A nationwide outbreak of Salmonella Montevideo infection has been traced back to contact with live poultry acquired from a hatchery in Springfield, Mo. Sixty-six individuals from 20 states have been reported and this outbreak includes patients from less than a year old to 83 years of age. Nearly four of every 10 cases required hospitalization, and one death was reported from a Missouri case. Overall, Missouri and Kansas reported, by far and away, the most cases. However, the number of cases and states reporting were widespread and included:

- Alaska (1)
- California (2)
- Colorado (1)
- Georgia (1)
- Illinois (1)
- Iowa (2)
- Kansas (10)
- Kentucky (1)
- Massachusetts (1)
- Missouri (22)
- Nebraska (5)
- Nevada (1)
- New York (1)
- North Carolina (1)
- Ohio (1)
- Oklahoma (4)
- South Dakota (1)
- Vermont (1)
- Wyoming (1)

The CDC interviewed ill persons and found 85 percent reported contact with live poultry (e.g., chicks, chickens, ducks, ducklings and turkeys) before becoming ill. Most of the affected had contact specifically with chicks or ducklings or both.

Further investigation revealed that most had purchased their chicks and ducklings from various locations traced back to 13 different agricultural feed store companies in multiple states. There were five other instances where an infected individual had purchased poultry purchased by mail order from the implicated hatchery.

Some of those who purchased live poultry planned to populate a backyard flock to produce eggs or meat, but others purchased them to keep as pets - a widely discouraged practice that seems to peak annually around Easter. Interestingly, while the first cases were reported in February, more than 60 percent were reported between approximately two weeks before Easter (April 8) to about a month after, and 35 percent of those infected were age 10 years or younger.

State laboratories assisted in the investigation and were able to test chick samples collected from ill persons' homes in four different states. They confirmed the outbreak strain of Salmonella Montevideo. They used traceback investigation to identify the hatchery in Springfield.

Generally, the CDC and American Academy of Pediatrics advises that chicks and ducklings should not be handled by children younger than 5 years of age, elderly persons or those with immunodeficiency. And, the saga may not be over or a new outbreak may be on the horizon. In the last week, the Minnesota State Health Department reported four cases of Salmonella Montevideo infection linked to a Denny's restaurant in Rochester with three individuals hospitalized in early July. The source of this outbreak is not clear and is being investigated at this time.

VisuAL DiaGNOsis
MYSTERIOUS BITE: WHAT'S THE DIAGNOSIS?

A 6-year-old girl was walking in the grass after an evening fireworks display when she was bitten by something. She felt a sharp pain and was noted to be bleeding from two puncture marks. She was taken to a local hospital where her foot appeared as seen in the photo.

All of the following are complications of this injury except:

A. Thrombocytopenia
B. Coagulopathy
C. Pancreatitis
D. Rhabdomyolysis
E. Compartment syndrome

Photo courtesy of Dr. Amber Hoffman
COMPONENT TESTING IS AVAILABLE FOR HENS.

Component testing is available for hens.

"Breastfeeding and the Use of Human Milk, Pediatrics, volume 129, number 3, page e827.


For the full policy statement, visit pediatrics.aappublications.org and search "breastfeeding."
In 2010, the European Union (EU) adopted a policy on food additives stating that six food dyes (only three of which are allowed in U.S. food) must be identified and labeled with a package warning that they may have adverse effects on attention and activity in children.

The EU’s decision was largely based on four studies that concluded that artificial food coloring (AFC) enhances hyperactivity in children, both in those with a previous hyperactivity diagnosis and in those without. This has prompted many U.S. parents to avoid certain AFCs in the hope of improving symptoms of hyperactivity and/or inattention in their children. However, in the five studies identified since 1988, there is no direct evidence of a relationship between AFC and behavior.

First, the authors of a meta-analysis1 that concluded that artificial food coloring (AFC) enhances hyperactivity in children, both in those with a previous hyperactivity diagnosis and in those without. This has prompted many U.S. parents to avoid certain AFCs in the hope of improving symptoms of hyperactivity and/or inattention in their children. However, in the five studies identified since 1988, there is no direct evidence of a relationship between AFC and behavior.

In five studies identified since 1988, no direct evidence of a relationship between artificial food coloring and behavior was found. So, why do parents still have concerns?

