

Milestones

May 2009
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Dear Colleagues,

This month our Department will sponsor the 42nd Annual Advances and Controversies in Pediatrics Conference at the Westin Hotel on May 28 to 30, 2009. The event will be chaired by Drs. Andrea Sello and Peggy Weintrub. In addition, Drs. Andi Marmor, Kris Madsen and Christine Cho will also be speaking at the Mini-Med School for the Public this month. Thank you to all our faculty involved in our UCSF CME programs.



Michael Cabana, MD, MPH
Chief, Division of General Pediatrics, Core Faculty, Institute for Health Policy Studies (IHPS)

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UCSF General Pediatrician appointed SFGH Pediatrics Chief



On April 7, 2009, Elena Fuentes-Afflick, MD, MPH was appointed as the Chief of Pediatrics at San Francisco General Hospital (SFGH) and as Vice Chair for SFGH in the UCSF Department of Pediatrics.

Dr. Fuentes-Afflick's research has focused on the broad themes of acculturation and immigrant health with specific emphasis on perinatal and neonatal health disparities. Her work has wide implications for setting health policy in these areas. She serves as Vice Chair of the Academic Senate, and on national committees of the Academy of Pediatrics, the Society for Pediatric Research, the National Institutes of Health, and the Robert Wood Johnson Foundation. She served as President of the Society for Pediatric Research in 2008; and has served or is serving as a member of the National Advisory Council of the National Institute for Child Health and Human Development (NICHD); the National Advisory Council of the Agency for Healthcare, Research and Quality (AHRQ); the National Advisory Committee of the Thrasher Research Fund; *(cont on page 2)*

A 4 year-old boy with "constant drooling"

Commentary by: Yousef Turshani, MD and Eli Groppo, MD

The patient is a 4 year old boy brought to the emergency department in the evening for sudden onset of drooling. Earlier that afternoon he was at home under the supervision of his teenage brother, who noted that the patient had his mouth slightly open and was drooling. The patient had just been upstairs in his grandmother's room. When asked why he was drooling, the patient looked at his brother but did not verbalize nor gesture as to the source of his problem. He returned to playing with his toys. The patient was not coughing or febrile. There was no change in energy level. The patient had eaten lunch uneventfully a few hours prior. Since the drooling he had attempted only small sips of water. When their mother came home that afternoon, she immediately brought Julio to the emergency department for 'constant drooling.'

He lives at home with his parents and two older siblings. He has an allergic response to eggs and wheat per allergen testing done a few months prior. Developmentally, he met all his milestones and is comprehensible in English, which he normally speaks in full sentences



In the emergency department he was found to have normal vital signs and without pain. On examination, he was sitting comfortably on the gurney alongside his concerned parents. He made little eye contact with either his parents or the examiners and did not speak during the examination. His mouth is slightly open. Clear saliva is noted pooling in his mouth when the mouth is opened. Teeth, tongue, buccal surfaces and oropharynx are all visualized and noted to be normal. His trachea is midline, and no swelling or lymphadenopathy is noted. Respirations are comfortable and auscultation is clear. The remainder of the exam is unremarkable. A lateral and PA neck radiograph was obtained which confirmed a diagnosis (Figure). *(Turn to page 7 for dénouement)*



Congratulations to...

Elena Fuentes-Afflick, MD, MPH

(continued from pg. 1) the Advisory Committee of the National Children's Study; and the National Advisory Council of the Robert Wood Johnson Foundation's Clinical Scholars Program.

Located in the city's multicultural Mission district, SFGH is the City and County hospital for San Francisco. It provides primary health care for many infants, children and adolescents in San Francisco. Caring for mostly the medically underserved, the hospital is also the designated regional trauma center.

SFGH provides culturally competent and sensitive medical services to children, youth and families of San Francisco, especially inner-city, high-risk and socially complex children. The Children's Health Center at SFGH has over 32,000 visits per year.

SFGH admits about 700 children per year. In addition, as the only trauma center for San Francisco County, the SFGH inpatient service collaborates with the trauma surgery, neurosurgery and orthopedics services in the care of critically injured children.

