.
46. Booth CM, **Heyland DK**, Paterson WG. Gastrointestinal promotility drugs in the critical care setting: A systematic review of the evidence. Crit Care Med 2002;30:1429-1435.
47. Drover JD, Dhaliwal R, **Heyland DK**. Post-pyloric feeding in the critically ill: Not all it is cracked up to be. Int J Intensive Care 2002;9:139-145.
48. Novak F, **Heyland DK**, Avenell A, Novak F, Drover J, Su X. Glutamine supplementation in serious illness: A systematic review of the evidence. Crit Care Med 2002;30:2022-2029.
49. **Heyland DK**, Cook DJ, Dodek P. Prevention of ventilator-associated pneumonia (VAP): A survey of Canadian practice. J Critical Care 2002;17:161-167.
50. **Heyland DK**. Immunonutrition in the critically ill patient: Putting the cart before the horse? Nutrition Clin Pract 2002;17(5):267-272.
51. **Heyland DK**, Drover JD, Dhaliwal R, Greenwood J. Optimizing the Benefits and Minimizing the Risks of Enteral Nutrition in the Critically Ill: Role of Small Bowel Feeding. JPEN 2002:26:S51-57.
52. **Heyland DK**, Schroter-Noppe D, Drover J, Jain M, Keefe L, Dhaliwal R, Day A. Nutrition support in the critical care setting: Current practice in Canadian ICUs - opportunities for improvement? JPEN 2003;27(Jan-Feb):74-83.
53. **Heyland DK**, Rocker GM, Dodek PM, Cook DJ, O’Callaghan CJ. Dying in the ICU: Perspectives of family members. Chest 2003; 124(Jul);392-397.

1. **Heyland DK**, Rocker GM, Dodek PM, Kutsogiannis DJ, Cook DJ, Peters S. Decision making in the ICU: Perspectives of the substitute decision maker. Intensive Care Medicine 2003; 29(Jan):75-82.
2. **Heyland DK**, Tranmer JE, O’Callaghan CJ, Gafni A. The Seriously Ill Hospitalized Patient: Preferred Role in End of Life Decision Making. J Critical Care 2003;18(Mar):3-10.
3. Tranmer JE, **Heyland DK**, Dudgeon D, Squires-Graham M, Coulson K. Measuring the symptom experience of seriously ill cancer and noncancer hospitalized patients near the end of life with the memorial symptom assessment scale. J Pain Symptom Manage 2003:25(May):420-429.
4. **Heyland DK**, Dhaliwal R, Drover JW, Gramlich L, Dodek P, for the Guidelines Committee. Canadian clinical practice guidelines for nutrition support in the adult critically ill patient. JPEN 2003;27(Sep-Oct):355-373.
5. Frank C, **Heyland DK**, Chen B, Farquhar D, Meyers K, Iwassa K. Determining resuscitation preferences of elderly inpatients: a review of the literature. CMAJ 2003; 169(Oct):795-9.
6. Bourgault A, **Heyland DK**, Drover J, et al Prophylactic pancreatic enzyme use to reduce the incidence of enteral feeding tube occlusion: A Pilot Study. Nutrition in Clinical Practice 2003;18(5):398-401.
7. Lacherade JC, Cook DJ, **Heyland DK**, Chrusch C, Brochard L, Brun-Buisson C. Prevention of venous thromboembolism in critically ill medical patients: A Franco-Canadian cross-sectional study. J Critical Care 2003;18(4)(Dec):228-237.
8. Martin CM, Doig GS, **Heyland DK**, Webster G, Morrison T, Sibbald WJ. A multicenter, cluster randomized clinical trial of algorithms for critical care enteral and parenteral therapy (ACCEPT). CMAJ 2004;170(Jan):197-204.
9. Cook DJ, Rocker GM, **Heyland DK**. Dying in the ICU: Strategies that may improve end-of-life care. Can J Anesth 2004;51(Mar)):266-272.
10. Rocker GM, **Heyland DK**, Cook DJ, Dodek PM, Kutsogiannis DJ, O’Callaghan CJ. Most critically ill patients are perceived to die in comfort during withdrawal of life support: a Canadian multicenter study. Can J Anesth 2004;51(Jun):623-630.
11. Rocker G, Cook DJ, Sjokvist P, Weaver B, Finfer S, McDonald E, Marshall J, Kirby A, Levy, M, Dodek P, **Heyland DK**, Guyatt G, for the Canadian Critical Care Trials Group. Clinician predictions of intensive care unit mortality. Crit Care Med 2004; 32(May):1149-1154.
12. Dhaliwal RD, Jurewitsch B, Harrietha D, **Heyland DK**. Combination enteral and parenteral nutrition in critically ill patients: Harmful or beneficial? A systematic review of the evidence. Intensive Care Med 2004;30:1666-1671.
13. Dodek PM, **Heyland DK**, Rocker G, Cook DJ. Translating family satisfaction data into quality improvement. Crit Care Med 2004;32(9):1922-1927.
14. Dodek P, Keenan S, **Heyland DK**, Cook DJ, et al. Evidence-based clinical practice guideline for the prevention of ventilator-associated pneumonia. Ann Intern Med 2004;141(4):305-313.
15. Gramlich L, Kichian G, Pinilla J, Rodych NJ, Dhaliwal R, **Heyland DK**. Does enteral nutrition compared to parenteral nutrition result in better outcomes in critically ill adult patients? A systematic review of the literature. Nutrition 2004;20(10):843-848.
16. **Heyland DK**, Dhaliwal R, Day A, Jain M, Drover J. Validation of the Canadian clinical practice guidelines for nutrition support of mechanically ventilated patients: Results of a prospective observational study. Crit Care Med 2004;32(11):2260-2266.
17. Parker CM, **Heyland DK.** Aspiration and the risk of ventilator-associated pneumonia. Nutrition Clin Pract 2004;19(6):597-609.
18. **Heyland DK**, Dhaliwal R, Suchner U, Berger M. Antioxidant nutrients: A systematic review of vitamins and trace elements in the critically ill patient. Intensive Care Med 2005(Mar);31(3):327-337.
19. Rocker GM, Cook DJ, O’Callaghan CJ, Pichora D, Dodek PM, Conrad W, Kutsogiannis DJ, **Heyland DK**. Canadian nurses’ and respiratory therapists’ perspectives on withdrawal of life support in the intensive care unit. J Crit Care 2005(Mar);20:59-65.
20. **Heyland DK**, Groll D, Caeser M. Survivors of acute respiratory distress syndrome: Relationship between pulmonary dysfunction and long-term health-related quality of life. Crit Care Med 2005(Jul);33(7):1549-1556.
21. Dhaliwal R, **Heyland DK**. Nutrition and infection in the ICU: What does the evidence show? Curr Opin Crit Care 2005(Oct):11(5):461-467.
22. **Heyland DK**, Groll D, Rocker G, Dodek P, Gafni A, Tranmer J, Pichora D, Lazar N, Kutsogiannis J, Shortt S, Lam M, for the Canadian Researchers at the End of Life Network (CARENET). End of life care in acute care hospitals in Canada. A quality finish? J Palliat Care 2005(Autumn);21(3):142-150.
23. Patel R, Griffith L, Meade M, Mehta S, Hodder R, Martin C, **Heyland DK**, Peters S, Muscedere J, Soth M, Campbell N, Guyatt GH for the Canadian Critical Care Trials Group. Burden of Illness in ThromboEmbolism in Critical Care (BITEC) Study: A multicenter observational study. J Crit Care 2005(Dec);20(4):341-347.
24. **Heyland DK**, Dodek P, Rocker G, et al. for the Canadian Researchers at the End of Life Network (CARENET). What matters most in end-of-life care: Perceptions of seriously ill patients and their family members. Can Med Assoc J 2006(Feb);174(5):627-633.
25. McClave SA, Chang, WK, Dhaliwal R, **Heyland DK**. Nutrition support in acute pancreatitis: A systematic review of the literature. JPEN 2006(Mar/Apr);30:143-156.
26. Howes D, Green R, Gray S, Stenstrom R, Easton D, **Heyland DK** for the Canadian Association of Emergency Physicians. Evidence for the use of hypothermia after cardiac arrest. Can J Emerg Med 2006(Mar);8(2):109-115.
27. **Heyland DK,** Dhaliwal R. Oxidative stress in the critically ill: A preliminary look at the REDOXS study. Critical Care Rounds 2006(Apr),7(1).
28. Groll DL, **Heyland DK**, Caeser M, Wright JG. Assessment of long-term physical function in acute respiratory distress syndrome (ARDS) patients. Comparison of the Charlson Comorbidity Index and the Functional Comorbidity Index. Am J Phys Med Rehabil 2006(Jul);85(7):574-581.
29. **Heyland DK**, Frank C, Groll, D, Pichora D, Dodek P, Rocker G, Gafni A for the Canadian Researchers at the End of Life Network (CARENET). Understanding cardiopulmonary resuscitation decision making: Perspectives of seriously ill hospitalized patients and family members. Chest 2006(Aug);130(2):419-428.
30. Jain MK, **Heyland DK**, Dhaliwal R, Day A, Drover J, Keefe L, Gelula M. Dissemination of the Canadian Clinical Practice Guidelines for nutrition support: Results of a cluster randomized trial. Crit Care Med 2006(Sept);34:2362-9.
31. **Heyland DK**, Dhaliwal R, Day A, Muscedere J, Drover J, Suchner U, Cook DJ, for the Canadian Critical Care Trials Group. REducing Deaths due to OXidative Stress: The REDOXS© Study: Rationale and study design for a randomized trial of glutamine and antioxidant supplementation in critically ill patients. Proc Nutr Soc 2006(Aug);65(3):250-263.
32. Parker CM, **Heyland DK**, Groll D, Caeser, M. Mechanism of injury influences quality of life in survivors of acute respiratory distress syndrome. Intensive Care Med 2006(Sept);32:1895-2000.
33. Cook D, Rocker G, Giacomini M, **Heyland DK**. Understanding and changing attitudes toward withdrawal and withholding of life support in the ICU. Crit Care Med 2006 (Nov); 34(11) [Suppl]:S317-S323.
34. **Heyland DK**, Cook D, Dodek P, Muscedere J, Day A for the Canadian Critical Care Trials Group. A randomized trial of diagnostic techniques for ventilator-associated pneumonia. N Engl J Med 2006(Dec);355(25):2619-30.
35. Wall RJ, Engelberg R, Downey L, **Heyland DK**, Curtis JR. Refinement, scoring, and validation of the Family Satisfaction in the Intensive Care Unit (FS-ICU) survey. Crit Care Med 2007;35(1):271-279.
36. Frank C, **Heyland DK**, Pichora D. CARENET: A resource for researchers in end-of-life care. Can J Geriatr 2006;9(4):147-149.
37. Frank C, Pichora D, Schroder C, Wattam P, **Heyland DK**. Improving end-of-life care in clinical teaching units: The Associated Medical Services, Inc. Fellowship in End of Life care. Can J GIM 2006;1(1):21-22.
38. **Heyland DK**, Dhaliwal R, Day A, Drover J, Cote H, Wischmeyer P. Optimizing the dose of glutamine dipeptides and antioxidants in critically ill patients: A phase I dose finding study. J Parenter Enteral Nutri 2007;31(2):109-118.
39. Jones NE, Suurdt J, Ouellette-Kuntz H, **Heyland DK**. Implementation of the Canadian clinical practice guidelines for nutrition support: a multiple case study of barriers and enablers. Nutr Clin Pract 2007;22(4):449-57.
40. Côté HC, Day AG, **Heyland DK**. Longitudinal increases in mitochondrial DNA levels in blood cells are associated with survival in critically ill patients. Crit Care. 2007;11(4):R88. (PMID: 17697385).
41. Sinuff T, Cook D, Giacomini M, **Heyland DK**, Dodek P. Facilitating clinician adherence to guidelines in the intensive care unit: a multicenter, qualitative study. Crit Care Med 2007;35(9):2083-2089.
42. Stapleton RD, Jones N, **Heyland DK.** Feeding critically ill patients: What is the optimal amount of energy? Crit Care Med 2007;35(9):S535-S540.
43. Laverdiere M, Labbe AC, Restieri C, Rotstein C, **Heyland DK**, Madger S, Steward T. Susceptibility patterns of *Candida spp r*ecovered from Canadian intensive care units. J Crit Care 2007;22:245-251.
44. Sinuff T, Eva K, Meade M, Dodek P, **Heyland DK**, Cook D. Clinical practice guidelines in the intensive care unit: A survey of Canadian clinician’s attitudes. Can J Anesth 2007;54(9):728-736.
45. Longo, CJ, **Heyland DK**, Fisher HN, Fowler RA, Martin C, Day A. A long term follow-up study investigating health related quality of life and resource use in survivors of severe sepsis. Comparison of recombinant human activated protein C to standard care. Crit Care 2007;11(6):R128 (doi:10.1186/cc6195).
46. Muscedere JG, **Heyland DK**, Cook D. Venous thromboembolism in critical illness in a community intensive care unit. J Crit Care 2007;22(4):285-289.
47. Aarts MA, Hancock, J, **Heyland DK**, McLeod RS, Marshall JC. Empiric antibiotic therapy for suspected ventilator-associated pneumonia: A systematic review and meta-analysis of randomized trials. Crit Care Med 2008;26(1):108-117.
48. **Heyland DK**, Dodek P, Muscedere J, Day A, Cook D. Randomized trial of combination versus monotherapy for the empiric treatment of suspected ventilator-associated pneumonia. Crit Care Med 2008;36(3):737-744.
49. Jones NE, **Heyland DK**. Pharmaconutrition: A new emerging paradigm. Curr Opin Gastroenterol 2008(Mar);24(2):215-222.
50. Stajduhar KI, Allan DE, Cohen SR, **Heyland DK**. Preferences for location of death of seriously ill hospitalized patients: Perspectives from Canadian patients and their family caregivers. Palliative Med 2008;22:85-88.
51. Muscedere J, Martin C, **Heyland DK**. The impact of ventilator associated pneumonia on the Canadian health care system. J Crit Care 2008;23:5-10.
52. Sinuff T, Muscedere J, Cook D, Dodek P, **Heyland DK**. Ventilator associated pneumonia: improving outcomes through guideline implementation. J Crit Care 2008;23:118-125.
53. Muscedere J, Dodek P, Keenan S, Fowler R, Cook D, **Heyland DK**. Comprehensive evidence-based clinical practice guidelines for ventilator associated pneumonia: prevention. J Crit Care 2008;23:126-137.
54. Shorr AF, Cook D, Jiang X, Muscedere J, **Heyland DK**. Correlates of clinical failure in ventilator-associated pneumonia: insights from a large, randomized trial. J Crit Care 2008;23:64-73.
55. Muscedere JG, McColl C, Shorr A, Jiang X, Marshall J, **Heyland DK**. Determinants of outcome in patients with a clinical suspicion of ventilator associated pneumonia. J Crit Care 2008;23:41-49.
56. Joffe AR, Muscedere J, Marshall JC, Su Y, **Heyland DK**. The safety of targeted antibiotic therapy for ventilator associated pneumonia: a multicenter observational study. J Crit Care 2008;23:82-90.
57. Albert M, Friedrich JO, Adhikari NKJ, Day AG, Verdant C, **Heyland DK**. Utility of gram stain in the clinical management of suspected ventilator-associated pneumonia: secondary analysis of a multicentre randomized trial. J Crit Care 2008;23:74-81.
58. Sanders K, Adhikari NK, Friedrich JO, Day A, Jiang X, **Heyland DK**. Previous cultures are not clinically useful for guiding empiric antibiotics in suspected ventilator associated pneumonia: secondary analysis from a randomized trial. J Crit Care 2008;23:58-63.
59. Muscedere J, Dodek P, Keenan S, Fowler R, Cook D, **Heyland DK.** Comprehensive evidence-based clinical practice guidelines for ventilator-associated pneumonia: diagnosis and treatment. J Crit Care 2008;23:138-147.
60. Lauzier F, Ruest A, Dodek P, Albert M, Shorr AF, Day A, Jiang X, **Heyland DK**. The value of pretest probability and modified clinical pulmonary infection score to diagnose ventilator-associated pneumonia. J Crit Care 2008;23:50-57.
61. Parker C, Kutsogiannis J, Muscedere J, Cook D, Dodek P, Day A, **Heyland DK**. Ventilator-associated pneumonia caused by multidrug-resistant organisms or pseudomonas aeruginosa: prevalence, incidence, risk factors, and outcomes. J Crit Care 2008;23:18-26.
62. Delisle MS, Williamson DR, Perreault MM, Albert M, Jiang X, **Heyland DK**. The clinical significance of candida colonization of respiratory tract secretions in critically ill patients. J Crit Care 2008;23:11-17.
63. Saberi F, **Heyland DK**, Lam M, Rapson D, Jeejeebhoy K. Insulin resistance in critically ill patients: Prevalence, incidence, and correlation with inflammation, coagulation and clinical outcomes. JPEN J Parenter Enteral Nutr 2008; 32(3):227-35.
64. Rocker GM, Dodek PE, **Heyland DK**. Toward optimal end-of-life care for patients with advanced COPD: Insights from a multicentre study. Can Respir J 2008;15(5):249-254.
65. **Heyland DK**, Jones N, Cvijanovich N, Wong H. Zinc supplementation in critically ill patients: A key pharmaconutrient? JPEN J Parenter Enteral Nutr 2008;32(5):509-519.
66. Jones N, Dhaliwal R, Day A, Ouellette-Kuntz H, **Heyland DK**. Factors predicting adherence to the Canadian clinical practice guidelines (CPGs) for nutrition support in mechanically ventilated, critically ill adult patients. J Crit Care 2008;23:301-307.
67. Arcaroli JJ, Hokanson JE, Abraham E, Geraci M, Murphy JR, Bowler RP, **Heyland DK**, Wischmeye P, Crapo JD. Extracellular superoxide haplotypes are associated with acute lung injury and mortality. Am J Crit Care Med 2009;179:105-112.
68. Martin CM, Priestap, F, Fisher H, Fowler RA, **Heyland DK**, Keenan SP, Longo CJ et al for the STAR Registry Investigators. A prospective, observational registry of patients with severe sepsis: The Canadian Sepsis Treatment and Response Registry. Crit Care Med 2009;37(1):81-8.
69. Griesdale D, de Souza R, van Dam RM, **Heyland DK**, Cook D, Dhaliwal R, et al. Intensive insulin therapy and mortality in the critically ill patients: A meta-analysis including NICE SUGAR study data. CMAJ 2009;180(8):831-827.
70. Finfer S, Chittock D, Su SY, Blair D, Foster D, Dhingra V, Bellomo R, Cook D, Dodek P, Henderson WR, Hebert PC, Heritier S, **Heyland DK**, McArthur C, McDonald E, Mitchell I, Myburgh JA, Norton R, Potter J, Robinson BG, Ronco JJ for the The NICE-SUGAR Study Investigators. Intensive versus conventional glucose control in critically ill patients. N Engl J Med 2009;360(1):1283-97.
71. Schroder C, **Heyland DK,** Jiang X, Rocker G, Dodek P. Educating medical residents in end-of-life care: insights from a multicentre survey. J Palliat Med 2009;12(5):459-470.
72. McClave SA, **Heyland DK**. The physiologic response and associated clinical benefits from provision of early enteral nutrition. Nutr Clin Pract 2009;24(3):305-15.
73. Minor S, **Heyland DK**, Schroder C. Using the intensive care unit to teach end-of-life skills to rotating junior residents. Am J Surg 2009;197(6):814-9.
74. **Heyland DK**, Allan DE, Rocker G, Dodek P, Pichora D, Gafni A. Discussing prognosis with patients and their families near the end of life: Impact on satisfaction with end of life care. Open Medicine 2009;3(2):e101-10.
75. Alberda C, Gramlich L, Jones NE, Jeejeebhoy K, Day A, Dhaliwal R, **Heyland DK**. The relationship between nutritional intake and clinical outcomes in critically ill patients: Results of an international multicenter observation study. Intensive Care Med 2009;35(10):1728-37.
76. Henderson W, Dhingra V, Chittock D, Foster D, Hebert P, Cook D, **Heyland DK**, Dodek P, Griesdale D, Schulzer M, Ronco R. The efficacy and safety of glucose control algorithms in intensive care: a pilot study of the survival using glucose algorithm regulation (SUGAR) trial. Pol Arch Med Wewn 2009;119(7-8):439-46.
77. Azoulay E, Timsit JF, Sprung CL, Soares M, Rusinove K, Lafabrie A, Abizanda R, Svantesson M, Runulotta F, Ricou B, Benoit D, **Heyland DK**, Joynt G, Francais A, Azeivedo-Maia P, Owczuk R, Benbenishty J, de Vita M, Valentin A, Ksomos A, Cohen S, Kompan L, Ho K, Abroug F, Kaarlola A, Gerlack H, Kyprianou T, Michalsen A, Chevret S, Schlemmer B for the Ethics Section of the European Society of Intensive Care Medicine. Prevalence and factors of intensive care unit conflicts: the Conflicus Study. Am J Respir Crit Care Med 2009;180:853-860.
78. Strachan P, Ross H, Rocker G, Dodek P, **Heyland DK**. Mind the Gap: Opportunities for improving end-of-life care for patients with advanced heart failure. Can J Cardiology 2009;25(11):635-640.
79. **Heyland DK**, Frank C, Tranmer J, Paul N, Pichora D, Jiang X, Day A. Satisfaction with end of life care: A longitudinal study of patients and their family caregivers in the last months of life. J Palliat Care 2009; 25(4):245-256.
80. Frank C, Suurdt JS, **Heyland DK**. Development and use of a decision aid for communication with hospitalized patients about cardiopulmonary resuscitation preference. Patient Educ Couns 2010; Apr;79(1):130-3. (PMID:19766436)
81. Cahill N, Dhaliwal RD, Day A, Jiang X, **Heyland DK**. Nutrition therapy in the critical care setting: What is “Best Achievable” practice? An international multicenter observational study. Crit Care Med 2010 Feb;38(2):395-401. (PMID:19851094)
82. **Heyland DK**, Cahill NE, Dhaliwal R, Wang M, Day AG, Alenzi A, Aris F, Muscedere J, Drover JW, McClave SA. Enhanced protein-energy provision via the enteral route in critically ill patients: a single center feasibility trial of the PEP uP protocol. Crit Care 2010;14(2):R78.
83. Muscedere JG, Day A, **Heyland DK**. Mortality, attributable mortality, and clinical events as endpoints for clinical trials of ventilator associated pneumonia and hospital acquired pneumonia. Crit Care Med 2010 Aug;51(Suppl 1):S120-S125. (PMID:20597661)
84. Wischmeyer PE, **Heyland DK**. The future of critical care nutrition therapy. Crit Care Clin 2010 Jul;26(3):433-441. (PMID:20643297)
85. **Heyland DK**, Cook DJ, Rocker GM, Dodek PM, Kutsogiannis DJ, Skrobik Y, Jiang X, Day AG, Cohen SR for the Canadian Researchers at the End of Life Network (CARENET) Defining priorities for improving end-of-life care in Canada. Can Med Assoc J 2010 Nov;182(16):E747-E752. (PMID:20921249)
86. **Heyland DK**, Cook DJ, Rocker GM, Dodek PM, Kutsogiannis DJ, Skrobik Y, Jiang X, Day AG, Cohen SR for the Canadian Researchers at the End of Life Network (CARENET) The development and validation of a novel questionnaire to measure patient and family satisfaction with end of life care: The Canadian Health Care Evaluation Project (CANHELP) Questionnaire. Palliat Med 2010 Oct;24(7):582-695. (PMID:20605850)
87. Rothen HU, Stricker KH, **Heyland DK**. Family satisfaction with critical care: measurements and messages. Curr Opin Crit Care 2010 Dec;16:623-631. (PMID: 20736823)
88. Cahill N, Suurdt J, Ouellette-Kuntz, H, **Heyland DK**. Understanding adherence to guidelines in the intensive care unit: development of a comprehensive framework. JPEN J Parenter Enter Nutr 2010;34(6):616-624. (PMID: 21097762)
89. **Heyland DK**, Cahill NE, Dhaliwal R Sun X, Day AG, McClave SA. Impact of enteral feeding protocols on enteral nutrition delivery: results of a multicenter observational study. JPEN J Parenter Enter Nutr 2010;34(6):675-684. (PMID: 21097768)
90. **Heyland DK**, Heyland RD, Cahill NE, Dhaliwal R, Day AG, Jiang X, Morrison S, Davies AR. Creating a culture of clinical excellence in critical care nutrition: The 2008 ‘Best of the Best’ award. JPEN J Parenter Enter Nutr 2010;34(6):707-715.(PMID: 21097771)
91. **Heyland DK**, Heyland J, Dhaliwal R, Madden S, Cook D. Randomized trials in critical care nutrition: look how far we’ve come! (and where do we go from here?) JPEN J Parenter Enter Nutr 2010;34(6):697-706. (PMID: 21097770)
92. **Heyland DK**, Cahill N, Dhaliwal R. Lost in (knowledge) translation! JPEN J Parenter Enter Nutr 2010;34(6):610-615. (PMID: 21097761)
93. Gramlich LM, Olstad D, Nasser R, Goonewardene L, Raman M, Innis S, Wicklum S, Duerksen D, Rashid M, **Heyland DK**, Armstrong D, Roy C. Medical students’ perceptions of nutrition education in Canadian universities. Appl Physiol Nutr Metab 2010 Jun;35(3):336-43. (PMID: 20555378)
94. Dhaliwal R, Madden SM, Cahill N, Jeejeebhoy K, Kutsogiannis J, Muscedere J, McClave S, **Heyland DK**. Guidelines, guidelines, guidelines? What are we to do with all of these North American Guidelines? JPEN J Parenter Enter Nutr 2010;34(6):625-643. (PMID: 21097763)
95. Cahill NE, Narasimhan S, Dhaliwal R, **Heyland DK**. Attitudes and beliefs related to the Canadian Critical Care Nutrition Practice Guidelines: An international survey of critical care physicians and dietitians. JPEN J Parenter Enter Nutr 2010;34(6):685-696. (PMID: 21097769)
96. Dodek P, Cahill N, **Heyland DK**. The relationship between organizational culture and implementation of clinical practice guidelines: A narrative review. JPEN J Parenter Enter Nutr 2010;34(6):669-674. (PMID: 21097767)
97. Cahill N, **Heyland DK.** Bridging the guideline – Practice gap in critical care nutrition: A review of guideline implementation studies. JPEN J Parenter Enter Nutr 2010;34(6):653-659. (PMID: 21097765)
98. Drover JW, Cahill NE, Kutsogiannis J, Pagliarello G, Wischmeyer P, Wang M, Day AG, **Heyland DK**. Nutrition therapy for the critically ill surgical patient: We need to do better! JPEN J Parenter Enter Nutr 2010;34(6):644-652. (PMID: 21097764)
99. Sinuff T, Cahill N, Dhaliwal R, Wang M, Day A, **Heyland DK**. The value of “Audit and Feedback Reports” in improving nutritional therapy in the intensive care unit: A multicenter observational study. JPEN J Parenter Enter Nutr 2010;34(6):660-668. (PMID: 21097766)
100. Moore FA, Ziegler TR, **Heyland DK**, Marik PE, Bistrian BR. Developing research programs in clinical and translational nutrition. JPEN J Parenter Enter Nutr 2010;34(6 Suppl):97S-105S. (PMID: 21149841)
101. Martindale RG, McClave S, **Heyland DK**, August D. Developing a mentoring program in clinical nutrition. JPEN J Parenter Enter Nutr 2010;34(1):70S-77S. (PMID: 21149838)
102. Cahill NE, Murch L, Jeejeebhoy K, McClave SA, Day AG, Wang M, **Heyland DK**. When early enteral feeding is not possible in critically ill patients: results of a multicenter observational study. JPEN J Parenter Enteral Nutr 2011 (Mar-Apr);35(2):160-8. (PMID: 21378245)\
103. Drover JW, Dhaliwal R, Weitzel L, Wischmeyer PE, Ochoa JB, **Heyland DK**. Perioperative use of arginine-supplemented diets: A systematic review of the evidence. J Am Coll Surg 2011, Mar;212(3):385-399. (PMID: 21247782)
104. **Heyland DK**, Stephens KE, Day AG, McClave SA. The success of enteral nutrition and ICU-acquired infections: A multicenter observational study. Clin Nutr 2011;30:148-155. (PMID: 20971534)
105. Frost DW, Cook DJ, **Heyland DK**, Fowler RA. Patient and health care professional factors influencing end-of-life decision making during critical illness: a systematic review. Crit Care Med, 2011;39(5):1174-89. (PMID: 21336127)
106. Henrich NJ, Dodek P, **Heyland DK**, Cook D, Rocker G, Kutsogiannis D, Dale C, Fowler R, Ayas N. Qualitative analysis of an ICU family satisfaction survey. Crit Care Med 2011;39;1000-1005. (PMID: 21283004)
107. **Heyland DK**, Jiang X, Day AG, Laverdiere M. Serum Beta-D-Glucan of critically ill patients with suspected ventilator associated pneumonia: preliminary observations. J Critical Care 2011;26(5):536.e1-536.e9
108. Williamson D, Albert M, Delisle M, Perreault M, Muscedere J, Jiang X, Rotstein C, **Heyland DK**. The relationship between candida species cultured from the respiratory tract and systemic inflammation in critically ill patients with ventilator-associated pneumonia. Can J Anaesth 2011 Mar;58(3):275-84. (PMID: 21287306)
109. **Heyland DK**, Johnson AP, Reynolds SC, Muscedere J. Procalcitonin for reduced antibiotic exposure in the critical care setting: A systematic review and an economic evaluation. Crit Care Med 2011;39(7):1792-1799. (PMID: 21358400)
110. Stapleton RD, Martin TR, Weiss NS, Crowley JJ, Gundel SJ, Nathens AB, Akhtar SS, Ruzinski JT, Caldwell E, Curtis JR, **Heyland DK**, Watkins TR, Martin JM, Parsons PE, Wurfel MM, Hallstrand TS, Sims KA, Neff MJ. A phase II randomized placebo-controlled trial of Omega-3 fatty acids for the treatment of acute lung injury. Crit Care Med 2011;39(7):1655-1662. (PMID: 21423000)
111. Muscedere J, Rewa O, McKechnie K, Jiang X, Laporta D, **Heyland DK**. Subglottic secretion drainage for the prevention of ventilator associated pneumonia: A systematic review and meta analysis. Crit Care Med 2011;39(8):1985-91. (PMID: 21478738)
112. Delisle MS, Williamson D, Albert M, Perreault M, Jiang X, Day AG, **Heyland DK**. Impact of candida species on clinical outcomes in patients with suspected ventilator-associated pneumonia. Can Resp J 2011 May;18(3):131-136. (PMID: 21766075)
113. Martino JL, Stapleton RD, Wang M, Day AG, Cahill NE,Dixon AE, Suratt BT, **Heyland DK**. Extreme obesity and outcomes in critically ill patients. Chest 2011; 140(5):1198-1206. (PMID: 21816911)
114. Stajduhar K, Funk L, Cohen R, Williams A, Bidgood D, Allan D, Norgrove L, **Heyland DK**. Bereaved family members’ assessments of the quality of EOL care: What is important? J Palliative Care 2011;27(4):261-269. (PMID: 22372280)
115. Hashemian SM, Cahill N, Murch L, Wang M, Jamaati HR, **Heyland DK**. Improving the practice of nutrition therapy in the NRITLD critically ill patients: An international quality improvement project. Tanaffos 2011;10(4):31-37
116. **Heyland DK**, Muscedere J, Drover J, Jiang X, Day A, on behalf of the Canadian Critical Care Trials Group. Persistent organ dysfunction plus death: a novel, composite outcome measure for critical care trials. Crit Care 2011 Mar;15(2):R98.
117. **Heyland DK**, Dhaliwal R, Jiang X, Day A. Identifying critically ill patients who benefit the most from nutrition therapy: the development and initial validation of a novel risk assessment tool. Critical Care 2011 Nov;15(6):R268. (PMID: 22085763)
118. **Heyland DK**, Cahill N, Day A. Optimal amount of calories for critically ill patients: Depends on how you slice the cake! Crit Care Med 2011 Dec;39(12):2619-26. (PMID: 21705881)
119. Kutsogiannis J, Alberda C, Gramlich L, Cahill N, Wang M, Day AG, Dhaliwal R, **Heyland DK**. Early use of supplemental parenteral nutrition in critically ill patients: Results of an international multicenter observational study. Crit Care Med 2011 Dec;39(12):2691-9. (PMID: 21765355)
120. Ilan R, LeBaron C, Christianson M, **Heyland DK**, Day A, Cohen M. Handover patterns: an observational study of critical care physicians. BMC Health Services Research 2012 Jan 10;12(1):11. (PMID: 22233877)
121. McClave SA, Saad M, Jotautas, A, Franklin G, **Heyland DK**, Anderson M:  Volume-based feeding in the critically ill patient.  JPEN 2011;35(1):134-135. (PMID: 24941950)
122. Dodek PM, Wong H, Jaswal D, **Heyland DK**, Cook DJ, Rocker GM, Kutsogiannis DJ, Dale C, Fowler R, Ayas NT. Organizational and safety culture in Canadian intensive care units: Relationship to size of ICU and physician management model. J Crit Care 2012 Feb;27(1):11-17. (PMID: 21958984)
123. Kryworuchko J, Stacey D, Peterson WE, **Heyland DK**, Graham ID. A qualitative study of family involvement in decisions about life support in the intensive care unit. Am J Hosp Palliat Care 2012;29(1):36-46. (PMID: 21737407)
124. Dodek PM, Wong H, **Heyland DK** Cook CJ, Rocker GM, Kutsogiannis DJ, Dale C, Fowler R, Robinson S for Canadian Researchers at the End of Life Network (CARENET). The relationship between organizational culture and family satisfaction in critical care. Crit Care Med 2012 May;40(5):1506-1512. (PMID: 22511132)
125. Ridley E, Davies A, **Heyland DK** et al. Excellence in nutrition therapy: Lessons from the International Nutrition Survey and the Best of the Best Awards. ICU management 2012;12(1):17-20.
126. Muscedere J, Shorr A, Jiang X, Day A, **Heyland DK** for the Canadian Critcal Care Trials Group. The adequacy of timely empiric antibiotic therapy for ventilator associated pneumonia: An important determinant of outcome. J Crit Care 2012 Junl;27(3):322.e7-14. (PMID: 22137378)
127. Higgins DM, Wischmeyer PE, Queensland KM, Sillau SH, Sufit AJ, **Heyland DK**. Relationship of vitamin D deficiency to clinical outcomes in critically ill patients. JPEN J Parenter Enteral Nutr 2012; 36(6):713-720. (PMID: 22523178)
128. Marshall A, Cahill N, Gramlich L, Alberda C, MacDonald G, **Heyland DK**. Optimizing nutrition in Intensive Care Units: Empowering critical care nurses to be effective agents of change. Am J Crit Care 2012;21(3):186-194. (PMID: 22549575)
129. Frank C, Touw M, Suurdt J, Jiang X, Wattam P, **Heyland DK**. Optimizing end-of-life care on medical clinical teaching units using the CANHELP questionnaire and a nurse facilitator: A feasibility study. Can J Nurs Res 2012;44(1):41-58. (PMID: 22679844)
130. Manzanares W, Dhaliwal R, Jiang X, Murch L, **Heyland DK**. Antioxidant micronutrients in the critically ill: a systematic review and meta-analysis. Crit Care. 2012 Dec 12;16(2):R66. (PMID: 22534505).
131. Mehta NM, Bechard L, Cahill N, Wang M, Day A, Duggan CP, **Heyland DK**. Nutritional practices and their relationship to clinical outcomes in critically ill children – An international multicenter cohort study. Crit Care Med. 2012 Jul;40(7):2204-11. (PMID: 22564954)
132. Manzanares W, **Heyland DK**. If the soup tastes bad, it doesn’t mean the potatoes are the culprit. Crit Care Med 2012;40(8):2541-2.
133. Davies AR, Morrison SS, Bailey MJ, Bellomo R, Cooper DJ, Doig GS, Finfer SR, **Heyland DK**, for the ENTERIC Study Investigators and the ANZICS Clinical Trials Group. A multi-centre randomized controlled trial comparing early nasojejunal with nasogastric nutrition in critical illness. Crit Care Med 2012;40(8):2342-2348. (PMID: 22809907)
134. Finfer S, Liu B, Chittock DR, Norton R, Myburgh JA, McArthur C, Mitchell I, Foster D, Dhingra V, Henderson WR, Ronco JJ, Bellomo R, Cook D, McDonald E, Dodek P, Hebert PC, **Heyland DK**, Robinson BG, and the NICE-SUGAR Study Investigators. Hypoglycemia and risk of death in critically ill patients. N Engl J Med 2012 Sep;367(12):1108-18. (PMID: 22992074)
135. Petrof E, Dhaliwal R, Manzanares W, Johnstone J, Cook D, **Heyland DK**. Probiotics in the critically ill: A systematic review of the randomized trial evidence. Crit Care Med. 2012;40(12):3290-3302. (PMID: 22975886)
136. Cahill NE, Murch L, Cook D, **Heyland DK**. Barriers to feeding critically ill patients: A multicenter survey of critical care nurses. J Crit Care 2012 Dec;27(6):727-734. (PMID: 22981532)
137. Reynolds S, Shorr A, Muscedere J, Jiang X, **Heyland DK**. Longitudinal changes in procalcitonin in a heterogeneous group of critically ill patients. Crit Care Med 2012;40(10):2781-7. (PMID: 22824927)
138. Funk L, Stadjuhar K, Cohen R, **Heyland DK**, Williams A. Legitimising and rationalizing in talk about satisfaction with formal health care among bereaved family members. Social Health Illn 2012;34(7):1010-24. (PMID: 22384989)
139. **Heyland DK**, Pichora D, Dodek P, Lamontagne F, You JJ, Barwich D, Tayler C, Porterfield P, Simon J, Enns B. The development and validation of a questionnaire to audit advance care planning (ACP). J Palliative Care Med 2012;2(5).
140. Rahman A, Stapleton R, Jiang X, **Heyland DK**. Not all critically ill obese patients are the same: the influence of prior co-morbidities. ISRN Obesity 2012, Retrieve from <http://www.hindawi.com/isrn/obesity/2012/743978/>. (PMID: 24533210)
141. **Heyland DK**. Critical care nutrition support research: lessons learned from recent trials. Curr Opin Clin Nutr Metab Care 2013;16(2):176-181. (PMID: 23242313)
142. Sinuff T, Muscedere J, Cook DJ, Dodek PM, Anderson W, Keenan SP, Wood G, Tan R, Haupt MT, Miletin M, Bouali R, Jiang X, Day AG, Overvelde J, **Heyland DK**, for the Canadian Critical Care Trials Group. Implementation of clinical practice guidelines for ventilator associated pneumonia: a multicenter prospective study. Crit Care Med 2013 Jan;41(1):15-23. (PMID: 23222254)
143. Manzanares W, **Heyland DK**. Pharmaconutrition with antioxidant micronutrients in the critically ill: The time has come! Nutrition 2013 Jan;29(1):359-60. (PMID: 22995905)
144. **Heyland DK**, Muscedere J, Wischmeyer P, Cook D, Jones G, Albert M, Elke G, Berger MM, Day AG for the Canadian Critical Care Trials Group. A randomized trial of glutamine and antioxidants in critically ill patients. N Engl J Med 2013;368(16):1489-1497. (PMID: 23594003)
145. Johnson AP, Hanvey L, Baxter S, **Heyland DK**. Development of advance care planning research priorities: A call to action. J Palliat Care 2013;29(2):99-106. (PMID: 23923473)
146. Manzanares W, Dhaliwal R, Jurewitsch B, Stapleton RD, Jeejeebhoy KN, **Heyland DK**. Alternative lipid emulsions in the critically ill: a systematic review of the evidence. Intensive Care Med 2013 Oct;39(10):1683-1694. (PMID: 23812404)
147. **Heyland DK**, Jiang X, Day AG, Cohen SR. The development and validation of a shorter version of the Canadian Health Care Evaluation Project questionnaire (CANHELP Lite): A novel tool to measure patient and family satisfaction with end-of-life care. [J Pain Symptom Manage](http://www.ncbi.nlm.nih.gov/pubmed/23102756) 2013 Aug;46(2):289-97. (PMID: 23102756)
148. Manzanares W, Dhaliwal R, Jurewitsch B, Stapleton RD, Jeejeebhoy KN, **Heyland DK**. Parenteral fish oil lipid emulsions in the critically ill: a systematic review and meta-analysis. JPEN J Parenter Enteral Nutr 2014 Jan; 31(1):20-8 (PMID: 23609773)
149. **Heyland DK**, Murch L, Cahill N, McCall M, Muscedere J, Stelfox HT, Bray T, Tranquay T, Jiang X, Day AG. Enhanced protein-energy provision via the enteral route feeding protocol in critically ill patients (The PEP uP Protocol): Results of a cluster randomized trial. Crit Care Med 2013 Dec;41(12):2743-53 (PMID: 23982032)
150. **Heyland DK**, Dhaliwal R, Cahill NE, et al. Driving perioperative nutrition quality improvement processes forward! JPEN J Parenter Enteral Nutr 2013;37;(Suppl 5):83S-98S. (PMID: 24009253)
151. Braga M, Wischmeyer PE, Drover J, **Heyland DK**. Clinical evidence for pharmaconutrition in major elective surgery. JPEN J Parenter Enteral Nutr 2013;37(Suppl 5):66S-72S. (PMID: 24009251)
152. McClave SA, Kozasr R, Martindale RG, **Heyland DK**, Braga M, Carli F, Drover JW, Flum D, Gamlick L, Herndon DN, Ko C, Kudsk KA, Lawson CM, Miller KR, Taylor B, Wischeyer PE. Summary points and consensus recommendations from the north American surgical nutrition summit. JPEN J Parenter Enteral Nutr 2013 Sept;37(Supple 5):99S-105S. (PMID: 24009254)
153. [Epstein D](http://www.ncbi.nlm.nih.gov/pubmed?term=Epstein%20D%5BAuthor%5D&cauthor=true&cauthor_uid=23863815), [Unger JB](http://www.ncbi.nlm.nih.gov/pubmed?term=Unger%20JB%5BAuthor%5D&cauthor=true&cauthor_uid=23863815), [Ornelas B](http://www.ncbi.nlm.nih.gov/pubmed?term=Ornelas%20B%5BAuthor%5D&cauthor=true&cauthor_uid=23863815), [Chang JC](http://www.ncbi.nlm.nih.gov/pubmed?term=Chang%20JC%5BAuthor%5D&cauthor=true&cauthor_uid=23863815), Markovitz BP, Moromisato DY, Dodek PM, **Heyland DK**, Gold JI. Psychometric evaluation of a modified version of the Family Satisfaction in the ICU Survey in parents/caregivers of critically ill children. Pediatr Crit Care Med 2013 Oct;14(8):e350-356. (PMID: 23863815)
154. Sinuff T, Muscedere J, Adhikari NK, Stelfox HT, Dodek P, **Heyland DK**, Rubenfeld GD, Cook DJ, Pinto R, Manoharan V, Currie J, Cahill N, Friedrich JO, Amaral A, Piquette D, Scales DC, Dhanani S, Garland A for the KRITICAL Working group, the Canadian Critical Care Trials Group, and the Canadian Critical Care Society. Knowledge translation interventions for critically ill patients: A systematic review. Crit Care Med 2013 Nov;41(11):2627-2640. (PMID: 23939356)
155. **Heyland DK**, Barwich D, Pichora D, Dodek P, Lamontagne F, You JJ, Tayler C, Porterfield P, Sinuff T, Simon J for the ACCEPT (Advance Care Planning Evaluation in Elderly Patients) Study Team and the Canadian Researchers at the End of Life Network (CARENET). Failure to engage hospitalized elderly patients and their families in advance care planning. JAMA Intern Med 2013 May;173:778-87 (PMID: 23545563).
156. Moisey LL, Mourtzakis M, Cotton BA, Premji T, **Heyland DK**, Wade CEm Bulger E, Kozar RA for the Nutrition and Rehabilitation Investigators Consortium (NUTRIC). Skeletal muscle predicts ventilator-free days, ICU-free days, and mortality in elderly ICU patients. Crit Care 2013 Sept;17(5):R206. (PMID: 24050662)
157. Deane AM, Dhaliwal R, Day AG, Ridley EJ, Davies AR, **Heyland DK**. Comparisons between intragastric and small intestinal delivery of enteral nutrition in the critically ill: a systemic review and meta-analysis. Crit Care 2013 Jun 21;17(3):R125. (PMID: 23799928)
158. **Heyland DK**, Wischmeyer P. Does artificial nutrition improve outcome of critical illness? An alternative view point! Critical Care 2013 Aug 27;17(4):324. (PMID: 23998635)
159. Muscedere J, Sinuff T, **Heyland DK**, Dodek PM, Keenan SP, Wood G, Jiang X, Day AG, Laporta D, Klompas M for the Canadian Critical Care Trails Group. The clinical impact and preventability of ventilator-associated conditions in critically ill mechanically ventilated patients. Chest 2013 Nov;144(5):1453-60. (PMID: 24030318)
160. Cook D, Rocker G, **Heyland DK**. Enhancing the quality of end-of-life care in Canada. CMAJ 2013 Nov;185(16):1383-4. (PMID: 24062171)
161. Cahill N, Day A, Cook D, **Heyland DK** on behalf of the Canadian Critical Care Trials Group. Development and psychometric properties of a questionnaire to assess barriers to feeding critically ill patients. Implementation Science 2013;8:140. (PMID: 24305039)
162. Rewa O, Muscedere J, Reynolds S, Jiang X, **Heyland DK**. Coagulase-negative *Staphylococcus*, catheter-related, bloodstream infections and their association with acute phase markers of inflammation in the intensive care unit: An observational study. Can J Infect Disease 2013;2(5). (PMID: 24294276)
163. Dhaliwal, R, Cahill, N, Lemieux M, **Heyland DK**. The Canadian Critical Care Nutrition Guidelines in 2013: An update on current recommendations and implementation strategies. Nutr Clin Pract 2014 Feb;29(1):29-43. (PMID: 24297678)
164. Cahill NE, Murch L, Cook D, **Heyland DK** on behalf of the Canadian Critical Care Trials Group. Improving the provision of enteral nutrition in the intensive care unit: A description of a multifaceted intervention tailored to overcome local barriers. Nutr Clin Pract 2014 Feb 29(1):110-7. (PMID: 24344255)
165. McCall M, Cahill N, Murch L, Bray T, Tanguay T, **Heyland DK**. Lessons Learned From Implementing a Novel Feeding Protocol: Results of a Multicenter Evaluation of Educational Strategies. Nutr Clin Pract 2014 April;29(4):510-17. (PMID: 24757062)
166. Johri A, **Heyland DK**, Hetu MF, Crawford B, Spence JD. Carnitine Therapy for the Treatment of Cardiovascular Disease: evidence and controversies. Nutr Metab Cardiovasc Dis 2014 Aug; 24:808-14 (PMID: 24837277)
167. You JJ, Fowler RA, **Heyland DK** on behalf of the Canadian Researchers at the End of Life Network (CARENET). Just ask: discussing goals of care with patients in hospital with serious illness. CMAJ 2014;186:425-431. (PMID: 23857860)
168. van der Meer YG, Venhuizen WA, **Heyland DK**, van Zanten AR. Should we stop prescribing metoclopramide as a prokinetic drug in critically ill patients? Crit Care. 2014 Sep 23;18(5):502. (PMID: 25672546).
169. Tilquist M, Kutsogiannis DJ, Wischmeyer PE, Kummerien C, Leung R, Stollery D, Karvellas CJ, Preiser JC, Bird N, Kozar R, **Heyland DK**. Bedside ultrasound is a practical and reliable measurement tool for assessing quadriceps muscle layer thickness. JPEN J Parental Enteral Nutr 2014 Sep;38(7):886-90. (PMID: 23980134)
170. Elke G, Wang M, Weiler N, Day A, **Heyland DK**. Close to recommended caloric and protein intake by enteral nutrition is associated with better clinical outcome of critically ill septic patients: Results of a Secondary analysis of a large international nutrition database. Critical Care 2014;18(1):R29. (PMID: 24506888)
171. Edmunds CE, Brody RA, Parrott JS, Stankorb SM, **Heyland DK**. The effects of different intravenous fat emulsions on clinical outcomes in critically ill patients. Crit Care Med 2014;42(5):1168-77. (PMID: 24351374)
172. Wischmeyer PE, Dhaliwal R, McCall M, Ziegler TR, **Heyland DK**. Parenteral glutamine supplementation in critical illness: A systematic review. Critical Care 2014;18(2):R76.

