P2

MENSTRUAL PATTERN CHANGES FROM LEVONORGESTREL IMPLANTS AND DEPOMEDROXYPROGESTERONE ACETATE: SYSTEMATIC REVIEW AND EVIDENCE-BASED SUMMARY MEASURES TO HELP CLINICIANS AND CLIENTS MANAGE CHOICE AND EXPECTATIONS

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Objectives: To summarize and compare information on menstrual changes in depomedroxyprogesterone acetate (DMPA) and levonorgestrel (LNG) implant users.
Methods: We systematically reviewed the published literature on these contraceptives to find research that used menstrual diaries and standard WHO definitions. We focused on amenorrhea, number of bleeding/spotting episodes, number of bleeding/spotting days, and normal patterns, as reported in four consecutive 90-day reference periods.
Results: We found 20 published papers meeting our criteria involving diaries of up to 2600 DMPA users and 2300 LNG implant users. The weighted prevalence of amenorrhea at successive 90-day periods with DMPA use was 10%, 32%, 42% and 51%; the comparable estimates for the LNG implant were 12%, 14%, 9% and 14%. With DMPA use, the number of bleeding/spotting runs decreased over time, whereas for the LNG implant, the number remained constant, averaging about one run per month. LNG implant users experienced a higher average number of bleeding/spotting days compared to DMPA users, but this average was similar to what is expected naturally. At 12 months, normal menstrual patterns were experienced by 25% of LNG implant users, compared to 8% of DMPA users.
Conclusions: Like all hormonal contraception, LNG implants produce menstrual changes; however, the changes are not as severe as with DMPA. Understanding these differences and the other method attributes will help women make an informed choice about which contraceptive to use.

P3

CONTRACEPTIVE USE AND UNPLANNED PREGNANCY AFTER BARIATRIC SURGERY: RESULTS FROM THE REPRODUCTIVE OUTCOMES AFTER BARIATRIC SURGERY SURVEY

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Objectives: To survey women of reproductive age on contraceptive practice and pregnancies after bariatric surgery to assist with the development of recommendations for post-surgical pregnancy planning and contraception.
Methods: A 22-point anonymous questionnaire approved by our institutional review board (IRB) was mailed to all women who underwent bariatric surgery between June 1997 and June 2007 at our institution. Data obtained included menstrual patterns, contraceptive use and pregnancy history.
Results: Of 1200 surveys mailed, 316 (26%) were returned. The IRB allowed only a single mailing. Mean age and time since surgery were similar for respondents and nonrespondents. Women were more likely to report regular menstrual cycles after surgery, compared to before surgery (odds ratio=2.02, 95% CI 1.30–3.13). Of 140 respondents 45 years old or younger, 126 said they did not want to get pregnant, but 45/126 (35.7%) were using no contraception. Of all women using birth control, 43.5% use sterilization, 24.2% use oral contraceptives and 7.3% use intrauterine contraception. Twenty-one women became pregnant after bariatric surgery, and 11 (52.3%) reported that the pregnancy was unplanned. Of six pregnancies that occurred within 12 months of surgery, four were unplanned.
Conclusions: Normalization of menstrual cycles is likely after bariatric surgery. Nonuse of contraception was high among women who did not wish to become pregnant, and over 50% of post-operative pregnancies were unplanned. This indicates a need for improved contraceptive counseling in this population.

P4

PHARMACIST-ADMINISTERED INJECTIONS OF DEPO-MEDROXYPROGESTERONE ACETATE FOR CONTRACEPTION: A PILOT RANDOMIZED CONTROLLED TRIAL

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Objectives: The objectives of this study were to assess the feasibility of administering subcutaneous depomedroxyprogesterone acetate (DMPA) in a pharmacy setting and assess patient satisfaction.
Methods: Fifty women at least 18 years of age presenting to a family planning clinic to initiate, continue or restart DMPA were randomized to receive two subsequent injections at a nearby pharmacy by trained pharmacists or at the clinic. Women completed two follow-up surveys to rate their satisfaction with DMPA and their clinic/pharmacy experiences.
Results: There was no significant difference between study groups in demographic characteristics or distance from their homes to the clinic or pharmacy. Among women randomized to return to the clinic, 60% received their first follow-up injection on time and 50% their second, while 44% and 36% of those randomized to the pharmacy received their first and second injections on time, respectively. This was not significantly different ($p=.44$). Most women found the pharmacy setting convenient (70%), private (100%), the providers respectful (100%) and were satisfied with DMPA and the pharmacy as a clinical site ($\geq$89%). There was no significant difference in patient satisfaction with location, convenience, privacy and respect from providers between study groups ($p>.05$). There was no significant difference in attitudes or satisfaction among women between their two follow-up injections.
Conclusion: Administration of subcutaneous DMPA by pharmacists in a pharmacy setting is feasible. Continuation rates and patient satisfaction with DMPA and the pharmacy setting were comparable to those who received DMPA in a typical family planning clinic.

P5

THE SUBDERMAL ETONOGESTREL IMPLANT IS A SAFE AND ACCEPTABLE POST-ABORTAL METHOD OF LONG-TERM CONTRACEPTION

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Objectives: To evaluate use and continuation rates of subdermal etonogestrel implants following abortion.
Methods: A retrospective chart review was performed to identify therapeutic abortion patients who chose the etonogestrel implant as their post-abortal method of contraception at a private obstetrics and gynecology clinic. Patients were thoroughly counseled at the time of service about bleeding and side-effect profiles. Patients were followed via telephone calls

and office visits over the course of 9 months in 2007–2008 to evaluate their satisfaction and continuation rates.
Results: A total of 100 women aged 14–39 years received post- or peri-abortal etonogestrel implants. During the follow-up period, there was a 98% continuation rate and 100% contraceptive efficacy.
Conclusions: This urban population at high risk for unintended pregnancy found the etonogestrel implant to be a highly effective and acceptable form of contraception. We believe the substantial rate of continuation is due to extensive pre-insertion counseling, post-insertion provider availability to address patient concerns and a high level of motivation to prevent another unintended pregnancy. Increasing access to this method provides another option for reversible but long-term fertility management and is particularly valuable for patients who are poor candidates for intrauterine devices due to concurrent infection.