Dr. Fuentes-Afflick received her MD at the University of Michigan. She completed her residency training at UCSF, where she also served as Chief Resident. She completed a Postdoctoral Fellowship at the Phillip R. Lee Institute for Health Policy Studies, as well as her MPH at the University of California, Berkeley. Dr. Fuentes-Afflick is the President for the Society for Pediatric Research. She attends at San Francisco General Hospital and is a Professor of Pediatrics, Epidemiology and Biostatistics.

Chris Stewart MD, MA

On April 4, 2009, Chris Stewart, MD, MA was interviewed on 'Childhood Matters' on KOCN-FM Radio. Dr. Stewart was interviewed about preventing neglect and child abuse. On March 24, 2009, Dr. Stewart was also interviewed on the Radio Show, "Focus on Women's Health in the Community" on KPOO. Dr. Stewart discussed the Shaken Baby Syndrome Prevention Project. Shaken Baby Syndrome (SBS) kills or seriously injures many newborns and infants annually. According to state data, San Francisco documented about 60 SBS incidents annually in recent years.



Chris Stewart received his MD from Harvard and his MA in Asian History from Keio University (Tokyo, Japan). He completed his residency and Chief Residency at UCSF. He is Director of the Inpatient Service at SFGH and the Director of the Global Health Clinical Scholars Program. He is an HS Clinical Assistant Professor of Pediatrics.

Thomas B. Newman, MD, MPH

In April 2009, Thomas B. Newman, MD, MPH published the book, *Evidence Based Diagnosis* with co-author Michael A. Kohn, MD.

Evidence-Based Diagnosis is a textbook that focuses on issues related to diagnostic, screening, and prognostic tests in clinical medicine. The book includes numerous worked examples and 60 problems (with answers) based on real clinical situations and journal articles. Topics covered include: the diagnostic process, test reliability and accuracy, likelihood ratios, ROC curves, testing and treatment thresholds, critical appraisal of studies of diagnostic, screening and prognostic tests and challenges for evidence-based diagnosis and evidence-based medicine.

Dr. Newman also announced that he is donating his share of the royalties to Physicians for Social Responsibility to support their work towards the abolition of nuclear weapons. To access free links to page proofs, please see: http://www.epibiostat.ucsf.edu/epidem/personnel/newman_document_repository/ or search via Google: "Thomas B Newman."



Dr. Newman received his MD from UC San Diego. He completed his residency in pediatrics at UCSF and received his MPH in Epidemiology from UC Berkeley. His research over the past twenty years has applied principles of clinical epidemiology to common clinical problems in general pediatrics, including evaluation and treatment of jaundice in newborns, childhood cholesterol screening, and urinary tract infections in infants. He attends at the Parnassus Nursery and the San Francisco General Hospital Outpatient clinic. He is a Professor of Epidemiology, Biostatistics, and Pediatrics and Chief of the Division of Clinical Epidemiology.

Amy Houtrow, MD, MPH

On April 27, 2009, the *San Francisco Chronicle* featured an article about a UCSF Children's Hospital patient who was treated successfully for stroke with endovascular therapy. The article features comments from Amy Houtrow, MD, MPH, one of the treating physicians.



Dr. Houtrow received her MD at Michigan State and her MPH at the University of Michigan. She completed a combined residency in Pediatrics/Physical Medicine and Rehabilitation, at Cincinnati Children's Hospital. She is Director of the Pediatric Rehabilitation Program at UCSF Children's Hospital. She is an Assistant Professor of Clinical Pediatrics.

