## General Session

**The Effect of Insurance Status on Diagnostic and Transfer Strategies in Childhood Appendicitis**  
Shannon Koehler, MD, PhD

**Session Description:**

**Purpose:** Appendicitis is one of the most common, urgently treated pediatric surgical conditions. Given its predictable course, definitive treatment, and distinct negative outcome, appendicitis has been used to measure disparities in access to emergency health care. We hypothesized that insurance status is associated with differential care strategies in the management of childhood appendicitis.  

**Methods:** This retrospective case series evaluated all children with appendicitis at a children's hospital from November 2012 through October 2013. Children undergoing interval appendectomy, incidental appendectomy, or a histologically normal appendix were excluded. Statistical analysis was performed using a chi-square test with statistical significance at p < 0.05.  

**Results:** We identified 299 cases and 249 children met inclusion criteria. Children initially evaluated at the children’s hospital were more likely to be white and have private insurance. Transferred patients with commercial insurance were more likely to have a CT than those with government insurance and were exposed to 1.8 times more radiation than would be expected. Only 36.7% of patients diagnosed with appendicitis at an outside hospital received antibiotics prior to transfer. Conclusion: Insurance-related disparities are associated with variation in the diagnostic testing and transfer of children with appendicitis. While access to care may contribute to diagnostic delay, variation in diagnostic imaging and transfer are strongly associated with insurance status. Pediatric-specific guidelines for the diagnosis and management of pediatric appendicitis should be utilized by all hospitals providing care for children.

**Objectives:**

1. Identify differences in pediatric patients with appendicitis by transfer status.
2. Identify differences in pediatric patients with appendicitis by insurance status.
3. Describe ways to improve health care disparities for pediatric patients with appendicitis.

## Podium Presentation

**Identifying Outcomes of Early Ambulation in the Pediatric Postoperative Appendectomy Patient**  
Kelly Rothman, MS, BSN, RN, CPN
Session Description:
Purpose: To identify the effect of early ambulation on patient outcomes and length of stay in the pediatric postoperative appendectomy patient. Rationale: For decades it has been suggested that extended immobilization in the postoperative patient should be avoided. Scant literature is available addressing early ambulation for pediatric patients after appendectomy. In practice, we noted that patients are not routinely ambulated early. Methods: Data was gathered from a retrospective review of 300 pediatric appendectomy patient charts at a children’s hospital. Results: The mean time to ambulate was 16.05 hours (95%CI: 14.14, 17.96). The mean time to ambulate for patients placed on the surgical specialty unit was 13.48 (95%CI: 11.90, 15.07), compared to 20.36 hours for patients admitted to overflow units (95%CI: 16.97, 25.36; p<.0007). Patients who experienced nausea and/or vomiting had a longer mean time to ambulate than those patients who did not (21.17 hours and 13.49 hours, respectively; p<.0001). Patients who received IV narcotics, PO narcotics, and non-narcotic analgesics had a mean time to ambulate of 17.30, 13.03, and 11.61, respectively (p=.0661). The Spearman’s rank correlation coefficient between length of stay and time to ambulate was .47. Implications: The results of this research study suggest that early ambulation has a significant impact on length of stay. Despite ambulation being taught in basic nursing education as a crucial component of postoperative care, this nursing driven intervention is not routinely practiced. Placing these patients on a surgical specialty unit may lead to improved patient outcomes, and will provide a targeted audience for future educational interventions.

Objectives:
1) Identify the impact that time to ambulate has on length of stay in this patient population.
2) Identify the impact that time to ambulate has on nausea and vomiting in this patient population.
3) Identify the impact that time to ambulate has on pain medication requirements with these patients.

