

American Academy of Pediatrics



AAP Helps Coaches and Parents Recognize Concussions

A Smartphone and tablet application now makes it possible for parents and coaches to recognize and respond to possible concussions in athletes. Developed by Gerard Gioia, Ph.D. and Jason Mihalike, PhD, the app is based on the Centers for Disease Control and Prevention's Heads-up: Concussion in Youth Sports Materials.

This application helps parents and coaches go through a checklist of possible signs and symptoms to determine whether to remove a child from play and the need for further medical examination. The app also incorporates an email interface to allow for additional information to be sent immediately to a physician or anyone else. The app is available thru the Apple Store.



Infectious Diseases in Child Care and Early Education

In Barton Schmitt's most recent edition of his popular outpatient telephone triage guide, he tells pediatric clinics to LIE. Specifically, he advises us to inform daycare centers that patients are on eye drops for pink eye, whether it's true or not!

I think this is the venerable Dr. Schmitt's tongue-in-cheek way of expressing the frustration we've all felt when prescribing unnecessary antibiotics for conjunctivitis, simply to save parents from losing valuable time away from work.

To improve knowledge in this area, the AAP has recently developed a curriculum entitled "Managing Infectious Diseases in Child Care and Early Education." This should help early educators taking care of our children to understand more fully the AAP-sanctioned exclusion criteria.

Our Idaho Chapter was a recipient of a generous grant to help disseminate this information to Head Start workers, school nurses, and the like. It is the goal of our Chapter, in close collaboration with the Idaho Association for the Education of Young Children, to take this curriculum to each of the seven regions of the state by the end of spring 2012.

Noreen Womack, MD FAAP
 norewoma@sarmc.org
 Idaho Chapter Child Care Contact

Local Infectious Disease Trends Throughout Idaho

- Onset of RSV season is defined by CDC as the first of two consecutive weeks with greater than 10% of tests positive. Many areas of the Pacific Northwest Region have barely attained the criterion for season onset, and in other areas the rates of positivity are below 10%. Since RSV has been circulating since December, then this RSV season appears to be associated with mild illness.
 - Hospitalizations for respiratory illnesses and bronchiolitis are due to a variety of viruses currently. Parainfluenza virus numbers are declining after an outbreak in the fall.
 - Influenza serotypes this season are the same as the previous two years: H3 N2, pandemic 2009 H1N1, and B. The 2011 flu vaccine is well matched to the circulating serotypes. Since the majority of flu cases may be later this winter and spring, we recommend continuing to immunize with flu vaccine both high-risk and anyone over age 6 months who does not have a contraindication to flu vaccine.
 - CDC is encouraging forwarding of influenza specimens through the Idaho State Laboratory. A variant H3N2 derived from swine influenza has been transmitted between children, but the variant H3N2 has not been detected in the West or Northwest regions.
 - Pertussis gets ignored during winter respiratory virus season, but cases continue to be diagnosed when testing is ordered. Most cases of pertussis are missed until unimmunized infants develop severe whooping cough, so remember to test for pertussis in atypical respiratory cases.
- Updated January 12, 2012
- Tom Rand, MD**

Season Recommendations: RSV 2011–2012

- High-risk infants that qualify for Synagis (palivizumab) are carefully selected based on national AAP recommendations. AAP Committee on Infectious Diseases recommendations are published in *Pediatrics* 2009 124(6):1694-1701 as well as inclusion in 2009 Red Book. Our understanding is that the AAP recommendations will not change in the 2012 edition of the Red Book, which is under preparation. Note which qualifying criteria allow 5 doses of Synagis versus 1 to 3 doses.
- The guideline statement by National Perinatal Association <http://www.nationalperinatal.org/advocacy/pdf/Respiratory-Syncytial-Virus-Prevention-2010.pdf> differs significantly from the AAP recommendations. The Idaho AAP website has “Consensus Criteria” that assist with implementation of Synagis dosing http://idahoap.org/monitor_synagis.htm
- Preauthorization with insurance is necessary before dosing.

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Tom Rand, MD

If you would like to submit an article in the newsletter please send to idahoap@gmail.com by the 15th of each month.