Please see: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2009/04/27/DDJT1788OK.DTL&type=health>

Pediatricians in the Community

A Conversation with: Dr. Lucy Crain, MD, MPH

by Anda K. Kuo, MD



The little boy was running around 6 Long with multiple plastic tubes rigged together from his tracheostomy like a giant hazardous umbilical cord – a contraption invented by the respiratory therapist out of desperation and sympathy. The boy had spent 16 months on the ward requiring ventilatory support at night for his layrngotracheomalacia but was totally confined to the narrow radius of his post-surgical stent ventilator tubing... until now. There was no option for home care support, as CPAP, tracheostomies, ventilatory support, gastrostomies and other technology dependent needs precluded community placement and, hence, discharge from the hospital. In an era of sequelae from *Haemophilus influenzae* meningitis, he was one of many children that Dr. Lucy Crain saw trapped in the hospital when they could be thriving at home given the proper home support. “All politics is local,” Dr. Crain laughs as she reflects back on the roots of her life long career as a staunch child advocate. “My passion came from a local need which led to identifying the barriers and finding solutions.”

The boy on 6 Long was the impetus behind Dr. Crain’s article in a 1990 issue of *Western Journal of Medicine* that helped catalyze statewide reform to move institutionalized children with special health care needs back to their local communities. “Watch what you ask for!” Dr. Crain observes. “It is still a battle - the first thing on the chopping block is home services.”

Dr. Crain was born in the coal mining community of Clopsint, KY. Her father was a surgeon and her mother was a nurse. She was born at home which according to her father was “safer and cleaner than the hospital.” One of her earliest memories is of her grandparent’s tobacco farm in central Kentucky, when her grandmother took her into the tobacco fields where workers were suckering (pruning) the plants. “Lucy Ruth, look at this,” she said while holding out a fat juicy tobacco worm which she broke in half to reveal a green, toxic slime inside. “If you ever smoke, this is what your insides will look like.” Dr. Crain notes that even back then people knew that there was something bad about tobacco. Field workers would get the “green sickness” and sometimes die of seizures. “I find it ironic that all the things I grew up with, like coal and tobacco, ... these things that I rail against... are the livelihood of so many people in my home state.”

After completing medical school as one of four women in her class at the University of Kentucky, Dr. Crain completed pediatric residency at the University of Washington. Her husband received his draft notification into the Vietnam War the same day she got back a positive pregnancy test. To be near her husband on his tour of duty, she worked for a year at the Presbyterian Mission Hospital, in Taegu, Korea, as volunteer pediatric faculty. She gave birth to and raised her son in Korea before relocating when her husband was re-assigned to Fort Ord, CA. Working in private practice in Monterey, CA and in Salinas once a week where she often got paid in rice and beans, Dr. Crain remembers the day she went to pick up her toddler son

from daycare. “They brought me the wrong ‘Willy!’” From that, launched decades of advocacy for quality childcare and education, including serving on the Berkeley child care committee while she obtained her Masters in Public Health.

Dr. Crain worked at the Golden Gate Regional Center before coming to UCSF in 1971. She quickly became instrumental in the formation of the primary care pediatric residency program, advocating for it to be a separate match program. In 2000, she founded the annual CME conference, Development Disabilities: Update for Health Professions. Until 2002, Dr. Crain remained at UCSF on the clinical faculty founding and directing the Developmental Disabilities clinic and juggling various roles including First Five Commissioner and numerous leadership roles in the American Academy of Pediatrics. When she retired (I prefer “recycled,”) Dr. Crain was looking forward to devoting much of her time to be with her grandson. While her family and grandson remain a priority, in 2004, she began working in the Stanford child development and behavior unit and is the Chair of the AAP Section for Senior Members. In addition, she continues teaching as a voluntary clinical faculty member on Thursday afternoons in the Primary Care Pediatric Clinic at Parnassus.

In reflection, Dr. Crain is most proud of her family. Her husband is a dermatologist in private practice in Oakland, while their daughter is a clinical psychotherapist in Alameda and their son is a law student in Saint Paul, MN. Three year old Henry is her “one and only and most favorite grandson.” Professionally she is proud of the fantastic pediatricians in whose education and training and hiring she has had a role. “I remember calling Alan Uba’s mom, promising that we would take care of him,” she recalls. “There is only so much you can do around child advocacy in a life time, and you have to leave a legacy of active child advocates.”