(PMID: 24745648)

1. Royall D, Brauer P, Bjorklund L, O’Young O, Tremblay A, Jeejeebhoy K, **Heyland DK**, Dhaliwal R, Klein D, Mutch D. Development of a Dietary Management Care Map for Metabolic Syndrome. [Can J Diet Pract Res](http://www.ncbi.nlm.nih.gov/pubmed/?term=Journal+of+Dietetic+Practice+and+Research+royall+dhwaliwal) 2014;75(3):132-9. (PMD:26066817)
2. Stevanovic A, Coburn M, Menon A, Rossaint R, **Heyland DK,**  Schalte G, Werker T, Wonisch W, Kiehntopf M, Goetzenich A, Rex S, Stoppe C. The Importance of Intraoperative Selenium Blood Levels on Organ Dysfunction in Patients Undergoing Off-Pump Cardiac Surgery: A Randomized Controlled Trial. PLoS ONE 2014 Aug;9(8):e104222. (PMID: 25118980)
3. [Stoppe C](http://www.ncbi.nlm.nih.gov/pubmed?term=Stoppe%20C%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [McDonald B](http://www.ncbi.nlm.nih.gov/pubmed?term=McDonald%20B%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Rex S](http://www.ncbi.nlm.nih.gov/pubmed?term=Rex%20S%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Manzanares W](http://www.ncbi.nlm.nih.gov/pubmed?term=Manzanares%20W%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Whitlock R](http://www.ncbi.nlm.nih.gov/pubmed?term=Whitlock%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Fremes S](http://www.ncbi.nlm.nih.gov/pubmed?term=Fremes%20S%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Fowler R](http://www.ncbi.nlm.nih.gov/pubmed?term=Fowler%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Lamarche Y](http://www.ncbi.nlm.nih.gov/pubmed?term=Lamarche%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Meybohm P](http://www.ncbi.nlm.nih.gov/pubmed?term=Meybohm%20P%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Haberthür C](http://www.ncbi.nlm.nih.gov/pubmed?term=Haberth%C3%BCr%20C%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Rossaint R](http://www.ncbi.nlm.nih.gov/pubmed?term=Rossaint%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Goetzenich A](http://www.ncbi.nlm.nih.gov/pubmed?term=Goetzenich%20A%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Elke G](http://www.ncbi.nlm.nih.gov/pubmed?term=Elke%20G%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [Day A](http://www.ncbi.nlm.nih.gov/pubmed?term=Day%20A%5BAuthor%5D&cauthor=true&cauthor_uid=25169040), [**Heyland DK**](http://www.ncbi.nlm.nih.gov/pubmed?term=Heyland%20DK%5BAuthor%5D&cauthor=true&cauthor_uid=25169040). SodiUm SeleniTe Adminstration IN Cardiac Surgery (SUSTAIN CSX-trial): study design of an international multicenter randomized double-blinded controlled trial of high dose sodium-selenite administration in high-risk cardiac surgical patients. [Trials.](http://www.ncbi.nlm.nih.gov/pubmed/?term=SodiUm+SeleniTe+Adminstration+IN+Cardiac+Surgery+(SUSTAIN+CSX-trial)%3A+study+design+of+an+international+multicenter+randomized+double-blinded+controlled+trial+of+high+dose+sodium-selenite+administration+in+high-risk+cardiac+surgical+patients) 2014 Aug 28;15(1):339

(PMID: 25169040).

1. Albert M, Williamson D, Muscedere J, Lauzier F, Rotstein C, Kanji S, Jiang X, Hall M, **Heyland DK**. Candida in the Respiratory Tract Secretions of Critically Ill Patients and The Impact of Antifungal Treatment: a randomized placebo controlled pilot trial (CANTREAT Study). Intensive Care Med 2014 Sep;40(9):1313-22 (PMID: 24981955).
2. Higashibeppu N, Sanui M, Sobue K, Sato T, Shiotsuka J, Mizuno A, Yasuda H, Miyake K, Tokuhira N, Izawa J, **Heyland DK**. Current nutritional theory in Japanese intensive care units: what did we learn from the International Nutritional Survey? J Jpn Soc Intensive Care Med 2014: 21: 243-252.
3. Cahill N, Murch L, Cook D, **Heyland DK**. Implementing a multifaceted tailored intervention to improve nutrition adequacy in critically ill patients: results of a multicenter feasibility study. Critical Care 2014;18(3):R96 (PMID: 24887445)
4. [Sadler E](http://www.ncbi.nlm.nih.gov/pubmed?term=Sadler%20E%5BAuthor%5D&cauthor=true&cauthor_uid=25401710), [Hales B](http://www.ncbi.nlm.nih.gov/pubmed?term=Hales%20B%5BAuthor%5D&cauthor=true&cauthor_uid=25401710), [Henry B](http://www.ncbi.nlm.nih.gov/pubmed?term=Henry%20B%5BAuthor%5D&cauthor=true&cauthor_uid=25401710), [Xiong W](http://www.ncbi.nlm.nih.gov/pubmed?term=Xiong%20W%5BAuthor%5D&cauthor=true&cauthor_uid=25401710), [Myers J](http://www.ncbi.nlm.nih.gov/pubmed?term=Myers%20J%5BAuthor%5D&cauthor=true&cauthor_uid=25401710), [Wynnychuk L](http://www.ncbi.nlm.nih.gov/pubmed?term=Wynnychuk%20L%5BAuthor%5D&cauthor=true&cauthor_uid=25401710), [Taggar R](http://www.ncbi.nlm.nih.gov/pubmed?term=Taggar%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25401710), [**Heyland D**](http://www.ncbi.nlm.nih.gov/pubmed?term=Heyland%20D%5BAuthor%5D&cauthor=true&cauthor_uid=25401710)**K**, [Fowler R](http://www.ncbi.nlm.nih.gov/pubmed?term=Fowler%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25401710). Factors Affecting Family Satisfaction with Inpatient End-of-Life Care. [PLoS One.](http://www.ncbi.nlm.nih.gov/pubmed/?term=25401710) 2014 Nov 17;9(11):e110860 (PMID: 25401710).
5. You JJ, Dodek P, Lamontagne F, Downar J, Sinuff T, Jiang X, Day AG, **Heyland DK**; ACCEPT Study Team and the Canadian Researchers at the End of Life Network (CARENET). What really matters in end-of-life discussions? Perspectives of patients in hospital with serious illness and their families. CMAJ. 2014 Dec 9;186(18):E679-87. (PMID: 25367427).
6. Preiser JC, van Zanten AR, Berger MM, Biolo G, Casaer MP, Doig GS, Griffiths RD, **Heyland DK**, Hiesmayr M, Iapichino G, Laviano A, Pichard C, Singer P, Van den Berghe G, Wernerman J, Wischmeyer P, Vincent JL. Metabolic and nutritional support of critically ill patients: consensus and controversies. Crit Care. 2015 Jan 29;19(1):35. (PMID: 25886997).
7. Rahman A, Martin C, **Heyland DK**. Nutrition therapy for the critically ill surgical patient with aortic aneurismal rupture: defining and improving current practice. JPEN J Parenter Enteral Nutr 2015 Jan;39(1):104-113. (PMID: 23976774)
8. Elke G, Felbinger TW, **Heyland DK**. Gastric residual volume in critically ill patients: a dead marker or still alive? Nutr Clin Pract. 2015 Feb;30(1):59-71. (PMID: 25524884).
9. Manzanares W, Langlois PL, **Heyland DK**. Pharmaconutrition With Selenium in Critically Ill Patients: What Do We Know? Nutr Clin Pract. 2015 Feb;30(1):34-43. (PMID: 25524883).
10. Elke G, **Heyland DK**. Enteral nutrition in critically ill septic patients-less or more? JPEN J Parenter Enteral Nutr. 2015 Feb;39(2):140-2. (PMID: 24751644).
11. Teixeira AA, Hanvey L, Tayler C, Barwich D, Baxter S, Heyland DK; Canadian Researchers at the End of Life Network (CARENET). What do Canadians think of advanced care planning? Findings from an online opinion poll. BMJ Support Palliat Care. 2015 Mar;5(1):40-7.

(PMID: 24644188).

