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Improvement of pregnancy counselling and contraception counselling and documentation in a single rheumatology academic practice: a quality improvement project

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ABSTRACT

The purpose of this quality improvement project was to improve the rate of pregnancy counselling and documentation regarding the risk of being on teratogenic medications, including leflunomide, mycophenolate, methotrexate or cyclophosphamide in women of childbearing age (17–50 years). Our goal was to increase documentation rates by 25% in 6 months. We first performed an EMR chart review of 103 women who were seen in the 6 months prior to intervention by faculty at a single rheumatology academic centre. We then determined how many of those women had documented contraception or pregnancy counselling, which included written documentation anywhere in the note or ICD codes which were specific to pregnancy counselling or contraception counselling. Interventions were then implemented. The percentage of women who had documented pregnancy counselling did not change preintervention and postintervention; preintervention 37% of women received documented pregnancy counselling and postintervention 35% of women received documented pregnancy counselling. The percentage of women who had documented contraception counselling did however change preintervention and postintervention; preintervention 37% of women received documented contraception counselling and postintervention 51% of women received documented contraception counselling, which is a 14% improvement.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Literature reviews and surveys conducted of rheumatologists show that only about 50% screen for contraception counselling and family planning needs in their patients. Unplanned pregnancy is an independent predictor of fetal loss in our patients with rheumatic diseases.

WHAT THIS STUDY ADDS

⇒ We gave a handout to all of the providers which is made available by the Healthy Outcomes in Pregnancy with Systemic Lupus Erythematosus programme to aid the rheumatologists in our institution in following the American College of Rheumatology's Reproductive guidelines to guide contraception use and pregnancy counselling more effectively.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This quality improvement project of a single-centre rheumatology clinic showed that very few discussions about pregnancy counselling and contraception are occurring during these visits. Following evaluation, we intervened in three ways in increasing provider documentation and use of billing codes for family planning and contraception use counselling by in 6 months in females of reproductive age on leflunomide, mycophenolate, methotrexate or cyclophosphamide. This measurement could be used to increase the rate of counselling during provider encounters. Providers should become comfortable with asking women about their plans for pregnancy and be aware of potentially teratogenic medications, which are risk factors for poor outcomes in pregnancies.

INTRODUCTION

Pregnancy is an expected life event and regardless of medical history, women deserve thoughtful and individualised pregnancy planning conversations. Literature reviews and practitioner surveys have revealed that while 75% of reproductive-age women interact with a health provider yearly, 'less than half receive contraceptive or other family planning services'.[1] Rheumatic diseases (RMDs) often affect women during their childbearing years.[2] Systemic lupus erythematosus has an incidence of 1 in 500 during their childbearing years.[3] Incidence of rheumatoid arthritis is also highest during childbearing years, 8.7 per 100 000 in women 18–34 and 36.2 between ages of 35 and 44.[3] While treatments are available, many are fetotoxic and discussing side effects of these medications on fetal development is standard of care.[2] The American College of Rheumatology (ACR) guidelines state 'women should receive risk counselling from their physician if

contemplating pregnancy, RMD should be controlled for at least 3–6 months before conception, and any medication changes should be discussed in advance with a rheumatologist'.[4] Similarly, the ACR has openly stated surveys conducted of rheumatologists show that only about 50% screen for contraception counselling and family planning needs in their patients.[5] US survey of female patients with an RMD of childbearing age feel they have inadequate information to make a well-informed decision regarding contraception and family planning.[4] Without direct observation of provider visits, which would cost both financial and staffing resources, measuring the frequency of these conversations is challenging. Reviewing provider documentation and billing codes is one way, which researchers have estimated pregnancy counselling and contraception counselling.[5] Thiel de Bocanegra *et al* performed a review of 1054 Medicaid managed care visits of women aged 13–49, which demonstrated a presence of only '12% of charts had documentation of pregnancy intention and 59% documented contraceptive use or billing codes'.[5] This would suggest that very few discussions about pregnancy counselling and contraception are occurring during these visits. In this quality improvement project of a single-centre rheumatology clinic, we elected to evaluate similarly using documentation and billing codes for pregnancy counselling and contraception counselling occurrence in females of reproductive age on leflunomide, mycophenolate, methotrexate or cyclophosphamide. Following evaluation, we intervened in three ways in hopes of increasing provider documentation and use of billing codes for family planning and contraception use counselling by 25% in 6 months. We believe that this measurement could be used to closely increase the rate of counselling during provider encounters.

