

# Medical *Currents*

A Children's National Medical Center Quarterly Publication for Physicians

Spring 2012



Minimally  
Invasive  
Surgery  
in Children

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## Alumni *Spotlight*

### Donald Delaney, MD

Donald Delaney, MD, was honored on March 18 for his impact and many years of service at Children's National by the Children's National Alumni Association and friends. In addition, a named "Donald Delaney Lectureship Fund" has been established in his honor. Any one who is interested in contributing should send a donation to the Children's National Foundation at 111 Michigan Avenue, NW, Washington, DC 20010, and note that is it for the Delaney Lectureship, account #1154.

## News *Notes*

### Anthony Sandler Named Senior Vice President

Anthony Sandler, MD, the Diane and Norman Bernstein Chair of Pediatric Surgery, has been named Senior Vice President of the Joseph E. Robert, Jr., Center for Surgical Care. He has served as Acting Director of the Center since September 2011. Dr. Sandler joined the Children's National faculty in 2006 as Chief of the Division of Pediatric Surgery.

### Children's National Receives Beacon Recognition for ICUs

All three of Children's National's Intensive Care Units (ICUs) have received the Beacon Award from the American Association of Critical-Care Nurses (AACN). The PICU and CICU are designated gold-level and honored with a 3-year designation. The NICU is designated silver-level and has a 2-year designation. The Beacon Award signifies exceptional care through improved outcomes and greater overall satisfaction.



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## Innovation *Update*

### Movement Disorders: Research Protocol Opened

By Bennett L. Lavenstein, MD

Deep Brain Stimulation (DBS) is now a recognized treatment for dystonia, a genetically determined movement disorder. A comprehensive team at Children's National has embraced this approach, which involves stereotactic imaging and neurosurgery to insert electrodes into the basal ganglia to modify abnormal dyskinetic movements. In selected patients with Dyt1 dystonia, an 80 percent success rate in relief of symptoms that impact gait, posture, and function is attainable.

The Movement Disorders Program at Children's National offers an internationally recognized approach to the evaluation and treatment of patients with intractable dystonia including DBS. Under the leadership of Bennett Lavenstein, MD, Director of Movement Disorders, the team established the Motor Control Clinic headed by Jeffrey Rabin, DO (Physical Medicine). Major collaborators on the team include Robert Keating, MD (Neurosurgery); Zachary Levine, MD (Neurosurgery); John Lovejoy, MD (Orthopaedic Surgery); Jay Salpekar, MD (Psychiatry); Andrea Gropman, MD (Neurogenetics); Patricia O'Berry, BSN, RN, CRRN, CPN; Sandra Cushner-Weinstein, LCSW (Social Work); and Audrey Scully, RN.

This multidisciplinary team offers patients and families the opportunity to be evaluated in a single visit, have treatment planning initiated, and preliminary care administered for medically refractory movement disorders that may be genetic, neurodegenerative, post traumatic, post hypoxic, or metabolic in origin.

*To learn more or suggest a patient for evaluation, contact Patricia O'Berry, BSN, RN, CRRN, CPN, at 202-476-3611.*

### Last Chance To *Tell us What You Think*

To help us to continue to provide information you need, we have created a brief survey on your satisfaction with *Medical Currents*.

**Take the survey today, visit:**  
**ChildrensNational.org/MedicalCurrents**

**Deadline: May 18, 2012**

**\* One lucky winner will receive a Children's National goody bag\***

# Minimally Invasive Surgery *in Children*

Children's National offers additional minimally invasive surgery techniques using the DaVinci surgical robotic system to the available surgical options in pediatric urology. This innovation is the first step toward a broader program that will increase the availability and efficiency of pediatric minimally invasive strategies in many specialties, including laparoscopy, percutaneous surgery, and endoscopic surgery.

The DaVinci surgical system is a precise tool that permits efficient laparoscopic surgery performed through small (5 and 8 mm) ports in the abdomen or chest. A 3-D endoscope allows precise visualization to control the device in difficult to reach parts of the body. The surgeon sits at a console with manipulating handles to control the working instruments and endoscope. There is no autonomous function of the robot, but it has several features to enhance safety, including scaling, tremor filtration, and a system to always return an instrument to the position from which it was removed.

