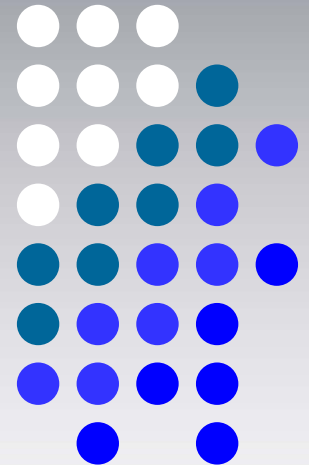
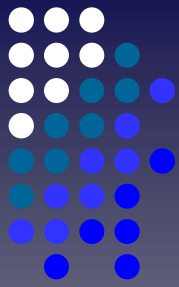


Experiences at Royal Alexandra Hospital, Edmonton, Alberta

Cathy Alberda MSc RD



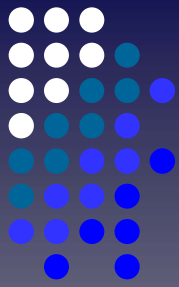
Introduction to my ICU...



- Royal Alexandra Hospital, Edmonton, Alberta
- 678 bed teaching hospital
- Closed 24 bed general systems ICU
- 50% surgery/ 50% medicine mix



Experiences thru this observational study



- Increased awareness of daily energy/protein provisions
- Formalizes your own nutrition practice, and clearly highlights your own deficiencies
- Provides a comparison of your ICU with other sites