Recently Dr. Crain was honored with an award inducting her into the Hall of Fame of the College of Arts and Sciences of the University of Kentucky for her commitment to teaching, advocacy and health policy work. With typical humility, she chuckles, “I thought they got the wrong person.... I mean, I did not play basketball!” Amidst all of her lifelong achievements for the well-being of children, her biggest regret is the dissolution of the disabilities clinic at UCSF a few years after she left. There is a weighted pause as we sit in her kitchen at the end of our reflection on her tremendous career, “Life takes many twists – use them to your advantage and to those of others and enjoy the journey.”



About the author: Dr. Kuo directs the Physician in Society (PIS) rotation for pediatric house staff. She attends on the outpatient service at San Francisco General Hospital. She is an HS Assistant Clinical Professor of Pediatrics.



Current Postings

OPEN SEARCH ASSISTANT/ASSOCIATE PROFESSOR OF PEDIATRICS-UCSF

The Department of Pediatrics, University of California San Francisco (UCSF), seeks an experienced, board-certified pediatrician at the Assistant/Associate Clinical Professor level who demonstrates excellence in clinical pediatrics as well as clinical education. Clinical focus will include urgent care general pediatrics and some primary care in an academic hospital setting. UCSF seeks candidates whose experience, teaching, research and community service has prepared them to contribute to our commitment to diversity and excellence. General pediatrics fellowship training, or four years of equivalent clinical experience is required. Pediatric emergency medicine experience and training is desired, but not required. The University of California is an Equal Opportunity/Affirmative Action Employer. The University undertakes affirmative action to assume equal employment opportunity for underutilized minorities and women, for persons with disability, and for Vietnam-era veterans and special disabled persons.

Please send CV to:
Chair, Search Committee
Division of General Pediatrics,
University of California, San Francisco
3333 California Street, Suite # 245,
San Francisco, CA 94118
(415) 476-5473

OPEN SEARCH CLINICIAN-INVESTIGATOR UCSF CHILDREN'S HOSPITAL

The Division of General Pediatrics at the University of California, San Francisco (UCSF) is accepting applications for a faculty position. Successful candidates will have Board-Certification in pediatrics with fellowship training in health services research or academic general pediatrics. A demonstrated record of productivity and history of independent grant support is required. UCSF seeks candidates whose experience, teaching, research and community service has prepared them to contribute to our commitment to diversity and excellence.

The Department of Pediatrics at UCSF will provide facilities and support including protected time for research, mentoring, and access to world-class faculty. Clinical and teaching opportunities are available at UCSF Children's Hospital and the general pediatrics outpatient clinics. UCSF is an Equal Opportunity/Affirmative Action employer.

Please forward curriculum vitae and letter of interest to:
Chair, Search Committee
University of California, San Francisco
3333 California Street, Laurel Heights Campus #245
San Francisco, CA 94143-0503

PEDIATRIC PHYSICAL MEDICINE AND REHABILITATION SPECIALIST

The Department of Pediatrics at the University of California, San Francisco, seeks a board certified/board eligible pediatric physiatrist. Eligible training includes PM&R residency followed by a pediatric rehabilitation fellowship or dual training in Pediatrics and PM&R, with or without a pediatric rehabilitation fellowship. The clinical focus will be consultation coverage for a four-bed comprehensive pediatric rehabilitation program at the UCSF Children's Hospital and pediatric rehabilitation outpatient clinics. Clinical education of residents and medical students is expected. Those individuals with specific interest in pediatric sports medicine and/or pain management are especially encouraged to apply. Individuals interested in programmatic development and/or research are also strongly encouraged to apply. Preference will be given to those with strong academic backgrounds and the desire to work with interdisciplinary teams.

The University of California is an Equal Opportunity/Affirmative Action Employer. The University undertakes affirmative action to assure equal employment opportunity for underutilized minorities and women, for persons with disabilities, and for Vietnam-era veterans and special disabled veterans. UCSF seeks candidates whose experience, teaching, research, or community service has prepared them to contribute to our commitment to diversity and excellence.

