Resident Education Curriculum in Pediatric and Adolescent Gynecology: The Short Curriculum 3.0

Marie Eve S. Gibson, MD 1,A,*, Veronica I. Alaniz, MD, MPH 2,A, Chanelle Coble, MD 3, Tania Dumont, MD 4, Jennifer O. Howell, MD 5, Nicole W. Karjane, MD 5, Ashli A. Lawson, MD 7, Marcella Nur, MD 8, Melissa Parks, DO, MPH 9, Karen L. Teelin, MD, MSED 10, Hong-Thao Thieu, MD 11, Mary Romano, MD, MPH 12

1 Department of Obstetrics and Gynecology, Queen's University, Kingston, Ontario, Canada
2 Department of Obstetrics and Gynecology, University of Colorado Anschutz Medical Campus, Pediatric and Adolescent Gynecology, Children's Hospital Colorado, Denver, Colorado
3 Division of Adolescent Medicine, Department of Pediatrics, NYU School of Medicine, New York, New York
4 Division of Gynecology, Children's Hospital of Eastern Ontario, Department of Obstetrics and Gynecology, University of Ottawa, Ottawa, Ontario, Canada
5 Division of Obstetrics and Gynecology, University of North Carolina School of Medicine, Chapel Hill, North Carolina
6 Department of Obstetrics and Gynecology, Virginia Commonwealth University Health System, Richmond, Virginia
7 Department of Obstetrics and Gynecology, University of Missouri Kansas City, Kansas City, Missouri
8 Department of Adolescent Medicine, Golisano Children's Hospital of Southwest Florida, Lee Physician Group, Fort Myers, Florida
9 Department of Pediatric and Adolescent Gynecology, Phoenix Children's Hospital, Phoenix, Arizona
10 Department of Pediatrics SUNY Upstate Medical University, Syracuse, New York
11 Department of Obstetrics and Gynecology, Tufts Medical Center, Boston, Massachusetts
12 Division of Adolescent Medicine & Young Adult Health at One Hundred Oaks, Nashville, Tennessee

This Committee Document was prepared under the direction of the North American Society for Pediatric and Adolescent Gynecology (NASPAG) Resident Education Committee and reviewed by the NASPAG Board and the Journal of Pediatric and Adolescent Gynecology editors. The information contained in this document reflects the currently available best evidence for education and practice at the time of publication. The information referenced in this document aims to educate practitioners in making decisions about appropriate patient care but should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice might be warranted based on the needs of the individual patient and/or based on resources and limitations unique to the institution or type of practice. This information has been reviewed and approved by the NASPAG.

ABSTRACT

Exposure to pediatric and adolescent gynecology (PAG) varies across residency programs in obstetrics and gynecology, family medicine, and pediatrics, as well as fellowship programs in adolescent medicine. Nevertheless, these programs are responsible for training residents and fellows and providing opportunities within their programs to fulfill PAG learning objectives. To that end, the North American Society for Pediatric and Adolescent Gynecology has taken a leadership role in PAG education by creating and systematically updating the Short Curriculum. This curriculum outlines specific learning objectives that are central to PAG education and lists essential resources for learners’ reference. This updated curriculum replaces the previous 2018 publication with added content, resources, and updated references.

Key Words: Pediatric and adolescent gynecology, Postgraduate medical education, Education curriculum, Resident education, Accreditation

Introduction

The authors report no proprietary or commercial interest in any product mentioned or concept discussed in this article.

* Address correspondence to: Marie Eve Sophie Gibson, MD, Victory 4 – 76 Stuart Street, Kingston, Ontario, Canada K7L 2V7. Phone: (613) 548-6069; fax: (613) 548-1330.

E-mail address: Sophie.gibson@kingstonhsc.ca (Marie Eve S. Gibson).

A M.E.S.G. and V.I.A. are co–first authors.

1083-3188/$ – see front matter © 2021 North American Society for Pediatric and Adolescent Gynecology. Published by Elsevier Inc. All rights reserved.

https://doi.org/10.1016/j.jpag.2021.01.016

Ashli A. Lawson, MD
Marcella Nur, MD
Melissa Parks, DO, MPH
Mary Romano, MD, MPH
Karen L. Teelin, MD, MSED
Hong-Thao Thieu, MD

