Alternative Procedure for Bilateral Vocal Cord Paralysis

Dr. Michael Rutter developed a new procedure for the treatment of infants with bilateral vocal cord paralysis. The endoscopic submucosal posterior cricoid split with bioabsorbable spacer can be performed as a minimally invasive...
alternative to tracheotomy in patients with bilateral vocal cord paralysis.

**Aeris Balloon Catheter**

Dr. Michael Rutter, working in conjunction with Bryan Medical, developed the aeris balloon dilation catheter. During a dilation procedure, the aeris balloon catheter solves the problem of slippage beyond the stenotic portion of the airway by utilizing a double balloon that inflates both superiorly and inferiorly to the lesion thus focusing the pressure where it needs to be. The result is a safer, timely and efficient way to perform airway dilations.

**Cincinnati Boys Choir**

Dr. Alessandro deAlarcon, and the members of the Voice Team, engaged the Cincinnati Boys Choir in a long-term study analyzing voice and anatomical changes in choir members over their adolescence years. This unique study is one of the few in the country that deals with the arts. In addition to providing valuable scientific data, the hope is to also provide voice teachers, and coaches, with the tools they need to help young boys continue signing once their voice changes after puberty.

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**Division Publications**


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**Faculty, Staff, and Trainees**

**Faculty Members**

- **Daniel I. Choo, MD**, Professor
  - **Leadership**: Director, Department of Pediatric Otolaryngology

- **Robin T. Cotton, MD**, Professor
Leadership

Director, Aerodigestive and Sleep Center

Alessandro deAlarcon, MD, Associate Professor

Leadership Director, Voice Clinic

John. H. Greinwald Jr., MD, Professor

John H. Greinwald Jr., MD, Professor

Catherine Hart, MD, Assistant Professor

Stacey Ishman, MD, MPH, Associate Professor

Leadership Surgical Director, Upper Airway Center

Charles M. Myer III, MD, Professor

Leadership Director, Pediatric Otolaryngology Residency Program

Charles M. Myer IV, MD, Assistant Professor

Leadership Surgical Director, Upper Airway Center

Michael J. Rutter, MD, Professor

Sally R. Shott, MD, Professor

J. Paul Willging, MD, Professor

Leadership Director, Pediatric Otolaryngology Fellowship Program

Joint Appointment Faculty Members

Dimitar Deliyski, PhD, Associate Professor (Communication Science Research Center)

Research Interests Communication Disorders

Scott Holland, PhD, Professor (Neuroimaging Research Consortium)

Research Interests Neuroimaging

Jareen Meinzen-Derr, MPH, PhD, Assistant Professor (Biostatistics & Epidemiology)

Research Interests Epidemiology

Clinical Staff Members

- Michael Bowen, PA-C, RN, MA, Adult Airway

Trainees

- Michael Demarcantonio, MD, PGYVII, Eastern Virginia Medical School
- David Smith, MD, PhD, PGYVI, Johns Hopkins Hospital
- Niall Jefferson, MD FRACS, PGYVI, New South Wales, Australia
- Drew Prosser, MD, PGYVII, Georgia Regents in Augusta
- April Landry, MD, PGYVII, Mayo Clinic-Phoenix
- Christina Yang, MD, PGYII, Tulane University School of Medicine
Evidence-Based Decision Making Found Lacking in Sleep Apnea Management

Most care decisions for the management of obstructive sleep apnea (OSA) in children are based on widely varying clinical experience rather than being evidence-based, including when to refer patients for subspecialty clinic follow-up and when to order follow-up overnight-sleep studies, according to research led by members of the Division of Otolaryngology.

The research team presented new findings from an ongoing research effort at the Triological Society Combined Sections Meeting in San Diego in January 2015. One article based on the presented findings has been accepted for publication in *The Laryngoscope*, while another has been submitted to the journal *Otolaryngology — Head & Neck Surgery*.

In the initial, smaller study, Stacey Ishman, MD, MPH, led a team that examined 324 decisions on 58 patients made at clinics and care conferences over a one-week period. Subspecialists explained the basis of their decisions, which were then classified into 10 categories. The findings: only 34 percent of decisions were evidence-based, while 59 percent were non-evidence-based and 7 percent were based on parental preference. Providers were able to cite specific studies for less than 20 percent of their decisions.

In a companion study for *The Laryngoscope*, the team analyzed these gaps over a two-month period. That study of 507 decisions found that the proportion of non-evidence-based decisions actually increased two percentage points from the shorter study, while parental-based decisions dropped by two percentage points.

The most common non-evidence-based decisions analyzed included the timing and appropriate subspecialty clinic follow-up location (38 percent), as well as indications for overnight-sleep studies (11 percent), especially in children at high-risk for persistent OSA such as those with Down syndrome or obesity. Additional gaps included the likelihood of OSA improvement from weight loss and the effectiveness of sleep surgical procedures.
In examining decisions by subspecialists treating children with obstructive sleep apnea (OSA), researchers found that most decisions were not evidence-based (top) and that physician experience was the most common factor in decision-making (above). The team analyzed the kinds of decisions that were not evidence-based (bottom) and learned that the overwhelming majority regarded follow-up options and diagnostic evaluations such as overnight sleep studies.

### Factors that guided decisions

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<th>Avoid Lawsuit</th>
<th>Arbitrary</th>
<th>Limited Study</th>
<th>Parental Preferences</th>
<th>Training</th>
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### Nature of non-evidence-based decisions

- Follow Up: 120 - 39%
- Diagnostic Evaluation: 124 - 40%
- Management Options: 65 - 21%