The system has been in use since 2000 in adults, and urologist Craig Peters, MD, who is starting the program at Children's National, performed the first pediatric cases in 2002. The operations most commonly performed in children have been urological procedures, including pyeloplasty for obstruction and ureteral reimplantation for vesicoureteral reflux. While still relatively early in its evolution, published reports have shown reductions in hospital stay, post-operative pain, and similarly excellent surgical results.

The principal advantage of the DaVinci system is that it provides the advantages of laparoscopic surgery (small incisions – so called “band-aid surgery,” less pain, shorter recovery) without its disadvantages, which include two-dimensional vision, lack of precision, difficult fine tissue and suture handling, and a long learning curve. Although laparoscopic surgery has been available in pediatric urology, only a limited number of surgeons use it regularly due to these challenges.

There has been significant publicity about the DaVinci Surgical System in adults related to cost and outcomes. The question of cost is challenging in that the technology is indeed expensive, as is much of modern medical technology. A cost-effectiveness assessment is difficult in the case of pediatric surgical procedures because measuring the full impact of a child's surgery, for both the child and the parents, is rarely done. Subjective benefits of reduction in post-operative pain and suffering are similarly difficult to measure or assign value. The data to date on using robotic surgery for pediatric procedures has shown more rapid recovery and less need for post-operative analgesics. In terms of direct costs, some analyses identify



them as roughly equivalent to open surgery. In the case of Children's National, as in several other children's hospitals, the system was made possible through the Sheikh Zayed Institute for Pediatric Surgical Innovation, which focuses on finding more precise, less invasive, and pain-free surgical approaches for children. The precision and control offered by robotic tools in pediatric urology is well beyond that of many skilled laparoscopic surgeons. Though more research will be needed to determine the final scope, one major advantage to adding the DaVinci surgical system to the Children's National operating room is that it develops the foundation of robotic surgery for children. Active engagement in developing new robotic tools and techniques, together with careful clinical evaluation for effectiveness, will allow us to identify what works best for children.

For more information on the DaVinci robot and Dr. Peters, visit the Sheikh Zayed Institute for Pediatric Surgical Innovation blog at: [www.surgeryinnovation.org/](http://www.surgeryinnovation.org/).

To refer a patient contact the Division of Urology's Appointment Line at 202-476-5042.



# *New Guidelines* for Universal Cholesterol Screening for Children

By Ashraf Harahsheh, MD, Sarah Clauss, MD, and Michele Mietus-Snyder, MD

## What Is New

New NHLBI/AAP guidelines strongly recommend universal screening of cholesterol between the ages of 9 and 11 and again between 17 and 21 years of age. Full guidelines and management algorithms are detailed in the December 2011 Supplement 6 to Pediatrics. We have linked to it at: [www.ChildrensNational.org/Cardiology](http://www.ChildrensNational.org/Cardiology).

## What Has Not Changed

Selective screening with a fasting lipid profile (FLP) for children older than 2 years of age with a positive history of lipid and cholesterol disorders and/or premature heart disease in close family members has been recommended by the National Health, Lung, and Blood Institute (NHLBI) and endorsed by the American Academy of Pediatrics (AAP) since 1992. Since 2008, selective screening with an FLP was expanded to include children with conditions that increase the risk of cardiovascular disease (listed in Table 1) with or without a positive family history.

## Rationale For Universal Screening

The new expanded guidelines are based upon research showing:

- Early atherosclerosis exists in young patients with elevated cholesterol levels
- Early treatment of cardiovascular risk factors in youth decreases measures of both cardiovascular risk factors and early structural atherosclerosis
- Lipid disorders are common in children and increasing in prevalence coincident with childhood obesity
- Roughly 30 to 60 percent of children with dyslipidemias are missed using the traditional selective screening methods

Universal screening identifies lipoprotein and cholesterol disorders in any child who might benefit from early cardiovascular risk reduction interventions, such as therapeutic lifestyle change with an emphasis on heart-healthy nutrition and activity. Only a small number of children (estimated 1 to 2 percent of those identified with positive lipoprotein and cholesterol risk factors) may be eligible for adjunct medication.