Figure 2 Type of Nutrition Support

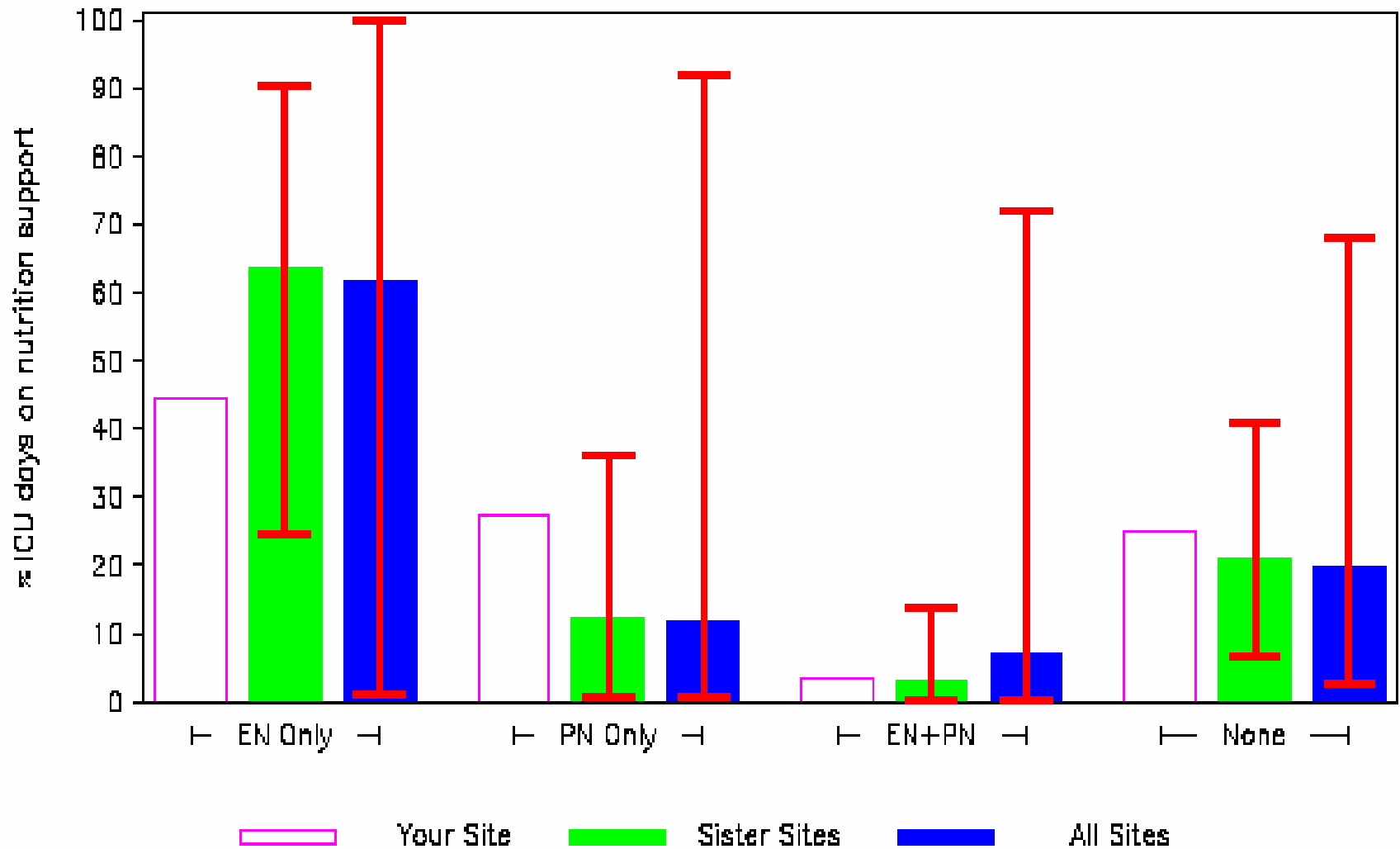


Figure 1.1 Adequacy