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## Patient Education on the Association of Hormonal Contraception with Depression

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# PATIENT EDUCATION ON THE ASSOCIATION OF HORMONAL CONTRACEPTION WITH DEPRESSION

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COLCHESTER FAMILY PRACTICE

ROTATION 6 11/18-1/19

ANYA KOUTRAS

## 2 PROBLEM IDENTIFICATION

- Hormonal contraceptive agents are widely used by women during their reproductive years.
- In recent years, research has been released linking hormonal contraception with the initiation of antidepressant medication and a first diagnosis of depression.<sup>1</sup> It has also been shown that this association is larger in adolescents and younger women.<sup>1,2</sup>

### Description of need:

- More research is still warranted in order to further elucidate the relationship between hormonal contraception and depression, but current evidence prompts the necessity for shared decision making between clinicians and women considering treatment with hormonal contraceptive agents.

### 3 PUBLIC HEALTH COSTS

- An estimated 16.2 million adults in the United States had at least one major depressive episode. This number represented 6.7% of all U.S. adults. The prevalence of major depressive episode was higher among adult females (8.5%) compared to males (4.8%).<sup>3</sup>
- Depression ranks among the most costly health conditions in the United States. In a analysis done of health data from 2013, \$71 billion was spent treating depressive disorders. It was the sixth most costly health condition overall.<sup>4</sup>
- Sixty-two percent of women of reproductive age are currently using contraception. Of women using a contraceptive method the most common methods used are the pill (28%, or 10.6 million women) and female sterilization (27%, or 10.2 million women).<sup>5</sup> According to the CDC's data from 2011-2015 15.9% of women aged 15-44 are currently using the oral contraceptive pills.<sup>6</sup>
- Cost of office visits for contraception management total \$100 million in medical costs<sup>7</sup>

## 4 COMMUNITY PERSPECTIVE

According to one provider at Colchester Family Practice, they feel as if anecdotally they have encountered this issue within their patient population and there is definitely room for improvement in patient education about this topic and birth control as a whole. They advised that potential side effects be introduced with caution to patients, as not to create fear. They also indicated that having more complete information to give patients about oral contraceptive side effects would be very useful. As would having more information to give about long active reversible contraception, which is the type of contraception they try and promote most frequently to patients due to their ease and effectiveness.

A child and adolescent psychiatrist from University of Vermont Medical Center indicated that the best thing to do surrounding this topic is communicate with patients about all the options and encourage an open dialogue about side effects. As there is not enough evidence to create true guidelines provider education and patient communication is imperative.

## 5 INTERVENTION AND METHODOLOGY A

- A literature review was conducted and indicated a need for shared decision making about hormonal contraceptive use and depression. Based on literature review and community perspective it appeared that the greatest need for intervention centered around combined oral contraceptive agents (COC) and alternative contraceptive options.
- The goal of this intervention is to give providers easily accessible patient educational materials in the form of epic smart phrases on:
  - the benefits, risks, and potential side effects of COCs that includes information about the association of depression
  - long acting reversible contraceptive options
- Using retrospective data mining techniques within epic medical record software the number of female patients with PCPs at Colchester Family Practice (CFP) who have comorbid diagnosis of depression and the prescription of hormonal contraception were compared to the total number of female patients with a diagnosis of depression and total number of female patients who are prescribed hormonal contraceptive agents.
- At the monthly provider meeting at CFP the relevant review of literature findings, data, and smart phrases were presented to the primary care providers present.

## 5 INTERVENTION AND METHODOLOGY B

EPIC SMARTPHRASES CAN BE FOUND AT THE FOLLOWING LINKS:

[.OCPINFO](#)

[.LARCINFO](#)

## 6 RESULTS

### Data Acquired from Epic Medical Records at CFP

- N=375 women, between ages 14-55 met grouper\* qualification for depression, were listed as actively on one method of hormonal BC, and have a PCP at CFP
- N=1971 women ages 14-55 that met a “grouper” qualification for depression with CFP PCP
- N=1896 women ages 14-55 that met were listed as actively on one method of hormonal BC
  - **19.8%** of these women met the first qualification

\*category that compiles all available ICD codes for depression

## 7 EFFECTIVENESS AND LIMITATIONS

- The most effective part of this project was creating awareness about this topic to the providers at CFP so that they could more effectively counsel patients.
- An easily accessible patient education tool was also created to help put the knowledge acquired into practice.
- Providers were excited about the LARC information and its potential utility in the practice. Even though it does not specifically pertain to the correlation of depression and hormonal contraception a need was identified and met, and gives providers an alternative option if they feel that they need to counsel away from OCPs.
- The data examined in this project is taken from one local practice, and while interesting to provide perspective for the providers in that office, can not in any way be generalized or used alone to make clinical decisions.
- There is still a great deal of ambiguity about the research in this topic that prevents the formation of clear succinct guidelines and so this precluded the formation of more targeted and data driven educational materials.

## 8 RECOMMENDATIONS FOR FUTURE INTERVENTIONS

- More studies are indicated with to further define the relationships between mood, depression, hormonal fluctuations, and contraception in order to allow physicians and patients to make more informed decisions.
- A proposed future research plan is to focus on women's PHQ-9 and GAD-7 (two validated scoring systems to quantify symptoms of depression and anxiety, respectively) before starting OCPs and at 3- month, 6-month, and 1- month follow up appointments (pending IRB approval).

## 9 REFERENCES

1. Skovlund, C.W., Mørch, L. S., & Lidegaard, Ø. (2017). Hormonal Contraception and Its Association With Depression. *JAMA psychiatry*, 74(3), 302-303.
2. Gregory, S. T., Hall, K., Quast, T., Gatto, A., Bleck, J., Storch, E.A., & DeBate, R. (2018). Hormonal Contraception, depression, and Academic Performance among females attending college in the United States. *Psychiatry research*, 270, 111-116.
3. National Institute of Mental Health. (2017, November). Mental Health Information: Statistics: Major Depression. Retrieved January 14, 2019, from <https://www.nimh.nih.gov/health/statistics/major-depression.shtml>
4. Dieleman, J. L., Baral, R., Birger, M., Bui, A. L., Bulchis, A., Chapin, A., ... & Lavado, R. (2016). US spending on personal health care and public health, 1996-2013. *Jama*, 316(24), 2627-2646.
5. Daniels, K., Daugherty, J. D., & Jones, J. (2014). Current contraceptive status among women aged 15-44: United States, 2011-2013.
6. Centers for Disease Control and Prevention. (2016, July 15). National Center for Health Statistics: FastStats: Contraceptive Use. Retrieved January 14, 2019, from <https://www.cdc.gov/nchs/fastats/contraceptive.htm>
7. & Trussell J, Lalla AM, Doan QV, Reyes E, Pinto L, Gricar J. Cost effectiveness of contraceptives in the United States. *Contraception*. 2009;79(1):5–14.