METHODS

The project satisfied all organisational requirements. The project setting was in a single rheumatology academic centre in Massachusetts. The project took place between May 2020 and February 2022. The project team included a rheumatology physician, an internal medicine resident and a fourth-year medical student. To determine the effectiveness of the practice change, we assessed the documentation of pregnancy counselling in the electronic medical record (EMR)—before and after the implementation of the practice change. We defined 'pregnancy counselling' as any documentation about the desire to become or not become pregnant in the next year. We defined 'contraception counselling' as any documentation of contraception used or not used. Prior to intervention, we performed an EMR chart review of 103 women who were seen in the 6 months prior to intervention by faculty in the rheumatology department. Patients were included in the review who were between the ages of 17 and 50 and taking leflunomide, mycophenolate, methotrexate or cyclophosphamide. We then determined how many of those women had documented contraception or pregnancy counselling, which included written documentation anywhere in the note or International Classification of Diseases (ICD) codes which were specific to family planning or contraception counselling. Interventions were then implemented. First, a department wide presentation was given to faculty and staff in the rheumatology department, which included the preintervention chart review findings, an informational teaching session on the topic of family planning counselling in RMD, and an introduction to our QI project and planned interventions. A survey was then administered to providers inquiring about perceived obstacles in discussing family planning with patients. Additional interventions were as follows: (1) We gave a handout to all of the providers to encourage physician–patient discussion. These are made available by the Healthy Outcomes in Pregnancy with Systemic Lupus Erythematosus programme. These were placed both at the checkout desk and in exam rooms (see online supplemental material).[6] (2) Signs were placed in examination rooms to encourage the use of the ICD10 codes Z31.61. We built our pregnancy counselling under the following billing code: Counselling about family planning, Z30.09 General counselling and advice on contraception. (3) Medical assistants screened patients during their check in process which included taking vitals and reviewing their medications. One Key Question (www.powertodecide.org) has been suggested in the literature as a simple way of addressing the issue of family planning with patients: 'Would you like to become pregnant in the next year?'.[4] The patient was asked if they were considering becoming pregnant within the next 12 months. The answer was documented in the electronic clinical works medical record in the vitals section for the providers to see. Weekly reminder emails about the project were sent to every provider and medical assistant. The above interventions were implemented for 6 months, at which time another chart review of patients meeting the prior criteria (n=93) was completed and compared with preintervention data. Documentation rates were then compared before and after the intervention.

RESULTS

Our data review looked at both documented pregnancy counselling and contraception counselling preintervention and postintervention. If counselling was documented, it was noted where this documentation was located within the chart—the note, one of the recommended ICD codes, or both the note and ICD code. The percentage of women who had documented pregnancy counselling did not change preintervention and postintervention; preintervention 37% of women received documented pregnancy counselling and postintervention 35% of women received documented pregnancy counselling (figure 1). Among those who did receive documented pregnancy counselling, preintervention the majority were documented in the note (25%), and postintervention the majority were documented in both the note and

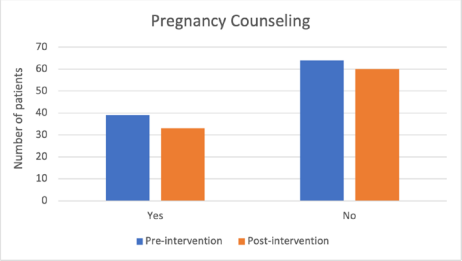

Figure 1 Number of patients who received documented pregnancy counselling, before and after intervention.

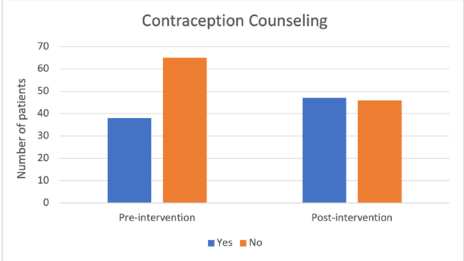

Figure 3 Number of women who received documented contraception counselling, before and after intervention.

with an ICD code (21%) (figure 2). The percentage of women who had documented contraception counselling did however change preintervention and postintervention; preintervention 37% of women received documented contraception counselling and postintervention 51% of women received documented contraception counselling, which is a 14% improvement (figure 3). Among those who did receive documented contraception counselling, preintervention the majority were documented in the note (19%), and postintervention the majority were documented in both the note and with an ICD code (30%) (figure 4). A survey was conducted to rheumatology providers regarding barriers to discussing family planning and contraception with patients. The three most selected barriers were identified as (1) time limitations, (2) clinic flow and (3) knowledge of family planning and contraceptives.

LIMITATIONS AND FUTURE DIRECTIONS

We recognise that our study has limitations, which warrant discussion. First, our population was from a single academic centre and was small in size, thus, we would need to expand this for more generalisable results in the future. Our intervention was looking exclusively at rates of documentation, not patient outcomes. While our project does not yet have direct clinical correlations, this would be a goal for future Plan-Do-Study-Act (PDSA) cycles and analysis. Finally, we are ethically inferring that provider documentation equates to a conversation; however, we cannot exactly assess the depth and individualisation of these conversations to each patient. We are hopeful that stimulating awareness of documentation of this topic will enhance both patient and provider curiosity for future appointments and conversations can naturally grow and develop over time. We foresee some interventions as quite sustainable and able to endure ebb and flow of providers in the clinic. The educational presentation has now been created, and while may require updated guideline information, could be used annually when new practitioners or fellows join the clinic. The reminders about the ICD codes would remain on computers around the office and would require minimal effort to maintain. In the future, prior to and after our educational intervention, we would implement a survey to assess provider knowledge of contraception counselling and family planning to better identify improvements we could offer and enhance education.

