Promoting Interprofessional Collaboration by Developing an Enhanced Recovery After Surgery Program in Surgical Oncology

Brenda Smith Nettles, MS, DNP, ACNP-BC
Objectives and Disclosures

- **Objectives**
  - Explain the phases of patient care included in the enhanced recovery after surgery (ERAS) protocol
  - Review the multidisciplinary team required for ERAS
  - Discuss the key elements of patient care for ERAS
  - Describe the protocol developed for Surgical Oncology

- Brenda Smith Nettles has no conflicts of interest to disclose.
Enhanced Recovery After Surgery

- Evidence-based Perioperative Protocol
  - Preadmission
  - Preoperative
  - Intraoperative
  - Postoperative
Multidisciplinary Care Team

- Surgical Oncologist
- Medical Oncologist
- Advanced Practice Providers
- Anesthesia Team
- ERAS Coordinator
- Nursing Staff
- Patient
Key Elements of ERAS

- Comprehensive Patient Education
- Preservation of Gastrointestinal Function
- Reduction in Organ Dysfunction
- Active Symptom Management
- Early Ambulation
## Cytoreduction & Hyperthermic Intraperitoneal Chemotherapy (HIPEC)

### Patient Selection
- Primary Tumor
  - Appendix
  - Colon
  - Ovaries
  - Stomach
  - Unknown

### Clinical Staging
- Diagnostic Imaging
- Pathology Review
Cytoreduction & Hyperthermic Intraperitoneal Chemotherapy

- **Cytoreduction (CRS)**
  - Surgical removal of visible disease
  - Peritoneal Cancer Index
  - Completeness of Cytoreduction score

- **HIPEC Procedure**
  - Treatment for microscopic disease
  - Delivery of heated chemotherapy into the abdomen
  - Reconstruction
<table>
<thead>
<tr>
<th>Regions</th>
<th>Lesion Size</th>
<th>Lesion Size Score</th>
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<tbody>
<tr>
<td>0 Central</td>
<td></td>
<td>LS 0 No tumor seen</td>
</tr>
<tr>
<td>1 Right Upper</td>
<td></td>
<td>LS 1 Tumor up to 0.5 cm</td>
</tr>
<tr>
<td>2 Epigastrum</td>
<td></td>
<td>LS 2 Tumor up to 5.0 cm</td>
</tr>
<tr>
<td>3 Left Upper</td>
<td></td>
<td>LS 3 Tumor &gt; 5.0 cm or confluence</td>
</tr>
<tr>
<td>4 Left Flank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Left Lower</td>
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<tr>
<td>6 Pelvis</td>
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</tr>
<tr>
<td>7 Right Lower</td>
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<tr>
<td>8 Right Flank</td>
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</tr>
<tr>
<td>9 Upper Jejunum</td>
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</tr>
<tr>
<td>11 Upper Ileum</td>
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</tr>
<tr>
<td>12 Lower Ileum</td>
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</tbody>
</table>

PCI

Extended Recovery After HIPEC

- Decreased GI Motility
  - Bowel changes
  - Altered Absorption
  - Weight Loss

- Decreased Activity Tolerance
  - Anxiety
  - Fatigue
  - Postoperative Pain
Postoperative Complications

- Common Reasons for Readmission
  - Inadequate pain control
  - Intra-abdominal abscess
  - Dehydration or malnutrition
  - Pulmonary embolism or deep vein thrombosis
  - Bowel obstruction
  - Superficial wound infection
ERAS Protocol Review Process

❖ Committee Reviews

▪ Quality Improvement Committee
  • Approval of ERAS clinical pathway

▪ Clinical Practice Committee
  • Approval of electronic order sets

▪ Patient Education Committee
  • Approval of ERAS education booklets
  • Distribution of education videos
ERAS Clinical Pathway

- Establish Defined Goals for Discharge
  - Nutrition
  - Activity
  - Pain Control
  - Complication Management
Order Sets

❖ Preadmission

▪ Medical optimization
▪ Gastrointestinal bowel preparation
▪ Antibiotic prophylaxis
▪ Antimicrobial skin preparation
▪ Preoperative oral hydration
Order Sets

- Intraperitoneal Chemotherapy
  - Drug selection
  - HIPEC dose calculation
  - Premedication
  - Chemotherapy treatment plan
Order Sets

- Perioperative Patient Care
  - Laboratory tests
  - Medications
  - Nursing Care
  - Activity
  - Nutrition
  - Consultations
Patient Education

- Medications
- Nutrition
- Activity
- Pain Control
Evaluation of Clinical Outcomes

- Decreased Recovery Times
- Shortened Hospital Stays
- Reduction in Cost of Care
- Increased Patient Satisfaction