Pediatric and adolescent gynecology (PAG) is an important and required aspect of training in obstetrics and gynecology (Ob/Gyn), pediatrics, and adolescent medicine. There are specific PAG learning objectives for the Council on Resident Education in Obstetrics and Gynecology in the United States,1 the American Board of Pediatrics,2,3 and the Royal College of Physicians and Surgeons of Canada.4 These objectives must be fulfilled so that postgraduate training programs can receive their accreditation and trainees can pass their board certification examinations.
To date, the number of Ob/Gyn postgraduate residency training programs with PAG expertise in North America is limited. Furthermore, there are only 15 accredited PAG fellowship training programs in the United States and Canada. Residents have indicated that they do not believe they get enough exposure to PAG topics and have expressed a desire to learn more about this population during their training. Several US studies have documented that despite this desire to learn, most programs offer limited PAG exposure and training. A recent Canadian study supported these findings, concluding that PAG training across programs was variable and that a common barrier was lack of resources, as well as time to provide adequate PAG training. Thus, the degree of exposure might be insufficient to meet the PAG learning objectives in most training programs.

Pediatrics residency training programs, similarly, offer limited exposure to PAG topics. Although 1 month of adolescent medicine training is required of all pediatric residents in the United States, use of this time varies, and, despite this training, many US pediatric residents believe they are unprepared to provide sexual and reproductive health care. Additionally, senior pediatric residents in Canada believe they are inadequately prepared to provide gynecologic care to adolescents. Unmet reproductive health needs during the adolescent years might have lifelong consequences, including teen pregnancy, underscoring the need for provider comfort with and knowledge about PAG topics.

The mission of the North American Society for Pediatric and Adolescent Gynecology (NASPAG) is to provide multidisciplinary leadership in education, research, and gynecologic care to improve the reproductive health of youths. Two of its goals include the following: (1) to serve and be recognized as the lead provider in PAG education, research, and clinical care; and (2) to conduct and encourage multidisciplinary and interprofessional programs of medical education and research in PAG. In 2012, the NASPAG Resident Education Committee was created with the purpose of developing a curriculum and tools for the NASPAG membership to use for resident education in PAG. In 2014, the Short Curriculum was published as an article to ensure wider dissemination of this resident education curriculum. In 2017, the NASPAG Resident Education Committee published a description of the collaborative process of the creation of this committee as well as the drafting and dissemination of the Short Curriculum, Long Curriculum, and additional tools for resident education in PAG.

After publication of the Short Curriculum, the committee completed a prospective study of its use in US Ob/Gyn residency programs without PAG faculty. This study showed that significant PAG deficiencies exist in these programs, and that the use of the Short Curriculum improved self-reported knowledge in PAG. A larger study using this curriculum in Ob/Gyn, pediatrics, and family practice residency programs was published in 2018. After completing the curriculum, self-reported knowledge improved in all 10 learning objectives, across all 3 specialties: (47% [32/68] to 82% [56/68]; P < .01). In 2018, the NASPAG Resident Education Committee published an updated version of the Short Curriculum, which included more emphasis on the needs of learners in pediatrics and adolescent medicine. To provide the most up-to-date educational resources, the curriculum is updated every 2–3 years. This is the most recent update to the Short Curriculum.

Goals of the Short Curriculum 3.0

Postgraduate trainees must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of gynecologic problems in the pediatric and adolescent patient. The Short Curriculum is a 2-week “nuts and bolts” curriculum in PAG, using existing teaching resources that are accessible to trainees in Ob/Gyn, pediatrics, adolescent medicine, and family practice programs. The content is designed to be incorporated into existing rotations in which trainees have contact with pediatric and adolescent patients. It may be used during a portion of the required 4-week adolescent medicine rotation for pediatric residents. This curriculum does not cover all training objectives for PAG, but it highlights important aspects that learners might not otherwise encounter during training.

Target Audience

The target audience of the program comprises postgraduate trainees in Ob/Gyn, pediatrics, adolescent medicine and family medicine, especially from centers with limited clinical exposure to PAG are the target audience.

Educational Objectives

This program covers core knowledge determined to be essential for the provider encountering the PAG patient that might not be covered in other aspects of the learner’s training. The learner will gain understanding of common PAG conditions; however, the Short Curriculum does not replace direct patient clinical experiences or surgical skills training.

The first section (4 days) is focused on the prepubertal pediatric patient. At the conclusion of this curriculum, the learner will:

- Identify the steps and approach to the genital examination of the prepubertal child;
- Describe the evaluation and management of the child with vulvovaginitis and vulvar skin disorders;
- Review the evaluation and management of vaginal bleeding of the prepubertal child; and
- Outline the evaluation and management of abnormal puberty.