Please forward letter of interest and curriculum vitae to:
Amy Houtrow, MD, MPH
Medical Director of Pediatric Rehabilitation
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University of California, San Francisco
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San Francisco, CA 94143
E-mail: houtrowa@peds.ucsf.edu



Clinical Update

Children's Hospital Rapid Response Team

Rapid Response enables patient care staff to directly request additional assistance from specially trained individuals when the patient's condition appears to be worsening. At UCSF Children's Hospital, Rapid Response is achieved by activating the Rapid Response Team (RRT) as outlined by the Rapid Response policy (1). Unlike a patient's primary care team that provides ongoing management and treatment, the RRT provides urgent intervention to prevent adverse events including non-ICU cardiopulmonary arrests (codes).

The Children's Hospital RRT serves all patient care areas on the Parnassus campus including: All Pediatric Acute Care and Transitional inpatient units; pediatric outpatients in the Emergency Department (ED), and all areas of the Ambulatory Care Center (ACC); The Pediatric Treatment Center; and ancillary areas such as radiology.

Criteria for activation include but are not limited to the following: Acute change in vital signs: heart rate, respiratory rate, blood pressure, or respiratory effort; acute increase in oxygen requirement; acute change in mental status; increase in patient acuity demanding a higher level of nursing care; a staff member, parent or care giver remains worried about the patient's condition even after the customary chain of command has been activated.

To contact the RRT call: (415) 363-1611 (The Children's Hospital Access Center). State that you need the Rapid Response Team.

The RRT is available 24 hours a day, 7 days a week.

How is the RRT different than the Code Blue Team? The RRT does NOT replace the Code Blue Team. Response time may be up to 20 minutes. In the event a patient experiences a critical emergency requiring immediate resuscitation, including a respiratory or cardiac arrest, a Code Blue should be initiated immediately. What about patients who are DNR? The RRT serves all patients including those who are DNR status or receiving palliative care services.

For more information about the Children's Hospital Rapid Response Team, contact Shelley Diane, RN, CNS at: or Stephen Wilson, MD, PhD.

For more details about the UCSF Rapid Response Administrative Policy 6.04.17, please see <http://manuals.ucsfmedicalcenter.org/AdminManual/IndividualPolicies/RapidResponseTeams>

New Faculty & Staff

Anisha I Patel, MD, MSPH



Anisha Patel, MD, MSPH has accepted a post-doctoral position at the Philip R. Lee Institute for Health Policy Studies (IHPS) and the Division of General Pediatrics starting in July 2009. She will be a Philip R. Lee Fellow, a recently established health policy fellowship at IHPS. In addition, she will have a clinical appointment as an HS Clinical Instructor of Pediatrics at UCSF Children's Hospital.

Dr. Patel received her undergraduate, MD and Masters in Science and Public Health, Maternal and Child Health at the University of North Carolina. She completed her residency and chief residency in Pediatrics at Stanford University. Currently, she is a Robert Wood Johnson Clinical Fellow at the University of California, Los Angeles. Her research interests include community-based interventions to address pediatric obesity and consumption of sugar-sweetened beverages.

As a resident, she received several teaching awards from the Stanford University School of Medicine. In 2005, she received the Stanford Pediatric Resident Advocacy Award, as well as the 2005 Resident Community Project Award from the Anne E. Dyson Community Pediatrics Training Initiative. Her work has been published in the *American Journal of Preventive Medicine*. In May 2009, she received an Academic Pediatrics Association Young Investigator Award.



Education

MedEdPORTAL 2.0

The Association of American Medical Colleges (AAMC) has launched MedEdPORTAL 2.0, a new and improved repository of high-quality, peer-reviewed educational teaching and assessment resources for the medical and dental communities.

The new Website features a fully integrated content and digital asset management system and additional enhancements that allow for the direct download of nearly all materials. The new MedEdPORTAL also features a more robust search engine as well as the capability to collect valuable end-user data for the authors who have submitted content. MedEdPORTAL is a free service.