of Calories from Nutrition Support

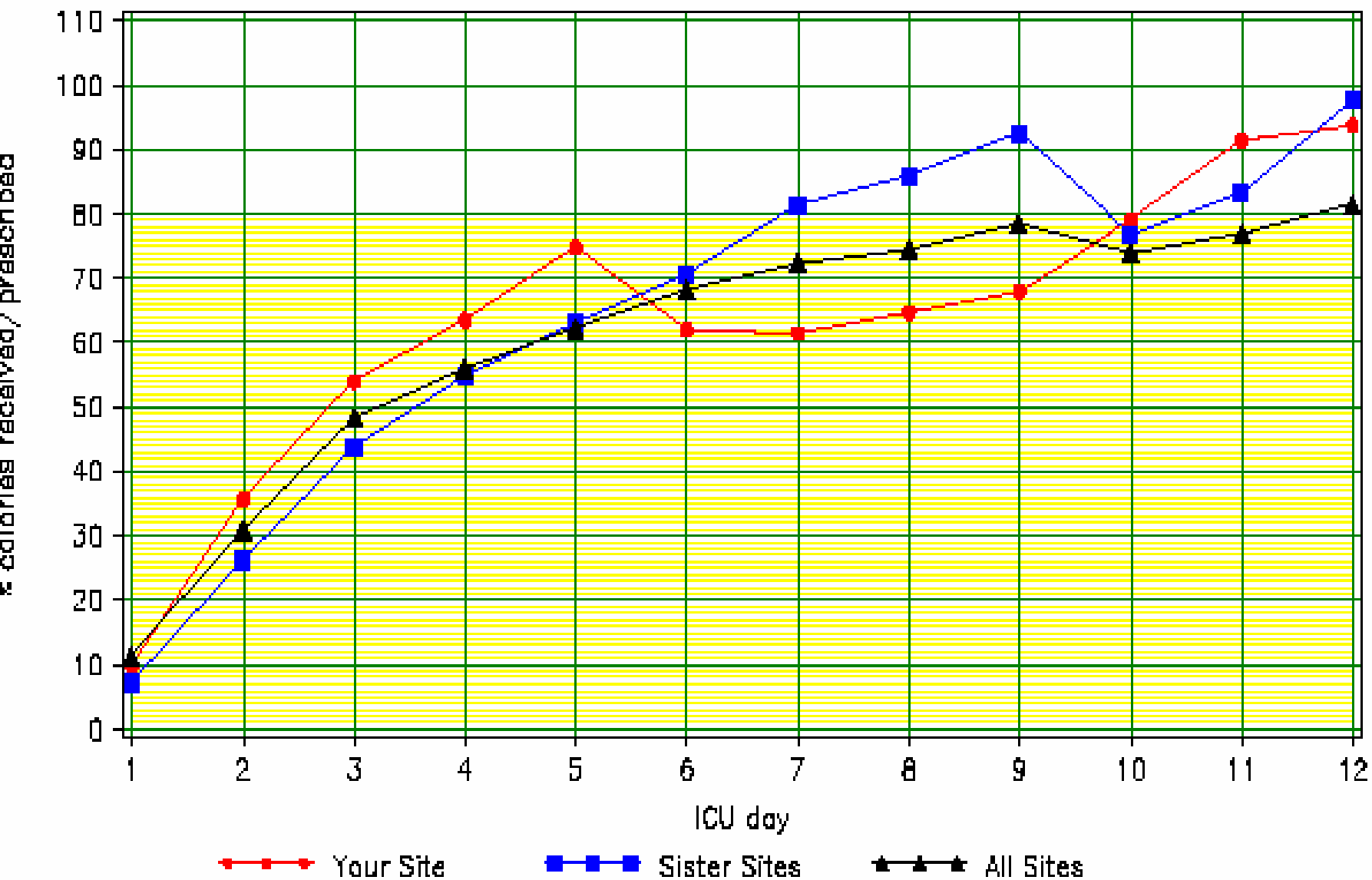


Figure 1.5 Overall