Podium Presentation
Septic Abdomen in a Child with Spina Bifida: Critically Thinking to Prioritise Care
Alison Duggan, RN, PGDip HealSc; Neroli R. Bull, RGON, RM, BA

Session Description:
Background: spina bifida (SB) was common 25 years ago. Although already on the decline, children with SB regularly presented to the surgical ward for various procedures and bowel management. This case study is of a 10 year old boy with SB who was transferred from a smaller hospitals, with a septic abdomen. He required numerous immediate interventions, which needed to be prioritised. Purpose: many paediatric staff are no longer familiar with SB as it is now uncommon in children in New Zealand. Staff were faced with triaging the many interventions that were required and implementing them in rapid sequence. Discussing the multi-systemic issues faced by this child gives an opportunity for critical thinking and decision making. Implementation: much can be learned about the different systems involved and discussing the priority of action in a
child with concurrent septic abdomen, possible bowel perforation, external ventricular drain (EVD), antegrade continence enema (ACE) stoma, bladder augmentation, paralytic ileus, fluid and electrolyte disturbance, and underlying issues with SB such as paraplegia and mild developmental delay. Outcomes: the nursing interventions required included careful management of the EVD, nasogastric tube, ACE, peritoneal drainage, central venous access, in-dwelling catheter, bladder irrigations, fluids and electrolytes, pain management, fluid and antibiotic therapy, parenteral nutrition, pressure area prevention, respiratory therapy, immobility and patient and family support as they were from another city. Implications for practice: when there are multiple issues competing for attention nurses must assess, critically think, prioritise and evaluate their care, and re-prioritise.

Objectives
1) Discuss the issues on presentation of this child: prioritise what interventions were required.
2) Familiarise with the management of the many types of drainage this child required and why.
3) Discuss the pharmacological therapy used and the rationale and issues.

Podium Presentation
Safe and Effective Management of Esophageal Coins in Children with Bougienage
Nathan P. Heinzerling, MD

Session Description:
Background: Coins are the most commonly ingested foreign body in infants and children. Coins retained in the esophagus require intervention to prevent complications. Management of retained esophageal coins remains variable both between and within institutions. We hypothesize that incorporation of bougienage into the management of esophageal coins in children is both safe and effective and more cost effective compared to management strategies that do not utilize bougienage. Methods: We conducted a retrospective review of infants and children diagnosed with an esophageal foreign body managed at Children’s Hospital of Wisconsin between January 2003 and June 2012. Pediatric otolaryngologists (ENT) or pediatric surgeons manage all children with esophageal foreign bodies in a prospective call schedule that alternates weekly. Results: 1642 children were diagnosed with esophageal foreign bodies and 518 had a retained coin. For esophageal coins, ENT managed 218 cases, and pediatric surgery managed 300 cases. ENT preferentially used endoscopy for coin removal, whereas pediatric surgery used either endoscopy or esophageal bougienage for selected children meeting specific criteria. Bougienage was successful at advancing the coin in 94% of patients and endoscopy was successful at removing the coin from the esophagus in 100% of patients. The median hospital charge was $4,593 for endoscopy by ENT, $5,379 for endoscopy by pediatric surgery, and $579 for bougienage (p<0.05). Conclusion: This is the first case series evaluating the management of children with esophageal coins using prospective assignment to endoscopy versus endoscopy or bougienage supporting bougienage as a safe and effective treatment for esophageal coins.
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| 0930-1000 | **General Session**  
*The LIFE Program at the University of California San Francisco, Benioff Children’s Hospital*  
Barbara J. Bratton, MSN, PNP-BC  
**Session Description:**  
The LIFE program began in 2008 with the goal of following children with select surgically correctable birth defects from birth to age 18. The LIFE, or Long-Term Infant-to-Adult Follow-up and Evaluation Program, provides education and expert medical care to children with complex birth defects with the goal of fostering the development of healthy, well-adjusted and independent adults. Fetal birth defects can be complex, often involve multiple organs and can result in long-term effects on health. In the LIFE program we offer a continuum of care from fetal management, postnatal surgery, and specialty care through childhood, adolescence and into adulthood. The multidisciplinary program consists of cardiologists, gastroenterologists, neonatologists, pulmonologists, pediatric dieticians, social workers and developmental specialists, led by the pediatric surgery team. We treat patients with the following conditions: Anterior abdominal wall defects (Gastrochisis and Omphalocele), Biliary anomalies (Biliary atresia and Choledochal cyst), Congenital colorectal diseases (Anorectal Malformations and Hirschsprung’s disease), Congenital diaphragmatic hernia, Congenital lung masses (Congenital pulmonary airway malformation and bronchopulmonary sequestration), Esophageal atresia, Sacrococcygeal teratoma. Anticipation and management of comorbidities associated with fetal conditions is the main focus of the LIFE program. By controlling or preventing these conditions, our patients are able to live more comfortably, stay healthier and enjoy a better quality of life. The LIFE program is engaged in a research project documenting the natural history of birth defects by evaluating the long-term outcomes.  
**Objectives:**  
1) The learner will be able to state the definition of “LIFE” as described in the LIFE program.  
2) The learner will be able to list the 7 surgical conditions followed in the LIFE clinic.  
3) The learner will be able to describe the main focus of the LIFE clinic.  