Please visit: <http://www.aamc.org/mededportal>

Recently Published By Faculty



Lowers J, Jaffe A, Zenel JA, **Cabana MD**, **Donahue C**, Uba A. Four Infants Who Have Red, “Bloody” Stools. *Pediatrics in Review*. 2009; 30: 146-149.



Bloody stools are a relatively common chief complaint in pediatric primary care. Hematochezia, the passage of bloody bright red- or maroon-colored stools, is due to a distal gastrointestinal hemorrhage or to massive hemorrhage at a more proximal site above the colon. Although some ingested medications can cause gastrointestinal bleeding, many ingested foods or medications cause red stools that are commonly mistaken for “bloody.” Therefore, it is important for the primary care clinician to be able to distinguish true bloody stools from other red colored stools and to be acquainted with the broad differential diagnosis for hematochezia.



Hersh AL, **Cabana MD**, Gonzales R, **Shenkin BN**, **Cho CS**. Pediatricians' perspectives on the impact of MRSA in primary care: a qualitative study. *BMC Pediatrics* 2009, 9:27



The incidence of skin and soft-tissue infections (SSTIs) has rapidly increased among children in primary care settings since the emergence of community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA). Recent treatment recommendations emphasize CA-MRSA as the primary cause, performing incision and drainage (I&D) as the primary therapy, and not prescribing antibiotics for uncomplicated cases. It is unknown how this epidemic has impacted primary care pediatricians in terms of their practice patterns and barriers they face to providing recommended therapies. 3 Focus groups among 29 primary care pediatricians in the



San Francisco Bay Area were conducted. Transcripts were reviewed and coded into major themes by two investigators using modified grounded theory. Substantial changes in clinical practice have occurred since the emergence of CA-MRSA. These include increased office visits for SSTIs, patients with recurrences and transmission within households. Additionally, our participants reported increased visits for mild skin problems due to media reports contributing to fears about CA-MRSA. Participants routinely prescribed antibiotics for SSTIs, however, few performed I&D. Few were aware of recent SSTI treatment recommendations. Barriers to prescribing antibiotics with CA-MRSA activity included concerns about side-effects and lack of local epidemiologic data. Barriers to performing I&D included lack of training, resources and skepticism about its necessity. Important clinical challenges included increased time demands for follow-up visits and patient education along with the lack of evidence-based strategies for preventing recurrent infections and household transmission. CA-MRSA has influenced the presentation and treatment of SSTIs especially in terms of case numbers and recurrences. Barriers to providing recommended therapies can be addressed through improved dissemination of treatment guidelines and epidemiologic data. Studies are urgently needed to improve the evidence-base for treatment and prevention strategies.



Newacheck, PW, **Houtrow, A.** et Al., The Future of Health Insurance for Children with Special Health Care Needs. *Pediatrics* May, 2009;123:5, e940–e947.

ABSTRACT: Because of their elevated need for services, health insurance is particularly important for children with special health care needs. In this article we assess how well the current system is meeting the insurance needs of children with special health care needs and how emerging trends in health insurance may affect their well-being. **METHODS:** We begin with a review of the evidence on the impact of health insurance on the health care experiences of children with special health care needs based on the peer-reviewed literature. We then assess how well the current system meets the needs of these children by using data from 2 editions of the National Survey of Children With Special Health Care Needs. Finally, we present an analysis of recent developments and emerging trends in the health insurance marketplace that may affect this population. **RESULTS:** Although a high proportion of children with special health care needs have insurance at any point in time, nearly 40% are either uninsured at least part of the year or have coverage that is inadequate. Recent expansions in public coverage, although offset in part by a contraction in employer-based coverage, have led to modest but significant reductions in the number of uninsured children with special health care needs. Emerging insurance products, including consumer-directed health plans, may expose children with special health care needs and their families to greater financial risks. **CONCLUSIONS:** Health insurance coverage has the potential to secure access to needed care and improve the quality of life for these children while protecting their families from financially burdensome health care expenses. Continued vigilance and advocacy for children and youth with special health care needs are needed to ensure that these children have access to adequate coverage and that they fare well under health care reform.