1. Simon J, Porterfield P, Raffin Bouchal S, **Heyland D**K. 'Not yet' and 'Just ask': barriers and facilitators to advance care planning--a qualitative descriptive study of the perspectives of seriously ill, older patients and their families. BMJ Support Palliat Care. 2015 Mar;5(1):54-62. (PMID: 24644192).
2. **Heyland DK**, Dodek P, Mehta S, Cook D, Garland A, Stelfox HT, Bagshaw SM, Kutsogiannis DJ, Burns K, Muscedere J, Turgeon AF, Fowler R, Jiang X, Day AG; on behalf of the Canadian Critical Care Trials Group and the Canadian Researchers at the End of Life Network (CARENET). Admission of the very elderly to the intensive care unit: Family members' perspectives on clinical decision-making from a multicenter cohort study. Palliat Med. 2015 Apr;29(4):324-35. (PMID: 25645668).
3. You JJ, Downar J, Fowler RA, Lamontagne F, Ma IW, Jayaraman D, Kryworuchko J, Strachan PH, Ilan R, Nijjar AP, Neary J, Shik J, Brazil K, Patel A, Wiebe K, Albert M, Palepu A, Nouvet E, des Ordons AR, Sharma N, Abdul-Razzak A, Jiang X, Day A, **Heyland DK**; for the Canadian Researchers at the End of Life Network (CARENET). Barriers to Goals of Care Discussions With Seriously Ill Hospitalized Patients and Their Families: A Multicenter Survey of Clinicians. JAMA Intern Med. 2015 Apr;175(4):549-56. (PMID: 25642797).
4. Epstein D, Unger JB, Ornelas B, Chang JC, Markovitz BP, Dodek PM, **Heyland DK**, Gold JI. Satisfaction with care and decision making among parents/caregivers in the pediatric intensive care unit: A comparison between English-speaking whites and Latinos. J Crit Care. 2015 Apr;30(2):236-41. (PMID: 25541103).
5. Manzanares W, Langlois PL, Dhaliwal R, Lemieux M, **Heyland DK**. Intravenous fish oil lipid emulsions in critically ill patients: an updated systematic review and meta-analysis. Crit Care. 2015 Apr 16;19(1):167. (PMID: 25879776)
6. Holden RM, Booth SL, Day AG, Clase CM; Zimmerman D; Moist L; Shea MK; McCabe K, a Jamal S, Weinstein J, Tobe S, Madhumanthi R, Adams MA, **Heyland DK**. Inhibiting the Progression of Arterial Calcification with Vitamin K in HemoDialysis patients (iPACK-HD) trial: rationale and study design for a randomized trial of vitamin K in patients with end stage kidney disease. Can J Kidney Health Dis 2015 May 1;2:17. (PMID: 26075081)
7. CE, Kozar RA, Dyer CB, Bulger EM, Mourtzakis M, **Heyland DK**. Evaluation of nutrition deficits in adult and elderly trauma patients. JPEN J Parenter Enteral Nutr. 2015 May;39(4):449-55. (PMID: 24562001).
8. **Heyland DK**, Elke G, Cook D, Berger MM, Wischmeyer PE, Albert M, Muscedere J, Jones G, Day AG; Canadian Critical Care Trials Group. Glutamine and antioxidants in the critically ill patient: a post hoc analysis of a large-scale randomized trial. JPEN J Parenter Enteral Nutr. 2015 May;39(4):401-9.(PMID: 24803474).
9. Johnstone J, Meade M, Marshall J, **Heyland DK**, Surette MG, Bowdish DME, Lauzier F, Thebane L, Cook DJ and For the PROSPECT Investigators and the Canadian Critical Care Trials Group. Probiotics: Prevention of Severe Pneumonia and Endotracheal Colonization Trial—PROSPECT:protocol for a feasibility randomized pilot trial. Pilot and Feasibility Studies 2015 May;1:19. DOI 10.1186/s40814-015-0013-3
10. Gungabissoon U, Hacquoil K, Bains C, Irizarry M, Dukes G, Williamson R, Deane AM, **Heyland DK**. Prevalence, risk factors, clinical consequences, and treatment of enteral feed intolerance during critical illness. JPEN J Parenter Enteral Nutr. 2015 May;39(4):441-8. (PMID: 24637246).
11. Czapran A, Headdon W, Deane AM, Lange K, Chapman MJ, **Heyland DK**. International observational study of nutritional support in mechanically ventilated patients following burn injury. Burns. 2015 May;41(3):510-8. (PMID: 25445003).
12. Sinuff T, Dodek P, You JJ, Barwich D, Tayler C, Downar J, Hartwick M, Frank C, Stelfox HT, **Heyland DK**. Improving End-of-Life Communication and Decision-Making: The Development of a Conceptual Framework and Quality Indicators. J Pain Symptom Manage. 2015 Jun;49(6):1070-80. (PMID: 25623923)
13. NICE-SUGAR Study Investigators for the Australian and New Zealand Intensive Care Society Clinical Trials Group and the Canadian Critical Care Trials Group.Finfer S., Chittock D., Li Y. Foster D., Dhingra V., Belloma R., Cook D., Dodek, P. Herbert P., Henderson W. **Heyland DK**., Higgins a., McArthur C. Mitchell I., Myburgh J., Robinson B. Ronco J., Intensive versus conventional glucose control in critically ill patients with traumatic brain injury: long-term follow-up of a subgroup of patients from the NICE-SUGAR study. Intensive Care Med. 2015 Jun;41(6):1037-47. (PMID: 26088909).
14. **Heyland DK,** Cook D, Bagshaw SM, Garland A, Stelfox HT, Mehta S, Dodek P, Kutsogiannis J, Burns K, Muscedere J, Turgeon AF, Fowler R, Jiang X, Day AG; Canadian Critical Care Trials Group; Canadian Researchers at the End of Life Network. The Very Elderly Admitted to ICU: A Quality Finish? Crit Care Med. 2015 Jul;43(7):1352-60. (PMID: 25901550).
15. Mehta NM, Bechard LJ, Zurakowski D, Duggan CP, **Heyland DK**. Adequate enteral protein intake is inversely associated with 60-d mortality in critically ill children: a multicenter, prospective, cohort study. Am J Clin Nutr. 2015 Jul;102(1):199-206. (PMID: 25971721).
16. **Heyland DK**, Dhaliwal R, Lemieux M, Wang M, Day AG. Implementing the PEP uP Protocol in Critical Care Units in Canada: Results of a Multicenter, Quality Improvement Study. JPEN J Parenter Enteral Nutr. 2015 Aug;39(6):698-706. (PMID: 24748597).
17. Wei X, Day A, Ouellette-Kuntz H, **Heyland DK**. The Association between Nutritional Adequacy and Long-Term Outcomes in Critically Ill Patients Requiring Prolonged Mechanical Ventilation**:** A Multicenter Cohort Study. Crit Care Med. 2015 Aug;43(8):1569-79. (PMID: 25855901).
18. **Heyland DK**, Dhaliwal R, Wang M, Day AG. The prevalence of iatrogenic underfeeding in the nutritionally 'at-risk' critically ill patient: Results of an international, multicenter, prospective study. Clin Nutr. 2015 Aug;34(4):659-66. (PMID: 25086472).
19. Howard M, Bernard C, Tan A, Slaven M, Klein D, **Heyland DK**. Advance care planning: Let's start sooner. Can Fam Physician. 2015 Aug;61(8):663-5. (PMID: 26273075).
20. van Zanten AR, Dhaliwal R, Garrel D, **Heyland DK**. Enteral glutamine supplementation in critically ill patients: a systematic review and meta-analysis. Crit Care. 2015 Aug 18;19:294. (PMID: 26283217).
21. Roze des Ordons AL, Sharma N, **Heyland DK**, You JJ. Strategies for effective goals of care discussions and decision-making: perspectives from a multi-centre survey of Canadian hospital-based healthcare providers. BMC Palliat Care. 2015 Aug 19;14:38. (PMID: 26286394).
22. Compher C, Nicolo M, Chittams J, Kang Y, Day AG, **Heyland DK**. Clinical Outcomes in Critically Ill Patients Associated With the Use of Complex vs Weight-Only Predictive Energy Equations. JPEN J Parenter Enteral Nutr. 2015 Sep;39(7):864-9. (PMID: 24803475).
23. van Zanten AR, van der Meer YG, Venhuizen WA, **Heyland DK**. Still a Place for Metoclopramide as a Prokinetic Drug in Critically Ill Patients? JPEN J Parenter Enteral Nutr. 2015 Sep;39(7):763-6. (PMID: 25567783).
24. Lam SM, So HM, Fok SK, Li SC, Ng CP, Lui WK, **Heyland DK**, Yan WW. Intensive care unit family satisfaction survey. Hong Kong Med J. 2015 Oct;21(5):435-43. (PMID: 26371158).
25. Saran D, Brody RA, Stankorb SM, Parrott SJ, **Heyland DK**. Gastric vs Small Bowel Feeding in Critically Ill Neurologically Injured Patients: Results of a Multicenter Observational Study. JPEN J Parenter Enteral Nutr. 2015 Nov;39(8):910-6. (PMID: 24947058).
26. van Zanten AR, Hofman Z, **Heyland DK**. Consequences of the REDOXS and METAPLUS Trials: The End of an Era of Glutamine and Antioxidant Supplementation for Critically Ill Patients? JPEN J Parenter Enteral Nutr. 2015 Nov;39(8):890-2. (PMID: 25567781).
27. **Heyland DK**, Garland A, Bagshaw SM, Cook D, Rockwood K, Stelfox HT, Dodek P, Fowler RA, Turgeon AF, Burns K, Muscedere J, Kutsogiannis J, Albert M, Mehta S, Jiang X, Day AG. Recovery after critical illness in patients aged 80 years or older: a multi-center prospective observational cohort study. Intensive Care Med. 2015 Nov;41(11):1911-20. (PMID: 26306719).
28. Potestio ML, Boyd JM, Bagshaw SM, **Heyland DK**, Oxland P, Doig CJ, Zygun D, Stelfox HT. Engaging the Public to Identify Opportunities to Improve Critical Care: A Qualitative Analysis of an Open Community Forum. PLoS One. 2015 Nov 18;10(11):e0143088. (PMID: 26580406).
29. Stoppe C., McDonald B. Benstoem C., Elke G., Meybohm P., Whitlock R., Bremes S. Fowler R., Lamarche Y, Jiang X., Day AG**, Heyland DK**. Evaluation of Perisstent Organ Dysfunction Plus Death as A Novel Composite Outcome in Cardiac Surgical Patients.:, JCVA, 2016 Jan.30(1);30-8 (PMD 26847748)
30. Declercq B, Deane AM, Wang M, Chapman MJ**, Heyland DK**. Enhanced Protein-Energy Provision via the Enteral Route Feeding (PEPuP) protocol in critically ill surgical patients: a multicentre prospective evaluation. Anaesth Intensive Care. 2016 Jan;44(1):93-8.

(PMID: 26673594)

1. Chapple LA, Chapman MJ, Lange K, Deane AM, **Heyland DK.** Nutrition support practices in critically ill head-injured patients: a global perspective. Crit Care. 2016 Jan 7;20:6

(PMID: 26738550)

1. Nicolo M, **Heyland DK**, Chittams J, Sammarco T, Compher C. Clinical Outcomes Related to Protein Delivery in a Critically Ill Population: A Multicenter, Multinational Observation Study. JPEN J Parenter Enteral Nutr. 2016 Jan;40(1):45-51. (PMID: 25900319)
2. Simon J, Ghosh S, **Heyland DK**, Cooke T, Davison SN, Holroyd-Leduc J, Wasylenko E, Howlett J, Fassbender K. Evidence of increasing public participation in advance care planning – A comparison of polls in Alberta between 2007-2013. BMJ Support Palliat Care. 2016 Jan 27. {Epub ahead of print] (PMID: 26817793)
3. Rahman A, Hasan RM, Agarwala R, Martin C, Day AG, **Heyland DK**. Identifying critically-ill patients who will benefit most from nutritional therapy: Further validation of the "modified NUTRIC" nutritional risk assessment tool. Clin Nutr. 2016 Feb;35(1):158-62. (PMID: 25698099)
4. **Heyland DK.** Should We PERMIT Systematic Underfeeding in All Intensive Care Unit Patients? Integrating the Results of the PERMIT Study in Our Clinical Practice Guidelines. JPEN J Parenter Enteral Nutr. 2016 Feb;40(2):156-8. (PMID: 26150411).
5. Lee ZY, Barakatun-Nisak MY, Airini IN, **Heyland DK**. Enhanced Protein-Energy Provision via the Enteral Route in Critically Ill Patients (PEP uP Protocol): A Review of Evidence. Nutr Clin Pract. Nutr Clin Pract. 2016 Feb;31(1):68-79. (PMID: 26385874).
6. Plaisance A, Witteman HO, **Heyland DK**, Ebell MH, Dupuis A, Lavoie-Bérard CA, Légaré F, Archambault PM. Development of a Decision Aid for Cardiopulmonary Resuscitation Involving Intensive Care Unit Patients' and Health Professionals' Participation Using User-Centered Design and a Wiki Platform for Rapid Prototyping: A Research Protocol. JMIR Res Protoc. 2016 Feb 11;5(1):e24. (PMID: 26869137).
7. Manzanares W, Langlois PL, Lemieux M, **Heyland DK**. Fish Oil-Containing Emulsions: When Fat Seems to Improve Clinical Outcomes in the Critically Ill. JPEN J Parenter Enteral Nutr. 2016 Mar;40(3):305-7. (PMID: 25940609).
8. Elke G, van Zanten AR, Lemieux M, McCall M, Jeejeebhoy KN, Kott M, Jiang X, Day AG, **Heyland DK**. Enteral versus parenteral nutrition in critically ill patients: an updated systematic review and meta-analysis of randomized controlled trials. Crit Care. 2016 Apr 29;20(1):117. (PMID: 27129307).
9. Lamontagen F., Meade MO., Hebert PC., Asfar P., Lauzier F., Seely AJE., Day AG., Mehta S., Muscedere J., Bagshaw SM., Gerguson ND., Cook DJ., Kanji S., Turgeon AF., Herridge MS., Subramanian S., Lacroix j. Adhikari NKJ., Scales DC., Fox-Robichaud A., Skrobik Y., Whitlock RP., Green RS., Koo KKY., Tanguay T., Maqder S., **Heyland DK.,** Canadian Critical Care Trials Group; Intensive Care Med. 2016 Apr;42(4) 542-550 (PMD 26891677)
10. **Heyland DK**. Safety of Prolonged Use of Trophic Feeds in the Critically Ill Patient: It Depends on the Nutrition Risk of the Patient! JPEN J Parenter Enteral Nutr. 2016 May;40(4):452-4. (PMID: 26062973)
11. Cahill NE, Jiang X, **Heyland DK**. Revised Questionnaire to Assess Barriers to Adequate Nutrition in the Critically ill. JPEN J Parenter Enteral Nutr. 2016 May;40(4):511-8.

(PMID: 25655619).

1. Marshall AP, Wake E, Weisbrodt L, Dhaliwal R, Spencer A, **Heyland DK**. A multi-faceted, family-centred nutrition intervention to optimise nutrition intake of critically ill patients:The OPTICS feasibility study. Aust Crit Care. 2016 May;29(2):68-76. (PMID: 26603213).
2. Howard M, Bonham AJ, **Heyland DK**, Sudore R, Fassbender K, Robinson CA, McKenzie M, Elston D, You J. Measuring Engagement in Advance Care Planning: a cross-sectional multicentre feasibility study. BMJ Open. 2016 Jun 23;6(6):e010375. (PMID: 27338877)
3. Yeh DD, **Heyland DK**. Immune-Enhancing Diets: What is the Final Answer? Curr Trauma Rep. 2016 June. DOI: 10.1007/s40719-016-0048-9
4. Bechard LJ, Duggan C, Touger-Decker R, Parrott JK, Rothpletz-Puglia P, Cyham-Gray L, **Heyland** D, Mehta NM. Nutritional status Based on Body Mass Index is Associated with Morbidity and Mortality in Mechanically Ventilated Critically Ill Children in the PICU. Critical Care Medicine. 2016 Aug;44(8):1530-7. (PMID: 26985636).
5. Irislimane M, Lamontagne F, You JJ, **Heyland DK**, Brazeau-Lamontagne L. Assessing the Impact of Diagnostic Imaging at the End of Life: A Single-Center Retrospective Cohort Study? J Palliative Care Med 2016; Aug. 6:279 doi:10.4172/2165-7386.1000279
6. Rahman A, Agarwala R, Martin C, Nagpal D, Teitelbaum M, **Heyland DK**. Nutrition Therapy in Critically Ill Patients Following Cardiac Surgery: Defining and Improving Practice. JPEN J Parenteral Enteral Nutr. 2016 Aug 6;279 (PMID: 27484489).
7. Mendes R, Policarpo S, Fortuna P, Alves M, Virella D, **Heyland DK**; Portuguese NUTRIC Study Group. Nutritional risk assessment and cultural validation of the modified NUTRIC score in critically ill patients-A multicenter prospective cohort study. J Crit Care. 2016 Aug:10(37):45-49. (PMID: 27621112).
8. **Heyland DK**, Ilan R, Jiang X, You JJ, Dodek P. The prevalence of medical error related to end-of-life communication in Canadian hospitals: results of a multicentre observational study. BMJ Qual Saf. 2016 Sep;25(9):671-9. (PMID: 26554026).
9. **Heyland DK**, Stelfox HT, Garland A, Cook D, Dodek P, Kutsogiannis J, Jiang X, Turgeon AF, Day AG; Canadian Critical Care Trials Group and the Canadian Researchers at the End of Life Network. Predicting Performance Status 1 Year After Critical Illness in Patients 80 Years or Older: Development of a Multivariable Clinical Prediction Model. Crit Care Med. 2016 Sep;44(9):1718-26. (PMID: 27075141).
10. **Heyland DK**, Stapleton RD, Mourtzakis M, Hough CL, Morris P, Deutz NE, Colantuoni E, Day A, Prado CM, Needham DM. Combining nutrition and exercise to optimize survival and recovery from critical illness: Conceptual and methodological issues. Clin Nutr. 2016 Oct;35(5):1196-1206. (PMID: 26212171)
11. Bloos F, Trips E, Nierhaus A, Briegel J, **Heyland DK**, Jaschinski U, Moerer O, Weyland A, Marx G, Gründling M, Kluge S, Kaufmann I, Ott K, Quintel M, Jelschen F, Meybohm P, Rademacher S, Meier-Hellmann A, Utzolino S, Kaisers UX, Putensen C, Elke G, Ragaller M, Gerlach H, Ludewig K, Kiehntopf M, Bogatsch H, Engel C, Brunkhorst FM, Loeffler M, Reinhart K; for SepNet Critical Care Trials Group. Effect of Sodium Selenite Administration and Procalcitonin-Guided Therapy on Mortality in Patients With Severe Sepsis or Septic Shock: A Randomized Clinical Trial. JAMA Intern Med. 2016 Sep 1;176(9):1266-76. (PMID: 27428731).
12. **Heyland DK**, Heyland R, Dodek P, You JJ, Sinuff T, Hiebert T, Jiang X, Day AG. Discordance between Patients' Stated Values and Treatment Preferences for End of Life Care: Results of a Multicenter Survey. BMJ Supportive & Palliative Care 2016;0:1–8. doi:10.1136/bmjspcare-2015-001056
13. Rosa M, **Heyland DK**, Fernandes D, Rabito EI, Oliveira ML, Marcadenti A. Translation and adaptation of the NUTRIC Score to identify critically ill patients who benefit the most from nutrition therapy. Clinical Nutrition ESPEN 2016;14:31-36. (PMD:28531369)
14. Moisey LL, Mourtzakis M, Kozar RA, Compher C, **Heyland DK.** Existing equations to estimate lean body mass are not accurate in the critically ill: Results of a multicenter observational study. Clinical Nutrition 2016 Sep.23, pii:SO261-5614(16)31251-1 (PMD 27697303)
15. Manzanares W, Lemieux M, Elke G, Langlois PL, Bloos F**, Heyland DK**. High –dose intravenous selenium does not improve clinical outcomes in the cirtically ill;a systematic review and meta-analysis. Crit Care. 2016 Oct 28:20(1) 356 (PMD:27788688)
16. Aleksova N., Demers C., Strachan P.H. MacIver J. Downar J. Fowler R. **Heyland DK**., Ross H.J. , You J.J.Barriers to goals of care discussions with patients who have advanced heart failure results of a multi-centre survery of hospital-based cardiology clinicians:Journal of Cardiac Failure 2016 Dec 3(4) 245-252 (PMD 27867525)
17. Cohen SR, Sawatzky R, Russell LB, Shahidi J, **Heyland DK**, Gadermann AM. Measuring the quality of life of people at the end of life: The McGill Quality of Life Questionnaire-Revised. Palliat Med. 2017 Feb;31(2):120-129 (PMID: 27412257).
18. Paris MT, Mourtzakis M, Day A, Leung R, Watharkar S, Kozar R, Earthman C, Kuchnia A, Dhaliwal R, Moisey L, Compher C, Martin N, Nicolo M, White T, Roosevelt H, Peterson S, **Heyland DK**. Validation of Bedside Ultrasound of Muscle Layer Thickness of the Quadriceps in the Critically Ill Patient (VALIDUM Study): A Prospective Multicenter Study. JPEN J Parenter Enteral Nutr. 2017 Feb:41(2):171-180 (PMID: 26962061).
19. Harrison D, Ferrando-Vivas P, Wright S, McColl E, **Heyland DK**, Rowan K. Psychometric assessment of the Family Satisfaction in the Intensive Care Unit (FS-ICU-24) questionnaire in the United Kingdom. Journal of Critical Care 2017 Apr, 38:346-350 doi:10.1016/j.jcrc.2016.10.023 (PMD 27914907)
20. Kozeniecki M., Codner P**., Heyland DK**., Identifying nutritional risk in critical illness; 2017 Feb. Current Pulmonology Reports; 6(1) 48-53 doi:10.1007/s13665-017-0165-0
21. Compher C, Chittams J, Sammarco T, Nicolo M, **Heyland DK**. Greater Protein and Energy Intake Improves Clinical Outcomes in Critically Ill Patients with high NUTRIC Score: A Multicenter, Multinational Observational Study. Critical Care Medicine 2017 Feb, 45(2).156-163 (PMD 28098623)
22. Jeejeebhoy K, Dhaliwal R, **Heyland DK**, Leung R, Day AG, Brauer P, Royall D, Tremblay A, Mutch D, Pliamm l, Rheaume C. Klein D. Family Physician-Led, Team-based Lifestyle Intervention in Patients with Metabolic Syndrome: Results of a multicentre demonstration project CMAJ 2017, Mar. 14, Vol. 5 (1):E229-E236
23. Chapple LS, Deane AM, Williams LT, Strickland R, Schultz C, Lange K, **Heyland DK**, Chapman MJ. Longitudinal changes in anthropometry and impact on self-reported physical function following traumatic brain injury. Critical Care 2017 Mar.19(1);29-36 (PMD 28215129)
24. Sudore R, **Heyland DK**, Barnes DE, Howard M, Fassbender K, Robinson C, Boscardin J, You J. Measuring Advance Care Planning: Optimizing the Advance Care Planning Engagement Survey Journal of Pain and Symptom Management 2017;53:669-681.(PMID:28042072)
25. Maslove DM., Lamontagne F., Marshall JC., **Heyland DK**, A path to precision in the ICU: Critical Care 2017 April;21(1) 1 doi:10.1186/s13054-017-1653-x
26. Yee N., D’Egidio G., Thavorn K., **Heyland DK**., Kyeremanteng K., Cost analysis of the very elderly admitted to intensive care units, Critical Care, 2017 May; 21:09 doi.org/10.1186/s13054-017-1689-y
27. Marshall A,  Lemieux M,  Dhaliwal R,  Seyler H, MacEachern K, **Heyland DK,** A novel, family-centered intervention to improve nutrition in patients recovering from critical illness a feasibility study. Nutr Clin Pract 2017 June; 32(3):392-99 (PMD:28537514)
28. Nadin S., Miandad MA., Kelley ML., Marcella J**., Heyland DK.,** Measuring Family Members’ Satisfaction with End-of-Life Care in Long-term Care: Adaptation of the CANHELP Lite Questionnaire-Hindawi 2017 June doi: 10.1155/2017/4621592.; (PMD:27806945)
29. Stoppe C, Goetzenich A, Whitmann G, Ohkuma R, Brown T, Hatzakorzian R; Kristof A, Meybohm P, Mechanick J , Evans A, Yeh D, McDonald B, Choudrakis M, Jones P, Barton R, Tripathi R, Elke G, Liakopoulos O, Agarwala R, Lomivorotov V, Marx G, Benstoem C, Lemieux M, **Heyland DK**. Role of nutrition support in adult cardiac surgery: A consensus statement from an International Multidisciplinary Expert Group on Nutrition in Cardiac Surgery. Critical Care 2017 June; 21:131 (PMD:28583157)
30. Van Scoy LJ, Chiarolanzio PJ, Kim C, **Heyland DK**, Development and initial evaluation of an online diecision support tool for families of patients with critical illness. A multicentre pilot study. Journal of Critical Care 2017 June; doi:http//dx.doi.org/10.1016/j.jcrc.2016.12.022
31. **Heyland DK**., Dodek P., You JJ., Sinuff T. Hiebert T., Taylor C. Jiang X., Simon J., Downar J., Validation of Quality Indicators for End of Life Communications; Results of a multicentre survery CMAJ 2017 July 189(30) E980-E989 doi:10.1503/cmaj.160515 (PMD:28760834)
32. Klein D., Jeejeebhoy K., Tremblay A., Kallio M., Rheaume C., Humphries S., Royall, D.,Brauer P., **Heyland DK**., Dhaliwal R., Mutch DM., The CHANGE Program- Exercise Intervention in primary care . Canadian Family Physician 2017 July, 63(7):546-552 (PMD:28701449)
33. Abdul-Razzak A., **Heyland DK**., Simon J., Ghosh S., Day AG., You JJ., Patient –family agreement on values and preferences for life-sustaining treatment: results of a multicentre observational study. BMJ 2017 July ;doi: 10.1136/bmjspcare-2016-001284 (PMD: 28735289)
34. Wischmeyer PE., Hasselmann M., Kummerlen C., Kozar R., Kutsogiannis DJ., Besecker B., Evans DK., Preiser JC., Gramlich L., Jeejeeghoy K., Dhaliwal R., Jiang X., Day AG., **Heyland DK.**,A randomized trial of supplemental parenteral nutrition in underweight and overweight critically ill patients: the TOP-UP pilot trial, Journal of Critical Care 2017 June 9;21(1):142 (PMD:28599676)
35. Kyeremanteng K, Gagnon LP, D’Egidio G, Kednapa T, **Heyland DK**. The Impact of Palliative Care Consultation in the ICU on Length of Stay: A Systemtic Review and Cost Evaluation Journal of Intensive Care Medicine August 2017 doi.ort/10.1177/0885066616664329
36. Sudore R**., Heyland DK**., Lunn HD., Rietjens JA., Kortage I., Ritchie CS., Hanson LC., Meier DE., Pantilat SZ., Lorenz k., Howard M., Green MJ., Simon JE., Feuz MA., You JJ., Outcomes that Define Successful Advance Care Planning: A Delphi Panel Consensus. JPSM, 2017 August (PMD: 28865870
37. Manzanares W, Langlois P, Szewc C, D’Aragon F, **Heyland DK.** Vitamin D Supplementation in the Critically Ill: A Systematic Review and Meta-analysis; Clinical Nutrition 2017 Aug.37(4):1238-1246 (PMD: 28549527)
38. Rietjens JAC., Sudore RL., Connolly M., van Delden JJ., Drickamer MA., Droger M., van der Heide A., **Heyland DK**., Houttekier D., Janssen DJA., Orsi L., Payne S., Seymour J., Jox RJ., Korfage IJ.Definition and recommendations for advance care planning: An international consensus. The Lancet Oncology 2017 Sept;18(9);e543-3551 DOI:[10.1016/S1470-2045(17)30582-X](https://doi.org/10.1016/S1470-2045(17)30582-X)
39. Arabi Y.M., Casaer M.P., Chapman M**., Heyland, DK**., Ichai C., Marik P.E., Martindale R.G., McClave S.A., Preiser J-C., Rice T.W., Van den Berghe G. van Zanten A.R.H., Weijs P.J.M. The intensive care medicine research agenda in nutrition and metabolism Intensive Care Medicine 2017 Sep; 43(9):1239-1256 (PMD:28374096)
40. Kuchnia A, Earthman C, Teigen L, Cole A, Mourtzakis M, Paris M, Looijaard W, Weijs P, Oudemans-van Straaten H, Beilman G, Day A, Leung R, Compher C, Dhaliwal R, Peterson S, Roosevelt H, **Heyland DK.** Evaluation of Bioelectrical Impedance Analysis in Critically Ill Patients: Results of a Multicenter Prospective Study. JPEN J Parenter Enteral Nutr. 2016 May 24 [Epub ahead of print] (PMID: 27221673).
41. You JJ., Aleksova N., Ducharme A., Maciver J., Mielniczuk L., Fowler RA., Demers C., Clarke B., Parent MC., Toma M., Strachan PH., Farand P., Isaac D., Zieroth S., Swinton M., Jiang X., Day AG**., Heyland DK**., Ross HJ., Barriers to Goals of Care Discussions with Patients Who have Advanced heart Failure; Results of a Multicenter Survey of Hospital-Bashed Cardiology Clinicians. Journal of Cardiac Failure, 2017 November; 23(11):786-793 (PMID 28648852)
42. Stajduhar KI., Sawatzky R., Cohen SR., **Heyland DK.,** Allan, D., Bidgood, D., Norgrove L., Gadermann, A., Beraved family members’ perceptions of the quality of end-of-life care across four types of impatient care settings BMC Pallative Care 2017 November 25;16(1):59

(PMID: 29178901)

1. Howard M., Bansback N., Dodek P., Nijjar A**., Heyland DK**., Recognizing Difficult Trade-off- Values and treatment preferences for end-of-life care in a multi-site survery of adult patients in Family practices BMC, 2017 December 6;(17);164 (PMID: 29212487)
2. Howard M., Day AG., Bernard C., Tan A., You, JJ., Klein, D.,**Heyland DK.,** Development and psychometric properties of a survery to assess barriers to implementing advance care palnning in primary care. Journal of Pain and Symptom Management 2018 Jan;55(1):12-21 (PMID: 28803079)
3. Frivold G., Slettebo A**., Heyland DK**., Dale B., Family members’ satisfaction with care and decision-making in intensive care unites and post-stay follow-up needs-a cross-sectional survey study, Nursing Open, 2018 Jan;5(1);6-14 (PMID:29344389)
4. **Heyland DK.,** Davidson J., Skrobik Y., Roze des Ordons A., Van Scoy L., Day A., Vandall-Walker V., Marshall AP., “Improving Partnerships with Family members of ICU Patients study protocol for a randomized controlled trial. Trials 2018 Jan 4;19(1):3 (PMID:29301555)
5. Plaisance A., Witteman HO., LeBlanc A., Kryworuchko J. **Heyland DK.,** Ebell MH. Blair L., Tapp D., Dupuis A., Lovoie-Berard CA., McGinn CA., Legare F., Archambault PM. “Development of a decision aid for cardiopulmonary resuscitation and invasive mechanical ventilation in the intensive care unit employing user-centered design and a wiki platform for rapid prototyping. PLoS One 2018 Feb 15;13(2) e0191844 (PMID:29447297)
6. Sudore R**., Heyland DK**., Lunn HD., Rietjens JA., Kortage I., Ritchie CS., Hanson LC., Meier DE., Pantilat SZ., Lorenz k., Howard M., Green MJ., Simon JE., Feuz MA., You JJ., Outcomes that Define Successful Advance Care Planning: A Delphi Panel Consensus. JPSM, 2018 Feb;55(2) 245-255 (PMID: 28865870)
7. Fernado SM., Reardon PM., Scales DC., Murphy K. Tanuseputro P., **Heyland DK.,** Kyeremanteno K., Prevalance Risk factors, and Clinical Consequences of Recurrent Activation of a Rapid Response Team: A Multicenter Observational Study Journal of Intensive Care Medicine 2018 Apr. doi: 10.1177/0885066618773735 (PMID: 29720053)
8. Fernando SM., Reardon PM., Dowlatshahi D., English SW., Thavorn K., Tanuesputro P., Perry JJ., Rosenberg E., Wijdicks EF., **Heyland DK**., Kyeremanteng K. Outcomes and Costs of Patients Admitted to the ICU Due to Spontaneous Intracranial Hemorrhage, Crit Care Med 2018 May;46(5)e395-e403 (PMID:29406421)
9. Patel JJ., Rosenthal MD**., Heyland DK.,** Intermittent versus Continuous Feeding in Critically ill Adults Curr Opin Clin Nutr Metab Care 2018 Mar. 21(2):116-120 (PMID:29232262)
10. Howard M., Bernard C. Klein D. Elston D., Tan A., Slaven M. Barwich D., You JJ., Asselin G., **Heyland DK.,** Barrier to and enablers of advance care planning with patients in primary care; a survey of healthcare providers., Canadian Family Physician, 2018 Apr;64(4); e190-e198 (PMID:29650621)
11. **Heyland DK.,** Stapelton R., Compher C.,Should we Prescribe More Protein to Critically Ill Patients Nutrients 2018 Apr 7;10(4). 462; (PMID:29642451)
12. Howard M., Bernard C., Klein D., Tan A., Slaven M., Barwich D., You JJ., Asselin G., Simon J. **Heyland DK**. Older patient engagement in advance care planning in Canadian primary care practices; Results of a multisite survey Can Family Physician 2018 May 64(5):371-377.

