



## Commentary

## If You Do Not Ask, They Will Not Tell: Evaluating Pregnancy Risk in Young Women in Pediatric Hospitals


 Mandy S. Coles, M.D., M.P.H.<sup>a,\*</sup>, May Lau, M.D., M.P.H.<sup>b</sup>, and Aletha Y. Akers, M.D., M.P.H.<sup>c</sup>
<sup>a</sup> Department of Pediatrics, Boston University Medical Center, Boston, Massachusetts

<sup>b</sup> Department of Pediatrics, University of Texas Southwestern, Dallas, Texas

<sup>c</sup> The Craig Dalsimer Division of Adolescent Medicine, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania

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 A B S T R A C T

Adolescents experience some of the highest rates of unintended pregnancy among women of all reproductive age groups. And despite the fact that adolescents often receive care in pediatric hospital settings, evaluation of pregnancy risk is inconsistent. Pregnancy risk assessments can identify opportunities to deliver reproductive health services, allow earlier pregnancy diagnoses, and reduce morbidity and mortality for medically complex adolescent patients and their pregnancies. In this commentary we discuss some of the challenges and potential solutions to performing pregnancy risk assessments in pediatric hospital settings.

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Adolescents experience disproportionately higher rates of unintended pregnancy compared to adults [1]. Routine screening of menstrual, sexual, and contraceptive histories can help identify adolescents at risk of pregnancy and provide an opportunity to deliver sexual health counseling and contraceptive services. Although several medical organizations have guidelines for performing adolescent pregnancy risk assessments, implementation of these guidelines is more common in specialized family planning clinic settings that primarily serve adult women than in pediatric settings—particularly pediatric hospitals [2]. Failure to evaluate pregnancy risk in pediatric hospitals represents a missed opportunity for teen pregnancy prevention. In this commentary, we explore the benefits and challenges to performing pregnancy risk assessments in pediatric hospitals and provide suggestions for adopting risk assessment protocols.

### Pediatric Hospital Systems Are Common Care Settings for Adolescents

Pediatric hospitals increasingly provide care for adolescents. These hospitals represent 3% of all US hospitals, yet serve 25% of

all hospitalized children, including 80% of those with chronic medical conditions [3,4]. Moreover, pediatric care has recently shifted away from community hospitals to pediatric hospital systems, which may include a pediatric hospital and a network of pediatric primary care practices [5]. With more adolescents seeking care in pediatric hospital systems, we have a unique opportunity to improve adolescent reproductive health outcomes by increasing pregnancy risk assessment, leading to expanded delivery of sexual health counseling and clinical services in these settings.

There are many benefits of pregnancy risk evaluation in pediatric hospitals. As many adolescents do not attend preventive health visits, screening for pregnancy risk and other reproductive health needs is recommended at every adolescent encounter and in all settings [6]. In pediatric hospitals, adolescents may present to emergency departments, surgical suites, inpatient wards, or outpatient primary or subspecialty clinics. Instituting routine pregnancy risk assessments is valuable in all these settings. Pregnancy test results can expedite patient triage, help narrow the differential diagnoses, and improve patient safety by preventing exposure to anesthetics, teratogens, or radiologic studies that could compromise the health of a pregnant adolescent or her fetus. Pregnancy risk assessments can also facilitate early pregnancy diagnosis allowing young women more time to consider their pregnancy options and easier access to

\* Address correspondence to: Mandy S. Coles, M.D., M.P.H., 850 Harrison Avenue, YACC-5, Boston, MA 02118

E-mail address: [mandrake76@gmail.com](mailto:mandrake76@gmail.com) (M.S. Coles).

termination services, if needed. For adolescents who decide to continue a pregnancy, these assessments can facilitate timely engagement in prenatal care, which is associated with improved maternal and neonatal outcomes [7]. Despite the benefits, few studies have assessed the frequency of pregnancy risk assessments in pediatric hospital settings [2,8].

### Pregnancy Evaluation in Medically Complex Adolescents

Adolescents with medically complex conditions commonly seek care in pediatric hospitals [4,9]. For many of these young women, the physiologic changes in pregnancy are associated with an increased risk for adverse health events [10]. Moreover, these women may be taking teratogenic medications or require diagnostic studies that could harm an ongoing pregnancy. Given these risks, evaluating pregnancy risk among adolescents in pediatric hospital is critically important for delivering high-quality health care. No studies have assessed the frequency of pregnancy risk assessment among medically complex adolescents; only one such study exists among adult women. This chart review of women prescribed teratogenic medications in primary care found no documentation of pregnancy testing or contraceptive counseling at half the visits when a teratogen was prescribed [11].