Again, there were no significant differences in clinical testing of impulsivity, inattention or activity, but parental ratings showed worsening of each of these symptoms when artificial food coloring was added to the diet (P<0.001). McCann et al2, in a double-blind placebo-controlled crossover trial of 153 children, age 3, and 144 children, age 8-9, found that children who consumed an AFC drink mix had higher hyperactivity and attention scores. One mix of AFC showed a significant effect on 3-year-olds’ behavior, but not the older group, with the second mixture showing the opposite results. AFCs were given to the patients as mixtures and not separate entities, making the causative agent difficult to extrapolate.

References

In 2012, there was no true rotavirus season. Actually, there has been remarkably little rotavirus disease since 2008. It was noteworthy to hear a pediatric resident state that she had not admitted a child with rotavirus disease in three years of residency.

Prior to introduction of live rotavirus vaccines, pentavalent RV5 in 2006 and monovalent RV1 in 2008, there were more rotavirus admissions at Children’s Mercy in a single March night than for the entire 2012 season, Pre-vaccine, we anticipated approximately 300 rotavirus admissions per season. Since 2008, we have had eight to 35 admissions per year.

Not only are those who have been vaccinated protected, but less circulating rotavirus (as early as 2008-09) produced partial herd immunity that continues on a national scale. This affects unvaccinated children not only in the usual age for rotavirus disease, i.e., up to 3 years of age, but also 3- to 10-year-olds. Because of this, pre-release estimates of vaccine cost effectiveness underestimated savings.

Both vaccines appear equally efficacious with similar adverse effect (AE) profiles. Intussusception has not been an issue as with the previous rhesus monkey derived vaccine in 2000. There has been no equivalent of serotype substitution, like the dramatic increase in serotype 19A pneumococcus after PCV7.

There was a victory for common sense vis-à-vis harmonization of vaccine schedules, which differed in their package inserts. ACIP recommends an identical earliest day of life for a first dose and identical latest day of life for dosing. Whether clinicians use the three-dose bovine reassortant RV5 or the two-dose human-virus-derived RV1, the window for potential doses is the same.

At Children’s Mercy, we participate in two multi-center rotavirus studies. The first is CDC-sponsored surveillance for diarrhea in children in the emergency department or hospital. While rotavirus disease has decreased dramatically, norovirus becomes the common cause. Of note, a Norovirus vaccine is currently in phase II studies.

The second is an NIH study of mixed RV1 and RV5 schedules to see if induced immunity or AEs differ. For example, if a first dose is RV1 and RV5 comprises doses two and three, is rotavirus antibody equal to two RV1 doses or three RV5 doses? Because children may change providers frequently based on insurance, and 5-10 percent of children get mixed vaccine schedules, this question needs answering. A future study is needed on premature infants who may be in NICUs so long as to not have dosing started in time to complete a series.

Despite minor issues, the winter rotavirus scourge appears reasonably controlled in the United States. The major need now is worldwide vaccine distribution to reduce the thousands of annual rotavirus deaths in developing countries.

References
1. JID, 204: 975-977, 2011.
**VISUAL DIAGNOSIS**

**MYSTERIOUS BITE: WHAT’S THE DIAGNOSIS?**

A 6-year-old girl was walking in the grass after an evening fireworks display when she was bitten by something. She felt a sharp pain and was noted to be bleeding from two puncture marks. She was taken to a local hospital where her foot appeared as seen in the photo. All of the following are complications of this injury except:

A. Thrombocytopenia  
B. Coagulopathy  
C. Pancreatitis  
D. Rhabdomyolysis  
E. Compartment syndrome

**Answer C: Pancreatitis**

This child has typical stigmata of a snakebite envenomation.

Data from the American Association of Poison Control Centers confirmed nearly 7,000 snake bites reached medical attention in the United States in 2007 and a third were in children who have a significant risk of morbidity and mortality if treatment is delayed or given in insufficient quantity.

While only 25 of the 120 or so U.S. indigenous snakes are considered venomous, most are in the Crotalid (Viperadie) family. Also known as pit vipers – so-named for the heat sensing pit on the head – most contain potent venom.