(PMID: 29760260)

1. Hill A., Nesterova E., Lomivorotov V., Efremov S., Goetzenich A., Benstoem C., Zamyantin M., Choudakis, M. **Heyland DK**., Stoppe C., Nutrition support in Cardiac surgery patients- A narrative review, Nutrients 2018 May 11;10(5).pii:E597 (PMID 29751629)
2. Compher C., Chittams J., Sammarco T., Higashibeppu N., Higashiquchi T.**, Heyland DK**., Greater Nutrient Intake is Associated with Lower Mortality in Western and Eastern Critically Ill Patients with low “BMI: A Multicentre, Multinational Observational Study JPEN 2018 June 30 doi 10.1002/jpen.1180 [Epub ahead of print] (PMID 29959851)
3. Deane AM., Lamontagen F., Dukes GE., Neil D., Vasist L., Barton ME., Hacquoi K., Qu X., Richards D., Stelfox HT., Mehta S., Day AG., Chapman MJ., **Heyland DK**., Nutrition Adequacy therapeutic Enhancement in the Critically Ill: A Randomized Double-Blind Placebo-Controlled Trial of the Motilin Receptor Agonist Camicinal (GSK96202040): The NUTRIATE Study, JPEN 2018:Jul 42(5):949-959 (PMID 29957868)
4. Hill AH., Sebastian W., Benstoem C., Neubauer C., Meybohm P., Langlois P., Adhikan NKJ, **Heyland DK**., Stoppe C. Vitamin C to Improve Organ Dysfunction in Cardiac Surgery patients- Review and Pragmatic Approach Nutients 2018; Jul:10(8) pii:E974 (PMID: 30060468)
5. Avrutin E., Mosey LL., Zhang R., Khattab J., Todd E./, Premj T., Kozar R., **Heyland DK.,** Mourtzakis M., Clinically Practical Approach for screening of Low Muscularity using Electronic linear Measures on Computed tomography Images in Critically Ill Patients JPEN 2018 Jul;42(5):885-891 (PMID:29417591)
6. Prado CM., Purcell SA., Alish C., Pereira SL. Deutz NE**, Heyland DK.,** Goodpaster BR., Tappenden KA., Heymsfiled SB. Implications of low muscle mass across the continuum of care: a narrative review Ann Med 2018 Sep;12 1-19 (PMID:30169116)
7. Kleinpell R., **Heyland DK.,** Lipman J., Sprung CL., Levy M., Mer M., Koh Y., Davidson J., Taha A. Curtis JR Patient and family engagement in the ICU: Report from the task force fo the World Federation of Societies of Intensive and Critical Care Medicine J Critical Care 2018 Sep;8;48:251-256 (PMID:30245366)
8. Ridley EJ., Peake SL., Jarvis M., Lange K., Davies A.R., Chapman M., **Heyland DK**., Nutrition therapy in Australia and New Zealand Intensive Care Units: An international comparison study JPEN 2018 Nov;42(8):1349-1357 doi:10.1002/jpen.1163 (PMID 29701877)
9. Langlosi P., Manzanares W., Adhikari N., Lamontagen F., Stoppe C., Hill A., **Heyland DK.,** Vitamin C Supplementation in the Critically ill: A Systematic Review and Meta-analysis JPEN 2018 Nov;33(6) doi.org/10.1002/jpen.1471
10. Chourdakis M., Day AG., Doundoulakis J**., Heyland DK**, Are ALL Low NUTRIC score patients the same? Clinical Nutrition 2018 Dec.8 pii;SO261-5614(18)32573-1 (PMID: 30579667)
11. Neves J., Schwartz E., Echevarria-Guanilo ME., Zanetti AC., **Heyland DK,** Cross-Cultural Adaptation of the family Satisfaction with care in The intensive Care Unite for Brazil Science, care and Health 2018 Dec.15(4): 439-446
12. Ney J, Heyland DK, Amrein K, Marx G, Grottke O, Choudrakis M, Autschbach T,

Hill A, Meybohm P, Benstoem C, Goetzenich A, Fitzner C, Stoppe C. The relevance

of 25-hydroxyvitamin D and 1,25-dihydroxyvitamin D concentration for

postoperative infections and postoperative organ dysfunctions in cardiac surgery

patients: The eVIDenCe study. Clin Nutr. 2018 Dec 13. pii: S0261-5614(18)32568-8.

doi: 10.1016/j.clnu.2018.11.033. [Epub ahead of print] (PMID: 30583965)

1. Chourdakis M, Grammatikopoulou MG, Poulia KA, Passakiotou M, Pafil ZK, Bouras E, Doundoulakis I, Galitsianos L, Pappe T, Karakatsanis A, **Heyland DK.** Translation of the modified NUTRIC score and adaptation to the Greek ICU setting. Clin Nutri ESPEN 2019 Feb;29:72-76 (PMID: 30661704)
2. Yeh DD, Ortiz LA, Lee JM, Chan J, McKenzie K, Young B, Chetelat L, Collier B, Benson A**, Heyland DK.** PEP Up (Enhanced Protein-Energy provision via the Enteral route Feeding protocol) in Surgical Patients-A multicentre Pilot Randomized Controlled Trials,JPEN 2019 Feb.11 doi:10.1002/jpen.1521 (EPub ahead of print) (PMID: 30741439)
3. Zheng-Yii L**, Heyland DK**. Determination of Nutriton Risk and Status in Critically ill Patients: What are our Considerations? Nutri Clin Pract 2019 Feb;34(1);96-111 (PMD: 30468264)
4. You J, Allatt P, Howard M, Robinson C.A, Simon J, Sudore RL, Tan A, Bernard C, Swinton M, Jiang X, Klein D, McKenzie M, Fyles G**, Heyland DK.** Development and validation of a short graphic values history tool to support decision making during serious illness BMJ 2019 Feb (Epub ahead of Print) (PMID: 30733208)
5. Leclair TR, Zakai N, Bunn JY, Gianni M, **Heyland DK,** Ardren SS, Stapleton RD. Vitamin D Supplementation in Mechanically Ventilated Patients in the Medical Intensive Care Unit. JPEN 2019 Feb 12 diu 10,.1002/jpen.1520 (Epub ahead of print) (PMID: 30756402)
6. **Heyland DK**, Patel J, Bear D, Sacks G, Nixdorf H, Dolan J, Aloupis M, Licastro K, Jovenovic V, Rice TW, Compher C. The Effect of Higher Protein Dosiong in Critically Ill Patients: A Multicenter Registry-Based Randomized Trial: The EFFORT Trial JPEN 2019 Mar;43(3):326-334 (Epub 2018 Sep.27) (PMID:30260486)
7. **Heyland DK**, van Zanten ARH, Grau-Carmona T, Evans D, Beishuizen A, Schouten J,

Hoiting O, Bordejé ML, Krell K, Klein DJ, Gonzalez J, Perez A, Brown R, James J,

Harris MS; Investigators of the PROMOTE LP101-CL-201 Trial. A multicenter,

randomized, double-blind study of ulimorelin and metoclopramide in the treatment

of critically ill patients with enteral feeding intolerance: PROMOTE trial.

Intensive Care Med. 2019 May;45(5):647-656. doi: 10.1007/s00134-019-05593-2. Epub

2019 May 6. (PMID: 31062046)

1. Patel J, Rice T, Compher C, **Heyland DK.**  Do We have Clinical Equipoise (or Uncertainty) about How Much protein in Provide to Critically Ill Patients Nutr. Clin. Pract. 2019 Jun. 7 doi: 10.1002/ncp.10320 [Epub ahead of print] (PMID:31175689)
2. **Heyland DK,** Day A, Clarke GJ, Hough CT, Files DC, Mourtzakis M, Deutz N, Needham DM, Stapleton R. Nutrition and Exercise in Critical Illness Trial (NEXIS Trial): a protocol of a multicentred, randomised controlled trial of combined cycle ergometry and amino acid supplementation commenced early during critical illness. BMJ Open 2019;9:e027893. doi: 10.1136/bmjopen-2018-027893
3. Stoppe C, Whitlock R, Arora RC, **Heyland DK.** Nutrition support in cardiac

surgery patients: Be calm and feed on! J Thorac Cardiovasc Surg. 2019 May 7. pii:

S0022-5223(19)30969-9. doi: 10.1016/j.jtcvs.2019.02.132. [Epub ahead of print]

(PMID: 31202453)

1. Hill A, Clasen KC, Wendt S, Majoros AG, Stoppe C, Adhikari NKJ, **Heyland DK,** Benstoem C. Effects of Vitamin C on Organ Function in Cardiac Surgery patients: A Systematic Review and Meta Analysis. Nutrients. 2019 Sept 4;11(9) (PMID: 31487905)
2. Patel JJ, Kozeniecki M, Peppard WJ, Peppard SR, Zellner-Jones S, Graff J, Szabo A, **Heyland DK.** Phase 3 Pilot Randomized controlled Trial Comparing Early Trophic Enteral Nutrition with “No Enteral Nutrition” in Mechanically Ventilated patients with Septic Shock

PEN J Parenter Enteral Nutr. 2019 Sep 19. doi:10.1002/jpen.1706. [Epub ahead of print] (PMID:31535394)

1. Howard M, Langevin J, Bernard C, Klein D, Tan A, Slaven M, Barwich D, Elston D, Aora N, **Heyland DK.** Primary care clinicans’ confidence willingness participations and perceptions for role in advance care planning discussions with patients: a multi-site survey Fam Pract. 2019 Sept. 19 [Epub ahead of Print] (PMD:31536615)
2. Howard M, Slaven M, Bernard C, Borhan S, Elston D, Arora N, Tan A, **Heyland DK.**

Decision support intervention (Plan Well Guide) for patients and their substitute

decision-makers to improve engagement in advance care planning: protocol for a

randomised trial. BMJ Open. 2019 Sep 20;9(9):e027897. (PMID: 31542737)

1. Hill AD, Stukel TA, Fu L, Scales DC, Laupacis A, Rubenfeld GD, Wunsch H, Downar J, Rockwood K, **Heyland DK,** et al., Trends in Health care Utilization and Costs at the End of Life in Ontario, Canada CMJ Open 2019 Feb (in press)
2. Jayaraman D, Sharma N, Smrke A, Simon J, Dodek P, **Heyland DK,** You J. Process mapping to examine how goals of care discussions and decisions about life-sustaining treatments occur on medical wards: a multi-center observational study, CIGIM 2019 (In press)
3. You JJ, Jayaraman D, Swinton M, Jiang X, **Heyland DK**. Supporting shared decision-making about cardiopulmonary resuscitation using a video-based decision support intervention in a hospital setting: findings from a multi-site, before-after pilot study, CMAJ Open 2019 (In press)

**Papers Submitted Total = 10**

1. Siu H, Elston D, Arora N, Vahrmeyer A, Kaasalainen S, Chidwick P, Howard M**, Heyland** **DK.** A multi-center study to identify clinican barriers to participating in goals of care discussions in long-term care. (Submitted to JAMDA February 2019)
2. Heyland DK, Marquis F, Lamontagne F, Albert M, Khwaja KA, Garland A, Hall R, Chapman MG, Kutsiogannis DJ, Martin C, Sessler D, Day AG. Esophageal motility to prevent regurgitation and enhance nutrition intake in long-stay ICU pateints (PROPEL): a multicenter, phase II, sham-controlled, randomized trial. (Submitted to Critical Care Medicine July 2019)
3. Kyeremanteng K, Herritt B, Chaudhuri D, Tanuseputro P,Talarico R, Hsu At, Fowler R, **Heyland DK**, Hendin A, Reardon P, D’Egido G. “Characteristics, Outcomes, and Costs of Nursing Home Residents Admitted to ICU A Retrospective cohort Study” (Submitted to Intensive Care Medicine March 2019)
4. Bernard C, Tan A, Slaven M, Elston D, **Heyland DK,** Howard M. Addressing Patient-Reported Barriers to Advance Care Planning in Family Practice (Submitted to BMC Family Practice June 2019)
5. Toledo D, **Heyland DK,** Jardini de Freitas B, Amaral Pfeilsticker FJ, de Assis T, Marques do Santos D, Silva Joao, de Oliveria A. NUTRIC-S PROPOSAL: USING saps 3 FOR mortality prediction in nutritional risk ICU patients (Sumbitted to Clinical Nutrition Experimental July 2019)
6. Moisey L, Pikul J, Keller H, Yeung E, Rahman A, **Heyland DK**, Mourtzakis M. Adequacy of protein and energy intake in critically ill adults following liberation from mechanical ventilation: A prospective observational study (Submitted to Clinical Nutrition July 2019)
7. Paris M, Tandon P, **Heyland DK**, Furbert H, Premji T, Low G, Mourtzakis M. Automated body composition analysis of clinically acquired computed tomography scans using neutral networks (Submitted to Clinical Nutrition August 2019)
8. Adhikari N, Masse MH, Menard J, Sprague S, Battista MC, Cook DJ, Guyatt GH, **Heyland DK,** Kanji S, Pinto R, Day AG, Cohen D, Annane D, McGuinness S, Parke R, Carr A, Arabi Y, Kumar B, Vjayaraghavan T, D’Aragon F, Carbonneau E, Maslove D, Hunt M, Rochwerg B, Millen T, Chasse M, Lebrasseur M, Archambault P, Deblois E., Crouin C., Lellouche F., Lizotte P., Watpool I., Porteous R., Clarke F., Marinoff N. Belley-Cote E, Bolduc B, Walker S, lazetta J, Adhikari N, Lamontagne F. Lessening Organ dysfunction with VITamin C (LOVIT): a protocol for a randomized controlled trial (Submitted to BMC August 2019)
9. Hill A, Stoppe C, **Heyland DK.** Meeting Nutritional Targets of Critically Ill Patients by Combined Enteral and Parenteral Nutrition: Review and Rationale for the EFFORT combo trial” (NRR-19-048) (Submitted to Nutrition Research September 2019)
10. **Heyland DK,** Heyland R, Bailey A, Howard M, A Novel Decision Aid to Help Plan for Serious Illness Support (Plan Well Guide): Results of a multi-site randomized trial (Submitted to CMAJ October 2019)

