Original Study

Advance Provision of Emergency Contraception in an Urban Pediatric Emergency Department

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A B S T R A C T

Study Objective: To assess whether a policy and educational intervention in an urban, pediatric emergency department (ED) increases advance provision of emergency contraception (EC) to patients.
Design/Setting/Participants: A pre- and post-intervention, retrospective chart review was conducted in an urban, pediatric ED assessing provider care of sexually active female adolescents and young adults.
Intervention/Main Outcome Measures: A policy was instituted recommending that ED providers prescribe EC and provide an educational handout to all sexually active female adolescents and young adults. ED providers were educated about EC and this policy. Charts, subsequently reviewed, included sexually active female patients, age 13–21 years, presenting to the ED status post sexual assault, seeking EC, or with an abdominal, gynecologic, or urologic complaint. Student's t-tests, Pearson's chi-square and Fisher's Exact tests compared pre- and post-intervention provider and patient characteristics and outcomes.
Results: The mean age of the patient sample was 18.8 years (SD=1.7), 83% were Black or Hispanic, 43% were previously pregnant, 25% reported not using birth control. Last unprotected sexual intercourse was not documented for 87% of patients presenting with medical complaints. There was no difference in the advance prescribing of EC or the provision of the educational handout to patients pre- (3.3%) or post- (5.6%) intervention ($P = 0.73$).
Conclusions: Despite a policy and an educational intervention for providers, little change occurred in advance EC prescribing in an urban, pediatric ED. Additionally, many providers were not documenting last unprotected sexual intercourse, potentially missing an opportunity to treat patients with EC at the time of their visit.
Key Words: Contraception, Post-coital, Pregnancy in adolescence, Emergency medicine

Introduction

Nearly 750,000 pregnancies occur annually among US female adolescents age 15–19 years, and over 80% of these are unplanned.[1–3] Although these data represent a remarkable decline in adolescent pregnancy rates compared to prior decades, reflecting both improved contraceptive use among adolescents and delayed sexual debut, there was a 3% rise in the US adolescent pregnancy rate from 2005 to 2006, the first rise seen since the early 1990s.[2,3] Emergency contraception (EC) is estimated to be 58–95% effective in preventing pregnancy when used appropriately after unprotected sexual intercourse.[4]

Providing EC in advance, either by dispensing the product for future use or by providing a prescription, has been identified in multiple studies as the primary predictor for increasing the use of EC by young women.[5–9] Both the Society for Adolescent Health and Medicine (SAHM) and the American Academy of Pediatrics (AAP) have issued statements in support of this practice.[10,11] However, studies have also shown that women, and adolescents in particular, either do not know about EC, have misconceptions about it (e.g., believe it is a teratogen or abortifacient), or are hesitant or embarrassed to ask their providers for it.[12–17] Similarly, medical providers in the primary care and emergency department (ED) settings frequently are misinformed about EC, have perceived time constraints, or have ethical dilemmas when it comes to prescribing it.[13,15,18,19] These issues create barriers to accessing EC in a timely manner, and time is of the essence when it comes to using EC properly and effectively. Although EC was approved by the Federal Drug Administration to be behind-the-counter in the US for women 17 years and older, it is still difficult for younger adolescents, those who do not have government issued identification, and those who cannot afford to pay out of pocket to access EC. In Massachusetts, female adolescents under the age of 17 years need a prescription to access EC or need to locate a specially trained pharmacist and pay full price for the product.

In addition to lack of education about EC and hesitancy on the part of patients and providers to talk about it, many adolescents and young adults do not see a primary care provider regularly. EDs are key points of access to care for this population and there is an opportunity to provide advance provisions of EC and information about it to these patients.[20,21] Previous research regarding the availability of

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EC in the ED setting has focused primarily on survivors of sexual assault and women reporting recent unprotected sexual intercourse.[22–25] In the primary care setting, educational interventions for providers have been shown to increase the rate of advance EC prescriptions for adult patients.[26] Whether similar provider interventions can be effective at increasing advanced EC prescribing to high-risk adolescents and young adults in the ED setting has not been specifically examined. The purpose of our study was to assess whether the institution of an EC policy in a busy, urban, pediatric ED and an educational intervention for ED providers would result in the increased advance provision of EC to sexually active female adolescents and young adults at risk for unintended pregnancy.

