

Pediatric PARTNERS

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Spring 2011

Imaging gently: Reducing medical radiation for kids

While diagnostic tests that use radiation—radiographs (X-rays or plain films), computed tomography (CT), fluoroscopy, interventional radiology and nuclear medicine—can save lives, they should be administered with care and forethought. This is especially true for young children, who are more affected by radiation than adults.

“Consider that a typical chest X-ray gives about .01 mSv. Then compare that to a chest CT scan which can be a hundred times that dose, giving a child anywhere from 1-3 mSv - which is up to a yearly dose of background radiation,” says Dianna Bardo, M.D., pediatric radiologist, pediatric neuroradiologist and director of cardiac radiology, Doernbecher Children’s Hospital. Examinations that give a radiation dose can help save a life, but high doses of radiation could have lasting effects on a child’s health. Think about your choices; sometimes, other imaging modalities, such as MRI, ultrasound, X-ray or observation may be used.

However, there are certain times that these tests are required. “For example, if there is a mass in the abdomen, we’ll usually start with an ultrasound. But it’s difficult to see a malignancy spreading; you’d need cross-sectional imaging, so either a CT or MRI. Since an MRI is based on imaging water protons, it’s a good way to look at visceral organs, fluids, soft tissue, and sometimes bone, but not air, such as in the lungs. Since there aren’t any water protons in air, so X-rays and CT are a much better way to look at the lungs,” she adds.

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Welcome to *Pediatric Partners*. Our goal is to provide information and resources that will be useful to your practice. We’re pleased to partner with you in providing the best healthcare to the children of Oregon and Southwest Washington.

DOERNBECHER
CHILDREN’S



HOSPITAL

Oregon Health & Science University

For referrals, consultations or more information call
503 346-0644 or toll free, 888 346-0644.

MEDICAL RADIATION FOR KIDS, *continued from page 1*

Lowering radiation dose by 40 percent

Many hospitals have special protocols for CT scans in children; they don't use an adult dose protocol in a child. OHSU is able to offer a lower radiation dose or other options for several reasons:

- **Innovative technology**

Some of OHSU's CT scanners feature a new system of image reconstruction that reduces image graininess, or "noise," that can appear on a CT image. "Using this technology, we reviewed our pediatric doses and were able to lower our dose by 40 percent—with the exception of brain CT. For brain CT it is more difficult to reduce radiation dose because we need to image through the skull," says Dr. Bardo.

- **Assessing via other methods**

Doernbecher trauma and ED physicians have eliminated cervical spine CT scans as an initial mode of imaging diagnosis for pediatric trauma patients. "We do an X-ray, and if we see a fracture, then the child will have a cervical spine CT. If they have neck pain and no abnormalities on the X-ray, then they get an MRI."



Doernbecher radiologists specialize in pediatric care and are happy to answer questions about imaging for your patients. For more information about Doernbecher's pediatric radiology services, contact one of the pediatric radiologists at **503 346-0644** or **888 346-0644** or visit **imagegently.com**.



Emergency decision-support for your patients

Your patients with a sick or injured child may wonder if they can wait until your office opens, or if they need to go to the Emergency Department right away. MD4KIDS, Doernbecher's new iPhone app, can help them decide.

MD 4KIDS provides decision-making support and health information for more than 80 topics, from bee stings to earaches to rashes to stomachaches. By entering the child's symptoms, parents can determine what level of medical care is needed, when to call their doctor and how to provide relief for minor illnesses and injuries at home. The app uses Barton Schmitt protocols, the same processes that our trauma nurses use to evaluate patients.

This app is free. Tell your patients to search "MD 4Kids" on iTunes or visit www.ohsудоernbecher.com/md4kids.

Doernbecher Welcomes New Faculty



MICHAEL CHIANG, M.D.
Pediatric Ophthalmologist

Medical degree: Harvard Medical School, Boston, Mass.