TABLE 1. Risk Factors for Cardiovascular Disease

### HIGH LEVEL RISK FACTORS AND CONDITIONS

- Parent/grandparent history of premature cardiovascular disease (age at diagnosis younger than 55 years in males, less than 65 years in females):
  - Coronary atherosclerosis
  - Peripheral vascular disease
  - Cerebrovascular disease
- BMI greater than 97th percentile (greater than 95th percentile is still moderate risk)
- Diabetes Mellitus, type 1 or type 2
- Hypertension (greater than 99th percentile, requiring therapy; HTN greater than 90th percentile not requiring therapy is still moderate risk)
- Current smoker
- Chronic renal disease/end-stage renal disease
- Status post any solid organ transplant
- History of Kawasaki's disease with current coronary aneurysms (regressed aneurysms still moderate risk)

### MODERATE LEVEL RISK FACTORS AND CONDITIONS

- Pre-diabetes
  - Impaired fasting glucose equal or greater than 100
  - Impaired glucose tolerance 2hour equal or greater than 14
- Polycystic ovarian syndrome
- Chronic inflammatory disease (systemic lupus erythematosus or juvenile rheumatoid arthritis)
- HIV Infection
- Nephrotic syndrome

### CONSIDER AS POTENTIAL RISK FACTORS AND CONDITIONS

- History of cancer or congenital heart disease (tetralogy of Fallot repair status post transplantation of coronaries presents heightened risk)
- Passive smoker
- Unknown family history

The level of evidence supporting these new universal cholesterol screening recommendations was graded B, meaning that it was based on consistent evidence from observational studies, genetic natural history studies, or diagnostic studies with minor limitations, including 25 year observational longitudinal data confirming that the cluster of metabolic syndrome risk factors in childhood predicts clinical cardiovascular disease in middle aged adults, 30 to 48 years of age. However, due to the long natural history of symptomatic cardiovascular disease, there are no randomized, controlled, clinical trials showing that the treatment of elevated cholesterol levels in children has a long-term clinical impact on disease outcomes. There are data showing that heart healthy nutritional interventions are safe for growing children and can be sustained long term, but no comparably long-term data showing that the use of lipid-lowering drugs is safe in children this young or when used for decades.

**ONE SIGNIFICANT CHANGE IN SCREENING METHODS:** The universal screening lipid profile for children (9 to 11 years) and adolescents (17 to 21 years) who have not already received a fasting lipid profile based on other indications can be done non-fasting. This is because it is now recognized that the level of cholesterol in the non-high density lipoprotein cholesterol (HDL-C) fraction (known as non-HDL-C) has comparable predictive value for cardiovascular risk to the low density lipoprotein cholesterol (LDL-C) calculation on a standard FLP. The non-HDL-C is often reported on lab result forms but also can be calculated from a standard lipid profile as simply total cholesterol minus HDL-C. Normal (Acceptable), borderline, and abnormal (High/Low) lipid and lipoprotein cholesterol values are shown in Table 2.

Note that if the non-HDL-C is greater than 145 mg/dl on a non-fasting lipid profile, it should be confirmed with two follow-up FLPs within 3 months. If the first universal screening profile is performed fasting and any of the reported parameters are abnormal, a second FLP is again advised within 3 months for confirmation. This second screening can also be considered follow-up for change following lifestyle counseling.

### Where To Find Help

You can contact the preventive cardiology program at Children's National at [preventive@childrensnational.org](mailto:preventive@childrensnational.org).

Please refer a patient if his/her total cholesterol is greater than 200mg/dL, LDL greater than 130 mg/dL, Triglycerides greater than 250mg/dL, and/or non-HDL greater than 145mg/dL.

**Table 2. Acceptable, Borderline-High, and High Plasma Lipid and Lipoprotein Concentrations (mg/dL) For Children and Adolescents\***

NOTE: Values given are in mg/dL

Category	Acceptable	Borderline	High+
<b>TC</b>	< 170	170-199	≥ 200
<b>LDL-C</b>	< 110	110-129	≥ 130
<b>Non-HDL-C</b>	< 120	120-144	≥ 145
<b>TG</b>			
<b>0-9 years</b>	< 75	75-99	≥ 100
<b>10-19 years</b>	< 90	90-129	≥ 130
Category	Acceptable	Borderline	High+
<b>HDL-C</b>	> 45	40-45	< 40

*Values for plasma lipid and lipoprotein levels are from the National Cholesterol Education Program (NCEP) Expert Panel on Cholesterol Levels in Children. Non-HDL-C values from the Bogalusa Heart Study are equivalent to the NCEP Pediatric Panel cut points for LDL-C.*

*+ The cut points for high and borderline-high represent approximately the 95th and 75th percentiles, respectively. + Low cut and borderline-low point for HDL-C represents approximately the 10th percentile and 25th percentiles, respectively.*



# Partnering with *the Referring Community*

## Access Update: Improvements to Wait Times

By Denice Cora-Bramble, MD, MBA  
Acting Executive Vice President, Ambulatory Services

We're hearing from you and our patients that we need to improve access, and I am happy to share some of our recent progress.