Materials and Methods

Study Intervention

A policy, supported by ED and Adolescent Medicine staff, was instituted in a busy, urban, pediatric ED encouraging providers to prescribe EC and/or to provide a handout regarding EC to any adolescent or young adult deemed at risk for unintended pregnancy. It was standard practice in this ED for all patients to receive an electronic handout related to their diagnosis upon discharge from the ED. The electronic EC handout is available in Spanish and English, and it reviews what EC is, when and how to take it, and how to access it from local pharmacies. Additionally, providers, including nursing staff, attending physicians, and pediatric trainees were informed of the policy and were educated about EC through a variety of forums. The lead author spoke at the institution's Pediatric Grand Rounds, reviewed the new policy with the ED nurses during their shift change and with ED attendings during their monthly division meeting, and educated pediatric residents during their noon conference. Once the policy had been instituted and staff had been informed of it, attending physicians received a reminder email weekly for one month. Additionally, pediatric residents rotating through the ED were emailed every two weeks, at the start of their rotation, for eight months reminding them of the EC policy, educating them about EC, and providing them with a copy of the electronic patient handout.

Data Collection and Study Population

Using the electronic medical record, charts were systematically sampled and reviewed retrospectively from three months prior to ($n = 60$) and eight months following ($n = 161$) the institution of the EC policy and the provider educational intervention. Charts included were those from sexually active female patients, age 13–21 years, who presented to the ED and met at least one of the following criteria: status post sexual assault, seeking EC, or with an abdominal, gynecologic, or urologic complaint for which they were evaluated and treated, but not hospitalized. Presenting complaint was limited to these criteria in which a sexual history was likely to be obtained by the provider, as the intervention was not geared towards affecting provider history taking and EC prescribing outside of these ED scenarios. Five charts were reviewed from the first Monday, the second Wednesday, the third Friday, and the fourth Saturday of each month in order to insure that different residents, nurses, and attending physicians were represented. If five charts from a given day did not meet inclusion criteria, the following day's patient list was reviewed to obtain a total of five charts from that week. A total of 20 charts were included in the analysis per month. One additional chart was included in the post-intervention analysis.

Study Variables

All data were collected anonymously and in retrospect. Therefore, informed consent was waived. Information collected included provider training level and gender, and several patient variables: age, race/ethnicity, insurance status, whether or not the patient had a primary care provider, presenting health complaint, whether or not a guardian was present for those patients under the age of 18 years, hours from last unprotected sexual encounter, current birth control use, pregnancy and abortion history, sexually transmitted infection (STI) history, use of this ED in the past year, and whether or not the ED provider prescribed EC and/or provided the patient with an EC handout. In this ED, all medications, prescriptions, and handouts given to patients are generated through the electronic medical record and are therefore documented in the chart automatically. Institutional Review Board approval for the study was obtained by Boston University Medical Center.

Statistical Analysis

Student's t-tests, Pearson's chi-square and Fisher's Exact tests were used to compare pre- and post-intervention provider and patient characteristics and outcomes using a $P < 0.05$ significance level. Fisher's Exact tests were used for categorical variables when any cell size was less than 5; otherwise Pearson's chi-square tests were used.

Results

Providers were predominantly of female gender (71%) and were trainees rather than attending level clinicians (92.8%). There were no differences in these provider characteristics pre- or post-intervention. Table 1 summarizes sociodemographic characteristics of patients. There were no differences between patients pre- and post- policy institution and educational intervention. The mean age of the sample was 18.8 years (SD 1.7). The sample was 62% Black and 21% Hispanic. The majority of patients were insured, with private, public or free care insurance through the hospital. Over 75% of patients identified a provider in the community as their primary care provider or a health center where they could seek primary care. More than 65% of patients had at least one visit to that ER in the prior calendar year. For those patients under the age of 18 years, over 50% were documented as not having a guardian present during the time of their visit.