Performance at Your Site

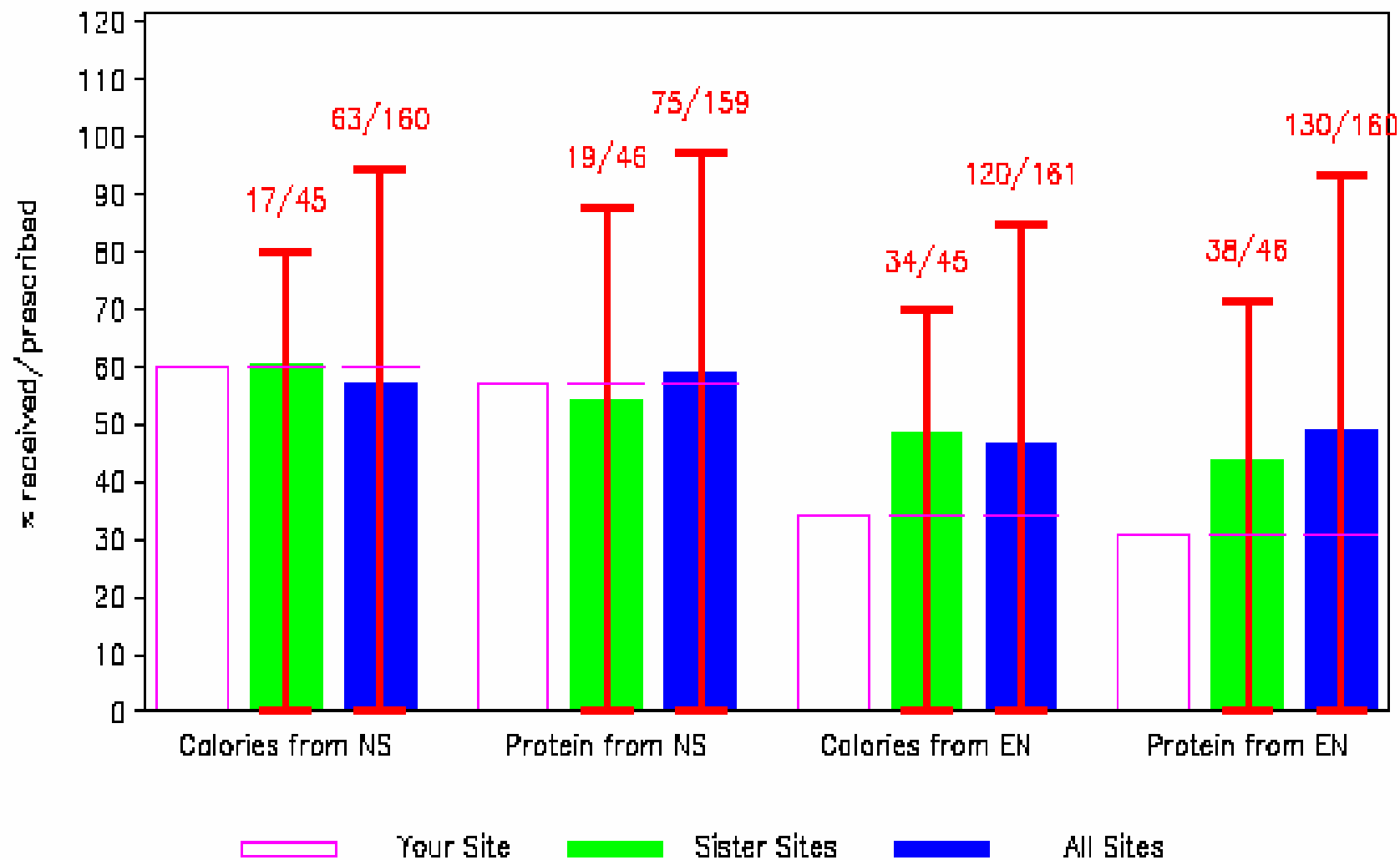


Figure 3.1. Timing of Initiation of EN