DISCUSSION

Rheumatologists are faced with several barriers in providing adequate contraception and family planning counselling: an essential component of reproductive health. Small quality improvement projects to study ways to improve counselling rates are being implemented worldwide.[1 3 5] Studies are finding recurring barriers to pregnancy counselling conversations in rheumatology, including time limitations, lack of knowledge and resources of practitioners, and comfort with the topic.[5] These conversations are of higher priority in women with RMD as there is increased adverse outcomes are appreciated in pregnant women with RMD versus non-RMD pregnant women, likely related to uncontrolled disease state at time of conception and teratogenic medications.[1] Comparable rates of unintended pregnancy have been demonstrated in those with and without RMD, even further raising the priority of these discussions and education of patients as a part of regular rheumatology office visits.[7] This was recognised in the recent release of the ACR 202

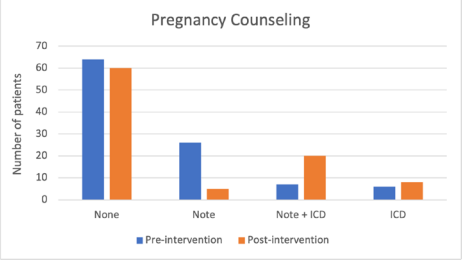

Figure 2 Location in medical record where pregnancy counselling was document, before and after intervention.

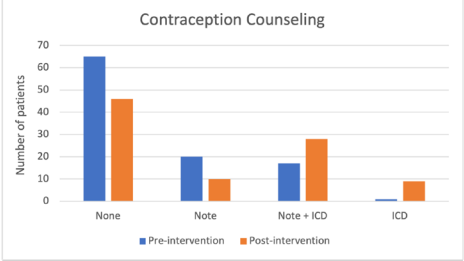

Figure 4 Location in medical record where contraception counselling was documented, before and after intervention.

Reproductive Health Guidelines. In the making of these guidelines, the ACR admits 'the strength of evidence on reproductive health topics in patients with RMD is moderate at best, and usually low, very low or nonexistent for many topics of interest'.[8] They additionally state that ensuring an open dialogue of contraception, medication and disease management planning, and pregnancy risks will be the most important steps in ensuring safe practices for mother and fetus. Providing practitioners with reminders and resources for contraception counselling, our hope was to stimulate this conversation in our clinic. We chose to specifically chart review both the topics of contraception and pregnancy counselling because they are uniquely different and are questions that should both be included as part of our daily practice. The topic of contraception was aimed to address if the patient was using contraception and what type. The topic of pregnancy counselling was aimed to address pregnancy, medication management for anticipated pregnancy and breast feeding. Given that our results showed an increase in documented contraception counselling, we feel that our interventions were most successful in generating discussion around the use of contraception in this population. Preintervention, most of the contraception counselling was found documented in the note, while postintervention it was most often both documented in the note and ICD code, thus suggesting that potentially interventions aimed at reminding providers to use a contraception counselling ICD code made an impact on the frequency of these discussions. This project suggests that integration of this important topic into the EMR, as well as provider education and materials such informational handouts, may also aid in increasing the frequency and documentation of these conversations between rheumatologists and their patients. Putting the handouts in a place the providers are able to access and see at every visit is key to help start discussions about these important topics. Counselling is important to do in all women of reproductive age, and often rheumatologists are managing RMDs during childbearing years.

CONCLUSION

Providers should become comfortable with asking women about their plans for pregnancy and be aware of potentially teratogenic medications. We created a handout to aid the rheumatologists in our institution in following the ACR's Reproductive guidelines to guide contraception use and pregnancy counselling more effectively.[5] This quality improvement project contributes to the growing body of evidence describing the importance of documentation of pregnancy counselling.

Contributors All authors were involved in drafting the article or revising it critically for important intellectual content, and all authors approved the final version to be published. Dr. Senada Arabelovic is the guarantor and accepts full responsibility for the work and or the conduct of the study, had access to the data, and controlled the decision to publish.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval This project was reviewed by the Institutional Review Board (IRB) at the academic medical centre. As a quality improvement project (QI), it met criteria for exemption from the IRB review process. The proposed project was submitted to the appropriate hospital personnel who determined that the project met organisational designation as a QI project. According to hospital policy, The QI project did not meet the definition of human subject's research and therefore received an exemption from the institutional review board approval.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as online supplemental information.

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