Juvenile Idiopathic Arthritis (JIA)

The classification of JIA has undergone changes in the past several years. The current classification has proven useful in separating types of arthritis according to presentation and course. Genetic studies are underway to attempt to correlate these phenotypes with genotypes and possibly lead to improved therapy. The diagnosis of JIA is one of exclusion and the acute onset of arthritis has several important diagnoses that must not be missed: infection (septic arthritis, osteomyelitis), malignancy including ALL and epiphyseal disorders like Perthes. Laboratory studies, imaging and most importantly the history can reveal these important exclusions. For example, fever and leucocytosis along with an elevated cell count in the synovial fluid of a single joint can result in the diagnosis of septic arthritis. Leucopenia, thrombocytopenia and excessive pain can suggest a malignancy. Imaging studies such as bone scan or MRI can be invaluable in ruling out Perthes or other epiphyseal disorders in patients with monoarticular disease. When the arthritis has lasted six weeks, the diagnosis of JIA can be made. The possible exception is systemic onset JIA which may present more abruptly with the classic salmon colored rash, fevers in the evening, and a variable arthritis. These children may have HSM, lymphadenopathy, carditis, and serositis. Approximately 10% of these patients may have macrophage activation syndrome or hemophagocytosis at presentation and have a coagulopathy, CNS disturbance, liver dysfunction. Laboratory abnormalities such as hyperferritinemia and a paradoxical drop in ESR may suggest MAS. At presentation, the number of joints

involved and the symmetry of involvement suggest the subtype of JIA. Pauciarticular disease with fewer than four joints must be evaluated with an ANA study which defines the risk for iridocyclitis which is asymptomatic and must be detected by a slit lamp exam by an ophthalmologist. Delay in making this diagnosis can result in vision loss and is sometimes the result of extended evaluation or treatment of supposed septic arthritis. Visual screening must continue into teen years even when the arthritis, which often occurs in 2 to 5 year olds (female > male), is controlled by corticosteroid injection or disease modifying drugs like methotrexate. Pauciarticular disease can also occur in older children from 9 to 13 years old in association with a personal or family history of psoriasis or inflammatory bowel disease and have dactylitis (sausage digits), nail abnormalities or tenosynovitis as presenting symptoms and is typically classified as Enthesitis Related Arthritis or Psoriatic Arthritis depending on the presence of psoriasis in a first degree relative or the patient.

Polyarticular disease is defined as five or more joints, typically in a symmetric pattern with two peaks of onset: older girls who are typically seropositive for RF and younger preadolescent girls > boys who are seronegative. Both groups can have severe disease which is deforming rapidly if not treated aggressively. Often they have unrecognized TMJ disease which can be detected by coronal CT scan and treated with corticosteroid injection. Often these children are only partially responsive to methotrexate which is typically started at diagnosis with either systemic steroids or intra-articular injection of Aristospan (triamcinolone hexacetonide) into affected joints as bridging therapy. They often require biologic therapy with etanercept

(Enbrel), adalimumab (Humira) or abatacept (Orencia). Actemra (tocilizumab) is approved for systemic onset JIA as an IL6 inhibitor and can be very helpful in that disease entity. Anakinra (Kineret) is an IL1 receptor antagonist that is uniquely helpful in SoJIA, but is a daily injection! All of the biologic therapies are associated with an increased incidence of infection and must be monitored closely by their attending physician as well as pediatric rheumatologist.

The first 300 patients seen in the pediatric rheumatology clinic which is now located at the Meadowlake Office Building on the campus of SLMMC showed a decreased proportion of pauciarticular disease patients while exhibiting an increased proportion of ERA patients, 15% of whom had psoriasis or a relative with psoriasis. This suggests that fewer patients with potential eye disease are being seen by a pediatric rheumatologist and may be at risk for unrecognized eye disease. The increased incidence of ERA probably comes from referral of the children of adults with spondyloarthropathies from adults in our practice. Approximately 50 patients with polyarticular JIA have now transitioned to adult care of their active arthritis which is in contradistinction to the notion that JIA becomes inactive after several years. Actually, these patients have a very high incidence of active disease, including jaw disease and the need for reconstructive surgery (hip and knee arthroplasties). Early recognition and treatment has the potential for reducing the number of these patients with poor outcomes from their JIA.

W. Patrick Knibbe, MD

Directory of Pediatric Rheumatology,
St. Luke's Children's Hospital
208-860-2054
wpknibbe@earthlink.net