**Publications—Abstracts, Editorials, Book Chapters**

**Abstracts published or in press Total = 324**

1. **Heyland DK**, Bradley C, Mandell LA. Effect of acidified enteral feeds on gastric colonization in the critically ill patient. Am Rev of Resp Dis 1992;145(4):A315.
2. **Heyland DK**, Jaeschke R, Cook DJ. Selective decontamination of the digestive tract: A meta-analysis. Clin Invest Med, 1992;15(Supp):A28(157).
3. **Heyland DK**, Winder B, Cook DJ, Brylowski L, Guyatt GH. Enteral nutrition in the critically ill patient: A prospective survey. Clin Invest Med 1993;16(Supp):B25(154).
4. **Heyland DK**, Mandell LA. Effect of acidified enteral feeds on contamination of enteral nutrition feeding system. 61st Conjoint Meeting on Infectious Disease, Canadian Association for Clinical Microbiology and Infectious Disease, Vancouver 1993.
5. **Heyland DK**, Cook DJ. The effect of narcotics on gastric emptying in the critically ill patients. Am J Resp Crit Care Med. 1994;149:A939.
6. **Heyland DK**, Winder B, Cook DJ, Guyatt G. Early enteral nutrition in the critically ill patient: A prospective study Am J Resp Crit Care Med. 1994;149:A653.
7. **Heyland DK**, Winder B, Cook DJ. Enteral nutrition in the critically ill patient: Impact of a feeding protocol designed to initiate feeds within 24 hours. Clin Invest Med 1994;17(Supp):B18(108)
8. **Heyland DK**, Kernerman P, Gafni A, Cook DJ. Economic evaluations in the intensive care unit: Do they help us improve the efficiency of our Unit? 2nd Annual Cochrane Collaboration Meeting, Hamilton, Ontario, 1994.
9. **Heyland DK**, Gafni A, Griffith L, Cook DJ, for the Canadian Critical Care Trials Group. The clinical and economic consequences of clinically important bleeding in critically ill patients. Crit Care Med 1995;23:A108.
10. **Heyland DK**, Gafni A, Cook DJ, Guyatt GH. Economic evaluation of stress ulcer prophylaxis in the critically ill patient. Am J Resp Crit Care Med. 1995;151:A495.
11. **Heyland DK**, Cook D, King D, Kernerman P. Maximizing Oxygen Delivery in Critically ill Patients: A Methodologic Appraisal of the Evidence. Clin Invest Med 1995;18:B27.
12. **Heyland DK,** Kernerman P, Gafni A, Cook DJ. Economic evaluations in the intensive care unit: Do they help us improve the efficiency of our Unit? Clin Invest Med 1995;18:B21.
13. **Heyland DK**, Tougas G, Cook DJ, Guyatt GH. The effect of Cisapride on gastric emptying in the critically ill patients. Am J Resp Crit Care Med. 1996;153:A832.
14. **Heyland DK**, Cook D, Leasa D, Frietag A, for the Canadian Critical Care Trials Group. The utility of invasive diagnostic techniques in the setting of ventilator associated pneumonia. Am J Resp Crit Care Med. 1996;153:A365.
15. **Heyland DK**, Cook DJ, Tougas G. Gastric emptying in critically ill patients. Clin Invest Med 1996; 19:S17.
16. **Heyland DK**, Konopad E, Noseworthy T, Shustack A, Johnston R. Is it worthwhile to continue treating patients with a prolonged stay (>14 days) in the Intensive Care Unit: A cost-effectiveness analysis. Proceedings of 7th World Congress of Intensive & Critical Care Medicine 1997,p135.
17. **Heyland DK**, Konopad E, Noseworthy T, Shustack A, Johnston R. Which case-mix of critically ill patients cost the most and have the worst outcomes? Proceedings of 7th World Congress of Intensive & Critical Care Medicine 1997,p134.
18. Konopad E, **Heyland DK**, Noseworthy T, Shustack A, Johnston R. Cost- outcomes of patients admitted < 24 hours to the Intensive Care Unit. Proceedings of 7th World Congress of Intensive & Critical Care Medicine 1997,p135.
19. **Heyland DK,** Meade M, Cook D, Guyatt GH, Gafni A. The frequency and methodological rigor of quality of life assessments in the critical care literature. Proceedings of 7th World Congress of Intensive & Critical Care Medicine 1997,p136.
20. Konopad E, **Heyland DK**, Noseworthy T, Shustack A, Johnston R. Cost- outcomes of patients with a prolonged stay (>14 days) in the Intensive Care Unit. Am J Resp Crit Care Med. 1997;155;A98.
21. **Heyland DK**, Konopad E, Noseworthy T, Shustack A, Johnston R. Cost- outcomes of patients with a “poor” quality of life following admission to the Intensive Care Unit. Am J Resp Crit Care Med. 1997;155;A99.
22. Konopad E, **Heyland DK**, Noseworthy T, Shustack A, Johnston R. Cost- outcomes of patients > 75 years old following admission to the Intensive Care Unit. Am J Resp Crit Care Med. 1997;155;A98.
23. Wood G, **Heyland DK**. Early extubation does not reduce ICU length of stay in cardiac surgery patients. Can J Anaesth 1997;44:A5.
24. **Heyland DK**, Gafni A, MAH Levine. Do potential patients prefer tissue plasminogen activator (TPA) over streptokinase (SK)? An evaluation of the risks and benefits of TPA from the patient’s perspective. Clin Invest Med 1997;20:S5.
25. **Heyland DK**, MacDonald S, Keefe L, Drover JW. Total parenteral nutrition in the surgical patient: A meta-analysis. JPEN 1998;22:S17.
26. **Heyland DK**, Konopad E, Alberda C, Keefe L, Cooper C, Cantwell B, Bourque D. How well do critically ill patients tolerate early, intragastric enteral feeding? NCP 1998;13:103
27. **Heyland DK**, Taylor J, Tranmer J, Dudgeon D, Coulson K, Squires-Graham M. Who decides? Decisional responsibility in seriously ill hospitalized patients: A case against advance directives! Am J Resp Crit Care Med 1998;157:A303.
28. **Heyland DK**, MacDonald S, Keefe L, Drover JW. Total parenteral nutrition in the critically ill patient: A meta-analysis. Am J Resp Crit Care Med 1998;157:A111
29. **Heyland DK**, Cook DJ, Shoenfeld P, and the Canadian Critical Care Trials Group. The effect of acidified enteral feeds on gastric colonization and pneumonia in critically ill patients: Results of a multicenter randomized trial. Am J Resp Crit Care Med 1998;157:A695.
30. **Heyland DK**, Taylor J, Tranmer J, Dudgeon D, Coulson K, Squires-Graham M. Decisional responsibility and information needs of seriously ill hospitalized patients making end of life decisions. Clin Invest Med 1998;21(supplement):S56.
31. Deegan H, Dent S, **Heyland DK**, Keefe L, Drover JW. Supplemental parenteral nutrition in the critically ill patient: A retrospective study. Crit Care Med 1999;27:A76.
32. **Heyland DK**, Shoenfeld P, Luchsinger S, and the Canadian Critical Care Trials Group. The effect of acidified enteral feeds on contamination of the enteral feeding delivery system and subsequent colonization and infection in critically ill patients. Crit Care Med 1999;27:A76.
33. **Heyland DK**, Cook DJ, Heule M, Marshall J, Guslits B, Lang J, Jaeschke R. The clinical utility of invasive diagnostic techniques in the setting of ventilator-associated pneumonia. Crit Care Med 1999;27:A161.
34. **Heyland DK**, Cook DJ, Griffith L, Keenan S, Brun-Buisson C. The attributable morbidity and mortality of ventilator-associated pneumonia in the critically ill patient. Am J Resp Crit Care Med 1999;159:A263.
35. **Heyland DK**, Hopman W, Coo H, Tranmer J, McColl MA. Short Form 36: A valid and reliable measure of HRQL in survivors of sepsis. Clin Invest Med 1999; 22:S11.
36. **Heyland DK**, Drover J, MacDonald S. The effect of small bowel vs gastric feeding on pulmonary microaspiration and gastroesophageal regurgitation in critically ill patients: Preliminary results of a randomized trial. Clin Invest Med 1999; 22:S12.
37. **Heyland DK**, Lavery JV, Tranmer J, Shortt SED, SJ Taylor for the Queen’s/KGH End of Life Research Working Group. Dying in Canada: Is it an institutionalized, technologically supported experience? Clin Invest Med 1999;22:S26.
38. Tranmer J, **Heyland DK**, Coulson K, Squires-Graham M, Racz D for the Queen’s/KGH End of Life Research Working Group. The relationship between fatigue, symptom distress and decisional role in seriously ill hospitalized cancer patients near the end of life. Proceedings of Canadian Association of Nurses in Oncology, October 1999, Halifax, Nova Scotia.
39. Maziak DE, Dodek P, Hebert P, Herridge M, **Heyland DK**, Kirby A, Meade M, for the Canadian Critical Care Trials Group. Can intensivists predict length of ventilation of patients in the ICU? Clin Invest Med 1999;22:S12.
40. **Heyland DK**, Cooper C, Alberda C, Ames H. The clinical utility of nitrogen balance studies in critically ill patients: A prospective study. Proceedings of the Toronto Critical Care Symposium, October 28-30, 1999.
41. **Heyland DK**, Hopman W, Coo H, Tranmer J, McColl MA. Short Form 36: A valid and reliable measure of HRQL in survivors of sepsis. Quality of Life Research 1999; 8:568.
42. Keefe L, Drover JW, **Heyland DK**. Use of a multidisciplinary, multifaceted approach to aligning nutrition practice with “Best Practice” in a critical care setting: Results of a seven-year study. Nutrition Clinical Practice 2000;15:S16.
43. **Heyland DK**, Hopman W, Coo H, Tranmer J, McColl MA. The long-term HRQL of survivors of sepsis. Crit Care Med 1999;27:A143.
44. **Heyland DK**, Wood G. Is the stomach an important source of tracheal contamination and subsequent pneumonia? Am J Resp Crit Care Med 2000;161:A91.
45. **Heyland DK**, Hopman W, Coo H, Tranmer J, McColl MA. Short Form 36: A valid and reliable measure of HRQL in survivors of sepsis. Am J Resp Crit Care Med 2000;161:A126.
46. Wright F, **Heyland DK**, Drover JW. The clinical utility of antibiotic-coated central lines in the Intensive Care Unit. Am J Resp Crit Care Med 2000;161:A91.
47. Gleeson K, **Heyland DK**. Comparison of fluorescent dye-labeled polystyrene microspheres with radioactive markers to quantitiate microspheres. Am J Resp Crit Care Med 2000;161:A396.
48. Luffman B, Martin S, **Heyland DK**, Tranmer J, Flynn E, Peterson J. How did we do? Assessing family satisfaction with care in the Intensive Care Unit. Dynamics 2000 Canadian Association of Critical Care Nurses.
49. **Heyland DK**, Lavery JV, Tranmer J, Shortt SED for the Queen’s/KGH End of Life Research Working Group. Dying in Ontario: The epidemiology of reform. Clin Invest Med 2000;23:S8.
50. **Heyland DK**, Novak F, Drover J, Jain M. Enteral immunonutrition in the critically ill patient: A meta-analysis. Clin Invest Med 2000;23:S9.
51. Wright F, **Heyland DK**, Drover JW. The clinical utility of antibiotic-coated catheters: Results of an outcomes study. Clin Invest Med 2000;23:S8.
52. **Heyland DK**, Tranmer J, for the KGH ICU Research Working Group. Measuring family satisfaction with care in the intensive care unit: The development of a questionnaire and preliminary results. Clin Invest Med 2000;23:S9.
53. Novak F, **Heyland DK**, Drover J, Jain M. Should immunonutrition become routine in critically ill patients: A systematic review of the evidence. Intensive Care Med 2000;26:S538.
54. Tranmer J, **Heyland DK**, Chenier-Hogan N, Korol J. Decisional role in seriously ill hospitalized cancer patients near the end of life: The patients’ and nurses’ perspective. CANO Twelfth Annual National Conference, October 15‑ 18, 2000, Victoria BC.
55. **Heyland DK**, Tranmer J. Preferred role in end of life decision-making: Patients’ and providers’ perspectives. Critical Care Med 2001; 28:A108.
56. Tranmer JE, **Heyland DK**, Rocker GM, Dodek PM, Kutsogiannis DJ, Konopad E, Cook DJ, Peters S. Satisfaction with Critical Care: An Assessment of the Families’ Perspective. Critical Care Med 2001;28:A109.
57. Moffat S, Taylor S, **Heyland DK**. Teaching end of life care in the critical care setting: The results of an educational evaluation. Critical Care Med 2001;28:A113.
58. Novak F, **Heyland DK**, Avenell A, Croal BL, Drover J, Jain M, Noble D. Glutamine supplementation in critically ill patients: a meta-analysis. Clinical Nutrition 2001;20:54.
59. Tranmer JE, **Heyland DK**, for the ICU Research Working Group. Satisfaction with care: A multi-site measurement of the families’ perspective of their ICU experience. Dynamics 2001;12:25.
60. Booth CM, **Heyland DK**, Paterson WG. Gastrointestinal promotility drugs in the critical care setting: A systematic review of the evidence. Presented at the Toronto International Critical Care Medicine Symposium, Toronto, Oct 18-20, 2001.
61. **Heyland DK**, Novak F, Avenell A, Drover J. Glutamine supplementation in critically ill patients: a meta-analysis. Am J Clin Nutr 2002;75:416S
62. **Heyland DK**, Schroter-Noppe D, Drover J, Jain M, Keefe L, Dhaliwal R. Nutrition support in the critical care setting: Current practice in Canadian ICUs. Opportunities for improvement? Nutr Clin Pract 2002;17(1):67,N59.
63. **Heyland DK**, Novak F, Avenell A, Drover J. Glutamine supplementation in serious illness: A systematic review of the evidence. JPEN 2002;26(4):S14.
64. **Heyland DK**, Rocker GM, Dodek PM, Kutsogiannis DJ, Cook DJ, Peters S. Decision making in the ICU: Perspectives of the substitute decision maker. Am J Resp Crit Care Med 2002:A254.
65. **Heyland DK**, Cook DJ, Dodek P. Prevention of ventilator-associated pneumonia (VAP): A survey of Canadian practice. Am J Resp Crit Care Med 2002;165:A698.
66. Dodek P, Keenan S, **Heyland DK**, Cook DJ, Brun-Buisson C, Hall R, Jacka M, Foster D, Hand L, Mehta N, Muscedere J. Development of a clinical practice guideline for prevention of ventilator-associated pneumonia. Am J Resp Crit Care Med 2002;165:A254.
67. Dhaliwal R, **Heyland DK**, Drover J, Jain M, Keefe L, Day A . Determinants of successful nutrition support in the adult intensive care unit setting. Presented at the Annual Meeting of the Canadian Society for Clinical Nutrition, May 3, 2002. Canadian Journal of Gastroenterology 2002;16:407.
68. Lord JA, **Heyland DK**, Howes D, Jones G, Rapson D. Activated Partial Thromboplastin Time Waveform Changes and Markers of Inflammation, Coagulation and Infection in the Critically Ill. Published in proceedings of Toronto Critical Care Medicine Symposium, November 2002.
69. **Heyland DK**, Rocker GM, Dodek PM, Cook DJ, O’Callaghan CJ. Dying in the ICU: Is there a quality care problem in Canada? Published in proceedings of Toronto Critical Care Medicine Symposium, November 2002
70. **Heyland DK**, Dhaliwal R, Drover J et al. Glutamine supplementation in critically ill patients: a meta-analysis. Published in proceedings of Toronto Critical Care Medicine Symposium, November 2002
71. Saberi F, **Heyland DK**, Howes D, Lord J, Rapson D, Jones G. The relationship between procalcitonin and infection in critically ill patients. Published in proceedings of Toronto Critical Care Medicine Symposium, November 2002.
72. Bourgault A, **Heyland DK**, Drover J, et al Prophylactic Pancreatic Enzyme Use to Reduce the Incidence of Enteral Feeding Tube Occlusion: A Pilot Study. Published in proceedings of Toronto Critical Care Medicine Symposium, November 2002.
73. Henderson WR, Dhingra VK, Chittock DR, Dodek PE, **Heyland DK**, Ronco JJ. Interim Results of the Survival Using Glucose Algorithm Regulation (SUGAR) Trial- Pilot Phase. Published in proceedings of Toronto Critical Care Medicine Symposium, November 2002
74. Frank C, **Heyland DK**, Chen B, Farquhar D, Meyers K, Iwassa K. Getting code status from the hospitalized elderly patient: A systematic review of the literature. Proceeding of the Canadian Geriatric Society meeting in Montreal Oct 2002.
75. **Heyland DK**, Dhaliwal R, Drover JW, Gramlich L. Clinical Practice Guidelines for Nutrition Support in the Adult Critically Ill Patient. Critical Care Med 2003;30:A43.
76. Drover J, Greenwood J, Dhaliwal R, **Heyland DK**. Small Bowel Versus Gastric Feeding in the Critically Ill Patient: Results of a Meta-Analysis. Critical Care Med 2003;30;A44.
77. Dent, DL, **Heyland DK**, Levy H, Martindale R, Tayek J, Schloerb P, Kelley MJ. Immunonutrition May Increase Mortality in Critically Ill Patients with Pneumonia: Results of a Randomized Trial. Critical Care Med 2003, 30:A17.
78. Howes D, Lord JA, Jones G, Rapson D, **Heyland DK**. Activated Partial Thromboplastin Time Waveform Changes and Markers of Inflammation, Coagulation and Infection in the Critically Ill. Critical Care Med 2003;30:A100.
79. Aarts MA, Marshall JC, Hancock, J, **Heyland DK**. Antibiotics for Ventilator-Associated Pneumonia: A Systematic Review. Critical Care Med 2003;30:A116.
80. Rocker G, Cook D, Sjokvist P, Weaver B, Finfer S, McDonald E, Marshall A, Kirby M, Levy P, Dodek, P, **Heyland DK**, Guyatt G, for the Level of Care Study Investigators & the Canadian Critical Care Trials Group. Predicting Mortality in the ICU. Critical Care Med 2003;30:A138.
81. Rocker GM, **Heyland DK**, Cook DJ, Dodek PM, Kutsogiannis DJ, Peters S, O¹Callaghan CJ. Withdrawal of Life Support in Canadian ICUs A Prospective Multicentre Study of Process and Perceptions. Am J Resp Crit Care Med 2003;167 A582.
82. Dhaliwal R, Jurewitsch B, Harrietha D, **Heyland DK**. Combination Enteral And Parenteral Nutrition In Critically Ill Patients: Harmful Or Beneficial? Can J Gastroenterol 2003;17(6)394.
83. Gramlich L, Kichian G, Pinilla J, Dhaliwal R, Rodyck N, **Heyland DK**. Does enteral nutrition compared to parenteral nutrition result in better outcome in the critically ill adult. Can J Gastroenterol 2003;17(6)393.
84. Drover JW, Mackenzie S, Dhaliwal R, **Heyland DK**. Early Enteral Nutrition In Critically Ill Patients: Is There A Positive Effect On Patient Outcomes? Can J Gastroenterol 2003;17(6)395.
85. Rapson D, Dwyre D, **Heyland DK**, Giles A. Issues Arising in Application of the ISTH Disseminated Intravascular Coagulation (DIC) Scoring System: The Need for Modification before Prospective Validation. International Society of Trombosis and Haemostasis (ISTH) Meeting. Birmingham, England, July 2003. Published in Supplement to the Journal of Thrombosis and Haemostasis. (ISSN 1740 3340).
86. Jones GR, Rapson D, Tejidor L, **Heyland DK**. Lipoprotein and acute phase protein measurements at ICU admission: Associations with outcome. Intensive Care Med 2003;29:S90.
87. Groll D, **Heyland DK**, Rocker GM, Dodek P, Kutsogiannis J, and Neil Lazar for the Queen¹s University End of Life Research Working Group. Mind the Gap: quantifying the difference between importance and satisfaction scores. American Statistical Association International Conference of Health Policy Research - Methodological Issues in Health Services and Outcomes Research. Chicago, Ill. October 17-19, 2003
88. Samis A, **Heyland DK**, Drover JD. Evaluation of two novel strategies for post-pyloric placement of feeding tubes. Toronto Critical Care Medicine Symposium, Oct 28- Nov 1, 2003. Published in Can J Anesth 2004;51(4):A8.
89. **Heyland DK**, Groll D, Caesar M. Survivors of ARDS: Health services resource utilization following hospital discharge. Toronto Critical Care Medicine Symposium, Oct 28- Nov 1, 2003.
90. Dhaliwal R, **Heyland DK**, Day A, Jain M, Keefe L, Drover J. Hyperglycemia Kills! Opportunities for quality improvement in ICUs in Canada. Toronto Critical Care Medicine Symposium, Oct 28- Nov 1, 2003.
91. **Heyland DK**, Groll D, Caeser M. Long-term follow of survivors of ARDS: A significant correlation between lung function, respiratory symptoms, and health related quality of life. Crit Care Med 2003;31:A8.
92. **Heyland DK**, Dhaliwal R, Berger M, Suchner U. Antioxidant nutrients: A systematic review of vitamins and trace elements in the critically ill patient. Crit Care Med 2003;31(12):A83.
93. Boffa MB, Lam M, Samis J, Jones G, Nesheim ME, Rapson D, **Heyland DK**, Koschinsky ML. Modulation of Plasma Concentrations of Thrombin Activable Fibrinolysis Inhibitor in Critically Ill Patients. Presented at the 4th Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology, Washington, 2003. Published in Arterioscler Thromb Vasc Biol 2003;23a-50.
94. **Heyland DK**, Dhaliwal R, Day A, Jain M, Keefe L, Drover J. Validation of Canadian clinical practice guidelines for nutrition support of mechanically ventilated, critically ill patients: Results of a prospective observational study. Nutrition in Clinical Practice 2004;19(1):68. N006
95. Jain M, **Heyland DK**, Dhaliwal R, Day A, Keefe L, Drover J. An update: A national survey of nutrition support practices. Nutrition in Clinical Practice 2004;19(1);98. N079
96. Rocker GM, **Heyland DK**, Groll D, Dodek P, Kutsogiannis D, Lazar N for the Queen¹s University End of Life Research Working Group. Meeting the needs of patient with advanced COPD: A multicentre study. Am J Resp Crit Care Med 2004;169(7):A50.
97. **Heyland DK**, Groll D, Caeser M. Long-term health-related quality of life and patterns of resource utilization in survivors of ARDS: Differences between primary and secondary causes of lung injury. Am J Resp Crit Care Med 2004;169(7):A780.
98. **Heyland DK**, Groll D, Rocker G, Dodek P, Kustogiannis D, Lazar D. Defining quality end of life care: Perceptions of seriously ill patients and their family members. Am J Resp Crit Care Med 2004; 169(7):A50.
99. Drover J, Dhaliwal R, Day A, Jain M, Keefe L, **Heyland DK**. Utilization of parenteral nutrition in Canadian intensive care units: Opportunities for improvement? . Intensive Care Medicine 2004; 30(S1):A571.
100. Patel R, Griffith L, Meade M, Mehta S, Hodder R, Martin C, **Heyland DK**, Marshall J, Rocker G, Peters S, Clarke F, McDonald E, Soth M, Muscadere J, Campbell N, Guyatt GH, Cook DJ, for the Canadian Critical Care Trials Group. Burden of Illness in Thromboembolism in Critical Care (BITEC) Study: A Multicenter Canadian Study. Crit Care 2004;8 (suppl 1):S52, A103).
101. **Heyland DK**, Groll D, Pichora D, Dodek P, Rocker G, Tranmer J, Gafni A. End of life decision making in the seriously ill hospitalized patient. J Palliat Care 2004;20(3):A239.
102. **Heyland DK**, Dodek, P, Gafni A, Groll D, Pichora D, Rocker G, Tranmer J. End of life care in Canada: A quality finish? J Palliat Care 2004;20(3):A240.
103. Saberi F, **Heyland DK**, Lam M, Rapson D, Jeejeebhoy K. Insulin resistance in the critically ill: Prevalence, patterns, prognosis, and influence on outcome. Intensive Care Medicine 2004; 30(S1): A214.
104. Samis A, Drover J, **Heyland DK**. Evaluation of three different strategies for post-pyloric placement of enteral feeding tubes. Intensive Care Medicine 2004; 30(S1):A572.
105. Newman P, Kuo A, Drover J, **Heyland DK**. “Management of hyperglycemia using an insulin protocol in adult intensive care unit patients”. Critical Care Medicine Symposium, Toronto, 21-23 October 2004.
106. Martin CM, Bentley D, Morrison T, Priestap F, **Heyland DK** et al. The Canadian sepsis treatment and response (STAR) registry: illness severity and process of care for patients with severe sepsis. Critical Care Medicine 2004;32(12) Suppl:A149.
107. Martin CM, Priestap F, Morrison T, Bentley D, **Heyland DK**, et al. The Canadian sepsis treatment and response (STAR) registry: prevalence, incidence and outcomes for patients with severe sepsis. Crit Care Med 2004;32(12) Suppl:A143.
108. Rotstein C, Laverdiere M, Magder S, **Heyland DK**, Stewart T, Peets J. A point prevalence study of fungal infection and colonization in Canadian ICU patients. Focus on Fungal Infections 15, Miami Florida, March 16-18, 2005.
109. Frank C, **Heyland DK**, Pichora D, Rocker G, Dodek P. End of life decision-making in the seriously ill hospitalized patient. Geriatrics Today. May 2005. 8(2): 70.
110. Cote HC, Day A, Holmes CL, Montaner JS, **Heyland DK**. Longitudinal changes in blood cells mitochondrial DNA (mtDNA) levels are associated with survival outcome in critically ill patients. In program and Abstracts from the 2nd International Symposium on Microcirculation and Mitochondrial Dysfunction in Intensive Care Medicine (European Society for Intensive Care Medicine). September 24, 2005, Amsterdam, The Netherlands. (abstract #3)
111. Wall R, Schier, D, Curtis R, **Heyland DK**, Engelberg R, Downey L. Measuring family satisfaction with care in the ICU: Results of factor analysis. Am J Resp Crit Care Med 2005;2:A597.
112. Sinuff T, Burns K, Eva K, Adhikari N, Keenan SP, Rocker G, Hill N, Patel R, Mehta S, Heels-Ansdell D, **Heyland DK**, Kacmarek R, Cook D. Noninvasive ventilation (NIV) for acute respiratory failure (ARF) near or at the end-of-life (EOL). Am J Resp Crit Care 2005;2:A810.
113. **Heyland DK**, Groll D, Dodek P, Rocker G, Pichora D. Preferences for location of death: results of a multisite Canadian survey. Am J Resp Crit Care Med 2005;2:A687.
114. Rapson D, **Heyland** **DK**, Saberi F, Dwyre L, Lam M, Jones G. Validation of overt disseminated intravascular coagulation (DIC) scoring algorithm use in critically ill patients: Correlation with inflammatory markers and APACHE scores and SOFA scores. J Thrombosis and Haemostasis 2005;3:P0200
115. **Heyland DK**, Jain M, Dhaliwal R, Day A, Keefe L, Drover J. Dissemination of the Canadian Clinical Practice Guidelines for nutrition support: Results of a cluster randomized controlled trial. Am J Resp Crit Care Med 2005;2:A295.
116. **Heyland DK**, Perfetto E, Nichols B, Caeser M. Hospitalizations involving pneumonia and mechanical ventilation in the United States. Am J Resp Crit Care Med 2005;2:A171.
117. Rocker GM, Cook DJ, O’Callaghan CJ, Dodek PM, Kutsogiannis DJ, Conrad W, Pichora D, **Heyland DK**. Canadian nurses’ and respiratory therapists’ perspectives on withdrawal of life support in the intensive care unit. Am J Resp Crit Care Med 2005;2:A594.
118. Stapleton RD, Steinberg KP, Rubenfeld GD, **Heyland DK**, Hudson LD, Curtis JR. Early versus delayed enteral feeding in medical ICU patients with acute lung injury. Am J Resp Crit Care Med 2005;2:A36.
119. Stajduhar K, Cohen SR, Chappell N, **Heyland DK**, Koop P, Williams A. Family caregiving in palliative and end-of-life care: A New Emerging Team. British Columbia Hospice Palliative Care Conference, Vancouver, September 2005.
120. Williams A, Stajduhar K, Cohen SR, **Heyland DK**. An evaluation of Canada’s Compassionate Care Benefit (CCB): A pilot study. Canadian Hospice Palliative Care Association and Palliative Care Association of Alberta National Conference, Edmonton, September 25-28 2005.
121. Stajduhar K, Chappell N, Cohen SR, **Heyland DK**, Koop P, Williams A. Family caregiving in palliative and end-of-life care: A New Emerging Team. Canadian Hospice Palliative Care Association and Palliative Care Association of Alberta National Conference, Edmonton, September 25-28 2005.
122. **Heyland DK**, Pichora D, Allan D, Stajduhar K. End of life care in Canada: Family caregivers’ perspectives of hospital care. Canadian Hospice Palliative Care Association and Palliative Care Association of Alberta National Conference, Edmonton, September 25-28 2005.
123. Muscedere JG, Sinuff T, **Heyland DK**, Cook DJ. The prevention of ventilator associated pneumonia in Canadian Critical Care Units: A comparison of current practice with best practice as defined by evidence based clinical practice guidelines for the prevention of ventilator associated pneumonia. Presented at the Toronto Critical Care Medicine Symposium Oct 26-28, 2005.
124. Jones N, Dhaliwal R, Day A, Su Y, **Heyland DK**. Glycemic Control: What is happening in ICUs across Canada? Canadian J Gastroenterology 2006:19(1):549.
125. Parker C, Kutsiogiannis J, Muscedere J, Cook D, Dodek P, Day A, **Heyland DK**. Prevalence of and risk factors for ventilator-associated pneumonia caused by multidrug-resistant organisms or Pseudomonas aeruginosa in Canadian ICUs. Proceedings of the American Thoracic Society 2006:3:A741.
126. Muscedere JG, **Heyland DK**, Dodek P, Cook DJ, for the Canadian Critical Care Trials Group. A randomized trial of invasive diagnostic techniques and empiric broad-spectrum antibiotics for suspected ventilator-associated pneumonia. Proceedings of the American Thoracic Society 2006:3:A525a.
127. Stapleton RD, **Heyland DK**, Steinberg KP, Curtis JR. Association of caloric intake by enteral feeding and clinical outcomes in the ICU. Proceedings of the American Thoracic Society 2006:3: A737
128. Muscedere JG, **Heyland DK**. The burden of illness from ventilator associated pneumonia in Canada. Proceedings of the American Thoracic Society 2006:3:A526.
129. Dhaliwal R, Drover J, Cote H, Wischmeyer P, **Heyland DK**. Glutamine and antioxidant status in patients on admission to ICU: What do we know? Appl Physiol Nutr Metab 2006;31(3):340.
130. Jones N, Dhaliwal R, Day A, Ouellette-Kuntz H, **Heyland DK**. Factors predicting adherence to the Canadian clinical practice guidelines (CPGs) for nutrition support in mechanically ventilated, critically ill adult patients. Appl Physiol Nutr Metab 2006;31(3):348-9.
131. **Heyland DK**, Groll D, Dodek P, Rocker G, Pichora D, Frank C. Preferences for location of death: a multi-centre Canadian study. Can J Geriatrics 2006;9(2):73-74
132. Jones NE, Dhaliwal R, Day A, Ouellette-Kuntz H, **Heyland DK**. Factors predicting adherence to the Canadian Clinical Practice Guidelines (CPGs) for Nutrition support in mechanically ventilated, critically ill adult patients. Journal of Applied Physiology, Nutrition and Metabolism 2006;31:348.
133. Jones NE, Dhaliwal R, Ouellette-Kuntz H, **Heyland DK**. Barriers and enablers to adherence of the Canadian clinical practice guidelines (CPGS) for nutrition support in mechanically ventilated, critically ill adult patients. Abstracts of the 28th Congress of ESPEN 2006;32:P0013.
134. **Heyland DK**, Stuerke K, Sommermeyer K. Preclinical evaluation of the compatibility of parenteral glutamine dipeptides and selenium. Abstracts of the 28th Congress of ESPEN 2006;108:P0187
135. **Heyland DK**, Saberi F, Lam M, Rapson D, Jeejeebhoy K. Insulin resistance in critically ill patients: Correlation with inflammation, coagulation and clinical outcomes. Abstracts of the 28th Congress of ESPEN 2006;36:P0021
136. Dhaliwal R, **Heyland DK**, Su Y, Day A. Utilization of nutrition support in Canadian ICUs: Opportunities for improvement? Abstracts of the 28th Congress of ESPEN 2006;31:P0010.
137. **Heyland DK**, Dhaliwal R, Day A, Drover J, Cote H, Wischmeyer P. Optimizing the dose of glutamine dipeptides and antioxidants in critically ill patients: A phase I dose finding study. Abstracts of the 28th Congress of ESPEN 2006;35:P0019.
138. Berger MM, Eggimann P, **Heyland DK**, Chiolero RL, Revelly JP, Day A, Raffoul W, Shenkin A. Reduction of nosocomial pneumonia after major burns by trace element supplementation – Aggregation of two randomized trials. Crit Care 2006 (Nov);10(6):R153.
139. Sinuff T, Cook D, Meade M, Dodek P, **Heyland DK**, Giacomini M. Facilitating guideline adherence in the intensive care unit (ICU): A qualitative study. (TRIPP) Conference, Washington, DC., July 10-13, 2006. Crit Care Med 2006;Dec;34(12):A142
140. Sinuff T, Dodek P, Meade M, **Heyland DK**, Keenan SP, Rocker G, Cook DJ. Clinical practice guidelines in the ICU: A Canadian survey of physicians and nurses. (TRIPP) Conference, Washington, DC, July 10-13, 2006.
141. **Heyland DK**, Govert J, Garrard C. Waveform abnormalities of APTT in critically ill hospitalized patients: The WATTCH study. Crit Care Med 2006;Dec;34(12) A100
142. Newman P, Muscedere J, **Heyland DK**, Drover J, Houlden R, Day A, Su Y. Evaluation of a continuous glucose monitoring system in critically ill adult patients. Crit Care Med 2006;Dec;34(12):A66
143. Longo CJ, **Heyland DK**, Day A, Fisher HN, Fowler RA, Martin CM. A long term follow-up study investigating health related quality of life and resource use in survivors of severe sepsis: comparison of recombinant human activated protein C to standard care. Crit Care Med 2006;Dec;34(12):A110.
144. Joffe A, Muscedere J, Marshall J, Su Y, **Heyland DK** for the Canadian Critical Care Trials Group. Safety of targeted antibiotic therapy for ventilator associated pneumonia (VAP). Crit Care Med 2006;Dec;34(12):A102
145. Albert M, Friedrich JO, Adhikari NKJ, Day A, **Heyland DK**. Gram stain is a poor predictor of final culture result in ICU patients with suspicion of ventilator-associated pneumonia. Crit Care Med 2006;Dec;34(12):A3.
146. Allan D, **Heyland DK**, Homer S, Gafni A, Frank C, Stajduhar KI, Cohen R. Prognostic awareness, satisfaction with quality of care, and resource utilization at end of life. Canadian Association of Health Services and Policy Research, Vancouver, BC, September 17-19, 2006.
147. Tranmer J, Godwin M, McCans J, **Heyland DK**, O’Donnell D, Staples P, Bolton C, Lam M, Harrison M, Seguin, R. Primary care based, inter-professional and inter-sectoral management of persons with symptomatic chronic diseases. Canadian Association of Health Services and Policy Research, Vancouver, BC, September 17-19, 2006.
148. **Heyland DK**, Cohen R, Skrobik Y, Harvey J, Pichora D. Content validity and acceptability of “CANHELP” satisfaction instruments for French speaking patients with end-stage medical disease or metastatic cancer. J Palliative Care 2006;22(3):P153.
149. Newman P, Muscedere J, Houlden R, Drover J, **Heyland DK**.  Pilot study to assess the medtronic telemetered continuous monitoring system (TGMS) in critically ill patients. Can J of Diabetes 2006: 30(3) (Supp 1):A7.
150. Newman P, Muscedere J, Drover J, Houlden R, **Heyland DK**. Management of hyperglycemia using an insulin protocol in an adult intensive care unit – a quality assurance review. Presented at the Toronto International Symposium on Critical Care Medicine 2006.
151. Jones NE, Dhaliwal R, Suurdt J, Ouellette-Kuntz H, **Heyland DK**. Barriers and enablers to adherence of the Canadian Nutrition Support Clinical Practice Guidelines (CPGs) for nutrition support in mechanically ventilated, critically ill adult patients. Abstracts of the 28th Congress of ESPEN 2006;32:P0013.
152. Delisle M, Williamson D, Perreault M, Albert M, Jiang X, **Heyland DK**. Candida airway colonization is associated with worse outcomes. Critical Care 2007;11(Suppl 2): P110.
153. Parker C, Kutsogiannias J, Muscedere J, Cook D, Dodek P, Day A, **Heyland DK**. Outcomes from VAP caused by MDR organisms or Pseudomonas: results from 28 intensive care units. Critical Care 2007;11(Suppl 2): P89.
154. **Heyland DK**, Dhaliwal R, Muscedere J, Drover J for the Canadian Critical Care Trials Group. Feasibility of the REDOXS study: reducing deaths due to oxidative stress. A randomized pilot trial of glutamine and antioxidant supplementation in critically ill patients. Critical Care 2007;11(Suppl 2): P154.
155. **Heyland DK**, Dodek P, Muscedere J, Day A, Cook D. A randomized trial of combination versus monotherapy for the empiric treatment of suspected ventilator-associated pneumonia. Critical Care 2007;11(Suppl 2): P95.
156. McColl C, Muscedere J, Drover J, Squires M, Mahon B, **Heyland DK**. Patient and family satisfaction with care in step-down units. Critical Care 2007;11(Suppl 2): P482.
157. McColl C, Muscedere J, Drover J, Squires M, Mahon B, **Heyland DK**. Organizational culture and climate in step-down units. Critical Care 2007;11(Suppl 2): P481.
158. Paul N, **Heyland DK**, Cook D, Rocker G, Dodek P, Skrobik Y. CARENET: A resource for researchers in end-of-life care. J Palliat Care 2007;23(3):236.
159. Jones NE, Dhaliwal R, Day A, **Heyland DK**. Results of an optimal dose finding study of zinc supplementation in critically ill patients. SCCM, Honolulu, Hawaii, February 2-6, 2008. Crit Care Med 2007;35(12):A194.
160. McColl C, Muscedere J, **Heyland DK**, Jiang X, Shorr A. Ventilator associated pneumonia (VAP): Are we ready for a new diagnostic paradigm? SCCM, Honolulu, Hawaii, February 2-6, 2008. Crit Care Med 2007;35(12):A267.
161. McColl C, Muscedere J, Shorr A, Jiang X, **Heyland DK**. Determinates of outcome in patients with a clinical suspicion of VAP (CSVAP). SCCM, Honolulu, Hawaii, February 2-6, 2008. Crit Care Med 2007;35(12):A251.
162. Sanders K, Adhikari N, Friedrich J, Day A, **Heyland DK**. Previous cultures are not clinically useful for guiding empiric antibiotics in suspected ventilator associated pneumonia. SCCM, Honolulu, Hawaii, February 2-6, 2008. Crit Care Med 2007;35(12):A261.
163. Jones NE, Dhaliwal R, Wang M, **Heyland DK**. Feeding critically-ill patients: A comparison of nutrition practices in ICUs across the world. SCCM, Honolulu, Hawaii, February 2-6, 2008. Crit Care Med 2007;35(12):A191.
164. **Heyland DK**, Muscedere J, Drover J, Jiang X, Day A. Persistent organ dysfunction score (PODS): A novel, composite outcome measure for critical care studies. SCCM, Honolulu, Hawaii, February 2-6, 2008. Crit Care Med 2007;35(12):A165.
165. Sinuff T, Eva K, Meade M, Dodek P, **Heyland DK**, Cook D. Information resources for ICU decision making: attitudes towards clinical practice guidelines (CPGs). Proceedings of the American Thoracic Society, 2007:A592.
166. Muscedere J, **Heyland DK**, Dodek P, Keenan S. Cook D. Evidence-based clinical practice guidelines (CPGs) for ventilator-associated pneumonia (VAP): diagnosis and treatment. Proceedings of the American Thoracic Society, 2007:A105.
167. Dodek P, Muscedere J, Keenan S, Cook D, **Heyland DK**. Evidence-based clinical practice guidelines (CPGs) for ventilator-associated pneumonia (VAP): Prevention. Proceedings of the American Thoracic Society, 2007;A217.
168. Delisle M, Perreault M, Williamson D, Albert M, Jiang X, **Heyland DK**. Antifungal prescription practice of Canadian intensivists in patients with a clinical suspicion of VAP and positive candida airway cultures. 23rd International Conference on Pharmacoepidemiology & Therapeutic Risk Management.
169. Minor S, **Heyland DK**, Schroder C. Utilizing the ICU environment for the teaching of end of life skills. Association of Surgical Education. Washington DC, April 2007.
170. Jones NE, Suurdt J, Ouellette-Kuntz H, **Heyland DK**. Understanding adherence to clinical practice guidelines in the intensive care unit: A comprehensive and integrated framework. Guidelines International Network (GIN) Conference, Toronto, August 22-25, 2007.
171. Homer S, Allan DE, Rocker G, Dodek P, **Heyland DK**. Discussing prognosis with patients at the end of life and their families: Impact on satisfaction with end of life care. Canadian Hospice Palliative Care Association, Toronto, ON, November, 2007.
172. Stajduhar KI, Allan DE, Cohen SR, Pichora D, **Heyland DK**. Preferences for location of death: Perspectives from Canadian patients and their family caregivers. Canadian Hospice Palliative Care Association, Toronto, ON, November 2007.
173. Minor S, **Heyland DK**, Schroder C. Making a better ICU end-of-life palliative care curriculum: Recommendations based on an educational audit. Critical Care Canada Forum, Toronto, October 30-November 1, 2007.