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| 1015-1115 | **General Session**  
*Esophageal Atresia: Treatment and Postoperative Considerations*  
Federico Seifarth, MD |
### Session Description:
Treatment for esophageal atresia has significantly evolved in the past decades. An overview of current treatment strategies will be provided, including preoperative considerations, operative techniques and postoperative care.

**Objectives:**
1. Understand principles of preoperative care.
2. Gain an understanding of different operative techniques.

### 1115-1145
**General Session**  
*Parent Perceptions of Multimedia Education in the NICU for Surgical Disease*  
Lori J. Howell, DNPC, MS, RN

**Session Description:**
The use of multimedia has been shown to be more effective than verbal and/or print education in most reported studies. However, few studies address education modality related to pediatric surgical disease. This presentation is an evidence based project focusing on multimedia education for parent education in the NICU for Spina Bifida. An educational video was developed from a clinical pathway using surgical experts. A survey tool to measure parental perceptions of the video was developed using face validity and tested for reliability. A comment section was available for additional parent input. The video and survey were sent to identify parents using an electronic link. The responses were analyzed using a Wilcoxon perception score. The results indicated a highly positive response to this type of educational modality and parent responses complemented this analysis. The results will be discussed in detail as well as address implications for practice and sustainability. This is an original submission and not previously presented.

**Objectives:**
1. List the advantages of multimedia education.
2. Describe parent responses to the use of video education.
3. Discuss applicability of multimedia education to other birth defects.

### 1415-1615
**Joint APSA/APSNA Educational Session**

*Offered in collaboration with the American Pediatric Surgical Association (APSA).*

**Session Description:** Childhood Obesity
### Objectives:
1) Understand the physical needs of the surgical patient with obesity, the medical concerns and the management issues that may differ from patients of normal body weight and size.
2) Have an overview of current research into causes and management of obesity including genetic/epigenetic factors and brown adipose tissue.
3) Learn intraoperative and perioperative guidelines to manage the child with obesity who is undergoing non-weight loss surgery.
4) Learn the current status of weight loss surgery in children and adolescents.

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**Care of the Patient with Obesity**  
**Lori J. Lynch, MSN, APRN, CPNP, CBN**

**Session Description:**
often times we are faced in our clinical setting/practice with an adolescent who is affected by being overweight or obese. Have you ever been able to clearly identify how obesity is affecting this person from both a psychological and physical standpoint? Identifying the effects of obesity in the adolescent patient is essential in successful assessment and management of physical and psychological health in both primary and acute settings. The purpose of this activity is to present and discuss the psychosocial and physical co-morbidities of the overweight and severely obese adolescent patient.

**Objectives:**
1) Gain knowledge of incidence and prevalence of co-morbidities of obesity in the adolescent population
2) Identify psychosocial and physical co-morbidities of the adolescent patient suffering from obesity.
3) Identify special considerations for the adolescent patient suffering from excess weight or obesity.

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**Obesity as a Metabolic Disease**  
**Jeffrey Schwimmer, MD**

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**Pediatric Surgery in the Patient with Obesity**  
**Samir Pandya, MD**

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**Current Status of Weight Loss Surgery and Other Interventions in Young Patients**  
**Robert Kanard, MD**