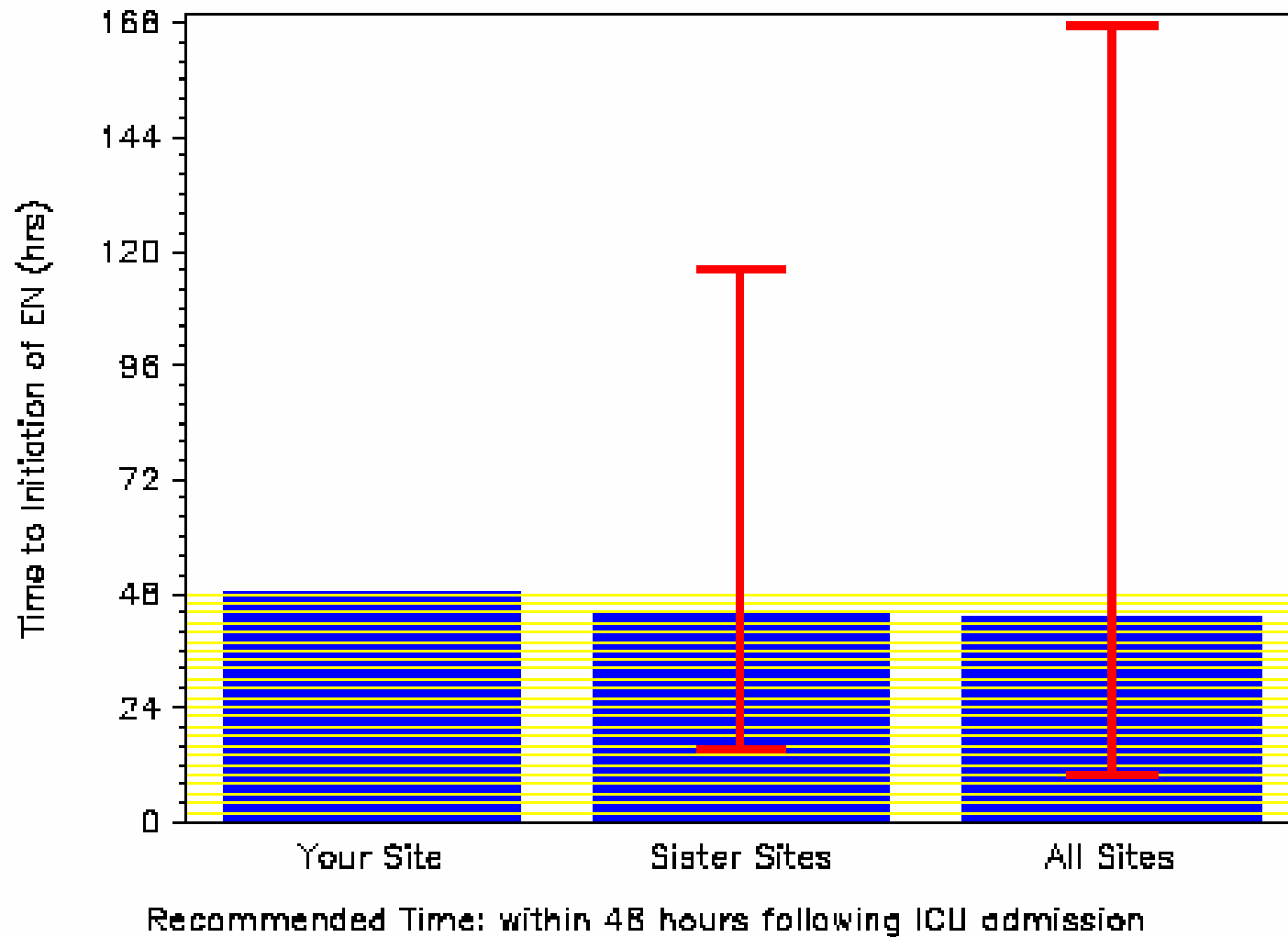
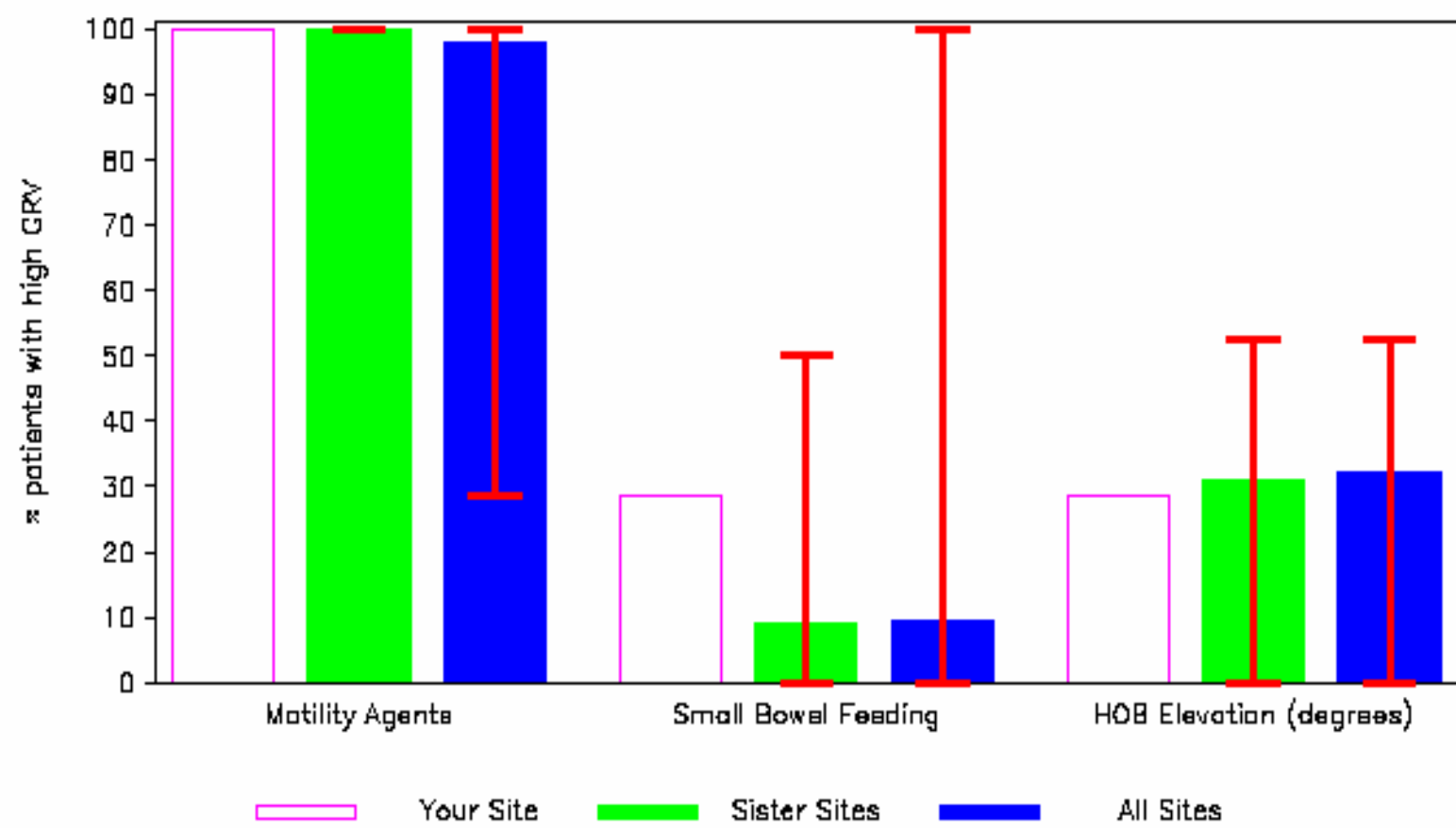