**Children who are bitten tend to have larger doses of venom per kilogram of weight than adults.** The venom contains toxins meant to paralyze and kill prey as well as begin digestion as the pit vipers ingest their kill without mastication. The clinical findings range from local effects (pain, edema, and ecchymosis) to systemic manifestations producing thrombocytopenia, coagulopathy, DIC, rhabdomyolysis, compartment syndrome and/or shock.

Hematologic effects occur within eight to 12 hours after the envenomation. Tenderness of lymphadenopathy, nausea, muscle fasciculations and a metallic taste in the mouth are also signs of envenomation.

The immediate treatment for a snakebite with minimal (swelling, ecchymosis, erythema confined to bite site) to moderate (minimal plus extension outside of bite site) findings of bite envenomation is antivenom.

Consensus guidelines now suggest oxine Crotalidae polyvalent immune Fab antivenom (CroFab™) a monospecific antivenin derived from the immunization of sheep with venoms of Crotalinae snakes, should be initiated within six hours of the bite. This agent is preferred over the previously available polyvalent equine antivenin that has a much higher risk of serum sickness. Dosing of antivenom is not weight based and usually consists of four to six vials as initial treatment, repeated if symptoms progress.

In addition to antivenom, elevation of the affected body part is advised as well as serial measurements and neurovascular exams. It is most helpful to mark on the skin to aid in monitoring the edema as accurately as possible from the onset. Swelling at a rate of more than 0.5cm/hour is considered to be rapid. Initial measurements should be made every 15-20 minutes and continued serially until there is no progression. Cutting open the wound, suctioning, applying tourniquets or ice should be avoided. Prophylactic antibiotics have not been shown to be effective.

In this case, the child – discharged in 48 hours – received four vials of CroFab™ to achieve control, defined as complete arrest of local manifestations.

**References**


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**AMBULATORY APPROACH TO COMMON SUBSPECIALTY PROBLEMS**

**DISCLOSURE OF SEXUAL ABUSE IN THE OFFICE**

**Tanya Burrell, MD | Pediatric Fellow | Section of Child Abuse and Neglect**  
**Terra Frazier, DO | Child Abuse Pediatrician | Assistant Professor of Pediatrics, UMKC School of Medicine**

Sexual abuse occurs when a child engages in sexual activity for which they cannot give consent, is unprepared for developmentally, cannot comprehend and/or which violates the law or social taboos.

Having a child disclose sexual abuse can be an unexpected and alarming experience event that many medical providers may not feel comfortable with.

Here are some recommendations on how to deal with disclosures of sexual abuse:

1. **Remain calm.** Affirm to the child that he or she did the right thing by telling. How you respond to a disclosure may determine how much more the child discloses.
2. **Document what was told to you.** Putting statements made by the child in exact quotes is helpful to medical providers treating patients of sexual abuse and for investigators. Be sure to document what was said or occurred immediately prior to the child’s disclosure as well.
3. **Obtain a history of pertinent medical information, remembering that you are not the investigator.** Obtain a thorough history of symptomatology and assess the child’s safety. Don’t ask leading questions. For example, ask “Tell me about why your bottom hurts,” as opposed to “Did your bottom start hurting when Uncle Joey touched it?”
4. **Develop a hotline!** As a mandated reporter, you are obligated to report disclosures of sexual abuse. The family services respondent may ask you about general contact information regarding the child and family. You will likely be asked about the information that was disclosed to you.
5. **Offer support to the caregiver.** Remind the caregiver of the importance of being supportive to the child.
6. **Once a child has made a disclosure of sexual abuse, there is likely to be disruption in the care setting.** A child may experience behavioral changes and even have somatic complaints linked to the stress of the sexual abuse and the subsequent processes that happen after a disclosure is made. Addressing the psychological trauma is a task that shouldn’t be overlooked.

**Outcomes**

The Adverse Childhood Experiences (ACE) study surveyed more than 26,000 adults regarding experiences of verbal, physical or sexual abuse, as well as family dysfunction. Of the participants, 12.2 percent reported sexual abuse. Child sexual abuse along with other adverse childhood experiences has been linked to substance abuse, depression, obesity, cardiovascular disease, cancer, diabetes and early death in adulthood.

