

### 2015 Research Annual Report

# **Pediatric and Adolescent Gynecology**

RESEARCH AND TRAINING DETAILS



Faculty	4
Research Students	1
Support Personnel	2
Peer Reviewed Publications	3
CLINICAL ACTIVITIES AND TRAINING Clinical Staff	
Clinical Fellows	2
Clinical Students	27
Other Students	2
Inpatient Encounters	152
Outpatient Encounters	5,253

## **Research Highlights**

Lesley Breech, MD

The division of Pediatric and Adolescent Gynecology continues to make significant progress in the focus areas of outcomes and clinical excellence; fertility preservation; research and community health under the leadership and direction of Division director, Dr. Lesley Breech. Multi-disciplinary collaborations on patients treated both within and outside of Cincinnati Children's remain a continued area of pride and focus for the division. Meanwhile, the impact of the Division of Pediatric and Adolescent Gynecology's efforts and contributions are becoming more broadly recognized on a national level. Most recently, Dr. Breech was invited to speak at The March of Dimes plenary session at the Annual Genetics Meeting in Salt Lake City, UT.

Dr. Breech, along with collaboration with the Divisions of Endocrinology and Oncology hosted Dr. Teresa Woodruff from Northwestern University, a nationally-recognized leader in oncofertility, to present two sessions at Cincinnati Children's Oncology Grand Rounds in February 2015. Dr. Woodruff serves as the Principal Investigator of the National Institutes of Health (NIH) funded project responsible for creating the Oncofertility Consortium National Physician Collaborative.

#### **Oncofertility Program**

Gynecology continues to collaborate with the Cancer and Blood Diseases Institute (CBDI) and the James M. Anderson Center for Health Systems Excellence to build the Comprehensive Fertility Care and Preservation Program, which focuses on the preservation of future fertility for patients at risk due to chemotherapy, radiation or bone marrow transplantation. The program has increased consultation for eligible patients to 90 percent over the last quarter of FY15. The increase in consultation likely fueled the increase in enrollment of patients in the Ovarian Tissue Cryopreservation (OTC) project by 50 percent over last year. This innovative project allows the cryopreservation of ovarian tissue before treatment with gonadotoxic drugs. The program has also collaborated with the Division of Urology to apply for IRB approval for a similar study for prepubertal males Testicular Tissue Cryopreservation (TTC).

#### Outcomes and Research

The Division continued its focus on improving patient outcomes. Highlights over the past year included a greater than 20 percent improvement in patient-reported outcomes for the treatment of menorrhagia, and a 72 percent improvement in providing fertility consultations for eligible patients for gonadal failure. Additionally, our team recently received training regarding the role and development of shared decision making tools to assist patients and families in making health care decisions. These evidence-based tools are shown to consistently improve patient and family knowledge, increase involvement in decisions, decrease uncertainty about the choice and improve alignment between their preferences and their chosen plan. Chosen as one of the initial programs by the James M. Anderson Center for Health Systems Excellence to develop a pediatric-specific shared decision making tool to be used when making decisions about possible fertility preservation options prior to cancer treatment. The tool is now currently in the testing phase. We are currently working towards investigating its role in the standardization of care and in the improvement of the patient and family experience.

#### Clinical Practice

In an on-going effort to provide the best services to our patients, Gynecology welcomed another new surgeon to our practice, Dr. Holly Hoefgen. This has helped us reach and care for more patients than ever before. Compared to last year, the Division improved access to services by providing over 11 percent more clinic visits and performing over 220 surgeries. In addition to its core practice, the Division continues to support highly specialized programs through its involvement in Cincinnati Children's Transgender Health Clinic with Dr. Trotman; Disorders of Sex Development Center with Dr. Breech; and Comprehensive Fertility Care & Preservation Program with Dr. Hoefgen.

### **Division Publications**

1. Hoefen HR, Merritt DF, St Geme JW, Schor NF. (2014) **Vulvovaginitis**. Nelson Textbook of Pediatrics. Philadelphia, PA, Elsevier. 2607-2613.

- 2. Hoefgen HR, Merritt DF. Invasive Ductal Carcinoma in a 46,XY Partial Androgen Insensitivity Syndrome Patient on Hormone Therapy. *J Pediatr Adolesc Gynecol*. 2015; 28:e95-7.
- 3. Hoefgen HR, Merritt DF. Rope swing injuries resulting in vulvar trauma. *J Pediatr Adolesc Gynecol*. 2015; 28:e13-5.