174. Jones NE, Dhaliwal R, Suurdt J, Ouellette-Kuntz H, **Heyland DK**. What are the most effective strategies to implement nutrition guidelines in the intensive care unit? Opinions of key stakeholders. 29th European Society of Parenteral and Enteral Nutrition Congress, Prague, 8-11 September 2007.
175. Zytaruk N, Yeo C, **Heyland DK** et al. Informed consent to randomize patients in a thromboprophylaxis trial. SCCM, Honolulu, Hawaii, February 2-6, 2008.
176. Jones NE, Dhaliwal R, Suurdt J, Ouellette-Kuntz H, **Heyland DK**. ICU culture: the key to successfully feeding our critically ill patients? Clinical Nutrition Week, Chicago, February 10-13, 2008. Nutr Clin Pract 2008;23:237.
177. Gramlich LM, Alberda C, Jones N, Jeejeebhoy K, Stoklossa CJ, Duerksen D, Drover J, Tremblay A, Dhaliwal R, **Heyland DK**. Nutrition support in the critically ill adult: a comparison across body mass index. Clinical Nutrition Week, Chicago, February 10-13, 2008. JPEN 2008;32:331.
178. Shorr AF, Cook D, Jiang X, Muscedere J, **Heyland DK** for the Canadian Critical Care Trials Group. Correlates of clinical failure in ventilator-associated pneumonia. American Thoracic Society, Toronto, May 16-21, 2008.
179. Young J, Allan D, **Heyland DK**, Simpson A, Rocker G. What matters to family carers of patients with advanced COPD. American Thoracic Society International Conference, Toronto, May 16-21, 2008.
180. Rocker G, Dodek P, Schroder C, **Heyland DK**, Paul N. Assessing educational needs of internal medicine residents in end-of-life care: a national survey. American Thoracic Society International Conference, Toronto, May 16-21, 2008.
181. Shorr AF, Cook D, Jiang X, Muscedere J, **Heyland DK** for the Canadian Critical Care Trials Group. Correlates of clinical failure in ventilator-associated pneumonia. American Thoracic Society, Toronto, May 16-21, 2008.
182. Caldwell PH, Ross H, Rocker G, Dodek P, **Heyland** **DK**. on behalf of Canadian Researchers at the End of Life Network (CARENET). Perceptions about EOL issues in patients hospitalized with advanced HF. Oral presentation. European Society of Cardiology, Heart Failure Congress 2008, Milan, Italy, June 16, 2008.
183. Frank C, Pichora D, Suurdt J, **Heyland DK**. Development and use of a decision aid for communication with hospitalized patients about cardiopulmonary resuscitation preference. Canadian Journal of Geriatrics 2008;11(1):40-41.
184. Gramlich L, Wilkinson D, Townshend R, **Heyland DK** et al. Nutrition education in Canadian medical schools. Canadian Society for Clinical Nutrition Annual Meeting 2008. Applied Physiology, Nutrition and Metabolism 2008;33(3):615.
185. Jones N, Dhaliwal R, **Heyland DK**. Clinical practice guidelines for nutrition in the ICU: opinions of physicians and dietitians.Canadian Society for Clinical Nutrition Annual Meeting 2008. Applied Physiology, Nutrition and Metabolism 2008;33(3):619.
186. Jones N, Dhaliwal R, Wang M, **Heyland DK**. Feeding critically ill patients: what is happening in Canadian ICUs? Canadian Society for Clinical Nutrition Annual Meeting 2008. Applied Physiology, Nutrition and Metabolism 2008;33(3):619.
187. Strachan PH, Ross R, Rocker GM, Dodek P, **Heyland DK**. Opportunity knocks: family caregivers' priorities for improving end-of-life care for patients with heart failure. Oral presentation. Canadian Cardiovascular Congress, Toronto, Ontario. October 27, 2008.
188. Jones NE, Gramlich L, Alberda C, Drover J, Wang M, Day A, **Heyland DK**. The relationship between calories received and clinical outcomes in critically ill patients: Results of an international multicenter observation study. Clin Nutrition 2008;3(1 Suppl):47-48.
189. Jones NE, Gramlich l, Alberda C, Jeejeebhoy K, Johnson Stoklossa R, Duerksen D, Drover J, Tremblay A, Dhaliwal R, **Heyland DK**. In pursuit of the magic prescription: How are the energy requirements of critically ill patients being determined? Clin Nutrition 2008;3(1 Suppl):114-115.
190. Muscedere JM, Drover J, Jiang X, Day A, **Heyland DK**. Persistent organ dysfunction score (PODS) plus death: A novel, composite outcome measure for critical care nutrition studies. Clin Nutrition 2008;3(1 Suppl):37-38.
191. Dhaliwal R, Drover J, Muscedere J, **Heyland DK**. The REDOXS study: Feasibility of pharmaconnutrition in critically ill patients. Clin Nutrition 2008;3(1 Suppl):41.
192. Jones NE, Dhaliwal R, **Heyland DK**. Zinc supplementation in critically ill patients: A key pharmaconutrient? Clin Nutrition 2008;3(1 Suppl):38.
193. Narasimhan S, Jones N, Dhaliwal R, **Heyland DK**. Attitudes of physicians and dietitians towards the Canadian Nutrition Support Clinical Practice Guidelines: An international survey. Clin Nutrition 2008;3(1 Suppl):36.
194. Martin CM, Priestap F, **Heyland DK**, Longo CJ, Fowler RA, Keenan SP, Fisher H. Treatment and mortality of severe sepsis: results of a Canadian multicentre prospective observational study. Intensive Care Med 2008;34:S92.
195. Paul N, Suurdt J, Heyland J, Frank C, Wattam P, **Heyland DK**. Family caregivers of seriously ill hospitalized patients: Assessing their satisfaction with end-of-life care. CSIM Annual Scientific Meeting, October 15-18, 2008, Montreal, Quebec. J Palliat Care 2008;24(3):212.
196. **Heyland DK**, Schroder C, Jiang X, Rocker G, Dodek P. Educating medical residents in end-of-life care: Results of a National Survey. J Palliat Care 2008;24(3):194.
197. **Heyland DK**, Frank C, Tranmer J, Paul N, Pichora D, Jiang X, Day. Satisfaction with end-of-life care: a longitudinal study of patients and their family caregivers. J Palliat Care 2008;24(3):195.
198. Young J, Allan D, Caldwell P, **Heyland DK**, Rocker G. Beyond hospital discharge: Is there a role for clinical leaders in community care of patients/families living with advanced COPD and CHF? ACCP meeting 2008. Available at <http://www.chestnet.org>
199. Strachan PH, Ross R, Rocker GM, Dodek P, **Heyland DK**. Opportunity knocks: Family caregivers' priorities for improving end-of-life care for patients with heart failure. Oral presentation. Canadian Cardiovascular Congress, Toronto, Ontario. October 27, 2008.
200. Suurdt J, Paul N, Heyland J, Frank C, Wattam P, **Heyland DK**. Seriously ill hospitalized patients: Assessing their satisfaction with end-of-life care. Can J GIM 2008:3(4):167.
201. Jones N, Dhaliwal R, Day A, Jiang X, **Heyland DK**. Nutrition therapy in the critical care setting: What is “Best Achievable” Practice? An international multicenter observational study. Critical Care 2009;13(Suppl 1):P143.
202. Dhaliwal R, Drover J, Muscedere J, Jiang X, **Heyland DK**. Feeding enterally the hemodynamically unstable critically ill patient: experience from a multicentre trial (the REDOXS study). Critical Care 2009;13(Suppl 1):P144.
203. Jones NE, Stapleton R, McClave S, Dhaliwal R, Day A, **Heyland DK**. Does increased early enteral nutrition adequacy impact clinical outcomes in critically ill patients? Results of an international multicenter observational study. JPEN J Parenter Enter Nutr 2009;33(2):198.
204. Weitzel LB, Dhaliwal R, Drover J, Schiel G, **Heyland DK**, Mayles W, Wischmeyer P. Should perioperative immune-modulating nutrition therapy be the standard of care? A systematic review. Critical Care 2009;13(Suppl 1):P132.
205. Gramlich L, Wilkinson D, **Heyland DK** et al. Nutrition education in Canadian medical schools. Am Society for Parenter Enter Nutr Clin Nutr Week, 2009. Nutrition in Clinical Practice 2009;24:147.
206. Williamson D, **Heyland DK**, Martin A, Delisle MS, Perreault M, Day A, Jiang X, Muscedere J, Coleman R. Effect of candida spp. in respiratory tract secretions on systemic inflammation. Crit Care Med 2008;36:A115.
207. Perreault MM, Delisle MS, Williamson DR, Albert M, Jiang X, Day AG, **Heyland DK**. Impact of Candida species on clinical outcomes in patients with suspected ventilator-associated pneumonia and negative cultures. Crit Care Med 2008;36:A115.
208. Dhaliwal R, Drover J, Muscedere J, Jiang X, **Heyland DK**. Reducing deaths due to oxidative stress, the Redoxs Study: Can we provide adequate enteral nutrition to critically ill patients with shock? JPEN J Parenter Enter Nutr 2009;33(2):203.
209. Jones NE, Gramlich L, Alberda C, Jeejeebhoy K, Dhaliwal R, Day A, **Heyland DK**. Does pre-morbid nutritional status modify the relationship between energy and protein received and clinical outcomes in critically ill patients? Results of an international multicenter observational study. JPEN J Parenter Enter Nutr 2009;33(2):209.
210. Jones NE, Dhaliwal R, Wang Miao, Jiang X, **Heyland DK**. Feeding critically ill patients: What is happening in American ICUs? JPEN J Parenter Enter Nutr 2009;33(2):218.
211. Jones NE, Dhaliwal R, **Heyland DK**. Attitudes towards the Canadian Critical Care Nutrition Clinical Practice Guidelines: A comparison of physicians and dietitions. JPEN J Parenter Enter Nutr 2009;33(2):188.
212. Dodek P, Wong H, **Heyland DK** et al. Relationship between organizational culture and family satisfaction in critical care. Am J Respir Crit Care Med 2009;179:A2474.
213. Sinuff T, Muscedere J, **Heyland DK** et al. Measuring appropriate guideline use in the ICU: Guideline adherence or concordance? Am J Respir Crit Care Med 2009;179:A3106.
214. Sinuff T, Muscedere J, **Heyland DK** et al. Concordance with guidelines to prevent ventilator associated pneumonia (VAP). Am J Respir Crit Care Med 2009;179:A5835.
215. Sinuff T, Muscedere J, **Heyland DK** et al. High prevalence of guidelines and patient safety initiatives in the ICU. Am J Respir Crit Care Med 2009;179:A3112.
216. Muscedere J, Sinuff T, **Heyland DK** et al. Variation of tracheostomy practice. Am J Respir Crit Care Med 2009;179:A3075.
217. Muscedere J, Sinuff T, **Heyland DK** et al. Outcomes and predictors of long-term ventilation in patients mechanically ventilated (MV) more than 48 hours. Am J Respir Crit Care Med 2009;179:A3800.
218. Mourtzakis M, Fan C, **Heyland DK**. Skeletal muscle measured at the time of ICU admission may be a determinant of clinical outcomes. Critical Care Canada Forum, 2009. Awarded Best Basic/Translational Science Poster.
219. Edwards AG, Queensland KM, Hamiel C, Weitzel L, **Heyland DK**, Wischmeyer PE. Compared to ICU patients alive at day 28, deceased ICU patients show decreasing levels of HSP70 at day 7 of hospital stay. Crit Care Med 2010;37(12):A321.
220. Weitzel L, Queensland KM, **Heyland DK**, Wischmeyer P. Elevated admission IL-8 level is associated with mortality in critically ill adults. Crit Care Med 2010;37(12):A229.
221. Murch L, Cahill N, Jeejeebhoy, McClave S, Day A, Wang M, **Heyland DK**. When early enteral feeding is not possible in critically ill patients: Results of a multicenter observational study. JPEN 2010;34(2):173.
222. Cahill N, Sinuff T, Dhaliwal RD, Wang M, Day A, **Heyland DK**. The value of ‘Audit and Feedback Reports’ in improving nutritional therapy in the intensive care unit: A multicenter observational study. JPEN 2010;34(2):205.
223. Drover J, Cahill N, Kutsogiannis J, Paglierello J, Wischmeyer P, Wang M, Day A, **Heyland DK**. Nutrition therapy for the critically ill surgical patient: Can we do better? JPEN 2010;34(2):207.
224. **Heyland DK**, Cahill N, Dhaliwal RD, Wang M, Day A, Alenzi A, Aris F, Muscedere J, Ilan R, Drover J, McClave S. Enhanced protein-energy provision via the enteral route in critically ill patients: A single center feasibility trial of The PEP uP Protocol. JPEN 2010;34(2):208-9.
225. Weitzel LR, Queensland K, **Heyland DK**, Wischmeyer PE. Evaluation of biomarkers to stratify patients for enrollment in clinical trials of immune modulating nutrients in the intensive care unit. JPEN 2010;34(2):203-4
226. Dhaliwal R, **Heyland DK**, Cahill N, Sun X, Day A, McClave S. The impact of enteral feeding protocols on enteral nutrition delivery: results of a multicenter observational study. JPEN 2010;34(2):201-2.
227. Stapleton RD, Cahill N, **Heyland DK**. Who is not receiving nutrition in our ICUs? JPEN 2010;34(2):231-2.
228. Dhaliwal R, Cahill N, Day A, Jiang X, **Heyland DK**. The presence of an ICU dietitian is associated with top performance in ICUs around the world: results of the Best of the Best award analysis. Clinical Nutrition Week, Appl Physiol Nutr Metab 2010;35(3):383.
229. **Heyland DK**, Day AG, Stephens KE, McClave SA. The effect of increased enteral nutrition on ICU-acquired infections: A multicenter observational study. Critical Care 2010;14(Suppl 1):P555.
230. **Heyland DK**, Cahill NE, Wang M, Kutsogiannis DJ, Alberda C, Gramlich L. Benefit of supplemental parenteral nutrition in the critically ill patient? Results of a multicenter observational study. Critical Care 2010;14(Suppl 1):P557.
231. Muscedere JG, Shorr AF, Jiang X, **Heyland DK**. Adequacy of empiric antibiotic therapy for ventilator associated pneumonia: Still an important determinant of outcome. Am J Respir Crit Care Med 2010;181(1):A3239.
232. Muscedere JG, **Heyland DK** et al. The characteristics and clinical outcomes of mechanically ventilated patients with culture negative clinically suspected respiratory tract infections. Am J Respir Crit Care Med 2010;181(1):A3240.
233. Martino JL, Stapleton RD, Cahill NE, Suratt BT, **Heyland DK**. Extreme obesity and outcomes in critically ill patients. Am J Respir Crit Care Med 2010;181(1):A1646.
234. Henrich N, Madani A, Dodek P, **Heyland DK**, Cook DJ et al. Qualitive analysis enhances a quantitative ICU family satisfaction survey. Am J Respir Crit Care Med 2010;181(1):A2404.
235. Fan C, Mourtzakis M, **Heyland DK**. Precise evaluation of skeletal muscle and adipose tissue losses during ICU admission. Clinical Nutrition Week. Appl Physiol Nutr Metab 2010;35(3):389.
236. Gramlich L, Kutsogiannis J, Alberda C, Robbins S, Cahill N, **Heyland DK**. Benefit of supplemental parenteral nutrition in the critically ill patient – role of GI tract dysfunction and BMI. Clinical Nutrition Week. Appl Physiol Nutr Metab 2010;35(3):395.
237. **Heyland DK**, Jiang X, Dhaliwal R, Cahill N, Day AG. The development of a nutrition risk assessment tool for critically ill patients. Appl Physiol Nutr Metab 2010;35(3):336-43.
238. Murch LA, Cahill NE, Day AG, Wang M, **Heyland DK**. Current nutrition practices in Canadian intensive care units: results of an international multicenter observational study. Appl Physiol Nutr Metab 2010;35(3):410.
239. **Heyland DK**, Cook D, Rocker G, et al. The development and validation of a novel questionnaire to measure patient and family satisfaction with end of life care: The Canadian Health Care Evaluation Project (CANHELP) Questionnaire. Presented at the 18th International Congress on Palliative Care, Montreal, Canada, October 5-8th, 2010. Co-winner, Best Scientific poster. J Palliat Care 2010;26:234.
240. **Heyland DK**, Cook D, Rocker G, Dodek P, Kutsogiannis D, Skrobik Y, Jiang X, Day A, Cohen R. Patient and family caregiver satisfaction with end of life care in Canada: Defining high priority opportunities for improvement. 18th International Congress on Palliative Care, Montreal, October 5-8, 2010. J Palliat Care 2010;26:210.
241. Higgins D, Queensland K, Sufit A, **Heyland DK**, Wischmeyer P. Impact of vitamin D deficiency on outcome in critically ill patients. SCCM’s 40th Critical Care Congress, San Diego, CA Jan 15-19, 2011. Crit Care Med 2010;38(12)(Suppl):34.
242. Cahill NE, Ting Lim W, Dhaliwal R, Wang M, **Heyland DK**. How are we feeding the critically ill elderly? A multicenter observational study. Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):30.
243. Cahill N, Murch L, Dhaliwal R, **Heyland DK**. Barriers to feeding critically ill patients: A survey of critical care nurses. Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):30.
244. Dhaliwal R, Cahill N, Wang M, **Heyland DK**. Enteral nutrition in North American ICUs: What formulas are being used? Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):35.
245. Higgins D, Queensland K, Wischmeyer P, Sufit A, **Heyland DK**. Impact of vitamin D deficiency on outcome in critically ill patients. Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):134. Abstract of Distinction.
246. McClave S, Saad M, Jotautas A, Franklin G, **Heyland DK**, Anderson M. Volume-based feeding in the critically ill patient. Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):134-5. Abstract of Distinction.
247. Weitzel Lindsay B, Khailova L, Queensland K, **Heyland DK**, Wischmeyer P, Dominguez JA. Epiderman growth factor is depleted and predicts sequential organ failure assessment score in adult ICU patients. Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):31.
248. Kozar R, Dyer C, Bulger E, Mourtzakis M, Wade CE, **Heyland DK**. Elderly trauma patients: highest risk, fewest calories. Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):37.
249. Wade CE, Kozar R, Dyer C, Bulger E, Mourtzakis M, **Heyland DK**. Trauma patients increased caloric and protein requirements are not met. Clinical Nutrition Week, Vancouver, BC, Jan 29-Feb 1, 2011. JPEN J Parenter Enteral Nutr 2011;35(1):65.
250. Moore FA, Ziegler TR, **Heyland DK**, Marik PE, Bistrian BR. Developing research programs in clinical and translational nutrition. JPEN J Parenter Enteral Nutr 2010:34(6 Suppl): 975-105S.
251. Cahill NE, Murch LA, **Heyland DK**. Barriers to feeding critically ill patients: do they differ across ICUs? Appl Physiol Nutr Metab 2011;36;442.
252. Premji T, Mourtzakis M, Jeejeebhoy K, **Heyland DK**. High fat mass upon admission to the intensive care unit (ICU) is associated with improved clinical outcomes in critically ill patients. Appl Physiol Nutr Metab 2011;36:477-478. Presented at Canadian Nutrition society, Guelph, ON, June 2011
253. Kryworuchko J, Stacey D, Peterson E, **Heyland DK**, Graham ID. A qualitative study of family involvement in decisions about life support in the intensive care unit. Am J Hosp Palliat Care 2012 Feb published online (PMID: 21737407)
254. Kryworuchko J, Graham I, Peterson W, **Heyland DK**, Stacey D. Field testing a patient decision aid to engage families in decision making about life support in the intensive care unit. Maastricht, Netherlands: International Shared Decision Making conference. June 2011.
255. Kryworuchko J, Stacey D, Peterson W, **Heyland DK**, Graham I. A qualitative study of family involvement in decisions about life support in the intensive care unit. In Maastricht, Netherlands: International Shared Decision Making Conference. June 2011.
256. Ilan R, **Heyland DK**, Muscedere J, Harris, GA. Patient safety coordinator to improve adherence to evidence based practices in the ICU: An interventional study in an academic centre, Critical Care Canada Forum, Toronto, ON, November 2011.
257. Premji T, Mourtzakis M, **Heyland DK**, Kozar RA. Body composition, specifically muscle mass, may be associated with poor clinical outcomes in injured elderly patients admitted to the intensive care unit (ICU). Critical Care Canada Forum, Toronto, ON, November 2011.
258. Muscedere J, Rewa O, McKechnie K, Laporta D, Jiang X, **Heyland DK**. Subglottic secretion drainage for the prevention of ventilator associated pneumonia: A systematic review and meta analysis. Crit Care Med 2011;183:A6232.
259. Muscedere J, Sinuff T, Cook D, **Heyland DK** et al. Active observational study of the adoption and transfer of clinical practice guidelines through education, for ventilator associated pneumonia: The ABATE VAP Study. Am J Resp Crit Care Med 2011;183:A3736.
260. Epstein D, Unger J, Ornelas B, **Heyland DK**, et al. Measuring decision-making and information seeking preferences of parents of critically ill children. Society of Critical Care Medicine Annual Congress in Houston, TX, Feb 4-8, 2012. Crit Care Med 2011;39(12), A679.
261. Epstein D, Unger J, Ornelas B, **Heyland DK** et al. Comparison of family satisfaction between Caucasian and Latino parents of critically ill children. Society of Critical Care Medicine Annual Congress in Houston, TX, Feb 4-8, 2012. Crit Care Med 2011;39(12), A681.
262. Epstein D, Unger J, Ornelas B, **Heyland DK** et al. Psychometric evaluation of the family satisfaction in the intensive care unit survey (FS-ICU 24) in parents of critically ill children. Society of Critical Care Medicine Annual Congress in Houston, TX, Feb 4-8, 2012. Crit Care Med 2011;39(12), A682.
263. Reynolds S, Shorr A Muscedere J, Xuran J, **Heyland DK**. Procalcitonin kinetics in a heterogeneous group of critically ill patients. Crit Care Med 2011;39(12):212.
264. You JJ, **Heyland DK**, Dodek P, Lamontagne F, Barwish D et al. Opportunities to improve end-of-life communication and decision-making for seriously ill hospitalized patients and their families. 3rd International Society of ACPEL Conference, Chicago, MI, May 31 – June 2, 2012. BMJ Supportive & Palliative Care 2012;2(2):190.
265. **Heyland DK**, Dodek P, Lamontagne F, You JJ et al. Advance care planning evaluation in hospitalized elderly patients: A multicenter, prospective study (The ACCEPT Study). 3rd International Society of ACPEL Conference, Chicago, MI, May 31 – June 2, 2012. BMJ Supportive & Palliative Care 2012;2(2):195.
266. **Heyland DK**, Dodek P, Lamontagne F, You JJ et al. The development and validation of a questionnaire to audit advance care planning (ACP). 3rd International Society of ACPEL Conference, Chicago, MI, May 31 – June 2, 2012. BMJ Supportive & Palliative Care 2012;2(2):175-76.
267. Kryworuchko J, Strachan P, Heyland RD, **Heyland DK**. Perspectives of community dwelling octogenarians about the use of life-sustaining technologies for their future care. ACPEL Conference, Chicago, MI, May 31 – June 2, 2012. BMJ Supportive & Palliative Care 2012;2(2):199.
268. **Heyland DK**, Pichora D, Jiang X, Day a, Cohen SR. The development and validation of a shorter version of the CANHELP Lite. BMJ Supportive & Palliative Care 2012;2(2):198.
269. Simon J, Barwich D, **Heyland DK**, You JJ, Tayler C, Dodek P et al. Advance care planning evaluation in hospitalized elderly patients: a multicenter, prospective study (The ACCEPT Study). Annual Canadian Society of Palliative Physicians Annual Meeting, Kingston, Ontario June 7-9, 2012.
270. Barwich D, You JJ, **Heyland DK**, Hanvey L, Baxter S, et al. Advance care planning and the ACCEPT Study: How are we doing and how can we improve? 19th International Congress on Palliative Care, October 9-12, 2012, Montreal, Quebec.
271. Epstein D, Unger JB, Ornelas B, Chang JC, Markovitz BP, Moromisato DY, Dodek PM, **Heyland DK**, Gold JI. Comparison of family satisfaction between Latino English and Spanish speaking parents/caregivers of critically ill children. Abstract from the 19th Pediatric Critical Care Colloquium, Santa Monica, California, Sept 6-9, 2012. Pediatr Crit Care Med 2012;13(6).
272. Epstein D, Unger JB, Ornelas B, Chang JC, Markovitz BP, Moromisato DY, Dodek PM, **Heyland DK**, Gold JI. Comparing Decision-Making and Information Seeking Preferences of Latino English and Spanish-Speaking Parents/Caregivers of Critically Ill Children.  Abstract from the 19th Pediatric Critical Care Colloquium, Santa Monica, California, September 6-9, 2012. Pediatr Crit Care Med 2012;13(6).
273. Sinuff T, Muscedere J, Adhikari N, Stelfox T, **Heyland DK** et al. The quality of knowledge translation studies in critical care for the KRITICAL Study Group and the Canadian Critical Care Trials Group. Abstract from the American Thoracic Society 2012 International Conference, May 18-23, 2012. San Francisco, California. Am J Respir Crit Care Med 2012;185;2012:A1483.
274. Sinuff T, Garland A. Adhikari N. Stelfox T, **Heyland DK** et al for the KRITICAL Study Group and the Canadian Critical Care Trials Group. Knowledge translation interventions for critically ill patients: A systematic review for the KRITICAL Study Group and the Canadian Critical Care Trials Group. Abstract from the American Thoracic Society 2012 International Conference, May 18-23, 2012. San Francisco, California. Am J Respir Crit Care Med 2012;185;2012:A2460.
275. Tayler C, Hanvey L, Teixeira AA, Barwich D, Baxter S, **Heyland DK**. Engagement in advance care planning: do region-wide interventions work? Abstract from 4th International Society of Advance Care Planning & End of Life Care Conference, May 9-11, 2013, Melbourne, Australia. ACPEL, BMJ Support Palliat Care 2013;3:233-234.
276. Dhaliwal R, Drover J, Muscedere J, **Heyland DK** et al. Canadian Clinical Practice Guidelines for nutrition support in the critically ill in 2013: What are the latest recommendations? JPEN J Parenter Enteral Nutr 2013, Apr 22 (epub).
277. Manzanares W, Dhaliwal R, Jurewitsch B, Stapleton RD, Jeejeebhoy KN, **Heyland DK.** Parenteral Fish oil lipid emulsions in the critically ill: a systematic review and meta-analysis. JPEN J Parenter Enteral Nutr 2014 Jan;38(1):20-8. (PMID: 23609773)
278. The DECIDE Study Investigators. Physicians’ and nurses’ perceived barriers to end-of-life communication and decision-making with hospitalized medical patients and their families: a multicentre, mixed methods study. Accepted for oral presentation at Canadian Society of Internal Medicine Annual Scientific Meeting 2013, Toronto, ON, October 5, 2013.
279. Elke G, Wang M, Weller N, Day AG, **Heyland DK**. Increased calorie and protein intake by enteral nutrition is associated with improved outcome in septic patients – secondary analysis of a large international nutrition database. Intensive Care Med 2013;39 (Suppl 2):S421.
280. Dhaliwal RD, Lemieux M, Wang M, **Heyland DK**. Assessment of a novel nutrition screening tool for critically ill patients. JPEN 2014 Jan:38(1):135
281. Wei S, Day A, Quellette-Kuntz H, **Heyland DK**. Nutritional adequacy and health-related quality of life in critically ill patients requiring prolonged mechanical ventilation. JPEN 2014 Jan:38(1):136
282. Wei S, Day A, Ouellette-Kuntz H, **Heyland DK**. Nutritional adequacy and long-term survival in critically ill patients requiring prolonged mechanical ventilation. Clinical Nutrition Week January 18-21, 2014, Savannah, Georgia.
283. Marshall AP, Dhaliwal R, Weisbrodt L, Lemieux M, **Heyland DK** et al. Optimal nutrition by informing and capacitating family members of best practices: The OPTICs feasibility study. Clinical Nutrition Week January 18-21, 2014, Savannah, Georgia.
284. Leung R, **Heyland DK**, Dhaliwal R et al. The inter-rater reliability of bedside ultrasounds of the femoral muscle thickness in critically ill patients. Clinical Nutrition Week January 18-21, 2014, Savannah, Georgia.
285. **Heyland DK**, Dhaliwal R, Cahill N, Jiang X. A revised questionnaire to assess barriers to adequate nutrition in the critically ill. Clinical Nutrition Week January 18-21, 2014, Savannah, Georgia.
286. Headdon W, Czapran A, Deane A, Chapman M, Lange K, **Heyland DK**. International observational study of nutritional therapies in critically ill patients with burn injury. Anaesthesia and Intensive Care, 2014 Oct Vol. 42 No. 1, 2014.
287. Rheaume C, Fillion MJ, Klein D, Pliamm L, Jeejeebhoy K, Brauer P, Tremblay A, **Heyland DK**, Dhailwal R, Leung R. Program of lifestyle modification in patients with the metabolic syndrome. Preliminary results of the study CHANGE: Canadian Health Advances by Graded Exercise and Nutrition. 9th Scientific Congress of the Department of Family Medicine and Emergency Medicine. May 15 2014
288. Cohen SR, Sawatzky R, Shahidi J, **Heyland DK**, Jiang X, Day A, Russell, LB, Gadermann, AM. McGill Quality of Life Questionnaire (MQOL) – Revised. 20th International Congress on Palliative Care, Montreal, QC, Canada, Sept 9-12, 2014. J. Palliat Care 2014; 30(3):248.
289. **Heyland DK**, Dhaliwal R, Lemieux M, Day A, Wang M. Implementing the Pep Up Protocol in Critical Care Units in Canada: Results of a Mulitcenter, Quality Improvement Study. ESPEN Sept 6-9, 2014, Geneva Switzerland Clinical Nutrition Sept 2014 (33) S24
290. Dhaliwal R, Wang M, DayA, **Heyland DK**.  The Prevalance of Iatrogenic Underfeeding in the Nutrionally At-Risk’Critically Ill Patient: Results of an International, Multicenter, Prospective Study. ESPEN Sept 6-9, 2014, Geneva Switzerland Clinical Nutrition Sept 2014 S 26.
291. Moisey L, Mourtzakis M, Kozar R, Compher C, **Heyland DK**. Comparison Between Computed Tomography and Predioctive Equations in Estimating Lean Body Mass: Preliminary Results. ESPEN Sept 6-9, 2014, Geneva Switzerland Clinical Nutrition Sept 2014 S 31.
292. Rahman A, Martin C, Agarwala R, **Heyland DK**. Identifying Critically-Ill Patients Who Will Benefit Most From Nutritional Therapy: Further Validation of the “Modified NUTRIC” Nutritional Risk Assesment Tool. ESPEN Sept 6-9, 2014, Geneva Switzerland Clinical Nutrition Sept 2014 S 2.
293. Mehta NM, Bechard LJ, Zurakowski D, Duggan CP, **Heyland DK**. The Impact of Unintended Macronutrient Intake Inadequacy on Outcomes in Critically Ill Children - spotlight on Protein Delivery in the PICU. Clinical Nutrition Week Febuary 14-17, 2015, Long Beach, California.
294. Lamontagne F, Meade MO, **Heyland DK**, Hebert P, Lauzie F, Seely A, Mehta S, Muscedere J, Kanji S, Turgeon AF, Ferguson ND, Herridge MS, Subramanian S, Cook DJ, Bagshaw SM, Adhikari N, Scales DC, Day A, Lacroix J, Fox­Robichaud A, Green R, Asfar P, Tanguay T, Koo K, Magder SA, Whitlock R. The Optimal VAsopressor TItratiON (OVATION) Pilot Randomized Controlled Trial. ATS May 15-20, 2015, Denver, Colorado. ATS Journals C23 pp. A6418-A6418
295. Costello L., Chapman M. Lange K., Deane A., **Heyland DK.,** Nutrition support practices in critically ill head injured patients. A global perspective University of Adelaide Faculty of Health Sciences Postgraduate Research Conference, Adelaide, Austrailla June 2015
296. Costello L**,**Chapman M, Lange K, Deane A, **Heyland DK.**  Nutrition support practices in critically ill head injured patients. A global perspective. European Intensive Care Society Meeting, Berlin, Germany, October 2015
297. Chapple L, Deane A, **Heyland DK**, Lange K, Kranz A, Williams L, Chapman M. *Are weekends different? Comparisons of oral intake in hospitalized patients recovering from critical* illness. Clinical Nutrition Week, American Society of Parenteral and Enteral Nutrition, Austin, Texas, February 2016.
298. Howard M, Elston D, Arora N, Hanvey L, Slaven M, Bernard C, Klein D, Tan A, You J, Asselin G, Mroz L, Heyland R, Barwich D, **Heyland DK.** Barriers to advance care planning with patients in primary care: a multicenter survey of clinicians. Poster. Hospice Palliative Care Ontario Annual Conference. Richmond Hill, Ontario, Canada. April 17-19, 2016.
299. Elston D, Howard M, Arora N, Hanvey L, Slaven M, Bernard C, Klein D, Tan A, You J, Asselin G, Mroz L, Heyland R, Barwich D, **Heyland DK**. Measuring engagement in advance care planning (ACP) in primary care: results of the ACCEPT survey. Poster. Hospice Palliative Care Ontario Annual Conference. Richmond Hill, Ontario, Canada. April 17-19, 2016
300. Chapple L**,** Deane A, **Heyland DK**, Lange K, Kranz A, Williams L, Chapman M. , *Energy and protein deficits throughout hospitalization in patients admitted with a traumatic brain injury*. European Society of Parenteral and Enteral Nutrition, Copenhagen, Denmark, September 2016.
301. Howard M, Bernard C, Klein D, Tan A, Barwich D, You J, Slaven M, Elston D, Arora N, Hanvey L, Asselin G, Mroz L, Heyland R, **Heyland DK**.  Barriers and Enablers to Advance Care Planning with Patients in Primary Care:  a Survey of Clinicians. 21st International Congress in Palliative Care. Montreal, QC, October 21, 2016
302. Howard M, Bernard C, Klein D, Tan A, Barwich D, You J, Slaven M, Elston D, Arora N, Hanvey L,Asselin G, Mroz L, Heyland R, **Heyland DK**.  Barriers and Enablers to Advance Care Planning with Patients in Primary Care:  a Survey of Clinicians. 21st International Congress in Palliative Care. Montreal, QC, October 21, 2016
303. Chapple L, Deane A, WilliamsL, StricklandR, SchultzC, Lange K, **HeylandDK,** Chapman M. *Changes in muscle thickness throughout hospitalisation after traumatic brain injury*. European Society of Intensive Care Medicine Congress, Milan, Italy, October 2016.
304. Chapple L, Deane A, Williams L, Strickland R, Schultz C, Lange K, **Heyland DK**, Chapman M. 2016,*Longitudinal changes in body composition and impact on self-reported physical function following traumatic brain injury*. Australian and New Zealand Intensive Care Society Intensive Care Annual Scientific Meeting. Perth, Australia, 2016
305. Chapple L, Deane A, Williams L, Strickland R, Schultz C, Lange K, **Heyland DK**, Chapman M. *Longitudinal changes in body composition and impact on self-reported physical function following traumatic brain injury*. Australian Society of Parenteral and Enteral Nutrition Annual Scientific Meeting (AuSPEN). Melbourne, Australia. 2016
306. You J, Simon J, Sharma N, Allatt P, Swinton M, Mantle C, Consoli A, Freeman G, Jayaraman D, **Heyland DK**. Acceptability and potential utility of a novel values clarification tool to enable person-centred conversations about goals of care. International Congres on Palliative Care. 2016 Oct. JPSM Volume 52, Issue 6, Page e75 DOI:10.1016/j.jpainsymman.2016.10.149
307. Howard M, Bernard C, Klein D, Tan A, Slaven M, Barwich D, You J, Elston D, Arora N, Hanvey L, Asselin G, Mroz L, Heyland R, **Heyland DK**. Barriers and enablers to implementing advance care planning with patients in primary care: a multicentre survey of clinicians. North American Primary Care Research Group (NAPCRG) Conference. Colorado Springs, Colorado, November 12-16, 2016.
308. You J, Swinton M, Mantle C, Jayaraman D, **Heyland DK**. Effect of a Video Decision Aid on Clinical Decision-Making About Cardiopulmonary Resuscitation. Internationa Congress on Palliative Care. 2016 Oct. JPSM December 2016 Volume 52, Issue 6, Page e77
309. **Heyland DK**., Rooyakers O., Mourtzakis M., Stapleton RD. , Journal of Parenteral and Enternal Nutrition 2017 Feb., Volume 41 Number 2, 208-216
310. Chourdakis M., Day AG., Doundoulakis J**., Heyland DK**, Are ALL Low NUTRIC Score patients the Same? The Impact of Optimal Nutrition intake in Low NUTRIC patient Subgroups, Clinical Nutrition Week 2017- Orlando, Florida JPEN vol. 41, 2 pp. 266-300
311. **Heyland DK**., Lemieux M., McDonald BJ., Stoppe C., A Randomized Trial of Selenium supplementation in High-Rish Cardiac Surgery Patients: Results of a Multicentre Pilot Study, Clinical Nutrition Week 2017- Orlando, Florida JPEN vol. 41, 2pp. 266-300
312. **Heyland DK**., Weijs, PJM., Coss-Bu JA., Taylor B., Kristof AS., O’Keefe GE, Martindale RG., Nutrition in Clinical Practice 2017-April Volume 32 Supplement 1 58S-71S
313. Howard M., Elston D., Allat P., Bernard C. Slaven m., You J. Klein D., Tan A., Barwich D. Sudore R., Arora N., Fuller N., Mroz L. **Heyland DK.,** Heyland R., Efficacy of Advance Care Planning (ACP) Web Sites and Workbooks to Improve patient Engagement in Primary Care: The Results of Tool Evaluations, Hospice Palliative Care Ontario Annual Conference, Richmond Hill, Ontario, Canada April 23-25, 2017
314. Sudore R., **Heyland DK**., Lunn HD., Rietjens JA. Korfage I., Ritchie CS., Hanson LC., Meier DE., Pantilat S.Z., Lorenz K., Howard M., Green MJ., Feuz MA., You JJ., Simon JE., Outcomes that Define Successful Advance Care Planning: A Delphi Panel Consensus JPSM Volume 5, Issue 5 ,Pages 821-832 e1 May 2017
315. Howard M, McKenzie M, Robinson C, Fyles G, Bernard C, Slaven M, Arora N, Elston D, Heyland B, McFee E, Klein D, Tan A, Barwich D, Sudore R, **Heyland DK**. *Efficacy of the PREPARE website to engage patients in advance care planning in primary care and cancer outpatient care: a prospective study*. International Society of Advance Care Planning & End of Life Care (ACPEL). Banff, Alberta, Canada. September 8, 2017.
316. Howard M, Allatt P, Bernard C, Klein D, Tan A, Slaven M, Barwich D, You J, Sudore R, Elston D, Arora N, Hanvey L, Mroz L, Heyland R, **Heyland DK,** Mueen M. *Efficacy of Advance Care Planning (ACP) Interactive Web Sites and Workbooks to Improve Patient Engagement in Primary Care: The Results of Tool Evaluations*. Canadian Hospice Palliative Care Conference. Ottawa, Ontario, Canada. September 22, 2017.
317. Nijjar A., Dodek P**., Heyland DK**., Howard M., Bansback N., Aora N., Elston D., Kobewa D., Development and validation of a constrained values clarification tool for end of life care American Thoracic Society Meeting, San Diego, May 23, 2018.
318. Howard M, Allatt P, Bernard C, Klein D, Tan A, Slaven M, Barwich D, You J, Sudore R, Elston D, Arora N, Hanvey L, Mroz L, Heyland R, **Heyland DK**, Mueen M. Efficancy of Advance Care Planning (ACP) Interactive Web Sites and Workbooks to Improve Patient Engagement in Primary Care: The Results of Tool Evaluations. 22nd International Congress in Palliative Care. Montreal, Quebec, Canada. October 2-5, 2018.
319. Howard M, Tan A, Bernard C, Slaven M, Heyland DK. A Randomized Trial of a Novel Decision Support Intervention in the Context of Serious Illness to Increase Preparation of Substitute Decision-Makers for Decision-Making. Poster. North American Primary Care Research Group (NAPCRG), Chicago, United States, November 12, 2018.
320. Howard M, Bernard C, Slaven M, Tan A, Heyland R, Bailey A, **Heyland DK**. A Decision Aid for Serious Illness to Increase Preparation for Decision-making. Poster. Family Medicine Forum. Toronto, Ontario, Canada. November 14, 2018.
321. Tan A, Bernard C, Slaven M, Howard M, Elston D, **Heyland DK**. Examining patient-reported barriers to talking about Advance Care Planning (ACP) with family physicians: a multi-site survey. International Advance Care Planning (ACP-i) Conference, Rotterdam, The Netherlands, March 13-16, 2019.
322. Howard M, Bernard C, Slaven M, Tan A, Barwich D, Klein D**, Heyland DK**. Primary care physicians’ confidence, willingness and participation in advance care planning discussions: a multi-site survey. International Advance Care Planning (ACP-i) Conference, Rotterdam, The Netherlands, March 13-16, 2019.
323. Van Zanten A., Grau T., Evans D., Beishuizen B., Miguel G., Perez A., Klein D., **Heyland DK.** Prognositc Factors fro Clinical and Nutritional outcomes in Critically Ill Patients with Enteral Feeding intolerance: follow-On Analyses from the Promote Trials 41th ESPEN Congress Krakow, Poland, August 31-Sept. 03, 2019.
324. Kobewka D., Bansback N., Dodek P. **Heyland DK.,** Forster A., Nijjar A., Brehaut J., You J., A Randomized Controlled Trial of a CPR Video Decision Aid and Values Clarification Tools for Hospitalized Patients with a High Risk of Death, Society for Medical Decision Making, Portland, Oregon, October 2019