The second section (8 days) is focused on the adolescent patient. At the conclusion, the learner will:

- Describe the importance of confidentiality, and review techniques to improve communication in the adolescent patient interview;
- Understand the evaluation and management of menstrual disorders;
- Understand the approach to pelvic pain in adolescents;
• Construct a differential diagnosis and recommend management for adnexal masses
• Understand the assessment and treatment of vaginitis and sexually transmitted infections among adolescents;
• Understand adolescent pregnancy and contraception counseling; and
• Understand the presentation and initial management of congenital anomalies of the female reproductive tract.

Time Requirement

The time requirement is approximately 12 days, with 1-3 hours of dedicated time per day.

Definitions

1. Reading assignments are resources recommended by the NASPAG Resident Education Committee on what trainees should read. We propose that training programs have these resources available for their trainees. The recommended textbook is: Emans SJ, Lauffer MR, DiVasta AD: Pediatric and Adolescent Gynecology, 7th ed. Wolters Kluwer, Philadelphia, PA, 2020 (referred to herein as Emans and Lauffer 7th edition).
2. Additional resources are suggested for learners who seek additional information or wish to access case-based or interactive learning materials:
   a. PAGwebED.org: E learning center (https://www.naspag.org/page/PAGWEBEDSignUp; no charge for NASPAG members and their trainees)
   c. ASRM modules (https://store.asrm.org/Learn/FindACourse; courses are free for postgraduate trainees).
   d. ACOG adolescent health care page (available at: https://www.acog.org/topics/adolescent-health)
   e. Adolescent Reproductive and Sexual Health Education Program (ARSHEP), educational PowerPoint presentations by Physicians for Reproductive Choice (https://prh.org/medical-education/available free of charge online)
   f. Pediatrics in Review articles. These are aligned with American Board of Pediatrics content specifications (pedsinreview.aappublications.org).
   g. Journal of Pediatric & Adolescent Gynecology Clinical Recommendations (https://www.jpagonline.org/content/clinical_recommendations_collection)

Section 1: Focus on the Prepubertal Child

Day 1: Anatomy and Examination of the Prepubertal Child

Reading Assignment

Additional Resources
2. Simulation using pelvic model to teach examination techniques, culture collection, vaginal lavage, and vaginoscopy:

Day 2: Vulvovaginitis and Skin Conditions in the Prepubertal Girl

Reading Assignment
1. Chapter 14: (Emans and Lauffer 7th edition)
2. Chapter 15: Vulvar dermatology (Emans and Lauffer 7th edition)

Additional Resources
1. PAGwebED.org cases: 10 (Sexual abuse), 11 (Vaginal foreign body), 12 (Labial adhesion), 13 (Lichen sclerosis), and 16 (Vulvovaginitis)
6. NASPAG/ACOG CD-ROM topic 2, cases 1, 3, 5, and 7
7. ASRM module, Pediatric gynecology (RES000)

Day 3: Prepubertal Vaginal Bleeding

Reading Assignment
1. Chapter 14: Vulvovaginal problems in the prepubertal child (Emans and Lauffer 7th edition; same as day 2)
2. Chapter 16: Genital trauma (Emans and Lauffer 7th edition)

Additional Resources
1. PAGwebED.org cases: 8 (Precocious puberty), 10 (Sexual abuse), 11 (Vaginal foreign body), 15 (Straddle injury), and 17 (Urethral prolapse)
3. NASPAG/ACOG CD-ROM topic 2, cases 2, 6, and 10
4. ASRM module, Pediatric gynecology (RES000)

Day 4: Delayed Puberty and Precocious Puberty

Reading Assignment
1. Chapter 7: The physiology of puberty (Emans and Laufer 7th edition)
2. Chapter 21: Precocious puberty (Emans and Laufer 7th edition)
3. Chapter 22: Delayed puberty (Emans and Laufer 7th edition)

Additional Resources
1. NASPAG/ACOG CD-ROM topic 3, cases 1-2
2. ASRM module, Precocious puberty (RES001) and Delayed puberty (RES004)

Section 2: Focus on the Adolescent

Day 1: Confidentiality and Communication in Adolescent Care

Reading Assignment
1. Chapter 2: Interviewing the adolescent: strategies that promote communication and foster resilience (Emans and Laufer 7th edition)

Additional Resources
1. ARSHEP module: Providing confidential reproductive healthcare to adolescents (https://prh.org/teen-reproductive-health/arshep-downloads/#confidential)
5. Marcell AV, Burstein GR, Committee on Adolescence: Sexual and reproductive health services in the pediatric setting. Pediatrics 2017;140;e20172858

