

comes: 1) starting NA 0.35mg; 2) continuing NA 0.35mg; 3) achieving light bleeding or amenorrhea; and 4) reporting satisfaction with bleeding pattern. The University's Institutional Review Board exempted the study.

Results: Of 262 adolescents who initiated NA, 219 completed at least one follow-up. Providers were less likely to start NA 0.35mg for patients with BMI 25kg/m² ($p=0.044$), PB ($p=0.015$), or younger age at menarche ($p=0.019$). Providers were more likely to prescribe NA 0.35mg if patients were younger ($p=0.009$) or had estrogen contraindications such as migraines with aura ($p=0.008$) or risk of venous thromboembolism ($p=0.033$). Those with PB were 13.1% less likely to continue NA 0.35mg ($p=0.043$). Additionally, for each year older at menarche, patients were 2.6% less likely to continue NA 0.35mg ($p=0.026$). Patients with a disability were more likely to continue NA 0.35mg at three and 12 months ($p=0.031$, $p=0.044$). Overweight BMI ($p=0.01$), HMB ($p=0.03$), and younger age ($p=0.034$) were associated with lower likelihood of achieving amenorrhea on NA 0.35mg. Patients with IB had significantly more follow-up visits compared to those with weight gain or mood side effects ($p < 0.001$). Patient satisfaction with NA 0.35mg was negatively associated with IB ($p < 0.001$).

Conclusions: Providers were more likely to prescribe NA 0.35mg to younger patients, but these patients were less likely to achieve amenorrhea on this dose. Patients who were overweight or had HMB were also less likely to achieve amenorrhea with NA 0.35mg. These results reveal opportunities for improved prescribing practices to help patients achieve menstrual suppression.

4. Effective Reduction in Unindicated Cervical Cancer Screening in Adolescent Females in a Large Healthcare System

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Background: Evidence based guidelines recommend against screening for cervical cancer (Pap testing) in average risk adolescents. Despite this, many still undergo unindicated screenings with detrimental reproductive health and economic consequences. Our aim was to evaluate the efficacy of using provider notifications to reduce Pap testing in women < 21 years old in a large healthcare system.

Methods: Starting in July of 2020, a Best Practice Advisory (BPA) appeared in the electronic medical record (EMR) if providers ordered Pap testing on individuals < 21 years old. This BPA reiterated that screening was not indicated for average risk adolescents and prompted users to choose an indication for screening. A retrospective analysis was performed comparing females < 21 years old with Pap testing performed January 2019 - June 2020 (pre-intervention) to those with testing performed July 2020 - June 2021 (post-intervention). This study was approved by the IRB. Patient characteristics including age, race/ethnicity, health insurance status, and medical history were extracted from the EMR and analyzed using Fisher's exact tests, Kruskal-Wallis tests, and logistic regression.

Results: There were 140 subjects included: 106 in the pre- and 34 in the post-intervention group. There were no differences in patient characteristics between the two groups. Neither Pap nor human papillomavirus (HPV) testing results differed in the two groups, however 6.6% of cytology tests were indicated pre-intervention, compared to 20.6% post-intervention ($p=0.042$) (Table 1). The proportion of indicated HPV testing did not differ pre- and post-intervention at 65% and 45%, respectively ($p=0.295$). The overall reduction in unindicated cervical cancer screening

post-intervention was 13.9% (95% CI 4.0-23.7). This reduction in unindicated cervical cancer screening occurred in academic ($p=0.048$) rather than community settings and in tests ordered by physicians ($p < 0.01$) rather than advanced practice providers (Figure 1). The mean reduction in number of Pap tests (indicated and unindicated) performed per quarter post-intervention was 17.5% ($p < 0.01$). This reduction occurred in community ($p < 0.01$) rather than academic settings and in tests ordered by physicians ($p < 0.01$) rather than advanced practice providers. There was no association between unindicated cervical cancer screening and age, race/ethnicity, insurance status, or medical history.

Conclusions: Unindicated cervical cancer screening impacts future reproductive and mental health and can lead to higher healthcare spending. We demonstrated that the incorporation of a BPA to the EMR is a successful approach to reduce unindicated cervical cancer screening, particularly in academic settings.

Supporting Figures or Tables

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5. Treatment of Adolescent Endometriosis after Gonadotropin-Releasing Hormone Agonist Use

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Background: Leuprolide acetate is a gonadotropin-releasing hormone agonist (GnRHa) and a treatment option for endometriosis, but it is not approved for use beyond 12 months due to the potential long-term side effects on bone density. Small cohort studies in adults have demonstrated "off label" use beyond this timeframe, and it is unknown if GnRHa is continued for long-term use in adolescents. Additionally, alternative treatment options following GnRHa discontinuation are poorly understood. This study aimed to describe the long-term use of leuprolide acetate in adolescents with endometriosis and to explore the treatment course after its discontinuation.

Methods: We identified 51 subjects with laparoscopically-confirmed endometriosis who had participated in a year-long randomized clinical trial of GnRHa plus add-back as adolescents between 2008-2012. Electronic medical records were reviewed to obtain demographic data, clinical characteristics, and treatment outcomes following trial completion. The study was deemed IRB exempt.

Results: The average age of participants during trial enrollment was 17.9 ± 1.7 y. Thirty-three participants had stage I endometriosis (65%), whereas $n=18$ had stage II endometriosis (35%). The most common treatments trialed before GnRHa were combined oral contraceptive pills ($n=47$, 92%) and progestin-only pills ($n=23$, 45%). The average duration of GnRHa use during the trial was 9.5 ± 3.5 months; 34 subjects (67%) completed the one-year trial. After completion of the one-year trial, 23 subjects (45%) continued to use GnRHa with add back therapy. Mean duration of GnRHa use after trial completion was an additional 31.7 ± 28.6 months, and the longest identified duration an additional 96 months. Twenty-four subjects switched to other hormonal treatments after trial participation, most commonly oral progestins ($n=15$) or combined oral contraceptives ($n=6$). Thirteen participants (25%) returned to a therapy that had been trialed before GnRHa.

Conclusions: Almost half the participants continued to utilize GnRHa with steroid add-back beyond the 12-month recommended duration. As there are no data supporting one treatment over another, the treatment choice utilized by each subject varied widely after discontinuation of GnRHa, with many returning to previously trialed medical therapies.