**Published Letters**

1. Soskolne C, **Heyland DK**, Phillips E. Human T Lymphotropic virus: Exposure and Prognosis. Can Med Assoc J. 1986:134:575-577.
2. **Heyland DK**, Drover J, Aitken S for the Kingston ICU Journal Club. The effectiveness of right heart catheterization in seriously ill patients. JAMA 1997;277:108-13.
3. **Heyland DK**, Drover J. A prospective randomized, double-blind, controlled clinical trial of immunonutrition. Crit Care Med 2000;28:906.
4. **Heyland DK**, Drover J, Dhaliwal R for the Canadian Clinical Practice Guidelines Committee. Does the addition of glutamine to enteral feeds affect patient mortality? Crit Care Med 2006;July;34(7):2031-2.
5. Thomson A, McClave SA, **Heyland DK**. Nutrition therapy in acute pancreatitis. JPEN J Parenter Enteral Nutri 2006;Nov-Dec;30(6):536-538.
6. Heller AR, Mayer K, **Heyland DK**. Fish oil in sepsis: if you want to catch more fish, use more hooks. JPEN J Parenter Enteral Nutr 2011 (Mar-Apr);35(2):154-5.
7. Elke G, **Heyland DK**. Residual gastric volume and risk of ventilator-associated pneumonia. JAMA 2013;309(20):2090.
8. **Heyland DK**, Dhaliwal R, Lemieux M. More questions than answers. JPEN J Parenter Enteral Nutr. 2015 Feb;39(2):143. (PMID: 25632057).
9. **Heyland DK**, Earthman C, Compher C. Acute MuscleWasting Among Critically Ill Patients. JAMA 2014;311(6):621-622.
10. Yeh DD, **Heyland DK,**  Enternal nutrition in traumatic brain injury Trauma Acute Care Surg. W017 Mar.;82(3);649-650 (PMID: 28030493)

**Editorials, Commentaries, etc.**

1. **Heyland DK**, Cook DJ. Commentary on “Elevation of systemic oxygen delivery in the treatment of critically ill patients”. ACP J Club 1994 Nov/Dec;121:63.
2. Martin C, **Heyland DK**. In search of the “Magic” nutraceutical. Crit Care Med 1999;27:251-2.
3. **Heyland DK**, Kutsogiannis DJ. Quality of life following critical care: Moving beyond survival. Intensive Care Med 2000;26:1172-1175.
4. **Heyland DK**, Novak F. Commentary on “Enteral immunonutrition reduced infection risk, days on ventilator, and hospital stay in critically ill patients.” ACP J Club 2000;133:9.
5. **Heyland DK**, “Pro/con clinical debate: The use of a protected specimen brush in the diagnosis of ventilator-associated pneumonia. Crit Care 2002;6:117-120.
6. **Heyland DK**, Paterson WG. Fluid restriction for post-operative patients? Lancet 2002;359(9320):1792-1793.
7. **Heyland DK**, Samis A. Does immunonutrition in patients with sepsis do more harm than good? Intensive Care Med 2003;29(May):669-671.
8. Rocker GM, **Heyland DK**. New research initiatives in Canada for end-of-life and palliative care. CMAJ 2003; 169(4):300-301.
9. **Heyland DK**, Dhaliwal R, Drover JW. Nutrition support in mechanically ventilated, critically ill adult patients: Are we ready for evidence-based clinical practice guidelines? Nutr Clin Pract 2004; 19(June):193-200.
10. **Heyland DK**. Specialized nutrition support in pancreatitis: use the GUT! Med Prakt 2004;163(9):131-132.
11. **Heyland DK**, Dhaliwal R. Early enteral nutrition vs. early parenteral nutrition: An irrelevant question for the critically ill? Crit Care Med 2005;Jan;33(1) 260-261.
12. **Heyland DK**, Dhaliwal R. Immunonutrition in the critically ill: from old approaches to new paradigms. Intensive Care Med 2005;Apr;31(4):501-3.
13. **Heyland DK**. The definitive position on early nutritional support is yet to be established. Crit Care Med 2005;June;33(6):1473.
14. **Heyland DK**. Selenium supplementation in critically ill patients: Can too much of a good thing be a bad thing? Crit Care 2007;11(4):153.
15. **Heyland DK**, Dhaliwal R, McClave S. Commentary. If you don’t connect the dots, you may not see the whole picture! JPEN J Parenter Enteral Nutr 2008;32(4):486-488.
16. Jones NE, **Heyland DK**. Implementing nutrition guidelines in the critical care setting. A worthwhile and achievable goal? JAMA 2008;300(23):2798-2799.
17. **Heyland DK**. Early enteral supplementation with key pharmaconutrients improves Sequential Organ Failure Assessment score in critically ill patients with sepsis: Outcome of a randomized, controlled, double-blind trial. JPEN J Parenter Enter Nutr 2008;32(6):673-674.
18. Jones NE, **Heyland DK**. Evidence-based nutrition guidelines for critically ill adults – Reply. JAMA 2009;15:1544.
19. **Heyland DK**. Are we still failing to deliver what our patients need? 38th Critical Care Congress Review 2009;12-13.
20. McClave SA, **Heyland DK**, Wischmeyer P. Probiotic prophylaxis in predicted severe acute pancreatitis: A randomized, double-blind, placebo-controlled trial. Reply. JPEN J Parenter Enteral Nutr 2009;33(4):444-446.
21. Kryworuchko J, **Heyland DK**. Using family satisfaction data to improve the processes of care in ICU. Intensive Care Med 2009;35:2015-2017.
22. Cook DJ, **Heyland DK**. Pharmaconutrition in acute lung injury. JAMA 2011;306(14):1599-600. Epub 2011 Oct 5.
23. **Heyland DK**. ACP Journal Club. Late initiation of parenteral nutrition reduced length of intensive care unit stay. Commentary. Ann Intern Med 2011 Nov 15;155(10):JC-11.
24. **Heyland DK**. Early supplemental parenteral nutrition in critically ill adults increased infections, ICU length of stay and cost. Evid Based Med 2012;17(3):86-87.
25. **Heyland DK**. Increased cost of health care not all about aging of society. The Kingston Whig Standard, Kingston, ON. November 30, 2011.
26. Manzanares W, Heyland DK. Pharmaconutrition with arginine decreases bacterial translocation in an animal model of severe trauma. Is a clinical studied justified? .... The time is now! Crit Care Med. 2012 Jan;40(1):350-2. (PMID: 22179379).
27. McClave S, **Heyland DK**, Martindale RG. Adding supplemental parenteral nutrition to hypocaloric enteral nutrition: Lessons learned from the Casaer Van den Berghe Study. JPEN J ParenterlEn Enteral Nutr 2012;36(1):15-17.
28. Reynolds SC, Muscedere J, Shorr AF, **Heyland DK**, Jiang X. How about the impact of treatment on procalcitonin dynamics? The authors reply. Crit Care Med 2013;41(4):e36-7.
29. **Heyland DK**, Dhaliwal RD. Role of glutamine supplementation in critical illness given the results of the REDOXS study. JPEN J Parenter Enteral Nutr 2013;37:442-443.
30. **Heyland DK**, Dhaliwal R. Probiotics in the critically ill: a systematic review of the randomized trial evidence. The authors reply. Crit Care Med 2013 Mar:41:e29-30
31. Manzanares W, Langlois PL, **Heyland DK**, The role of Alternative Lipid Emulsions in Critically Ill. JPEN 2014 Volume 38, Issue 6 (653-654)
32. **Heyland DK**, Wischmeyer PE, Day AG, Canadian Clinical Care Trials Group. Glutamine and antioxidants in critically ill patients. N Engl J Med 2013;369:484-485. (PMID: 23902496)
33. **Heyland DK**., Engaging Seriously Ill Older patients in Advance Care Planning, PSNet Apr. 2017

**Book Chapters**

1. Schoenfeld PS, **Heyland DK**, Cook DJ. Prokinetic use to facilitate enteral feeding. Intensive Care Year in Review. Springer Verlag. 1996; 241-249.
2. **Heyland DK**. Nutritional Support in the Critically Ill Patient: A Systematic Review of the Literature. Critical Care Clinics. WB Saunders; Philadelphia. 1998;423-440.
3. **Heyland DK**. A Review of Gut-Specific Strategies to Reduce ICU-Acquired Infections. Current Opinion in Critical Care. Lippincott-Raven; Philadelphia. 1999;5:132-135.
4. **Heyland DK**, Koretz R. Merging Evidence-based Medicine and Nutrition Support Practice for Critically Ill Patients: The (Mis)interpretation of Randomized Trials and Meta-analyses. In: Pichard C and Kudsk KA, editors. From Nutrition Support to Pharmacologic Nutrition in the ICU. Springer Verlag:Berlin Heidelberg, Germany 2000;34:461-471.
5. **Heyland DK**. Using systematic reviews to inform decision makers. In: Evaluating Critical Care: Using Health Services Research to Improve Quality. Springer Verlag:Berlin Heidelberg, Germany 2000;35:198-208.
6. Guyatt G, Cook DJ, Devereaux PJ, Meade M, Straus S, **Heyland DK**. Therapy. In: User’s Guides to the Medical Literature: A manual for evidence-based clinical practice. AMA press, Chicago, 2002;55-80.
7. Guyatt G, Naylor D, Juniper E, **Heyland DK**, Jaeschke R, Cook DJ. Therapy and Understanding the Results: Quality of Life. In: User’s Guides to the Medical Literature: A manual for evidence-based clinical practice. AMA press, Chicago, 2002;309–327.
8. O’Brien B, Drummond M, Richardson WS, Levine M, **Heyland DK**, Guyatt G. Moving from Evidence to Action: Economic Analysis. In: User’s Guides to the Medical Literature: A manual for evidence-based clinical practice. AMA press, Chicago, 2002;621-644.
9. **Heyland DK**, Lukan JK, McClave SA. The role of nutritional support in sepsis. The Sepsis Text, Kluwer Academic Publishers, Boston, 2002; 479-490.
10. Keenan S, **Heyland DK**, Jacka M, Cook DJ, Dodek P. Ventilator-Associated Pneumonia: prevention, diagnosis and therapy. Critical Care Clinics 2002;18:107-125.
11. **Heyland DK**, Dhaliwal R, Suchner U. Immunonutrition. In: Clinical Nutrition: Enteral and tube feeding. Eds: R.H Rolandelli, R. Bankhead, J.I. Boullata, C.W. Compher. Elsevier Saunders, Philadelphia, 2004; 224-242.
12. **Heyland DK**, McClave SA. Nutrition in the Critically Ill. In: Principles of Critical Care. Eds: JB Hall, GA Schmmidt, LDH Wood. The McGraw-Hill Companies, 2005; 117-130.
13. McClave SA, **Heyland DK**. Critical Care Nutrition. In: Textbook of Critical Care. Eds: M Fink, E Abraham, JL Vincent, PM Kochanek. Elsevier Saunders, Philadelphia, 2005;939-950.
14. Drover JD, Iliescu E, **Heyland DK**. Nutrition in the ICU. In: Intensive Care in Nephrology. Eds: P Murray, J Hall, and H Brady. Taylor & Francis, United Kingdom, 2005.
15. Stapleton RD, **Heyland DK**. Glycemic control and intensive insulin therapy in the critical illness? 2008. on line at [www.uptodate.com](http://www.uptodate.com).
16. Stapleton R, **Heyland DK**. Terapia nutricional en la sepsis. In: Castro J, Hernandez G, Bruhn A, Romero C: Sepsis y Falla Multiorgánica (Tercera edición). Libros Técnicos Mediterráneo, Santiago Chile 2009
17. Cahill NE, Stapleton RD, **Heyland DK**. Is it appropriate to underfeed the critically ill patient? IN: Evidence-Based Practice of CriticalCare. Eds: CS Deutschman, PJ Neligan. Saunders Elsevier, 2010; 473-478.
18. Mourtzakis M, **Heyland DK**. Malnutrition in critical illness: Implications, causes and therapeutic approaches. IN: Textbook of Post-ICU Medicine: The Legacy of Critical Care. Eds: RD Stevens, N Hart, M Herridge. Oxford University Press; 2014; ch 36.

XVIII**. RESEARCH GRANTS AWARDED**

**Investigator-Initiated Research Activities Total Grants to date: $114,702,018.60**

**Total Grants to date from the Canadian Institutes of Health Research: $54,963,204.00**

1990 -1991 Effect of acidified enteral feeds on gastric colonization in the critically ill patient.

Principal Investigator: **Heyland DK**

Co-investigators: Mandell L, Bradley C

Funding: $7,500 from Clintec Nutritional Inc. and Regional Medical Associates.

1992-1998 Protected Brush Catheter: Evaluation of a Diagnostic Technology.

Principal Investigators:  **Heyland DK**, Cook DJ

Funding: $1,500 from Boston Scientific Company

1992-1995 Effect of Cisapride on gastric emptying in the Critically Ill Patient.

Principal Investigator:  **Heyland DK**

Funding: $100,000 from Janssen Pharmaceuticals

1993-1997 Effect of Acidified Enteral Feeds on Colonization and Pneumonia in the Critically Ill Patient: A Multicenter Randomized Trial.

Principal Investigator:  **Heyland DK**

In collaboration with The Canadian Critical Care Trials Group

Funding: $172,750 from Ross Division, Abbott Laboratories

1994-1996 Economic evaluations in the critical care literature: Do they help us solve the problem?

Principal Investigator:  **Heyland DK**

Co-investigators: Cook DJ., Gafni A, Kernerman P.

Funding: $1,850 from Upjohn

1994 Economic evaluation of stress ulcer prophylaxis in the critically ill.

Principal Investigator: **Heyland DK**

Co-investigators: Cook DJ, Gafni A.

Funding: $1,500 from Regional Medical Associates

1996-1998 The Impact of Invasive Diagnostic Techniques in Critically Ill Patients with a Clinical Suspicion of Pneumonia: A Prospective Cohort Study.

Principal Investigators: **Heyland DK**, Cook DJ.

In collaboration with The Canadian Critical Care Trials Group

Funding: $4,800 from Ontario Lung Association and Boston Scientific Corporation

1996-1998 Comparison of Option One and a Polymeric Enteral Feeding: Effect on Length of Stay and Clinical and Immune Parameters.

Co-Investigator: **Heyland DK**

Funding: $77,563 from Ross Division, Abbott Laboratories.

1996-1998 Assessment of Patient Preferences and Public Willingness to Pay for Critical Care Services.

Principal Investigators: **Heyland DK**, Gafni A.

Co-Investigators: Tranmer J, Taylor S.

Funding: $20,000 from Department of Medicine, Queen’s University

1997-1999 “Clinical Decision Making Around End of Life Issues: The Patient’s, Nurse’s, and Physician’s Perspective.”

Principal Investigators:  **Heyland DK**, Squires S, Tranmer J, Gafni A

Funding: $10,000 from Oncology Nursing Foundation.

1997-1999 The Incidence of Pulmonary Aspiration of Enteral Feeds: A Randomized Trial of Gastric vs. Small Bowel Feeding.”

Principal Investigators: **Heyland DK**, Drover J, MacDonald S.

Funding: $15,000 from Physicians Services Inc.

1997-2001 Decisional Responsibility and Information Needs of Seriously Ill Hospitalized Patients.

Principal Investigators:  **Heyland DK**

Co-Investigators: Tranmer J., D Dudgeon, S Taylor, E Kauffmann, M Brundage, D Feldman-Stewart, H Munby

Funding: Social Sciences and Humanities Research Council Post-Doctoral Fellowship.

1997-1998 Non-Invasive Positive Pressure Ventilation: A Clinical Outcomes Monitoring Project.

Principal Investigators:  **Heyland DK**.

Co-Investigators: Haddara W, Wigle R, Leach A, Phillips C

Funding: $5,000 from Puritan Bennet.

1997-1999 Long-term Health-related Quality of Life in Survivors of Sepsis.

Principal Investigators:  **Heyland DK**.

Co-Investigators: W Hopman, A Miranda, J Tranmer, M McColl.

Funding: $15,000 from Knoll Pharmaceuticals

1998-2008 A Randomized Trial of Empiric Broad-Spectrum Antibiotics and Invasive Diagnostic Techniques in the Setting of Ventilator-Associated Pneumonia.

Principal Investigator: **Heyland DK**.

Co-Investigators: from the Canadian Critical Care Trials Group.

Funding: $75,000 from Bayer Pharmaceuticals, $96,000.00 from PSI $100,000 AstraZeneca and $2,006,436 from Canadian Institutes of Health Research.

1998-2001 The Relationship Between Symptom Distress, Fatigue and Decisional Responsibility in Seriously ill Hospitalized Patients Near the End of Life: A Prospective, Longitudinal Study.

Principal Investigator: JE Tranmer, **Heyland** **DK**

Co-Investigators: Coulson K, Squires‑Graham M.

Funding: $10,000 Canadian Nurses Foundation,

$5,300 from Clare Nelson Bequest Fund

1998-2000 Epidemiology of Dying in Ontario: A Starting Place for Reform.

Principal Investigator: **Heyland DK**.

Co-Investigators: Tranmer J, Lavery J, Shortt S.

Funding: $17,800 from Physician Services Inc.

1998-2000 The Effect of Antibiotic-Coated Cathethers on the Ecology of an Intensive Care Unit: A Prospective Study.

Principal Investigator: **Heyland DK**, D Zoutman.

Co-Investigators: Drover J, Wright F.

Funding: $12,000 from Cook Canada.

1999-2001 Satisfaction with Care in the Intensive Care Unit: An Assessment of the Family’s Perspective.

Principal Investigator:  **Heyland DK**.

Co-Investigators: Peters S, Cook D, Rocker G, Dodek, P.

Funding: $20,000 from Canadian Intensive Care Foundation.

$11,333.00 from QEII Research Foundation

1999-2000 Confirmation of Feeding Tube Placement in ICU Patients using Capnography.

Principal Investigator: Kindopp S.

Co-Investigators:  **Heyland DK**, Drover J.

Funding: $3,500 KGH Foundation.

2000-2008 Improving the Quality of End of Life Care in Canada.

Principal Investigator: **Heyland DK**.

Co-Investigators: Tranmer J, Taylor S, Shortt S, Lam M, Gafni A, Kutsigiannis J, Dodek P, Rocker G, Feldman-Stewart D, Lazar N.

Funding: $266,441 from NHRDP

2001-2002 Current Nutrition Support Practice in the Critical Care Setting Across Canada

Principal Investigator: **Heyland DK**.

Co-Investigators: Drover J, Keefe L.

Funding: $50,000 from Nestle Corporation, $10,000.00 from BYK

2001-2010 Waveform Abnormalities of the aPTT in Critically ill Hospitalized patients (WATTCH Study)

Principal Investigator:  **Heyland DK**, Rapson D.

Co-Investigators: Howes D, Lord J.

Funding: $1,356,800.00 from bioMerieux

2001-2002 A Proposal to Develop a Multidisciplinary National Research Agenda Related to Nutrition Support in the Adult Critical Care Setting

Principal Investigator: **Heyland DK**.

Funding: $15,000 from Nestle, $15,000 from Abbott Laboratories and $20,000 from Canadian Institutes of Health Research

2001-2002 Burden of illness in thromboembolism (BITEC) study

Principal Investigator: DJ Cook

Co-Investigators: M Meade, G Guyatt, R Hodder, **Heyland DK**,

C Martin, J Marshall, R Patel, G Mehta, D Mazer, J Granton, D Mazer

Funding: $20,000 from Pharmacia, Inc, $4500 from Ontario Thoracic Society (Queen’s University), $4,458 from Ontario Thoracic Society (McMaster University), $8,420 from Capital Heath Research Fund, and $10,200 from PSI.

2002-2008 Long-term Follow Up of Survivors of Sepsis

Principal Investigator: **Heyland DK**

Funding: $159,480 from Eli Lilly Canada, Inc.

2002-2010 Improving the Quality of End of Life Care in Canada: A Longitudinal Follow-Up Study

Principal Investigator:  **Heyland DK**

Co-Investigators: Tranmer J, Frank C, Groll D, Pichora D

Funding: $167,584 from Physician Services Inc.

2002-2009 A Multidisciplinary Research Training Program in Digestive Sciences

Principal Investigator: W. Patterson

Co-Investigators:  **Heyland DK**, B Depew, S Vanner, H MacDonald, M Szewczuk, N Martin, LR DeCosta, C Hill, J Morris, C Barajas-Lopez, M Blennerhassett

Funding: $1.8 million from Canadian Institutes of Health Research

2002-2005 Developing an Integrated, Team Approach to Hospice Palliative Care

Principal Investigator: M. Anderson, K. Parent.

Co-Investigators: **Heyland DK**, J Napper, S Donaldson.

Funding: $141,000 from Canadian Health Services Research Foundation

2002-2005 The Relationship between insulin resistance, coagulation, inflammation and clinical outcomes in critically ill patients

Principal Investigator:  **Heyland DK**

Co-Investigators: Farzad Saberi, Dilys Rapson and Khusheed Jeejeebhoy

Funding: $20,000 from Canadian Intensive Care Foundation

2002-2005 A randomized trial of a multifaceted strategy to implement nutrition support practice guidelines in the ICU setting.

Principal Investigator: M Jain

Co-Investigators: **Heyland DK**, Drover J, Dhaliwal R

Funding: $18,000 SEAMO, Queen’s University and $24,000 from Canadian Intensive Care Foundation

2002 End of Life/Palliative Care: Planning for a Quality Finish. A Multidisciplinary National Research Workshop.

Principal Investigator: **Heyland DK**

Co-Investigator: G Rocker

Funding: $50,000 from Canadian Institutes of Health Research. 1 yr

2003-2007 Primary Care Management/Action Plans for Advanced Chronic Diseases (The RoadMAP Project).

Principal Investigator: M Godwin, J Tranmer

Co-Investigators: **Heyland DK** and others

Funding: $460,000 from Primary Health Care Transition Fund, Ministry of Ontario.

2003-2006 A Prospective Randomized Trial Comparing the Effectiveness of Post-pyloric Placement of a Standard Enteral Feeding Tube (Entriflex) Versus a Frictional Feeding Tube (Tiger Tube) in an ICU Setting.

Principal Investigators: **Heyland DK**, A Samis, J Drover

Co-Investigators: C D’Arsigny, M Jain

Funding: $14,250 from Clinical Teacher’s Association at Queen’s Endowment fund

2003-2006 Optimizing the dose of glutamine dipeptides in critically ill patients. A phase I dose finding study of glutamine supplementation in critically ill patients.

Principal Investigator: **Heyland DK**

Co-Investigators: J Drover, M Jain

Funding: $58,000 from Fresenius-Kabi

2004-2012 Understanding and improving communication and decision-making at the end of life. A new emerging team grant

Principal Investigator: **Heyland DK**

Co-Investigators: DJ Cook, A Gafni, MK Giacomini, DR Kuhl, JE Tranmer

Funding: $1,325,640 from Canadian Institutes of Health Research & Heart & Stroke Foundation.

2004-2007 Clinical Practice Guidelines in the Intensive Care Unit: A Canadian Survey

Principal Investigator: T Sinuff

Co-Investigators: D Cook, M Meade, **Heyland DK**, P Dodek, S Keenan, G Rocker, J Hutchison, G Ellrodt

Funding: $24,907 from Hamilton Health Sciences New Investigator Fund Grant, Canadian Intensive Care Foundation.

2004-2010 Family caregiving in palliative and end-of-life care: A new emerging team

Principal Investigator: KI Stajduhar, SR Cohen

Co-Investigators: NL Chappell, **Heyland DK**, PM Koop, AM Williams

Funding: $1,346,620 from Canadian Institutes of Health Research. 5 yr

2004-2010 Reducing deaths due to oxidative stress. The REDOXS© Study. A randomized trial of

glutamine and antioxidant supplementation in critically ill patients.

Principal Investigator:  **Heyland DK**

Funding: $370,000 from Fresenius-Kabi; $10,000 from the Clinical Teachers Association of Queens, and $4,798,496 from Canadian Institutes of Health Research.

* 1. A randomized controlled trial comparing jejunal and gastric nutritional support in critically ill patients.

Principal Investigator: AR Davies

Co-Investigators: R Bellomo, DJ Cooper, GS Doig, SR Finfer, **Heyland DK**

Funding: $138,859 CDN from Australian and New Zealand Intensive Care Foundation

2004-2009 Long term follow up health-outcomes evaluation of venticute in patients with pneumonia or aspiration of gastric contents leading to intubation, mechanical ventilation, and severe oxygenation impairment (VALID Study).

Principal Investigator:  **Heyland DK**

Funding: $812,610 from ALTANA Pharma

2004-2007 “Reasoning in Ethics: Surveying Perspectives in EOL among Canadian Trainees (RESPECT study)”

Principal Investigator: Y Skrobik

Co-Investigators:  **Heyland DK**, D Cook, G Rocker, T Gorman, S Ahern

Funding: $50,000 from CARENET

2004-2007 Facilitating guideline adherence in the intensive care unit.

Principal Investigator: Sinuff T

Co-Investigators: D Cook, **Heyland DK**, P Dodek, M Giacomini

Funding: $36,000 from PSI

2005 The Canadian Critical Care Trials Group. Re-engineering for the next decade.

Principal Investigator: Cook D

Co-Investigators: J Marshall, P Hebert, **Heyland DK**, M Meade, J Hutchison, K Menon, G Rocker, P Dodek, C Doig, R Ward, B Winston

Funding: $50,000 from CIHR (New Frontiers Program Development Grant)

2005-2013 Intensive Care Unit Patient Safety Team.