Oken R, Zissman E. Carriers contracting process offers insights for pediatricians. *AAP News*. April 2009, p. 22.

Pediatric practices that are knowledgeable about a payer's contracting process will be better able to develop negotiation strategies. The article offers an overview of United Healthcare's physician contracting. Strategies to assist pediatricians in their own negotiations also are included.



Oken R. Negotiating with payers: a pediatrician's perspective. *AAP News*. April 2009, p. 22.

Before signing a health plan contract or contract amendment, it is important to assess the value it will bring to your practice. Physicians should not accept bad contracts or contracts that are not mutually beneficial. This article include tips on negotiating with payers.

Dénouement

A 4 year-old boy with “constant drooling”

(continued from page 1...) AP and lateral neck plain films were obtained revealing a circular radiopaque object in the esophagus, at the level of the cricopharyngeus muscle. The patient was taken to the operating room for endoscopic removal with general anesthesia. Endoscopy revealed a nickel just inferior to the esophageal inlet, which was removed with optical forceps. The esophageal mucosa was found to be intact without signs of erosion or trauma. The patient was discharged from the post-anesthesia recovery unit the same day in excellent condition.

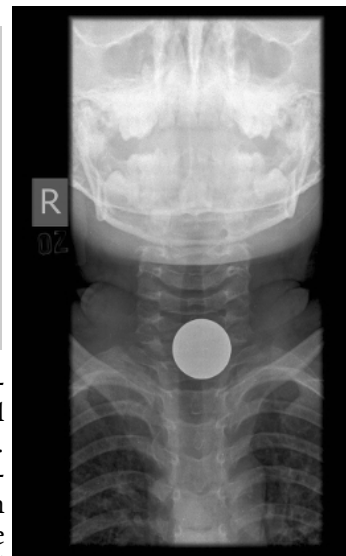
Ingested foreign bodies occur commonly in children with nearly 100,000 cases reported annually nationwide. Almost all occur in children under 5 years with a peak incidence between 9 months and 3 years.[1] Coins are the most common ingested foreign body (88% of all cases). The most common anatomic locations of esophageal coin retention are the cricopharyngeus, the thoracic inlet, the aortic arch, and the lower esophageal sphincter. Patients presenting with airway symptoms (cough, stridor, respiratory distress) often have the coin retained in the proximal esophagus (cricopharyngeus or thoracic inlet). In contrast, patients presenting with dysphagia, drooling, or pain usually have the coin retained in the middle or distal third of the esophagus.

In unstable patients presenting with a history or signs and symptoms of foreign body ingestion, securing the airway should be the first priority. In stable patients, a neck and chest radiograph should be obtained. The coin often appears as a circular opaque object in the coronal plane. Occasionally, coins will appear in the sagittal plane, necessitating a lateral view to ensure that the coin is in the esophagus and not the trachea. Once a circular esophageal foreign body is identified, it is of critical importance to differentiate coins from button or disc batteries.

On plain film, button batteries can be differentiated from coins by two characteristics: (1) On lateral films, one side of batteries is perfectly flat and the opposite side is convex. In coins, both sides are perfectly flat. (2) On AP films, there is a rim of lucency on the inside edge of batteries. This does not exist with coins.[2] Due to the high risk of morbidity with battery ingestion, these foreign bodies should be removed expeditiously.

Esophageal coins in asymptomatic patients may be observed with serial plane films given the low risk of morbidity. Current literature suggests a waiting period of 12-24 hours. In this time frame, coins located in the proximal third of the esophagus spontaneously pass into the stomach in 14% of patients, those in the middle third have up to a 43% spontaneous passage, while those in the distal esophagus had up to 67% spontaneous passage.[3, 4] Management of coins that pass into the stomach has been expectant as the vast majority will pass through the gastrointestinal track without complications. Glucagon (which produces smooth muscle relaxation) and/or sumatriptan (a 5HT antagonist that produces decreased gastric tone and prolonged gastric relaxation) are often used during observation, however neither medication has proven significantly effective.[1]

Esophageal coins in symptomatic patients and esophageal batteries



in any patient should be removed immediately. Several techniques have been employed. Extraction using a balloon-tipped (Foley) catheter has been used with some success.[1] The procedure is usually performed in the endoscopy suite under sedation with fluoroscopy. Due to the lack of control of the foreign body once it enters the pharynx, there is a risk of aspiration and airway obstruction.