Parent-child interaction therapy and trauma-focused cognitive behavioral therapy are two evidence-based treatment modalities that can be effective in treating the psychological effects of sexual abuse.

Approximately 1:4 females and 1:6 males are sexually abused.

**Terra Frazier, DO | Child Abuse Pediatrician | Assistant Professor of Pediatrics, UMKC School of Medicine**
Most pediatric associations applauded the Supreme Court’s recent ruling on the Affordable Care Act of 2010. They echoed the sentiments of Mark Wietecha, President and CEO of the Children’s Hospital Association, who wrote, “Today’s Supreme Court ruling means children – especially chronic and complex patients that children’s hospitals specialize in treating will continue benefitting from Affordable Care Act provisions including those that prohibit annual and lifetime caps on coverage.”

They also were in line with Marion Wright Edelman, President of the Children’s Defense Fund, who said, “Today’s decision is a clear victory for children of all ages, races and incomes in America.” [CDF]

However, many pediatricians are more skeptical or uncertain about the implications of the Affordable Care Act for their practices and for children’s health and well being. Still, there are certain known results, and a number of unknowns.

Known Results:
1. Children will benefit from required coverage by private insurance companies of preexisting conditions. Indeed, this benefit is already being realized for children, and adults will similarly benefit in 2014.
2. More children are currently insured than at any time in recent history. Thirty-five million are covered by Medicaid and another eight million by the Children’s Health Insurance Program (CHIP). These two programs cover more than half of all children in the country. The ACA requires that states maintain current Medicaid and CHIP coverage for children through 2019. The Supreme Court decision upheld that provision of the ACA. The improved access to care for children over the past 15 years has significantly affected children of color (among African American children, the rate of uninsured has dropped from 22 to <12 percent and among Hispanic children it dropped from >33 to <20 percent).
4. The ACA also increases Medicaid reimbursement and requires Medicaid to pay providers at Medicare rates – at least for the next two years. This makes it more attractive for primary care providers (PCPs) to see children covered by Medicaid. A recent report from the American Academy of Pediatrics notes that pediatricians’ greatest barrier to seeing Medicaid covered children has been low or unpredictable reimbursement rates. [AAP News]
5. The ACA provides funds for research on childhood obesity, including >$20 million designated for research into innovative solutions for childhood obesity. It also requires that menu labeling be present in all chains of 20 or more “restaurants or similar retail food establishments” and when purchasing any prepared or packaged food from a vending machine service (operated by a person or business owning/operating 20 or more vending machines). This has previously only been done on a voluntary basis.

Unknown Results:
1. How will state Medicaid programs respond to the ACA? Will they take the federal subsidies to expand their programs or will they take advantage of the Supreme Court approved option of opting out of Medicaid expansion?
2. Will future insurance exchanges actually increase out-of-pocket CHIP or other premiums that families pay? Will federally subsidized insurance exchanges actually be “affordable?”
3. Many families are covered through employer-sponsored insurance, but the extent to which family premiums are affordable is not controlled by the ACA. The ACA may be considered as a forerunner to the anticipated benefits of the ACA in covering uninsured adults, but implementation hasn’t been uniform or easy. As more adults are covered under the ACA, children’s gains need to be maintained even as new coverage options are developed.

These unknowns will be resolved in State Houses, not in Washington. Pediatricians who want to have a voice in the process will need to work with their state medical societies or state chapters of the American Academy of Pediatrics. One thing is clear: one way or another, the results of those struggles in each state capitol will affect the health and well being of children.

References
2. Children’s Hospital Association statement on Supreme Court ruling on the ACA. See access to statement via OMH Virtual Library: http://scope/content/template.aspx?id=6660
4. AAP data shed new light on pediatricians’ participation in Medicaid, CHIP. American Academy of Pediatrics: http://aapnews.aappublications.org/content/33/7/21

CHILDREN’S MERCY IS PEDIATRIC PARTNER IN KU NATIONAL CANCER INSTITUTE DESIGNATION

Children’s Mercy Hospital is the pediatric partner in the University of Kansas Cancer Center’s National Cancer Institute (NCI) designation. The designation, announced in July, marks the center as one of the nation’s top sources of cancer research and clinical medical care.