Principal Investigators: P Dodek, N Ayas

Co-Investigators: D Chittock, S Keenan, **Heyland DK**, S Sheps, M Fitzgerald, S Robinson

Funding: $497,160 from Michael Smith Foundation

2005-2013 The relationship between organizational culture and family satisfaction in critical care

Principal Investigator: P Dodek

Co investigators: **Heyland DK**, D Cook, G Rocker, J Kutsogiannis

Funding: $197,428 from Canadian Institutes of Health Research

2005-2007 Evaluation of the Associated Medical Services Fellowship in End of Life Care.

Principal Investigator:  **Heyland DK**

Co investigators: C Schroder.

Funding: Associated Medical Services $275,000; CARENET $50,000.

2005-2012 Measuring the Quality of End of Life Care Provided in Inpatient Health Care Settings

Principal Investigator: KI Stajduhar

Co investigators: H Cook, DE Allan, **Heyland DK**, D Bidgood.

Funding: $113,306 from Michael Smith Foundation for Health Research

2005-2013 Active Observational Study of the Adoption and Transfer of Clinical Practice Guidelines

through Education, for Ventilator Associate Pneumonia (ABATE) VAP Study

Principal Investigator: J Muscedere

Co investigators: T Sinuff, P Dodek, **Heyland DK**, D Cook, R Bouali, Z Punja, B Morgan, K Eva, L Hand,

Funding: $360,000 from CIHR, $80,000 received from Bayer, $200,000 from Astra Zeneca

2005-2009 Survival Using Glucose Algorithm Regulation (SUGAR)

Principal Investigator: D Chittock

Co investigators: J Ronco, B Henderson, D Cook, P Hebert, **Heyland DK**, S Finfer S, Myburgh J, Norton R, McArthur C

Funding: $3,038,414 from Canadian Institutes of Health Research

* 1. Knowledge Transfer in the ICU Through a Behaviour Change Strategy for Ventilator Associated Pneumonia

Principal Investigator: J Muscedere

Co investigators: P Dodek, T Sinuff, M Squires, D Reeleder,  **Heyland DK**, D Cook

Funding: CIHR approved, funding refused due to overlap with ABATE grant

1. Evaluation of family satisfaction, organizational culture and quality of care in the step down units and enhanced care unit

Principal Investigator: J Muscedere

Co investigators: **Heyland DK**, C McColl, M Squires, J Drover

Funding: $20,000 Queen’s Department of Medicine

2007-2010 Critical Care Nutrition Goes Global

Principal Investigator: **Heyland DK**

Funding: $150,000 from Nestle, $71,780 from Fresenius Kabi, $15,000 from Queen’s University, $30,000 from Kingston General Hospital Research, $150,000 from Ontario Ministry of Research and Innovation

* 1. Determining the Validity of a Novel Questionnaire to Measure Satisfaction with End of Life Care in Canada

Principal Investigator: **Heyland DK**

Co investigators: D Cook, P Dodek, J Kutsogiannis, G Rocker, Y Skrobik

Funding: $162,352 from Canadian Researchers at the End of Life Network (CARENET)

2008-2010 Optimizing Nutrition Therapy in the Intensive Care Unit: Development of a Screening Questionnaire and an Education Toolkit

Principal Investigator: R Dhaliwal

Co investigators: N Jones, **Heyland DK**

Funding: $15,000 Canadian Foundation of Dietetic Research (CFDR)

1. Knowledge Synthesis of Implementation Strategies for Critically Ill Patients (The KRITICAL Study)

Principal Investigator: T Sinuff, A Garland, J Muscedere

Co investigators: D Cook, **Heyland DK**, P Dodek, et al.

Funding: $99,500 from Canadian Institutes of Health Research

2008 Aging and critical care: Building a National Multidisciplinary Research Program

Principal Investigator: **Heyland DK**

Funding: $19,000 from Canadian Institutes of Health Research

2008-2012 Effects of commensal gut flora on c. difficile colitis

Principal Investigator: E Petrof

Co investigators: **Heyland DK**, R Liao

Funding: $30,000 from Queen’s Research Initiation Grant

2008-2009 Efficacy of aggressive protein-energy provisions via the enteral route in critically ill patients (PEP uP Protocol): A single center feasibility trial

Principal Investigator:  **Heyland DK**

Funding: $10,000 from FHS Foundation Funds, Queen’s U/Kingston General Hospital

2009-2016 Realities, Expectations and Attitudes to Life Support Technologies in Intensive Care for Octogenarians: The REALISTIC 80

Principal Investigator:  **Heyland DK**

Co investigators: D Cook, P Dodek, Rocker G et al.

Funding: $800,444 from Canadian Institutes of Health Research

2009-2016 Effects of enteral glutamine supplementation on mortality, infectious morbidity in severely burned patients: a multi-center trial (RE\_ENERGIZE)

Principal Investigator: D Garrel, P Wischmeyer

Co investigator: **Heyland DK**, A Armour, J Bernier, S Rinfret

Funding: $524,977 from CIHR, $530,000 from the American Burn Association, 100,000 from CIHR

2009-2014 PERFormance Enhancement of the Canadian nutrition guidelines by a Tailored Implementation Strategy: The PERFECTIS Study

Principal Investigator: **Heyland DK**

Co investigators: NE Jones, R Dhaliwal

Funding : $124,503 from the AFP Innovation Fund

2009-2014 Candida in respiratory tract secretions of critically ill patients and efficacy of treatment (the CANTREAT Study): A prospective, randomized, double blind, placebo controlled pilot study.

Principal Investigator: **Heyland DK** , Muscedere J.

Co-investigators: C Martin, C Rotstein, G Rubenfeld, S Haider, J Friedrich

Funding: $150,000 from Physicians’ Services Incorporated Foundation, $16,000 from William Spears Foundation, $250000 from Pfizer

1. Advance care planning

Principal Investigator: **Heyland DK**

Funding: $3,000 from CIHR, Café Scientifique Partnership Program

2010 Developing a research agenda for advance care planning in Canada.

Principal Investigator: Harvey L

Co-investigators:  **Heyland DK**

Funding: $25,000 from CIHR, $7,100 from CHPCA

2010 Knowledge transfer for family caregiving in P/EOL care

Principal Investigator: Cohen R.

Co-investigators: Stajduhar K., **Heyland DK** et al.

Funding: $40,000 from CIHR

2010 Improving end-of-life care in Canada through dissemination of a novel satisfaction questionnaire.

Principal Investigator:  **Heyland DK**

Co-investigators: S Baxter, N Paul

Funding: $39,924 from CIHR

2010-2017 Randomized trial of supplemental parenteral nutrition in under and over weight critically ill patients: The TOP UP pilot trial.

Principal Investigator:  **Heyland DK**

Co-investigators: L Gramlich et al

Funding: $25,000 from Canadian Intensive Care Foundation (CICF), $130,000 from Baxter

2010-2016 Outcomes manager to improve adherence to best practices in critical care.

Principal Investigator: Ilan R

Co-investigators: **Heyland DK**, Muscedere J

Funding: $123,433 from AFP Innovation Fund, Queens University/Kingston General Hospital

2010-2013 Video-based study of communication during handovers: how do intensive care physicians use SBAR?

Principal Investigator: Ilan R

Co-investigators: Cohen D, LeBaron C, **Heyland** **DK** Christianson M.

Funding: 25,400 from PSI Foundation.

2010-2016 FOILED: Fish oil optimal dose determination study

Principal Investigator: DK Heyland

Funding: $67,000 from Fresenius Kabi

2010-2013 A multicenter, cluster randomized trial of enhanced protein-energy provision via the

enteral route feeding protocol in critically ill patients: The PEP uP protocol.

Principal Investigator: **Heyland DK**, Cahill N.

Funding: $672,364 from Nestle

2010 Hello Doctor? New tools for improving communication between seriously ill patients, families and health care professionals

Principal Investigator:  **Heyland DK**

Co-investigators: J Muscedere

Funding: $3,000 from CIHR

2011- Advance care planning evaluation in elderly patients: a multicenter, prospective study: The ACCEPT Study

Principal Investigator:  **Heyland DK**

Co-investigators: C Frank, R Ilan, C Smith, P Wattam, D Barwich, S Baxter, S Bagshaw, A Day, et al

Funding: $115,000 from SEAMO AHSC-AFP Innovation Fund; $16,000 received “in-kind” from CHPCA; $333,418 from CIHR, $125,000 received from AFP Innovation Fund, $135,000 from Alberta Innovates Health Solutions

1. Moving the research agenda for advance care planning forward in Canada (meeting grant).

Principal Investigator: S Baxter, **Heyland DK**

Co-investigator: A Johnson

Funding: $22,500 from CIHR

2011 Relationship between lean muscle mass, nutritional adequacy and outcome in trauma.

Principal Investigator: R Kozar.

Co-investigators: M Mourtzakis, CE Wade, GM Press, DB Dyer, **Heyland DK** et al

Funding: $11,000 from University of Texas Aging Consortium

2011-2015 Clinical Practice guidelines for ventilator associated pneumonia

Principal Investigator: J Muscedere

Co-investigators: Sinuff T, Dodek P.,  **Heyland**, DK Cook D, et al.

Funding: $99,079 from CIHR

2011-2016 OPTICS study: OPTimal nutrition and mobilization by Informing and Capacitating family members of best practices.

Principal Investigator: Marshall A

Co-Investigator: **Heyland DK**, N Cahill

Funding: $20,000 from Australian College of Critical Care Nurses.

2011-2016 Technology evaluation in the elderly network (TECH VALUE NET)

Scientific Director: **Heyland DK**

Co-investigators: Gramlich L, Mourtzakis M et al.

Funding: $23,888,157 from Network Centers of Excellence, cash/in-kind contributions $21,409,646 from other partners.

2011-2016 Decision-making about goals of care for hospitalized medical patients: A prospective, multicentre study. The DECIDE Study

Principal Investigator: **DK Heyland**, J You

Co-investigators: M Albert, N Bandrauk, A Day, Irfan D, J Downar et al

Funding: $217,486 received from CIHR

2011 Randomized controlled trial of the meaning-making intervention (MMi) in patients newly diagnosed with advanced cancer: a pilot study

Principal Investigator: M Henry, R Cohen

Co-investigators: L Azoulay, G Batist, W. Gotlieb, **Heyland DK** et al.

Funding: $100,000 received from CIHR

2011-2016 Canadian Critical Care Knowledge Translation Network (CCCKTN)

Principal Investigator: Muscedere J

Co-investigators: **Heyland** **DK**, et al.

Funding: $599,611 received from CIHR, in-kind contributions $455,400

2011 Inhibit the progression of arterial calcification with vitamin K in hemodialysis patients: The iPACK-HD Study

Nominated Principal Applicant: Holden R

Co-Principal Applicant and coordinating investigator: **Heyland DK**

Co-Investigators: Day A, Moist L, Tobe S et al.

Funding: $87,000 from AHSC AFP Innovation Fund, $100,000 from CIHR

2012-2017 Supplemental parenteral nutrition to reduce death in malnourished ICU patients.

Co-Principal Investigator: P Wischmeyer, **Heyland DK**

Co-investigators: K Kudsk, R Martindale, R Stapleton.

Funding: $600,000 received from NIH

2012 Prospective audit of parenteral nutrition in high-risk hospitalized surgical patients in Canada. Fellowship – Total Parenteral Nutrition (SHOPP)

Principal Investigator: Rahman, A

Co-investigators:  **Heyland DK**, Armstrong D

Funding: $55,000 received from CIHR

1. A Systematic and Methodological Review of Neuromuscular Electrical Stimulation in the Intensive Care Unit

Principal Investigator: Cook D

Co-investigators: Kho M, Duffett M, Koo K et al.

Knowledge User: **Heyland DK**

Funding: $99,996 received from CIHR

2012-2016 Family-Reported Experiences Evaluation (FREE) Study: evaluation of families’ satisfaction with adult critical care services in the NHS.

Principal Investigator: Rowan K

Co-investigator: **Heyland DK**

Funding: $844,590 received from NIHR Health Services and Delivery Research programme

2012-2016 Canadian Health Advanced By Nutrition and Graded Exercise CHANGE Health Paradigm (The CHANGE Study)

Principal Investigator: Jeejeebhoy K

Coordinating Investigator:  **Heyland DK**

Co-investigators: Bauer P, Mutch D, Tremblay A

Funding: $1,352,970 received from St. Joseph’s Healthcare Foundation, Hamilton

2012-2016 Human Laboratory for the study and treatment of gastrointestinal disorders

Principal Investigator: Vanner S

Co-investigators: Paterson W, Allen-Vercoe E, **Heyland DK** et al.

Funding: $1,200,000 received from CFI, in-kind contributions $1,197,245.

2013-2016 Shining a light on end-of-life care in Canada: investigating barriers, testing interventions, and disseminating integrated solutions for patients, families and healthcare professionals.

Principal Investigator: Fowler R

Collaborator: **Heyland DK**

Funding: $187,790 received from University of Toronto

2013-2016 Optimal VAsopressor TitratiON (OVATION) Trial

Principal Investigators: Lamontagne F, Hebert P

Coordinating Investigator: **Heyland DK**

Co-investigators: Meade M, Muscedere J, et al.

Funding: $379,078 received from CIHR, $270,000 received from the Fonds de recherche du Québec (FRSQ).

2013-2016 A national comparison of intensity of end-of-life care in Canada: defining changing patterns, risk factors and targets for intervention

Principal Investigator: Fowler R

Co-investigators **Heyland DK**, Kozak JF, Rockwood K et al

Funding: $196,186 received from Tech Value Net (TVN)

2013-2016 Probiotics: Prevention of severe pneumonia and endotracheal colonization trial (PROSPECT): a feasibility and proof of concept pilot trial.

Principal Investigator: Cook D

Co-investigators: **Heyland** DK, Johnston J, Lauzier F et al

Funding: $76,370 received from TECH VALUE NET (TVN), $223,231 received from CIHR, 147,464 received from PSI

2013- Advance care planning and goals of Care Alberta: a population based knowledge translation intervention study

Principal Investigator: Hagen N

Co-investigators: Simon J, Fassbender K, **Heyland DK**

Funding: $2,500,000 received from to Alberta Innovates

2013-2017 Nutritional adequacy therapeutic enhancement in the critically ill: A randomized double blind, placebo-controlled trial of the motilin receptor agonist GSK962040. The NUTRIATE Study.

Sponsor: Glaxo Smith Kline

Principal Investigator: **Heyland DK**

Funding: $2,738,741.50 received from GSK

Date: Jun 2013 - Jul 2017

2013-2014 Improving decision-making about goals of care for hospitalized, elderly patients: A multicentre, interventional study.

Principal Investigators:  **Heyland** DK, You J

Co-investigators: Barwich D, Day A, Fowler R et al

Funding: $24,998 received from CIHR

2013- Effect of carnitine supplementation on atherosclerosis

Co-Principal Investigators: Johri A, **Heyland DK**

Co-Applicant: Day A

Funding: $40,000 received from Queen’s University, Department of Medicine, $266,504 from Heart and Stroke Foundation

2013-2015 Does glucose tolerance status modify post-prandial renal phosphorus handling in patients with chronic kidney disease.

Principal Investigators: Garland, J

Co-Applicant: **DK Heyland**, Morton AR, Nolan R, Day AG

Funding: $32,500 received from Queen’s University, Department of Medicine

2013- Sodium selenite administration in cardiac surgery (SUSTAIN CSX trial) A pilot randomized controlled trial of high dose sodium-selenite administration.

Nominated Principal Investigator: **Heyland DK**

Co-Principal Applicant: McDonald B

Co-Investigators: Fowler R, Fremes S, Manzanares W et al

Funding: $16,000 received from Queen’s Dept of Medicine,’ and CIHR $232,415

2013 Impact of protein delivery on clinical outcomes in ICU patients.

Principal Investigator: Nicolo M

Co-Investigator:  **Heyland DK**

Funding: $4,900 received to ASPEN Rhoads Research Foundation

2014 Reassessing practices in the daily care of critically ill patients: opportunities to identify & close evidence care gaps.

Principal Investigator: Stelfox T

Co-Investigators: Manns B, Doig C, Zuege D, **Heyland DK**

Funding: $748,790 received from PRIHS

2014 Enhancing patients’ recovery after surgery: strategy to transform care and maximize value

Principal Applicant: Noseworthy T

Co-Principal Applicants: Nelson G, Gramlich L

Collaborators: Kozak S, Zhao Y, **Heyland DK**

Funding: $750,000 received from PRIHS

2014-2017 Integrating quality of life assessments and best evidence into palliative home care: An integrated knowledge translation study (QPSS)

Principal Investigator: Sawatzky R

Co-investigators: Taylor C, Cohen R, **Heyland DK** et al

Funding: $100,000 received from TVN,

2014- Improving general practice advance care planning. The i-GAP Study

Nominated Principal Applicant: **Heyland DK**

Co-Principal Applicant: Howard M

Principal Knowledge Users: Slavens M, Bernard C

Funding: Received $599,904 from TVN, inkind $191,200; received $1,045,981/3yrs from MOH, inkind $174,550; received $399,943 from CIHR, in kind $254,462

2014- Promoting Health of Older Adults through CHANGE Technology

Principal Applicant: Klein D

Co-investigators: Khursheed J, **Heyland DK**, McCabe C et al

Funding: $92,112 from CIHR.

2014 An evaluation of the CHANGE lifestyle intervention in primary care.

Principal Applicant: Klein D

Co-investigators: Khursheed J, **Heyland DK**, McCabe C et al

Funding: $100,000 bridge funding from CIHR.

2014 DECIsion-making about goals of care for hospitalized medical patiEnts II a

COMMUNICATion intervention (DECIDE II COMMUNICATE): Patient data collection and feedback pilot

PI: Downar J

Co-Investigators: Macdonald J, Harwick M, Myers J, Roze des Ordons A, **Heyland DK**,

You J et al

Funding: TVN $79,675

2014- Improving DECIsion-making about goals of care for hospitalized, elDerly patiEnts: a multi-incubator unit study (iDECIDE)

PI: You J

CO-Investigator:  **Heyland DK,** et al

Funding: $504,246/2 years from TVN; $302,670/2 years in-kind.

2014-2015 DECIsion-making about goals of care for hospitalized, elDerly patiEnts: in heart failure pts (DECIDE HF)

Principal Investigators: You J

Co-Applicant: H Ross

Co-Investigators: J MacIver, J Downar, C Demers, PStrachan, R Fowler, **Heyland DK**, A Day, NGiannetti, BClarke, SZeiroth, L Mielniczuk, M Toma, A Ducharme

Funding: $70,000 1 year Bridge Funding Heart & Stroke

2014-2015 A comprehensive evaluation of nutritional status in critically ill patients after extubation

Principal Investigator: Moisey L

Co-Investigators: Mourtzakis M, Keller H, Rahman A, **Heyland DK**

Funding: $19,460 Canadian Foundation for Dietetic Research

2015- Promotion of Regular Oesophageal motility to Prevent regurgitation and Enhance nutrition intake in Long-stay ICU patients. A multicenter, Phase II, sham-controlled, randomized trial. The PROPEL Study

Sponsor: E-Motion Medical Ltd.

CERU Budget: $1,767,574.74

Funding: $2,239,473

Date: Jul 2015 - Jun 2017

2015- A RandomizED trial of ENtERal Glutamine to minimize thermal injury: (The RE-ENERGIZE Study)

Principal Investigator: **Heyland DK**

Co-Investigators: Day A, Garrel D, Henderson W, Jeschke M, Johnson A, Logsetty S, Perreault I, Stelfox T, Turgeon A, Wibbenmeyer L, Wischmeyer P

Funding: $5,659,300 CIHR

Program: Transitional Operating Grant 2014-2015

Date: Sep 2015 - Sep 2020

2015- Inhibit Progression of coronary Artery Calcification with vitamin K in HemoDialysis patients: The iPACK HD Study

Principal Investigator: Holden R, **Heyland DK**

Co-Applicants: Adams M, Booth S, Clase C, Day A, Jamal S, Shea K, Weiner D, Zimmerman D

Funding: $321,747 CIHR

Program: Transitional Operating Grant 2014-2015

Date: Jul 2015 - Jun 201

2015- An evaluation of the CHANGE lifestyle intervention in primary care

Principal Investigator: Klein D, **Heyland DK**

Co-Investigators: Taylor L, Gramlich L, Reichert S, McCabe C, Green L, Sharma A, Denise Campbell-Scherer D, Jeejeebhoy K, Day A

Funding: $100,000 CIHR

Program: Operating Grant - PA: INMD Start-up Funds

Date: Jul 2015 - Jun 2016

2015- Randomized Controlled Trial of the Meaning-Making Intervention in People Newly Diagnosed With Advanced Cancer: Full Trial

Principal Investigator: Henry M

Co-Applicant: Cohen R

Co-Investigators: **Heyland DK**, Platt R, Zhang X, Gotlieb WH, Lau S, Sultane K, Batist G, LaPointe B

Funding $683,365 CIHR

2015- More-2-Eat: Nutrition care pathway and optimized protein supplementation for malnourished elderly patients.

Principal Investigators: Keller H, Rahman A.

Co-investigators: Laur C, Liu B, Bel J, Bernier P, Gramlich L, Laporte M, Duerksen D, Ray S, Douglas P, Curtis L; Mrkobrada M,  **Heyland DK**, Dasgupta M, St. John P,

Dubin J, Mourtzakis M, Sawatzky R, Maybee A, Jeejeebhoy K, Knowledge User: Robbins S, Dietrich L, Plein L

Competition: Strategic IMPACT Grant, 2014

Funding: $899,963 Technology Evaluation for the Elderly Network

Date: May 2015 – April 2017

2016- Sodium selenite administration in cardiac surgery (SUSTAIN CSX trial)

Nominated Principal Investigator: **Heyland DK**

Co-Principal Applicant: Stoppe C, McDonald B

Funding: $2,983,447 from Lotte & John Hecht Memorial Foundation

Date: Jan 2016 – Aug 2020

2016- Development and Evaluation of a Family-Partnered Care Pathway for Critically Ill Older Patients

Principal Investigators: Stelfox HT, **Heyland DK**

Co-Applicants: Allatt P, Au S, Berg B, Cohen R, Coyle D, Day A, Downar J, Ely W, Fiest K, Gramlich L, Grant C, Harries B, Hartwick M, Holroyd-Leduc J, Jenkins J, Kyeremanteng K, Mourtzakis M, Niven D, Oczkowski S, Papathanasoglou E, Parsons Leigh J, Potestio M, Rahman A, Rockwood K, Roze des Ordons A, Shaw M, Sinclair S, Sinuff T, Skrobik Y, Stajduhar K, Straus S, Thavorn K, Turgeon A, Vandall-Walker V,

Funding $2,130,322 $1,388,754 Canadian Institutes for Health Research, $511,800 Alberta Health Services, $126, 924 Nestle, $58, 844 W21C, $20,000 Society of Critical Care Medicine, $20,000 Canadian ICU Collaborative, $4000 Canadian Critical Care Society CIHR - Team Grant - Late Life Issues

Date: April 2016 – March 2020

2016- Identifying Spiritual Distress in Families of ICU Patients: The INSPIRE Study

Principal Investigator: Roze des Ordons A

Co-Investigators: Sinclair S, Stelfox H, Sinuff T, **Heyland DK**

Knowledge Users: Doig C, Zygun D, Oxland P, Nolan C, Allan B, Pritchard Z, Wickson P

Funding: $96,000.00 MSI Foundation

Date: September 2016 – August 2018

2017- Development and Validation of a Patient-Reported Measure of Compassionate Care

Nominated Principal Applicant: Sinclair S

Principal Applicant: Sawatzky R, Hack TF

Knowledge User: Barwich D, Baxter S, Chochinov HM, Cory S, Dudgeon D, Embleton L, Forbes H, Garland E, Hagen N, Harlos M, Lechelt L, Leget C, Quail P

Co-Investigators: **Heyland DK**, Krawczyk M, McClement S, Puchalski C, Raffin-Bouchal S, Russell L, Selman L, Singh P, Sinnarajah A, Stajduhar K, Thompason G

Funding $638,356 from CIHR

Date: September 2017 – August 2021

2017- Improving partnerships with family members of ICU patients. A phase II randomized trial

of two family capacitation strategies.

PI: Marshall AP, **Heyland DK**., Chaboyer W., Pearson D., Roberts S.

Funding: $56,930 from Gold Coast Health Research Grants Scheme

2017-2022 Nutrition and Exercise in Critical illness (The NEXIS Trial); A Randomized Trial of

Combined Cyle Ergometry and Amino Acids in the ICU

Nominated Principal Investigator: Stapleton R.

Co-Principal Investigators: Needham D., **Heyland DK.**

Funding: $4,651,988.02 CDN from NIH

2017-2018 Implementing an e-Intervention to Reduce Anxiety Symptoms and Improve Psychosocial

Oncology Uptake in patients Newly Diagnosed with Head and Neck Cancer: Pilot

Randomized Controlled Trial

PI- Henry M

Co-Applicant: Antoni M., Frenkiel S., **Heyland DK.,** Hier M., Platt R., Rosberger Z.

Sadeghi N., Zeitouni A.

Funding: $275,400 from CIHR

2017-2018 Inhibit progression of coronary Artery Calcification with Vitamin k in HemoDialysis

Patients: The iPACK-HD Study

PI-Holden R., **Heyland DK.**

Co-Applicant: Battisella M. Booth S. Clase C. Day A. Menard A., Miller L., Moist L.

Shea K., Zimmermann D.

Funding: $100,000 CIHR (Bridge Grant)

2018 - The Lessening Organ Injury Dysfunction with VITamin C (LOVIT) trial

Principal Investigators: Lamontagne F., Adhikari N., **Heyland DK.**

Funding: $3,140,000 from Lotte & John Hecht Memorial Foundation

2018-2023 Effects of Exercise on Inflammation- Induced Lung and Muscle Injury in Critical illness

(NEXIS-FLAME)

PI- Suratt B., Files D.C., Tooth M., Stapleton R.

Co-Invesitgators**- Heyland DK**., Needham D., Houghs T**.**

Funding: 125,810.48 CDN NIH

2019-2022 Impact of protein Nutrition in Critically-Ill Patients

PI-Kristof A.

Co-Investigator: **Heyland DK**., Hatzakorzian R., Schricker T.

Co-Investigator: Wykes L.

Funding: 397,801.00 CIHR

**RESEARCH GRANTS SUBMITTED**

**Investigator-Initiated Research Activities Total Grants in Submission:**

Site Investigator for the following multicenter trials:

1. A multicenter, randomized, controlled trial of transfusion requirements in critical care. 1997.

Funding: $ 25,250.00

1. A centrally randomized, multicenter open trial of intravenous alatrofloxacin followed by oral trovafloxacin, compared with intravenous ceftriaxone to oral cefuroxime axetil with optional intravenous erythromycin to oral clarithromycin and/or intravenous to oral metronidazole or clindamycin for the treatment of community-acquired pneumonia in subjects requiring hospitalization and initial intravenous treatment.

Funding: $ 23,968.00

1. A randomized, placebo-controlled trial of MAK195F (monoclonal antibody against tumour necrosis factor) in sepsis with hyperinflammatory responses. 1996-1999

Funding: $ 420,000.00

1. A multicenter, double-blind, randomized, placebo-controlled study of filigastrim in the treatment of patients with pneumonia and severe sepsis. 1998-1999

Funding: $ 98,084.27

1. A randomized, double-blind, multicenter study comparing the efficacy and safety of piperacillin/tazobactam and impenem/cilistatin administered intravenously every 6 hours to treat nosocomial pneumonia in hospitalized patients. 1999-2000

Funding: $42,977.12

1. A phase III study to determine the efficacy and safety for recombinant human activated protein C (rhAPC) in severe sepsis. 2000

Funding: $67,187.75

1. Venticute (rSP-C Surfactant) for the treatment of Acute Respiratory Distress Syndrome (ARDS): A randomized, multinational, multicenter, parallel group, double blind, controlled study. 2000-2001

Funding: $55,500.00

1. Multicenter, Double blind, Placebo controlled, Randomized, Phase 3 study of tifacogin (Recombinant Tissue Factor Pathway Inhibitor) in Severe Sepsis. 2001

Funding: $205,540.90

1. A Phase 3 Study to Demonstrate the Safety and Efficacy of Recombinant Platelet-Activating Factor Acetylhydrolase (rPAF-AH, Pafase) for Reducing 28 Day All Cause Mortality in Patients with Severe Sepsis. 2001-2003

Funding: $53,557.78

1. Recombinant Human Activated Protein C Protocol (FIK-MC-EVBF): An Open-label Study of Recombinant Activated Protein C in Severe Sepsis. 2001-2003

Funding: $18,318.00

1. Efficacy and safety of drotrecogin alfa (activated) in adult patients with early severe sepsis. 2002-2003

Funding: $18,228.00

1. Multicenter, double-blind, study of the efficacy and safety of GAR-936 compared to Imipenem/Cilastatin to treat complicated intra-abdominal infections in hospitalized patients. 2003-2004

Funding: $29,073.60

1. Three Dosages in ALI/ARDS versus Standard Therapy (HL10). 2003-2004

Funding: $ 25,500

1. Fujisawa Canada Inc. Canadian ICU Infection Survey MYC-001. 2004:

Funding: $ 11,000.00

1. A phase 3 multicenter, randomized, placebo-controlled, double blind, three-arm study to evaluate the safety and efficacy of tifacogin (CHIRON CAP). 2004-

Funding: $ 33,005.94

1. (VALID) Venticute rSP-C surfactant in patients with pneumonia or aspiration of gastric contents leading to intubation, mechanical ventilation and severe oxygenation impairment (ALTANA). 2004-

Funding: $57,238.20

1. A Phase 3, multicenter, randomized, double-blind, comparative study of the efficacy and safety of tigecycline vs imipenem/cilastatin for the treatment of subjects with nosocomial pneumonia: (Wyeth HAP) 3074A1-311-WW 2005

Funding: $ 64,122.00

1. A Phase 3, randomized, Double-Blind, Parallel-Group, Multinational Trial of Intravenous Telavancin Versus Vancomycin for Treatment of Hospital-Acquired Pneumonia with a Focus on Patients with Infections Due to Methicillin-Resistant Staphlococcus aureus. (Theravance) 2006-2007

Funding: $ 3620.60

**Total funding from Industry-sponsored research activities: $1,252,172.16**

# XIX. RESEARCH INTERESTS

Nutrition support, gastrointestinal motility, stress ulcer prophylaxis, and gastrointestinal structure and function in the context of critical illness

Pneumonia, sepsis, and other infections in the critically ill patient.

Randomized trials, systematic reviews and meta-analysis, outcomes assessments, economic evaluations, quality of life assessments, quality of care, satisfaction with care, and health service research.

Evidence-based medicine, patient preferences, end of life care, and clinical decision-making.