Our focus on access drives straight from our mission. While there are many facets to access, we believe that working more effectively with our referring physicians is one of the most essential elements – from responsiveness to referring physicians, to care coordination and co-management, to appointment availability. We realize that a critical aspect of addressing access to care at Children's is creating close partnerships with our network of referring physicians.

We've also been working on scheduling strategies to reduce the wait times that your patients face when making an appointment. To measure progress in this area, we've set new, organization-wide goals for each of our divisions. Taking into consideration differences in service demand and clinician staffing, we challenged each division to either reduce appointment wait times to **less than 10 days**, or for more in-demand divisions with limited subspecialist availability, reduce wait times by **30 percent**. We also revised our metrics to focus on reducing the wait time to the "third next available appointment." The concept

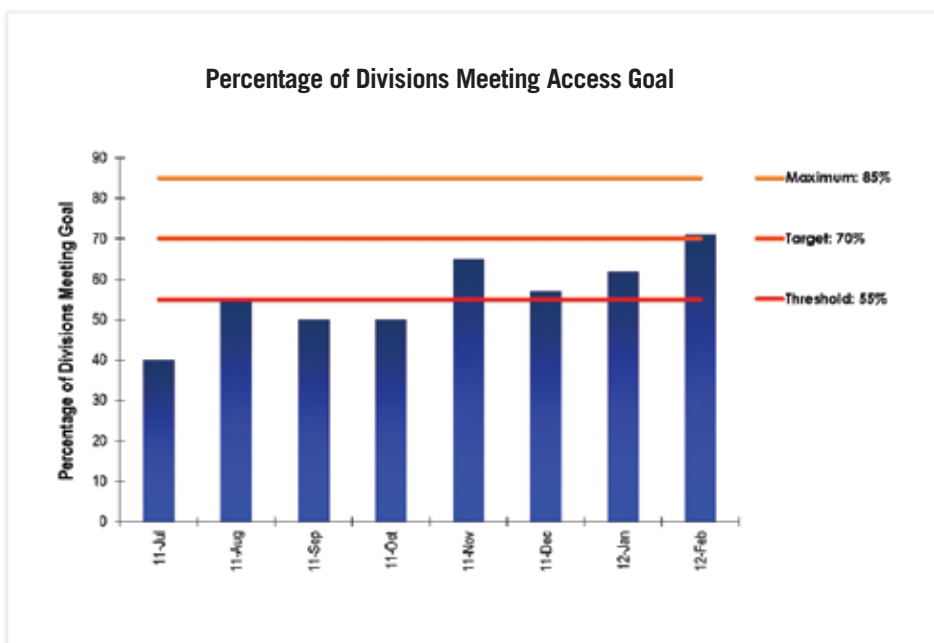


of third next available appointment, which is the Children's Hospital Association benchmark, is a standard measure of access to medical care that indicates how long a patient waits to be seen. Since July, we've seen amazing progress, with 71 percent of our 21 divisions meeting their access goals in February. Check out our results below!

### What's Coming

Building strong working relationships with you is one of our top priorities this year – we are committed to co-managing our patients to improve the health of our pediatric population. Moving forward, we will be working closely with our referring physicians to make our processes more efficient and enhance our two-way communications. Also, we will now have a regular Access Update column in *Medical Currents* to keep you updated on the progress we are making. For the next issue, we're planning to share the results from our referring physician survey.

If you ever have any suggestions or concerns, contact Children's Physician Relations at 202-476-4418.



## There's a Regional Outpatient Center Near You!

In each issue of *Medical Currents*, we will update you on expansions and services at our outpatient centers. This issue, we are highlighting the Frederick Regional Outpatient Center.