### Faculty, Staff, and Trainees

#### **Faculty Members**

#### Lesley Breech, MD, Associate Professor

**Leadership** Division Director, Pediatric & Adolescent Gynecology; Fellowship Director, Pediatric & Adolescent Gynecology

**Research Interests** Long term reproductive outcomes of girls and young women undergoing reconstructive pelvic surgery.

#### Gylynthia Trotman, MD, MPH, Assistant Professor

Leadership Research Director, Pediatric & Adolescent Gynecology

**Research Interests** Care of adolescents with heavy menstrual bleeding, Reproductive outcomes among adolescents with chronic medical disease, Polycystic ovarian syndrome, Gynecologic care of the transgender patient (fertility, puberty suppression, contraception).

#### Holly Hoefgen, MD, Assistant Professor

Leadership Director, Pediatric & Adolescent Gynecology Resident Program

**Research Interests** Ovarian preservation and the use of minimally invasive techniques in pediatric and adolescent gynecologic surgery; fertility preservation, including ovarian tissue cryopreservation; future ovarian function with pediatric & adolescent cancer treatment

#### Beth Schwartz, MD, Assistant Professor

**Research Interests** Intrauterine devices in adolescents and special needs populations; diagnosis of ovarian torsion; management of heavy menstrual bleeding

#### **Clinical Staff Members**

Lisa Reebals, APRN

#### **Trainees**

- Serena Chan, MD, PGY-6, University of Pittsburgh School of Medicine, Pittsburgh, PA
- Janie Benoit, MD, PGY-5, Obstetrics and Gynaecology, University of Montreal, Canada

# Rope Swings Along Waterways Pose Serious Injury Risks for Girls



Holly Hoefgen, MD

#### PUBLISHED FEBRUARY 2015

Journal of Pediatric & Adolescent Gynecology

Rope swings hanging from trees along lakes and rivers are a popular recreation for children and teens, but they also pose a risk of severe genital injuries to girls. Moreover, the rural locations of most rope swings complicate providing high quality treatment in a timely manner.

Holly Hoefgen, MD, Co-Director of the Comprehensive Fertility Care and Preservation Program in the Division of Pediatric and Adolescent Gynecology, led a case study review of rope swing injuries with a colleague at the Washington University School of Medicine in St. Louis. Findings were published in February 2015 in the *Journal of Pediatric & Adolescent Gynecology*.

The most commonly reported injuries associated with rope swings are finger fractures, lower extremity trauma, and head and neck trauma. Female genital injuries account for 2.7 percent of overall rope swing injuries, and can result in severe lacerations, hematomas and avulsions. The review specifically analyzed injuries sustained by two girls in swimsuits, ages 13 and 15, who had wrapped their legs around the ropes, began to swing toward the water, but suddenly slid too quickly down the ropes and over knots intended as handgrips or foot grips.

In both cases, the girls required transportation exceeding 100 miles to receive medical attention. One of the two girls required surgery.

"Visitors to inland waterways need to be cognizant of the hazards of rope swings," the authors wrote, "and health care professionals and ED staff should become aware of this mechanism of injury when evaluating patients with vulvar trauma."

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Hoefgen, H. R. and D. F. Merritt (2015). "Rope swing injuries resulting in vulvar trauma." *J Pediatr Adolesc Gynecol*. 2015 Feb;28.

The most common injuries related to river tree rope swings are finger fractures, lower extremity trauma, and head and neck trauma. Genital injuries account for 2.7% of all rope swing injuries.



#### **CASE 1 - AGE 13**

Incident: Injured while sliding down rope swing and striking knot Injury: laceration lateral to the clitoral hood extending through the labia majora, avulsing the labia minora, and extending through the rectal mucosa and sphincter into the perirectal space

**Medical strategy:** Surgery, deep tissue injuries closed in layers, reconstruction of labia majora and minora

Treatment status: post-operative

day two

Outcome: Patient doing well

#### **CASE 2 - AGE 15**

Incident: Injured while sliding down rope swing and striking knot Injury: vulvar trauma with bleeding, left vulvar hematoma

Medical strategy: Treated at Emergency Department and released with instructions to apply ice, take sitz baths

Treatment status: Five days later, re-evaluated due to continued vaginal bleeding and pain. Hematoma of left labia was spontaneously draining. Light compression of hematoma resulted in release of a large amount of clotted blood and relief of pain.

Outcome: Two weeks later, pain and hematoma had resolved, previous site of drainage was healing.