

## GRAND ROUNDS

### Sept 9

#### Pain and the Brain: Lessons Learned from Neuroimaging

Sean Mackey, M.D., Ph.D., Chief, Division of Pain Management & associate professor of Anesthesiology, Stanford University School of Medicine, Palo Alto, Calif.

### Sept 16

#### Genome-wide Association Studies: What Are We Learning?

Joel Hirschhorn, M.D., Ph.D., associate professor of Genetics, Children's Hospital Boston, Harvard Medical School, Senior Associate Member of the Broad Institute.

### Sept 23

#### Congenital Kidney Diseases of the Kidney and Urinary Tract

Carlton M. Bates, M.D., associate professor, Department of Pediatrics, University of Pittsburgh School of Medicine, Division Chief of Nephrology, Children's Hospital of Pittsburgh of UPMC.

### Sept 30

#### Patent Ductus Arteriosus: A Pathophysiologic Approach to Treatment

Ronald Clyman, M.D., professor of Pediatrics, Division of Neonatology, Associate Director, Pediatric Clinical Research Center, University of California, San Francisco.

## CHILDREN'S MEDICAL CENTER

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## MEDICAL UPDATE: Return to play following a concussion

Limited scientific evidence exists regarding diagnosis and management of concussions, including return-to-play decisions. Current guidelines are based largely on expert opinion, and a more conservative approach is warranted in children and adolescents.

An athlete with suspected concussion should be removed immediately from activity, and not return to play until completely asymptomatic. A pediatric patient with a concussion should never return to play the day of injury. Previously, various grading scales were used to determine the severity of concussion and return-to-play decisions. The recent 3rd Consensus Statement on Concussion in Sport abandons the use of grading scales and endorses a progressive return-to-play protocol.

Most patients recover from a concussion within a few weeks, but recovery may be prolonged in children. Once a patient is completely symptom-free, a graduated return-to-activity protocol may be initiated. An athlete should proceed through increasing levels of physical activity in a stepwise fashion, with at least 24 hours between each stage. If symptoms (e.g. headache) return with exertion, the athlete must rest at least one full day and return to the previous

stage where he/she remained asymptomatic.

Stage 1 involves light aerobic exercise, such as walking or riding a stationary bike, with the goal of increasing heart rate. Stage 2 consists of sport-specific exercises like shooting a basketball. Stage 3 involves non-contact training drills (e.g. passing drills in football) and beginning of resistance training (weightlifting). Stage 4 includes full contact practice and normal training. After successful completion of this return-to-play strategy, the patient may return to competitive game play. If the patient remains symptom-free throughout this stepwise protocol, he/she may return to full activity about one week from the injury. However, return-to-play in pediatric patients remains a clinical decision and should be individualized. It may be appropriate to extend the asymptomatic rest period, or the amount of time for the graded exertion.

**Shane Miller, M.D., is assistant professor of orthopaedics at UT Southwestern and a pediatric sports medicine specialist in the Sports Medicine Center at Children's Medical Center at Legacy, telephone 469-303-3000; email: shane.miller@childrens.com.**

## SERVICE UPDATE: Pediatric Bipolar Program

The Pediatric Bipolar Disorder (PBD) program at Children's Medical Center includes a diagnostic assessment by a psychiatrist, medication management, psychological testing, therapeutic interventions, comprehensive case management and access to state-of-the-art research in one location.

The program is led by Kirti Saxena, M.D., associate medical director of the Outpatient Psychiatry Clinic at Children's and assistant professor of Psychiatry at UT Southwestern Medical Center.

The PBD program provides an Intensive Bipolar Outpatient Program (I-BOP), the

only one of its kind in the North Texas area. The I-BOP is intended for those children and adolescents struggling in school, having peer and family conflicts, medication non-compliance, and/or mood dysregulation. The I-BOP includes group therapies: multifamily, recreational, art, music, parent, child. The I-BOP aims to assist the child in developing skills to maintain the highest level of functioning possible.

**For additional information or to refer a patient to the program, please call 214-456-2416.**