Differential Diagnosis in Pediatric Radiology, 2nd ed. By Leonard E. Swischuk and Susan D. John. Baltimore: Williams & Wilkins, 1995, 482 pp.

The second edition of this fine publication appears 10 years after the first. There are six chapters, with multiple tables, large pictures, and diagrams. Crucial information is quite visible in bold type. The references, in general, are the classic references and not the latest ones.

The initial chapter is on the chest and this occupies almost 25% of the book. The second chapter (on the face, sinus, mastoid, and neck) includes a significant discussion of the upper airway and sinuses. These two chapters are of particular interest to the readership of *Pediatric Pulmonology.* The third chapter is on the abdomen and includes up to date imaging by computed tomography and ultrasound. The fourth chapter is on bones and soft tissues, the fifth on the head, and the sixth on the spine. Because of our particular readership, this review will center on the chest and airway, Chapters 1 and 2.

The chest chapter begins with several sections on aeration disturbances, generalized over- or underaeration, and focal aeration disturbances. Free and loculated air, pleural space and fissure thickening, calcifications in the chest, and cavitations in the chest are covered next. This leads to a discussion of prominent hilar regions, pulmonary nodules, and infiltrates. The end of this chapter reviews cardiac size and anomalies and then discusses the mediastinum in some detail. Lung masses and the diaphragm are discussed last. The authors always begin with a highly practical approach, and their tables list conditions beginning with very common and ending with the most unique or rare abnormality. They explain reasons for technical aberrations. Their drawings supplement the excellent renditions of the radiographs. Most importantly, the authors make it quite clear when a condition or finding, such as intercostal bulging and cervical herniation of the lungs, is nonspecific and may be found in normal children. This is important for anyone interpreting chest radiographs.

The authors give us several rules that would stand us in good stead. For example, in the section on unequal lung aeration, Rule 1 states that if vascularity is decreased, that lung is the abnormal one. Another good rule is Rule 4, which states that with inspiration/expiration, the lung that changes size least or not at all is the abnormal lung. An example of a very useful table is Table 1.4, in which the authors discuss the large opaque hemithorax beginning with the most common lesion, empyema, and extending to the least common lesions, which include fluid-filled lung (bronchial atresia, congenital lobar emphysema). A limited number of nuclear studies is cited and these are of older technology. Contrast examination of the trachea is rarely used today, and the authors show in which instances it may be useful, such as in a child with a pulmonary sling. Magnetic resonance imaging is also shown as a useful modality with mediastinal masses. In general, the authors state in their preface that they are sticking to plain films and, indeed, they do a good job of it.

In the section in Chapter 2 on the upper air passage, choanal atresia is never really discussed. (The choanal air space is the most superior part of the airway.) In general, however, the authors are very inclusive and cover palate abnormalities, hypopharyngeal masses, and retropharyngeal lesions. It is of interest that the discussion of epiglottitis does not suggest that the frequency of acute epiglottitis is changing secondary to the *Haemophilus influenzae* vaccine.

In summary, in the area of interest to our readership, this is a very practical, easy to read, well-imaged text. The shortcomings are that the references are not up to date and some of the newer facets of the various entities are not discussed, but as a differential diagnosis text for the chest and airway in children, it is an excellent book. The price is quite reasonable at $99.

THOMAS L. SLOVIS, MD
Department of Pediatric Imaging
Children's Hospital of Michigan
Departments of Radiology and Pediatrics
Wayne State University School of Medicine
Detroit, Michigan