Residency: Ophthalmology, Johns Hopkins Wilmer Eye Institute, Baltimore, Md.

Fellowship: Pediatric Ophthalmology and

Adult Strabismus, Johns Hopkins Wilmer Eye Institute, Baltimore, Md.; Biomedical Informatics, Columbia University College of Physicians and Surgeons, New York, NY

Special interests: Pediatric ophthalmology and adult strabismus, clinical biomedical informatics, retinopathy of prematurity



EVAN SCHERECK, M.D.
Pediatric Hematology/Oncology

Medical degree: University of Medicine & Dentistry of New Jersey, Robert Wood Johnson Medical School, Piscataway, N.J.

Residency: Pediatrics, Columbia University, New York, NY

Fellowship: Pediatric Hematology /Oncology/Blood Marrow Transplant, Columbia University, New York, NY

Special interests: Cancer and blood disorders, management of patients with blood marrow failure, primary immunodeficiency disorders



MELISSA WEDDLE, M.D., MPH
General pediatrician

Medical degree: University of Virginia School of Medicine, Charlottesville, Virginia

MPH degree: Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md.

Residency: Pediatrics, Case Western Reserve University Hospitals of Cleveland, Cleveland, Ohio

Special interests: Adolescent healthcare, teaching in pediatrics, ethics, preventive health care

Pulmonary valve replacements without open-heart surgery

Doernbecher Children's Hospital is the first in the region and one of a handful in the nation qualified to use the first FDA-approved pulmonary heart valve that can be implanted through the leg: Medtronic Melody® Transcatheter Pulmonary Valve. Until now, pulmonary valve replacements have required open-heart surgery.

The Melody valve is used to replace a narrow or leaky pulmonary valve "conduit" — a tube connecting the heart to the lungs — in children and adults who previously have undergone surgery to correct a congenital heart defect. The Melody valve is inserted into a tiny opening in the leg and guided by a catheter through blood vessels into the heart. Once the valve is correctly positioned, a balloon on the end of the catheter is inflated, delivering the valve and immediately correcting blood flow.

Grant Burch, M.D. and Laurie Armsby, M.D. are the only pediatric cardiologists in Oregon with advanced training in interventional cardiology. Together they perform more than 300 cardiac catheterizations in newborns, children, and adults with congenital heart disease each year.

If you'd like to learn more, please call 503 346-0644 or 888 346-0644.

Orthopaedics services available at new Beaverton location

Beginning April 25, Matthew Halsey will be seeing patients at OHSU Orthopaedics & Rehabilitation Clinic at Cornell West. The clinic is located at 1500 NW Bethany Boulevard Suite 195 Beaverton, OR 97006. To make an appointment, call 503 346-0644 or 888 346-0644.

For referrals, consultations or more information call
503 346-0644 or toll free, **888 346-0644**.



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Looking to connect with someone at Doernbecher?

Susan Gray-Madison, R.N., M.S., our provider relations manager, can help you access or coordinate clinical services, set up an OHSU account so you can view your patient records, and provide information about new programs and services. She is also available to arrange for office visits, case reviews or lectures with any of our specialists. She can be reached at 503 346-0644 or graymadi@ohsu.edu.

Continuing Education

For more information about our upcoming grand rounds or CME opportunities, visit www.ohsудоernbecher.com/cme.

We're Covered on All Insurance Plans

OHSU Doernbecher Children's Hospital is on all insurance plans. If you have a question regarding your patients' coverage, please call us at **503 346-0644**.

Recognition

Doernbecher Children's Hospital is a NACHRI member and is named one of the most admired companies by the Portland Business Journal.

Save a tree, get Pediatric Partners

Would you like to receive this newsletter electronically?
Email archere@ohsu.edu to join our email list.

Open Medical Staff

If you would like to inquire about privileges at OHSU Doernbecher Children's Hospital or request a parking permit, please call us at **503 346-0644**.