Musculoskeletal Screening in Children

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Prior to working full time at Seattle Children’s Hospital in pediatric orthopedics, I worked for 9 years in primary care pediatrics. Many of the visits were purely orthopedic in nature, or at least had some musculoskeletal overlay. After a standard physical, “Oh, by the way, can you check her arm? Or his back? Or that hip?” was a common refrain frequently spoken by a worried parent or caregiver.

As providers who care for children, we are often asked to screen for conditions that could cause future problems or disease. At times we are unfamiliar with the conditions we are asked to screen for, because we have not seen them frequently. This is certainly true with regard to orthopedics and the musculoskeletal system. Education in orthopedic concerns is often lacking in our residency training, and many practicing pediatricians and pediatric providers feel unprepared to handle many of these problems. Lack of experience with various orthopedic conditions that present makes screening for these conditions daunting.

This issue of Pediatric Annals on musculoskeletal screening in children, therefore, focuses on specific solutions for everyday doctor-patient interactions with regard to these conditions. My fellow authors and I have tried to focus on common presentations that will require frequent screening. This includes developmental dysplasia of the hip (DDH); adolescent idiopathic scoliosis; issues that may have an endocrinologic and orthopedic component (like short stature) and conditions that, if missed, like non-accidental trauma, can have tragic outcomes.

In the first article, on evaluation of short stature in children (see page 455), authors Heba Ismail, MB BCh and Kathryn Ness, MD, MSCI, offer a comprehensive review on a very muddy subject. After providing the definition of what short stature entails in children, the authors concentrate on key elements clinicians should focus on with regard to patient history, physical examinations and initial lab evaluations for this complicated diagnosis. The use of growth hormone and when to make referrals to specialists is also discussed.

Next, Monique S. Burton, MD, discusses the diagnosis and treatment of adolescent idiopathic scoliosis (see page 456). Here Dr. Burton provides straightforward information on this relatively common presentation and

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About the Guest Editor

Thomas M. Jinguji, MD, is a clinical associate professor in the Department of Orthopedics and Sports Medicine at the University of Washington. He is the Director of Ambulatory Services for Department of Orthopedics and Sports Medicine at Seattle Children’s Hospital. Dr. Jinguji holds board certifications in general pediatrics and a certificate of added qualification in primary care sports medicine. He graduated from the University of Washington School of Medicine and completed his pediatrics residency and sports medicine fellowship at the same institution. He is a member of the American Academy of Pediatrics, the American College of Sports Medicine, and American Medical Society for Sports Medicine.
parental concern. Her evidence-based flowchart for diagnosis provides a clear, next-step approach to scoliosis evaluation, imaging and initial management, including indications for bracing.

In a review of developmental dysplasia of the hip (DDH) a diagnosis that can be easily missed if not properly evaluated, Amanda C. Roof, MD; Klane K. White, MD and I explore one of the most litigious diagnoses of pediatric care (see page 457). Many providers are asked to examine patients for a condition (hip dislocation) that they may have never felt. The exam is not an easy one to perform, particularly on an active infant or toddler, but we offer easily followed guidelines for successful diagnosis and treatment.

Lastly, Sara L. Swoboda, MD and Kenneth W. Feldman, MD, scrutinize skeletal trauma in child abuse (see page 458). Determining whether injuries are simply the result of the (mis)adventures of childhood or have more sinister origins is something that is not only stressful for providers but also potentially life threatening for children. Sorting out benign trauma from potential child abuse, and an emphasis on determining when to utilize appropriate resources for help is an important mission that needs to be undertaken by all primary care providers.

Now that I work primarily in orthopedics, I am still in awe of the scope of ailments the average pediatrician needs to be aware of each day. In this group of articles, I hope we offer concrete solutions for care. I am very proud of this work, and that of our authors. Thanks for reading and participating, and I hope this information provides you with clear direction for you and your patients.

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