### Challenges and Recommendations for Instituting Pregnancy Risk Assessments in Pediatric Hospitals

Although adolescent pregnancy evaluation is important, there are numerous potential implementation challenges. Educating clinical staff and hospital administration on the importance of routine pregnancy testing is needed to ensure widespread understanding of the benefits and increased support. Access to trained personnel, the duration of clinical visits, and limited space may make it difficult to routinely obtain confidential sexual histories. Additionally, logistical issues such as staffing, bathroom availability, and point-of-care testing requirements may prevent pregnancy testing in some settings.

Pregnancy screening checklists, such as the one recommended by the Centers for Disease Control and Prevention [12], can guide pregnancy risk assessment where assessments are currently unavailable. Clinical decision supports in electronic medical records can alert providers when teratogenic medications are prescribed and can prompt sexual and contraceptive history screening, counseling, and referrals thereby reducing patient risk.

Collaboration among pediatric subspecialists and reproductive health providers is essential in the evaluation of pregnancy risk at pediatric hospitals. If a provider or specialty service is unable or uncomfortable assessing adolescents' sexual histories or performing pregnancy testing, referral to clinics that do provide these services ensures high-quality care. Although these may vary across institutions, providers trained in adolescent medicine, family medicine, and gynecology routinely perform these services and can often elicit sexual and contraceptive details that adolescents may not share with other subspecialty providers. Appropriate communication of reproductive health information across an adolescent's medical team is essential to

balance the need for confidentiality with an adolescent's health and safety.

Medical teams also need to carefully consider how to manage positive pregnancy tests. Access to private space for confidentially disclosing test results along with trained staff who can provide pregnancy options counseling is essential. Again, providers trained in adolescent medicine, family medicine, and gynecology, as well as those from other allied health fields, may be well positioned to provide these services. Medical teams need to be aware of state laws regarding the legal age of consent for sexual activity to comply with state-mandated reporting laws. Providers must also be knowledgeable about state laws governing parental involvement for minors seeking abortion services or receiving prenatal care respectively, as these laws affect providers' ability to keep a minor's pregnancy confidential. Finally, pediatric hospitals must ensure that if the decision is made to adopt a global policy to perform pregnancy testing routinely for adolescent patients, these policies must be accompanied by provider and medical staff education regarding all applicable state laws and evidence-based clinical practices.

### Summary

Routine pregnancy risk assessment among adolescent women in pediatric hospitals has many benefits. For most institutions, a one-size-fits-all policy approach regarding pregnancy evaluation for adolescent women is impractical. Policy solutions require thoughtful consideration of existing institutional resources and capacity to ensure uptake into existing care models.

### References

- [1] Finer LB. Unintended pregnancy among U.S. adolescents: Accounting for sexual activity. *J Adolesc Health* 2010;47:312–4.
- [2] Goyal MK, Witt R, Hayes KL, et al. Clinician adherence to recommendations for screening of adolescents for sexual activity and sexually transmitted infection/human immunodeficiency virus. *J Pediatr* 2014;165:343–7.
- [3] Agency for Healthcare Research and Quality. Healthcare Cost and Utilization Project. Available at: <http://hcupnet.ahrq.gov/>. Accessed November 24, 2015.
- [4] Simon TD, Berry J, Feudtner C, et al. Children with complex chronic conditions in inpatient hospital settings in the United States. *Pediatrics* 2010;126:647–55.
- [5] Friedman B, Berdahl T, Simpson LA, et al. Annual report on health care for children and youth in the United States: Focus on trends in hospital use and quality. *Acad Pediatr* 2011;11:263–79.
- [6] Gavin L, Moskosky S, Carter M, et al. Providing quality family planning services: Recommendations of CDC and the U.S. Office of Population Affairs. *MMWR Recomm Rep* 2014;63:1–54.
- [7] Lassi ZS, Mansoor T, Salam RA, et al. Essential pre-pregnancy and pregnancy interventions for improved maternal, newborn and child health. *Reprod Health* 2014;11(Suppl 1):S2.
- [8] Azzam FJ, Padda GS, DeBoard JW, et al. Preoperative pregnancy testing in adolescents. *Anesth Analg* 1996;82:4–7.
- [9] Berry JG, Hall M, Hall DE, et al. Inpatient growth and resource use in 28 children's hospitals: A longitudinal, multi-institutional study. *JAMA Pediatr* 2013;167:170–7.
- [10] Centers for Disease Control and Prevention. U.S. Medical Eligibility Criteria for Contraceptive Use, 2010. *MMWR Recomm Rep* 2010;59:1–86.
- [11] Schwarz EB, Postlethwaite DA, Hung YY, Armstrong MA. Documentation of contraception and pregnancy when prescribing potentially teratogenic medications for reproductive-age women. *Ann Intern Med* 2007;147:370–6.
- [12] U.S. Selected Practice Recommendations for Contraceptive Use, 2013: Adapted from the World Health Organization selected practice recommendations for contraceptive use, 2nd edition. *MMWR Recomm Rep* 2013; 62:1–60.