Figure 4. Strategies to optimize delivery and minimize risks of EN



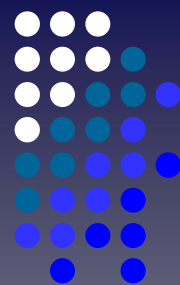
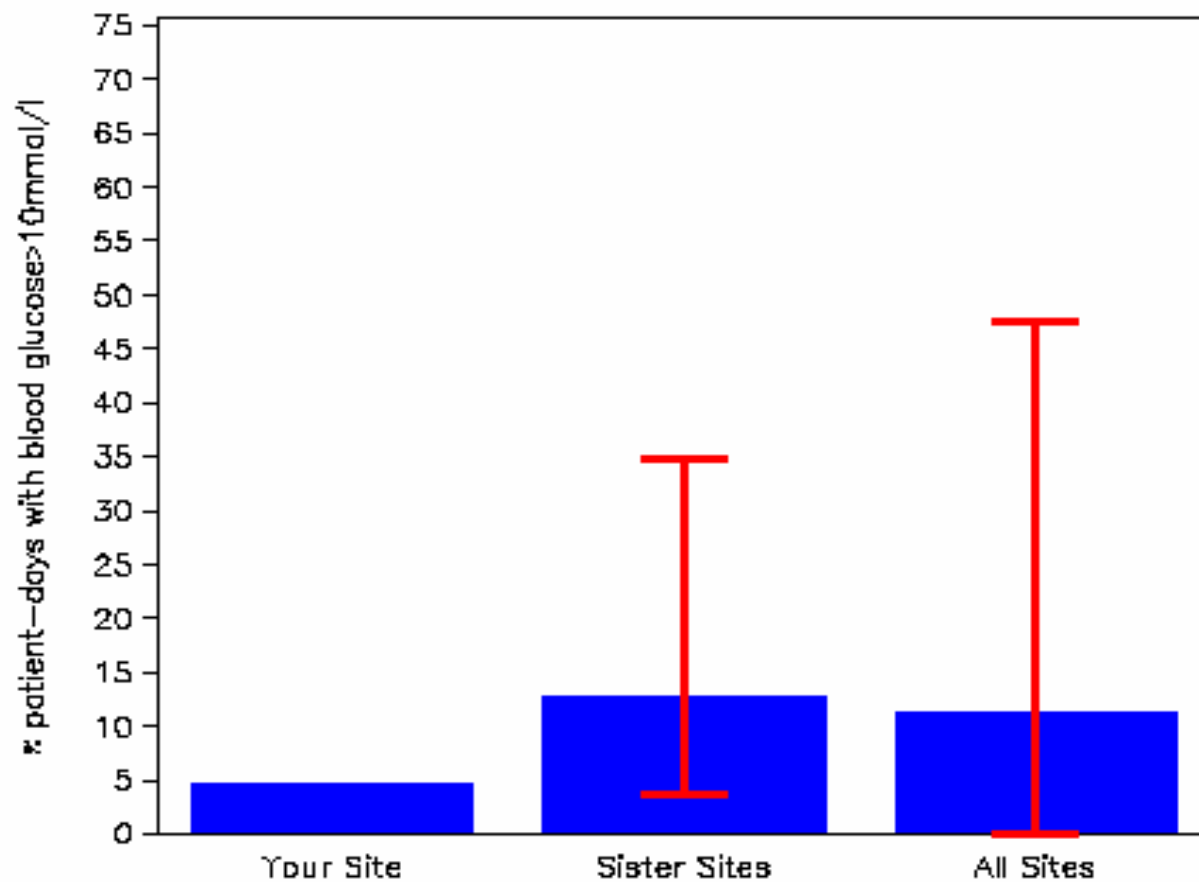