Teaming with KU as their pediatric partner Children’s Mercy our second NCI affiliation. Children’s Mercy is also a member of the Children’s Oncology Group, the NCI’s pediatric clinical trials program.

The impact for Children’s Mercy, at the pediatric level, is seen in future opportunities, such as expansion of our research opportunities, cancer programs and grant opportunities available only to NCI centers. Already, cooperative research is occurring in the areas of stem cell transplant, the biology of brain tumors, pediatric formulations of chemotherapy drugs, and childhood cancer survivorship.

A key component of KU’s community-based approach and NCI application is the Midwest Cancer Alliance (MCA). Children’s Mercy is a member of the MCA, which works to advance cancer research and program development at all levels. More than 15 hospitals, research organizations, and academic centers throughout Kansas and the Kansas City metropolitan area are members of this alliance. Randall L. O’Donnell, PhD, our President and Chief Executive Officer, serves on the MCA Partner’s Advisory Board.

Children’s Mercy operates one of the largest cancer centers in the country, with 21 oncologists serving 90 percent of the region’s pediatric cancer patients. We are involved in 80-100 clinical trials at any given time.
REGISTRATION OPEN FOR 45TH ANNUAL CLINICAL ADVANCES IN
PEDIATRICS SYMPOSIUM, NOV. 13-16
The 45th Annual Clinical Advances in Pediatrics Symposium (CAPS) at Children's Mercy is Nov. 13-16 at Children's Mercy Hospital. Visit www.childrensmercy.org/caps to register for the event.

Nationally recognized guest faculty scheduled to attend include:

- Carol J. Baker, MD, Pediatric Infectious Diseases, Baylor College of Medicine, Houston
- Barbara J. Howard, MD, Developmental and Behavioral Health, The Johns Hopkins University School of Medicine, Baltimore
- John M. Kelso, MD, Allergy, Asthma and Immunology, University of California, San Diego School of Medicine, San Diego

DR. SCHWEND ELECTED TO TWO PROFESSIONAL POSTS
Richard M. Schwend, MD, Orthopaedic Surgeon and Clinical Professor of Orthopaedics at the UMKC School of Medicine, has been elected to positions in two professional organizations.

Dr. Schwend was re-elected to his second term as Chair of the American Academy of Pediatrics (AAP) Section on Orthopaedics.

As AAP Chair of the Section on Orthopaedics, Dr. Schwend also will serve on the board of the Pediatric Orthopaedic Society of North America (POSNA).

DR. KEARNS TO RECEIVE ASCPT DISTINGUISHED SERVICE AWARD
Gregory L. Keams, PharmD, PhD, Chief Scientific Officer for Children’s Mercy, has been selected as the 2013 recipient of the prestigious Henry W. Elliott Distinguished Service Award from the American Society for Clinical Pharmacology and Therapeutics (ASCPT).

Dr. Keams was selected from an extremely competitive field. He will be honored for his impressive list of contributions to the society at its Annual Meeting in March 2013.

NOTIFYING YOUR PRACTICE ABOUT PATIENT CLINIC APPOINTMENTS
Children’s Mercy Hospitals and Clinics is now faxing every physician office a complete list of that office’s patients that have been scheduled, rescheduled, no-showed, cancelled or seen in a specialty clinic at Children’s Mercy during that previous week. The weekly fax is sent on Wednesday mornings and replaces the previous process of the Contact Center faxing offices individual notification of every patient that has been scheduled into a specialty clinic.

In select situations where Children’s Mercy is not able to make contact with the parents to inform them about their child’s appointment, the Contact Center will send the parents a letter requesting that they call the Contact Center to schedule their child’s appointment. A letter will also be sent to the PCP letting them know we were not able to reach the parents to schedule the appointment and have notified the parents via letter and requested that the parents contact the Contact Center to schedule an appointment for their child.

If you have questions regarding this change in our process, please feel free to contact Debbie Chamberlain, Director of the Contact Center, at (816) 701-4444 or via email: debbiech@cmh.edu.

CONTACT INFORMATION
The Link is produced monthly by Communications and Marketing with editorial guidance from the Associate Chair, Community and Regional Physician Collaborations.

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The Link is available in print and e-mail newsletter formats. You may designate your preference (print, e-mail, both, neither) by going to www.childrensmercy.org/thelinkoptions.