The most common approach for esophageal coin extraction is endoscopy. With modern technology, optical forceps can be used. Endoscopy has the disadvantage of requiring general anesthesia in children and is also not without risk. Known complications include pharyngeal bleeding, bronchospasm, accidental extubation, stridor, hypoxia, esophageal perforation and mediastinitis, although these are fortunately rare.

The diagnosis of esophageal foreign body should be considered in children with symptoms of respiratory distress, dysphagia, odynophagia, or drooling, regardless of whether a caretaker has been present since the onset of symptoms. Plain film radiographs are a good first step and help with localization. Symptomatic patients with coin ingestion and those with possible button battery ingestion should undergo extraction expeditiously. Asymptomatic patients, especially those with coins in the distal esophagus may be observed for spontaneous passage for 12-24 hours.

References:

1. Waltzman, M.L., *Management of esophageal coins*. *Curr Opin Pediatr*, 2006. **18**(5): p. 571-4.
2. Lee, S.C., et al., *Plain films in the evaluation of batteries as esophageal foreign bodies*. *Int J Pediatr Otorhinolaryngol*, 2008. **72**(10): p. 1487-91.
3. Waltzman, M.L., et al., *A randomized clinical trial of the management of esophageal coins in children*. *Pediatrics*, 2005. **116**(3): p. 614-9.
4. Conners, G.P., *Esophageal coin ingestion: going low tech*. *Ann Emerg Med*, 2008. **51**(4): p. 373-4.



Yousef Turshani, MD received his MD from the University of Chicago-Pritzker School of Medicine. He is currently a third year Pediatric Resident at UCSF.



Eli Groppo, MD received his MD from George Washington University School of Medicine & Health Sciences. He is currently a second year resident in the Department of Otolaryngology – Head & Neck Surgery at CSF.



Upcoming Meetings of Interest

- May 2-5, 2009** **Pediatric Academic Societies' Annual Meeting:** Location: Baltimore, Maryland. Information: <http://www.pas-meeting.org/2009Baltimore/default.asp>
- May 13, 2009** **Work-In Progress Session:** Presenter: Arpi Bekmezian, MD Topic: "Staff-Only Pediatric Hospitalist Care of Patients with Medically Complex Subspecialty Conditions in a Major Teaching Hospital" Location: LHTS Room 262 from 11:00am to 12:00pm. Lunch is provided.
- May 15, 2009** **UCSF Department of Pediatrics Research Day:** Various presenters/topics. Location: Milberry Union Conference Center, 500 Parnassus Avenue from 9:30am to 5:00pm.
- May 23-25, 2009** **AAP California Chapter 1 CME Conference:** Monterey, CA. "Pediatric Emergencies: When Bad Things Happen to Good Practices" and it focuses on office-based emergencies. Speakers include Barbara Botelho, Tom Brazelton, Kevin Coulter, Scott Hoffinger, Richard Jackson and Jan Pankey. To download brochure, please see: www.aapca1.org.
- May 27, 2009** **Work-In-Progress Sessions:** Presenter: Valerie Flaherman, MD MPH Topic: "Improving Brestfeeding Outcomes for Infants at Risk" Location: LHTS Room 262 from 11:00am to 12:00pm. Lunch is provided.
- May 28-30, 2009** **42nd Annual Advances and Controversies in Pediatrics Conference** Westin Hotel, San Francisco. For more information or to register, please visit: www.ucsfpediatricadvances.com



3333 California Street, Suite #245
San Francisco, CA 94118
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