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Return of Spontaneous Menses and Fertility After Removal of the Liletta Levonorgestrel Intrauterine System

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INTRODUCTION: The objective of this study was to examine reasons for insertion and discontinuation of IUDs as well as evaluate factors that predict discontinuation.

METHODS: Medical charts of 84 female patients who had an IUD inserted from January 1999 through June 2014 were reviewed. Variables of interest included demographic variables, age, body mass index, parity, type of IUD, indications for insertion, removal of IUDs, and side effects. Descriptive and inferential statistical methods were used.

RESULTS: Contraception (81%) was the main reason for insertion of IUDs followed by dysfunctional uterine bleeding (11.9%). With regard to removal, side effects of IUDs (13.1%) were the major reason revealed. Other minor reasons for removal included 5-year limit for Mirena, pregnancy desired, IUD fell out, and no follow up. Obese patients were more likely to have IUD removed than normal or overweight patients ($P=.018$). Patients with lower parity were more likely to have had their IUDs removed in fewer years before first removal ($P=.001$). Younger patients were more likely to have had their IUDs removed in fewer years than older patients ($P=.002$).

CONCLUSION: Higher BMI, younger age, and lower parity were significant predictors of IUD discontinuation fewer years before first removal. Side effects necessitating removal were vaginal issues including bleeding, spotting, discharge, and cramping. Health care providers should counsel and educate their patients on IUD side effects at the time of insertion. Furthermore, patient characteristics associated with IUD removal should be considered in offering options of contraceptive methods.

Financial Disclosure: The authors did not report any potential conflicts of interest.

Effects of Obstetric Complications on Adolescent Postpartum Contraception Choice and Rapid Repeat Pregnancy Rate [20]

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INTRODUCTION: The study goals were to examine whether complications during pregnancy or at delivery influence postpartum contraception choices and rapid repeat pregnancy rates in adolescent women.

METHODS: This retrospective cohort study included 321 adolescents delivering at UMASS Memorial Healthcare. Complications during pregnancy and delivery along with subsequent contraception use were investigated. Postpartum contraception choice (LARC vs Non-LARC) at either delivery hospital discharge, or at postpartum outpatient appointment, and rapid repeat pregnancy rate (pregnancy confirmed within 12 months of index delivery), were analyzed by pregnancy complications. Comparisons were made with chi-squared and Fisher's exact tests for categorical variables, and with Wilcoxon rank sum test for continuous variables.

RESULTS: Of the study population, 27.7% used LARC in the postpartum period. The LARC and non-LARC patient populations differed significantly regarding prior history of abortions ($P=.029$), with no differences in obstetric complications between the groups. 16.6% of the population became pregnant again within one year of their index delivery. Those with a rapid repeat pregnancy had significantly increased gravidity ($P=.002$), parity ($P=.003$), number of previous abortions ($P=.026$); they were also more like to have non live birth as a complication ($P=.028$), compared to those without repeat pregnancy. No other obstetrical complications were statistically significantly different between compared groups.

CONCLUSION: Obstetrical complications seem to have little impact on postpartum contraception choice or repeat pregnancy rate with the notable exception of non live birth being associated with rapid repeat pregnancy. Counseling about postpartum

contraception during prenatal care is crucial to reducing repeat pregnancy.

Financial Disclosure: The authors did not report any potential conflicts of interest.

Plan B: Is It Just One Step? [30]

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INTRODUCTION: To discover if there are barriers for accessing over-the-counter emergency contraception. If barriers exist, to determine if those barriers vary based on the gender of the person making the purchasing request.

METHODS: Richmond, VA pharmacies listed as Plan B One Step® suppliers were interviewed via phone by both male and female callers. Eight standardized script questions regarding emergency contraception were asked including availability, age restrictions, parental consent, counseling requirements, and gender restrictions for purchase. The statistical data was analyzed using Fisher's exact test.