### Frederick Regional Outpatient Center

5910 Frederick Crossing Lane  
 Frederick, MD 21704  
 (p) 301-682-6661 (f) 301-682-6668

### Other Outpatient Centers

- Children's National Specialists of Virginia, LLC  
*\*An affiliated private practice*
- Children's Center for Cancer and Blood Disorders of Northern Virginia
- Northern Virginia Regional Outpatient Center and Neurosurgery Office
- Annapolis Regional Outpatient Center
- Upper Marlboro Regional Outpatient Center
- Montgomery County Regional Outpatient Center, Ambulatory Surgery Center, Neuropsychology
- Laurel Regional Outpatient Center
- Spring Valley Regional Outpatient Center

Visit [ChildrensNational.org/Locations](http://ChildrensNational.org/Locations) for a listing of physicians practicing at each location.

SPECIALTY	SPECIALIST
Cardiology	Jonathan Kaltman, MD Gerard Martin, MD, <i>Co-Director, Children's National Heart Institute</i> Jai Nahar, MD Laura Olivieri, MD
Endocrinology	Priya Vaidyanathan, MD
Gastroenterology	Ali Bader, MD Anil Darbari, MD Benny Kerzner, MD
General Surgery/ Surgical Consult	Timothy Kane, MD
Infectious Disease	Roberta DeBiasi, MD
Nephrology	Kanwal Kher, MD, <i>Chief</i> Shamir Tuchman, MD
Neurology	Amy Kao, MD Dewi Cabacar, MD James Reese, MD Tammy Tsuchida, MD Jennifer Shipley, NP
Urology	Christine Danielson, NP H. Guilford Rushton, MD, <i>Chief</i>

## Two Days - Twice the CME!

Free Meeting Registration to CNHN & AAP Pediatricians



Children's National Health Network's

### FUTURE OF PEDIATRICS 2012

**PRACTICAL PEDIATRICS for PRACTICAL PEDIATRICIANS: Partners in Care**

**Wednesday, June 13 — Thursday, June 14, 2012**

Bethesda North Marriott Hotel & Conference Center (at White Flint Metro)

#### ABOUT THE PROGRAM

Primary care pediatricians are increasingly participating in Medical Home contracts that reward for better patient care outcomes and reducing healthcare costs. This year's "Practical Pediatrics for Practicing Pediatricians" topics will detail how primary care pediatricians and specialists can co-manage common concerns for better care, outcomes, and lower costs.

For additional information and to register online, visit [www.ChildrensNational.org/CNHN](http://www.ChildrensNational.org/CNHN)



## The Parent's Letter Project: A Referral Tool

The Parent's Letter Project lets a parent whose child has been a patient at Children's National reach out to families who are about to undergo similar treatment by writing a letter of advice and support. Parents can go online to [AParentsLetter.org](http://AParentsLetter.org) to watch videos and read letters from other parents who have experienced the ups and downs of having an ill child. Children's National invites you to share this project with any new family facing a difficult diagnosis to use as a resource.

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## People *in the News*



Joseph Wright, MD

**Joseph Wright, MD, MPH**, was honored at the American Academy of Pediatrics National Conference and Exhibition in Boston. Dr. Wright received the 2011 Fellow Achievement Award for his work on the Council on Injury, Violence, and Poison Prevention.

**Lisa Guay-Woodford, MD**, has been selected as the new Director for the Center for Clinical and Community Research. She also will serve as the Principle Investigator for the Clinical and Translational Science Institute at Children's National. Dr. Guay-Woodford is a Pediatric Nephrologist and an internationally-recognized investigator whose research focuses on identifying clinical and genetic factors involved in the pathogenesis of inherited renal disorders.



Lisa Guay-Woodford, MD



Joshua Kanter, MD

**Joshua Kanter, MD**, has been appointed medical director of the Cardiac Catheterization Laboratory at Children's National. In this role, he also serves as a Program Director for Children's National Heart Institute. Dr. Kanter has been at Children's National for more than six years.

**Matthew Oetgen, MD**, has been selected for the 2012 POSNA Traveling Fellowship.

Dr. Oetgen will travel to several European centers of excellence in pediatric orthopaedic surgery during April 2012 to give presentations and participate in educational conferences prior to attending the European Pediatric Orthopedic Society Meeting in Istanbul.



Matthew Oetgen, MD

**Iris Kedar Rubin, MD**, is a laser fellowship trained, board-certified dermatologist at Children's National. She specializes in laser treatment of vascular birthmarks, including port-wine stains and hemangiomas. Dr. Rubin participates in the vascular anomalies clinic. For appointments in the Vascular Anomalies Clinic call 202-476-2151.