Day 2: Menstrual Disorders

Reading Assignment
1. Chapter 23: Amenorrhea in the adolescent (Emans and Laufer 7th edition)
2. Chapter 26: Abnormal vaginal bleeding in the adolescent (Emans and Laufer 7th edition)
3. Chapter 28: Androgen abnormalities in the adolescent (Emans and Laufer 7th edition)

Additional Resources
1. PAGWebED.org cases: 2 (Cervical agenesis), 5 (Polycystic ovary syndrome), 6 (Heavy menstrual bleeding/von Willebrand disease), and 3 (Endometriosis)
2. ACOG Committee opinion number 651: menstruation in girls and adolescents: using the menstrual cycle as a vital sign. Obstet Gynecol 2015; 126:e143
7. NASPAG/ACOG CD-ROM topic 4
8. ASRM modules: Amenorrhea (Abnormal uterine bleeding [RES006] and Dysmenorrhea [RES005])

Day 3: Pelvic Pain

Reading Assignment
1. Chapter 31: Acute pelvic pain (Emans and Laufer 7th edition)
2. Chapter 32: Chronic pelvic pain (Emans and Laufer 7th edition)
3. Chapter 33: Pain management for the gynecologic patient (Emans and Laufer 7th edition)

Additional Resources
1. PAGWebED.org cases: 3 (Endometriosis) and 22 (Ovarian torsion)
6. NASPAG/ACOG CD-ROM topic 10
7. ASRM module, Dysmenorrhea (RES005)

Day 4: Ovarian Cysts and Masses

Reading Assignment
1. Chapter 34: Adnexal masses (Emans and Laufer 7th edition)
2. Chapter 36: Gynecological cancers in children and adolescents (Emans and Laufer 7th edition)
3. Chapter 39: Laparoscopy in the pediatric and adolescent gynecologic population (Emans and Laufer 7th edition)

Additional Resources
1. PAGWebED.org cases: 14 (Neonatal cyst) and 18 (Functional ovarian cysts)

Day 5: Assessment and Treatment of Vaginitis and Sexually Transmitted Infections

Reading Assignment
1. Chapter 17: Vulvovaginal complaints in the adolescent (Emans and Laufer, 7th edition)
2. Chapter 18: Sexually transmitted infections: chlamydia, gonorrhea, pelvic inflammatory disease, and syphilis (Emans and Laufer, 7th edition)
3. Chapter 19: Diagnosis, management and prevention of human immunodeficiency virus in young women (Emans and Laufer 7th edition)

Additional Resources
1. PAGwebED.org cases: 19 (Sexually transmitted infections)
8. NASPAG/ACOG CD-ROM Topic 5

Day 6: Contraception and Pregnancy in Adolescents

Reading Assignment
1. Chapter 41: General contraceptive care (Emans and Laufer 7th edition)
2. Chapter 42: Long active reversible contraception (Emans and Laufer 7th edition)
3. Chapter 43: Teen pregnancy and pregnancy options (Emans and Laufer 7th ed)

Additional Resources
1. PAGwebED.org cases: 20 (Contraception)
4. ACOG Committee Opinion #710. Counseling adolescents about contraception. Obstet Gynecol 2017; 130:e74

Day 7-8: Congenital Anomalies of the Reproductive System

Reading Assignment
1. Chapter 11: Structural abnormalities of the female reproductive tract (Emans and Laufer 7th edition)

Additional Resources
1. PAGwebED.org cases: 1 (Obstructed hemivagina ipsilateral renal agenesis syndrome), 2 (Cervical agenesis), 7 (Noncommunicating hemivagina), 9 (Mayer-Rokitansky-Küster-Hauser syndrome), and 21 (Imperforate hymen)
Conclusion

The degree of exposure to PAG varies across academic programs in Ob/Gyn, adolescent medicine, pediatrics, and family practice in North America. Nevertheless, these programs are responsible for training residents and fellows, for providing opportunities within their programs to fulfill PAG learning objectives and to provide the best quality of care for adolescents and young girls. To this end, NASPAG has taken a leadership role in PAG education by disseminating the Short Curriculum. One of NASPAG’s primary objectives is to enhance education in PAG by providing a structured didactic curriculum that all training programs can incorporate into their teaching curriculum. The benefits of this Short Curriculum are to provide specific learning objectives and a list of high-quality, updated, essential resources covering key PAG concepts. Consequently, this Short Curriculum serves as an adjunct to the existing PAG teaching established in various postgraduate medical education programs. Finally, we hope to imbue trainee interest in PAG, and thus facilitate growth of our discipline.

References


