LLUMC – Pediatric Surgery PGY 2

Goals:
Loma Linda University Medical Center will provide a learning environment for common and important pediatric surgical conditions. Surgical basic science, including fluids and electrolytes, wound healing, and nutrition, will be emphasized. Clinically, residents will assess surgical pathology pre-operatively, develop clinical judgment on managing these issues, and learn operative skills to address the problem. Careful postoperative care and follow up will be emphasized.

Objectives:
Medical Knowledge:
- Describe the embryological development of the peritoneal cavity and the position of the abdominal viscera.
- Diagram the anatomy of the abdomen including its viscera and anatomic spaces.
- Describe the anatomy of the omentum and its role in responding to inflammatory processes.
- Describe the treatment alternatives for the patient with an acute abdomen according to the specific etiology.
- Describe the anatomy, embryological development, clinical presentation and timing of treatment of inguinal hernias, umbilical hernia and hydrocele.
- Compare and contrast the anatomy, pathophysiology, associated syndromes and timing of treatment of omphalocele and gastroschisis.
- Describe the pathophysiology, types and treatment of anorectal malformations.
- Describe the presentation, types, workup and treatment for esophageal atresia and tracheo-esophageal fistulae.
- Be able to describe the presentation and pathophysiology of pyloric stenosis including diagnostic modalities, fluid and electrolyte management and timing, as well as surgical options for treatment.
- List a differential diagnosis and diagnostic workup for bowel obstruction in the neonatal period.
- Describe the pathophysiology, diagnosis and treatment for Hirschsprung’s disease.
- Have an understanding of the pathophysiology of GERD in the pediatric population, the diagnostic modalities including pH probe and UGI series and treatment principles.
- List a differential diagnosis of abdominal masses in the pediatric population.
- Describe the pathophysiology, diagnostic modality and treatment options for intussusception.
- Have an understanding of the embryology, pathophysiology, and types of diaphragmatic hernias and their treatment
• List the five types of choledochal cysts and treatment.
• Describe the pathophysiology, presentation and diagnosis of biliary atresia as well as the timing of surgery.
• Outline the basic techniques of evaluation and resuscitation of pediatric trauma patients using the Advanced Trauma Life Support (ATLS) protocol.
• Outline the different treatment options for hepatic, splenic, pancreatic and duodenal injuries.
• Outline the treatment options for thoracic injuries.

**Patient Care:**
• Establish basic proficiency in providing pre-operative and post-operative care (writes appropriate pre-op and post-op orders for floor patients, handles nursing calls appropriately, and manages most routine post-operative care with minimal intervention by supervisor).
• Take an appropriate history to evaluate patients with general surgical issues to include:
  • A complete history of present illness
  • Presence of any co-morbidities
  • A review of social and family history impacting the present problem
  • A complete review of systems
• Demonstrate an increasing level of skill in the physical examination of the pediatric surgery patient with a special emphasis in recognition of the surgical abdomen.
• Develop a proficiency in evaluation and interpretation of the different diagnostic modalities including: X-Rays, ultrasounds, CT scans, Contrast studies and MRIs.
• Discuss treatment options, risks and potential complications of patients with pediatric surgical issues.
• Assist in the performance of general surgical and laparoscopic procedures.
• Demonstrate skill in basic surgical techniques, including:
  ◦ Knot tying
  ◦ Exposure and retraction
  ◦ Knowledge of instrumentation
  ◦ Incisions
  ◦ Closure of incisions
  ◦ Handling of graft material including mesh
  ◦ Establishing pneumoperitoneum
  ◦ Handling of laparoscopic instruments
  ◦ Handling of the laparoscopic camera
• Evaluate and institute management of abdominal wound problems.
• Coordinate pre and post-surgical operative care for patients in the Pediatric Surgery rotation.
• Assist in closure of abdominal incisions and exhibit competency in suture technique.
• Be able to apply and remove all types of dressings.
• Make and close a variety of incisions and tie knots using sterile technique.
• Develop and awareness and participate in the evaluation and treatment of non-accidental trauma victims.