RESULTS: Pharmacy employees provided incorrect information to both men and women regarding age restrictions for purchasing Plan B One Step® 51% of the time. There was no statistical difference based on the gender of the caller. Only one of the 153 pharmacies polled by our male consumer would have denied a male from purchasing Plan B One Step® ($P=.127$). Both male and female callers were given correct information, as a whole, regarding the lack of need for parental consent and in-store counseling at the time of purchase. Males were 21 times as likely ($P=.001$) to have been transferred upon calling the pharmacy to another employee when asking "Can I get Plan B One Step®" compared to females, of whom none were transferred.

CONCLUSION: Men and women requesting Plan B One Step® received incorrect information in one half of phone encounters. Given the inconsistent data provided to the public regarding emergency contraception, clinicians are obligated to convey accurate, up-to-date information to patients about over-the-counter contraceptive options.

Financial Disclosure: The authors did not report any potential conflicts of interest.

Return of Spontaneous Menses and Fertility After Removal of the Liletta Levonorgestrel Intrauterine System [40]

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INTRODUCTION: Liletta™ is a levonorgestrel 52 mg contraceptive intrauterine system. We evaluated reproductive function after Liletta discontinuation based on time to return of spontaneous menses and time to pregnancy.

METHODS: Nulliparous and parous women age 16–45 years were enrolled in an ongoing multicenter trial evaluating the efficacy and safety of Liletta for up to seven years of use. Women who discontinued Liletta and did not initiate hormonal contraception were contacted monthly for up to three months until menses returned. Those women also desiring pregnancy were contacted every three months for up to 12 months to determine whether pregnancy occurred. We conducted separate analyses for women 16–35 years, by parity, and for pregnancy within six months. Pregnancy outcomes were not assessed.

RESULTS: Of 348 women evaluated for return of spontaneous menses, 4 became pregnant before menses occurred and 1 had a hysterectomy for uterine leiomyomata. Of the remaining 343 women, 342 (99.7%) menstruated within three months. The one subject who did not have a menses was not pregnant and declined work-up. Ninety-one (88.3%) of 103 women who attempted to conceive did so within 12 months. Amongst women 16–35 years old, median use before discontinuation was 26.0 months (range 1.2–59.7 months); pregnancy occurred in 38/44 (86.4%)



nulliparous and 51/56 (91.1%) parous women ($P=.53$). Median time to conception was 95 days. Seventy (70.0%) conceived within 6 months.

CONCLUSION: After Liletta discontinuation, women have rapid return of spontaneous menses and normal fertility as demonstrated by time to pregnancy in the year post-removal.

Financial Disclosure: Dr. Perriera (Associate Professor, Director of Family Planning, Thomas Jefferson University) disclosed the following—Merck: Speaker/Honoraria includes speakers bureau, symposia, and expert witness. Dr. Blumenthal (Professor of Obstetrics and Gynecology, Chief of Gynecology, Director of Family Planning Services and Research, Stanford University) disclosed the following—Medicines360: Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received. Dr. Thomas (Professor, Director of Reproductive Endocrinology and Infertility, University of Cincinnati) disclosed the following—Contracept: Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received; Medicines360: Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received; Teva: Consultant/Advisory Board. Dr. Gilliam (Professor of Obstetrics & Gynecology and Pediatrics, Chief of the Section of Family Planning & Contraceptive Research, and Associate Dean for Diversity and Inclusion in the Biological Sciences Division, University of Chicago) disclosed the following—Medicines360: Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received. Dr. Creinin (Professor, Director of Family Planning, University of California, Davis) disclosed the following: Allergan: Consultant/Advisory Board; Bayer: Speaker/Honoraria includes speakers bureau, symposia, and expert witness; Contramed: Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received; Danco: Consultant/Advisory Board; Femasys: Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received; Medicines360: Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received; Merck & Co.: Consultant/Advisory Board, Research Grant includes principal investigator, collaborator or consultant and pending grants as well as grants already received, Speaker/Honoraria includes speakers bureau, symposia, and expert witness; Teva: Consultant/Advisory Board. The other author did not report any potential conflicts of interest.

Perceived Knowledge of Intrauterine Devices at an Urban University Student Health Center: A Cross-Sectional Study [50]

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INTRODUCTION: Intrauterine devices (IUDs) effectively prevent pregnancies. There is growing popularity of this contraception method among college students. We aimed to identify the demographics of students seeking IUDs at University of California Los Angeles (UCLA) and understand their level of perceived knowledge about the insertion process. This was a quality improvement initiative at Arthur Ashe Student Health Center at UCLA.