Table 4. Contraindication to EN in those receiving PN

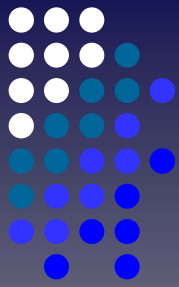
Number of Patient-days on PN	Your Site n=60	Sister Sites n=1138	All Sites n=4821
Contraindication			
None	6 (10.0%)	199 (17.5%)	1722 (35.7%)
Mechanical bowel obstruction	14 (23.3%)	57 (5.0%)	164 (3.4%)
Bowel ischemia	7 (11.7%)	105 (9.2%)	290 (6.0%)
Hemodynamic instability	1 (1.7%)	50 (4.4%)	347 (7.2%)
Small bowel ileus	4 (6.7%)	243 (21.4%)	760 (15.8%)
Small bowel fistulae	1 (1.7%)	50 (4.4%)	250 (5.2%)
Bowel anastomosis	13 (21.7%)	245 (21.5%)	556 (11.5%)
Other	14 (23.3%)	189 (16.6%)	732 (15.2%)

Percentage of Patient-days With Blood Glucose >10 mmol/l

Figure 6.2. % Patient-days with blood glucose >10 mmol/l



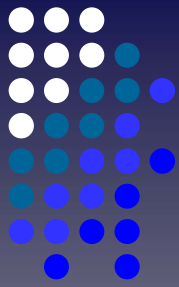
Quality Improvement



- Daily documentation reinforces what we do
- Provides a formal analysis of nutrition care in your ICU to share with ICU physicians, nursing care managers or educators
- APACHE II scores included
- Outcomes oriented
 - Length of stay (ICU and hospital)
 - Mortality



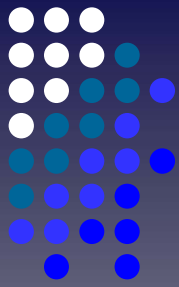
Strategies to change practitioner behavior



- Addressed to your local setting and multifaceted
 - Informal discussions by local opinion leaders
 - Reminders and prompts (i.e. preprinted orders)
 - Periodic “reminders”
 - Tie into other initiatives i.e. VAP protocol and HOB elevation or bedside computerization
 - Recognize there will be barriers to change (people or structure)



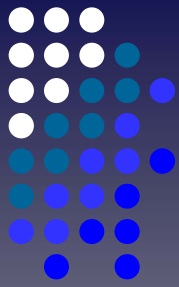
How has practice evolved...



- Increased use of small bowel feeding tubes, now placed at the bedside
- Increased use of motility agents, increased tolerance to higher gastric residual volumes
- Earlier enteral nutrition, decreased reliance on TPN
- Use of specialty products for immune fn...it's not just about protein and calories
 - Glutamine
 - Omega-3 fatty acids
 - Prebiotics
 - Probiotics



Evolution of ICU Nutrition Practice



- Standardized protocols
 - Enteral feeding
 - Glycemic control
- Education: Medical/Nursing/Nutrition
- Research: direct link between practice and outcomes
- Quality Improvement initiatives
- Interdisciplinary co-operation