Professionalism:
• The resident should be receptive to feedback on performance, attentive to ethical issues and be involved in end-of-life discussions and decisions.
• Understand the importance of honesty in the doctor-patient relationship and other medical interactions.
• Treat each patient, regardless of social or other circumstances, with the same degree of respect you would afford to your own family members.
• Learn how to participate in discussions and become an effective part of rounds, attending staff conference, etc.
• Complete all assigned patient care tasks for which you are responsible or provide complete sign out to the on-call resident.
• Maintain a presentable appearance that sets the standard for the hospital; this includes but is not limited to adequate hygiene and appropriate dress. Scrubs should be worn only when operating or while on call.
• Assist with families of critically injured/ill patients and guidance of families towards or through difficult decisions.
• Demonstrate mentoring and positive role-modeling skills.
• Provide an appropriate orientation and guide all medical students as to their roles and responsibilities during the rotation.
• Provide an appropriate orientation to other PGY 2s that are about to rotate through the pediatric surgery service.

Systems-Based Practice:
• Understand, review, and contribute to the refinement of clinical pathways
• Understand the cost implications of medical decision-making
• Partner with health care management to facilitate resource efficient utilization of the hospital's resources.
• Describe in general terms the benefits of clinical pathway implementation
• Develop a cost-effective attitude toward patient management.
• Develop an appreciation for the benefits of a multi-disciplinary approach to management of critically ill surgical patients.
• Comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations regarding patient privacy and confidentiality.
• Demonstrate knowledge in steps and conduct during major surgical procedures.
• Have clear indications and know when it is appropriate to perform a surgical procedure.
• Have an understanding of when it is not appropriate to operate.
• Demonstrate knowledge of steps to be taken to have a patient ready for surgery including pre-op workup and medical clearance.

Practice-Based Learning & Improvement:
• Demonstrate the ability to:
- Evaluate published literature in critically acclaimed journals and texts
- Apply clinical trials data to patient management
- Participate in academic and clinical discussions
- Accept responsibility for all dimensions of routine patient management on the wards
- Apply knowledge of scientific data and best practices to the care of the surgical patient
- Facilitate learning of medical students and physician assistant students on the team.
- Use the LLUMC library and databases of on-line resources to obtain up to date information and review recent advances in the care of the surgical patient.
- Demonstrate a consistent pattern of responsible patient care and application of new knowledge to patient management.
- Demonstrate a command and facility with on line educational tools.
- Complete the personal learning project as outlined in the PBLI curriculum

**Interpersonal & Communication Skills:**
- Work as effective team members
- Cultivate a culture of mutual respect with members of nursing and support staff
- Develop patterns of frequent and accurate communication with team members and attending staff
- Gain an appreciation for both verbal and non-verbal communication from patients and staff
- Demonstrate consistent respectful interactions with members of nursing and support staff
- Demonstrate consistent, accurate and timely communication with members of the surgical team
- Demonstrate sensitivity and thoughtfulness to patients' concerns and anxieties.
- The resident will demonstrate the ability to provide and request appropriate consultation from other medical specialists.

**Assessment:**
- Patient Care and technical skills will be assessed by the attending surgeon on a daily basis.
- During the formal evaluation at the end of the rotation

**Educational Conferences:**

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<thead>
<tr>
<th>Conference</th>
<th>Date and Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>M&amp;M / Grand Rounds</td>
<td>Wednesday - 7:00 am</td>
<td>LLUMC</td>
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<tr>
<td>Basic Science lecture</td>
<td>Wednesday – 6:00 am</td>
<td>LLUMC</td>
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<tr>
<td>Pediatric Surgery Conf</td>
<td>Tuesday – 11:00 pm</td>
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<td>Pediatric Surgery Pathology Conference b</td>
<td>Tuesday - Noon</td>
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<tr>
<td>Pediatric Tumor Board</td>
<td>Wednesday – Noon</td>
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<tr>
<td>Pediatric Radiology Conference</td>
<td>Thursday – 11:00</td>
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<tr>
<td>Skills Lab / Journal Club</td>
<td>Thursday – 7:00 am</td>
<td>LLUMC</td>
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