P6

FOLLICULAR DEVELOPMENT DURING A 7- VS. 4-DAY HORMONE-FREE INTERVAL WITH AN ORAL CONTRACEPTIVE CONTAINING 20 MCG OF ETHINYL ESTRADIOL AND 1 MG NORETHINDRONE ACETATE

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Objectives: To evaluate differences in follicular development between a 21/7- and a 24/4-day regimen of a low-dose combined oral contraceptive (COC) formulation.
Methods: Women ages 18–45 years with a history of regular menstrual cycles were randomized to an open-label study comparing follicular development while taking 1 mg norethindrone acetate and 20 mcg ethinyl estradiol (EE) daily in either a 24/4- (n=20) or 21/7- (n=21) day regimen for three cycles. Estradiol, progesterone, FSH, LH and inhibin B were measured daily from Cycle 2, Day 21 to Cycle 3, Day 3 and on Cycle 3 Day 8. Follicular size on vaginal ultrasound was measured on Cycle 2, Days 21, 24, and 28, and Cycle 3, Days 3 and 8.
Results: Preliminary analysis showed 56% of subjects in the 21/7 group and 62% of the subjects in the 24/4 group developed a follicle between 10 and 20 mm in diameter. Follicles between 20 and 37 mm were present in 56% of the 21/7 group and 50% of the 24/4 group. Neither result was statistically significant. Hormonal assay results are pending.
Conclusions: This analysis showed no difference in follicle development among women receiving a 21/7- or 24/4-day regimen of a 20-mcg EE COC containing the same dose and type of progestin. These findings may be confounded by insufficient power of this interim analysis as well as the high incidence of large follicles. Hormonal assay results may modify these conclusions.

P7

DEPOT MEDROXYPROGESTERONE ACETATE AND SKELETAL HEALTH: A SURVEY OF FLORIDA OB/GYN PHYSICIANS

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Objectives: In November of 2004, the US Food and Drug Administration (FDA) issued a black box warning regarding skeletal health concerns with depomedroxyprogesterone acetate (DMPA) contraception. This FDA labeling change has the potential to impact how this contraceptive is used. Our goal was to assess the impact of the FDA decision on how Florida obstetrician-gynecologists prescribe injectable contraception.
Methods: A survey was conducted with questions and case scenarios regarding the use of DMPA before and after the black box warning. The survey was sent to all members of the Florida Obstetric and Gynecologic Society.
Results: Four-hundred and twenty-five surveys were mailed and 149 were returned, a 35% return rate. Forty-six percent of physicians surveyed indicated that they place a time limit on DMPA use, and 66% stated that this limit was based on the FDA black box warning. Sixty-five percent of respondents order bone mineral density (BMD) testing solely due to the use of DMPA, and 58% state that they order such testing based on the black box warning. There was a trend toward fewer DMPA injections per week after the black box warning as compared to before; however, this difference was not statistically significant.
Conclusion: Respondents are less likely to prescribe DMPA, more likely to institute a time limit on such a prescription and more likely to order BMD testing based on the black box warning. Continued education is necessary to prevent inappropriate restrictions on DMPA use, and the performance and/or prescription of inappropriate tests and medications.

P8

CONFIRMATION OF TUBAL OCCLUSION AFTER HYSTEROSCOPIC STERILIZATION: BARRIERS TO COMPLIANCE WITH FDA RECOMMENDATIONS

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Objectives: The FDA recommends hysterosalpingography (HSG) 3 months after hysteroscopic sterilization to confirm tubal occlusion, and use of alternative contraception until occlusion is documented. There are no published reports to date of patient compliance with this recommendation in a "typical-use" setting. The purpose of this study was to determine the rate of HSG follow-up at 3 months, alternative contraception use and barriers to the FDA protocol in a university-based gynecology clinic.
Methods: All patients who underwent hysteroscopic sterilization between 1/2005 and 11/2007 were contacted 4–35 months after the procedure to complete a brief phone survey of their follow-up experiences. We generated descriptive statistics of contraceptive use, HSG completion, barriers to HSG, and satisfaction with scheduling and obtaining the HSG.
Results: Thirty-two procedures were performed during this period. Nine patients were lost to phone follow-up after multiple attempts at contact. HSG was completed in 53% of total subjects. Barriers included difficulty scheduling, loss of insurance and not understanding importance of the procedure. Lack of assistance with scheduling procedure was the most important barrier cited. Eighty-eight percent of contacted subjects used alternate contraception prior to completing the HSG. Twenty-six percent of contacted subjects reported being dissatisfied with the follow-up experience.
Conclusions: In this university-based gynecology clinic, only half of all patients had HSG documentation of tubal occlusion, and some patients did not use post-sterilization contraception. A clear contraceptive plan should be confirmed prior to sterilization. Improvements in assistance with scheduling the HSG may increase satisfaction and improve follow-up.

P9

THE IMPACT OF INTRAUTERINE CONTRACEPTION ON POSTPARTUM STERILIZATION RATES AND DEMOGRAPHICS

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