METHODS: An IRB exempt cross-sectional survey was conducted. The 30-item survey was pilot tested by ten women in clinic and face validated by family planning experts at UCLA. Fifty students presenting for IUD insertion took an anonymous electronic survey. Participants with contraindications to IUDs were excluded.

RESULTS: Subjects were 25 years old on average, with 73% identifying as non-Hispanic, 64% as Caucasian and 15% as Asian. Most were single (82%) and 4% were virginal. Prior birth control methods included oral contraceptive pills (60%), condoms (60%) and the ring (23%). Perceived knowledge was higher regarding IUD placement location (mean score 4/5) and benefits of placement (4.4/5) compared to the insertion process (2.9/5), after care (2.8/5) and insertion risks (3/5). Healthcare professionals were the most common information source, followed by the Internet, peers and family. Fear of side effects (33%) and fear of procedure (24%) were the leading reasons for not getting an IUD earlier.

CONCLUSION: We are developing an intervention to improve knowledge about IUDs. It includes information about the insertion process and side effect profiles. We will use our current data as

a baseline and conduct a time series study with the educational material.

Financial Disclosure: The authors did not report any potential conflicts of interest.

Infectious Risk Based on Contraceptive Method in Women With New Cancer Diagnoses: Are Indwelling Methods Riskier? [60]

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INTRODUCTION: To determine if indwelling contraceptive methods such as long-acting reversible contraceptives (LARC) contribute to increased incidence of infectious sequelae as compared to non-indwelling methods (oral contraceptives, transdermal methods) in women with new diagnosis of hematologic cancers such as leukemia and lymphoma.

METHODS: Retrospective case review of new cancer diagnoses registered to the institutional tumor registry between November 20, 2012 and May 27, 2014 were evaluated. Patients reporting breast and gynecologic malignancies were excluded. The main outcome assessment was neutropenic fever, which was considered representative of infectious sequelae. Results were stratified based on type of cancer. Chi-square test was used to evaluate statistical significance.

RESULTS: A total of 197 patients were identified. Sixty six patients were excluded for incomplete records, and 22 were gynecologic cancers. Seventy two patients reported solid cancer; 37 reported hematologic cancer. Of these women with hematologic cancers, 22 women used short-acting hormonal methods of contraception. Of these, 10/22 were noted to have treatment-related infectious complication. Twelve women were identified as using LARC; 6/22 were noted to have treatment-related infectious complication. Two patients in this group reported hysterectomy and had treatment-related infectious complication.

CONCLUSION: Critics of indwelling LARC propose that indwelling contraceptive methods may pose increased risk of infectious sequelae in patients who are undergoing leukemia and lymphoma treatment and anticipate neutropenia. Our data supports no increased risk of infectious complication in women undergoing chemotherapy for leukemia and lymphoma based on the contraceptive method used. Given these data, a provider should consider the use of LARC in this high-risk, specialized population.

Financial Disclosure: The authors did not report any potential conflicts of interest.

Variation Among State Medicaid Policies Regarding Coverage of Long Acting Reversible Contraception [70]

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INTRODUCTION: Data demonstrates the benefits of Long Acting Reversible Contraceptives (LARC) to reduce unintended pregnancy. In 2014, the Centers for Disease Control and the U.S. Office of Population Affairs issued guidelines for Quality Family Planning services that emphasized a client centered approach to help individuals make informed decisions about contraception use while providing timely access to their chosen method. We sought to understand whether current State Medicaid policies supported timely access to the most effective methods for reducing unintended pregnancy.

METHODS: The study reviewed Medicaid LARC policies for a purposive sample of states including California, New York, Texas, Illinois, Pennsylvania, Georgia, Colorado, Missouri and the District of Columbia. We completed a content analysis of policy documents and semi-structured interviews of key state Medicaid officials.

RESULTS: The results identified three key areas of policy variation: eligibility, payment mechanisms and delivery systems. State political

