Bipolar Disorder
Level 1 Case Conference
Trainee Guide

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Pre-Assessment Learning

- Khan, S. J., Fersh, M. E., Ernst, C., Klipstein, K., Albertini, E. S., & Lusskin, S. I. (2016). Bipolar disorder in pregnancy and postpartum: principles of management. Current psychiatry reports, 18(2), 13.
- Mother To Baby Fact Sheet: Critical Periods of Fetal Development: https://mothertobaby.org/fact-sheets/critical-periods-development/

Optional Supplemental Reading

- Anderson, Eric L., and Irving M. Reti. "ECT in pregnancy: a review of the literature from 1941 to 2007." Psychosomatic medicine 71.2 (2009): 235-242.
- Deligiannidis, K. M., Byatt, N., & Freeman, M. P. (2014). Pharmacotherapy for mood disorders in pregnancy: a review of pharmacokinetic changes and clinical recommendations for therapeutic drug monitoring. Journal of clinical psychopharmacology, 34(2), 244.
- Fornaro, Michele, et al. Lithium exposure during pregnancy and the postpartum period: a systematic review and meta-analysis of safety and efficacy outcomes. *American Journal of Psychiatry* 177.1 (2020): 76-92.

Overview
The goal of this module is to utilize a clinical case presentation to broaden learners' knowledge of the management of bipolar disorder in the perinatal period. This session is designed to last 60 minutes but can be modified for a longer or shorter session. The session is best utilized for psychiatry residents who have some clinical experience with the management of bipolar disorder. Prior to the session, residents should read the articles included in the pre-reading section of this module.

Session

- **Clinical Vignette Part 1: read aloud (3 min)**
- **Residents divide into working groups and discuss questions 1-4 (10 min)**
- **Choose one group per question to guide a brief discussion (15 min)**
- **Clinical Vignette Part 2: read aloud (2 min)**
- **Residents return to working groups and discuss questions 5-13 (10 min)**
- **Choose one group per question to guide a brief discussion (15 min)**
- **Wrap up (5 minutes)**

Learning Objectives

1. Describe the relative magnitude of relapse risk for individuals with bipolar disorder during pregnancy and the postpartum period.
2. Understand factors that influence the risk-risk discussion of pharmacologic treatment of perinatal individuals with bipolar disorder.
3. Consider pharmacodynamic and pharmacokinetic changes of pregnancy and their application to lithium monitoring in the perinatal period.
4. Describe the current data informing the reproductive safety of second-generation antipsychotics during the perinatal period.
5. Review non-pharmacologic treatments of bipolar disorder and their application to the perinatal period.

Clinical Vignette Part 1

Ms. H is a 27-year-old G1 female at 31 weeks gestation with a h/o bipolar disorder I who was referred to psychiatric care upon discharge from inpatient psychiatric treatment.

Ms. H describes a history of mood lability starting in adolescence and was formally diagnosed with bipolar disorder at age 21. After a series of 1–2-day periods where she would be "full of energy" despite sleeping only 1-2 hours at a time, she had a more prolonged episode where she was "like the energizer bunny, didn't sleep for days" and reports being loud, boisterous, and hypersexual. "It's like I was on drugs, only I wasn't." During that time, she reports feeling like she was receiving messages from people around her during everyday encounters (i.e., when the coffee barista gave her a red cup, she felt like she was receiving a message that she was in danger). She was hospitalized and started on lithium and quetiapine with good effect. Since then, she has remained on a maintenance regimen of lithium 900mg and quetiapine XR 400mg at bedtime. At age 25 she attempted a lithium taper; however, this was aborted when she was hospitalized with depression and suicidal ideation. During a subsequent hospitalization last year for depression, she was also started on ECT (3x week for several weeks, then weekly for "a long time," then monthly thereafter), which has been very effective.

Ms. H self-tapered her medications and stopped seeing her long-time psychiatrist upon learning she was pregnant. At that time, she was estimated to be approximately 12 weeks gestation and desired a "natural pregnancy." While her ECT provider did tell her that ECT is "safe" in pregnancy, he felt unable to continue treatments due to not having access to on-site obstetrics support. Ms. H reports that shortly after discontinuing her medication and ECT treatments she noticed she felt more down, was frequently tearful and more easily overwhelmed. After talking with her fiancé, she attributed these feelings to "expected ups and downs," however as the weeks passed her symptoms worsened. She began ruminating about death, started smoking cigarettes after years without use, and was frequently calling off work due to not feeling like she could "face the day." Ms. H reports that the withdrawal and irritability she exhibited took a toll on her relationship and her partner moved in with his parents temporarily. At her 28-week obstetric visit she admitted to her obstetrician that she was having transient periods where she had a belief that her fetus was "not real." Her obstetrician referred her for an emergency psychiatric evaluation. She required PRN medications in the emergency room for agitation, and from there she was hospitalized for stabilization.

Ms. H has been in a relationship with her current partner for about 18 months. Her mother, whose own mother had bipolar disorder, lives nearby and checks on Ms. H frequently. Ms. H is currently working part time as a nanny but also receives financial support via social security disability for her mental illness.

Discussion Questions

1. Consider the role of her previous outpatient psychiatrist. Prior to pregnancy, what risk factors and protective factors might have informed her risk of relapse during pregnancy? Given that Ms. H disengaged from treatment upon becoming pregnant, what opportunities (if any) did the psychiatrist have to address her perinatal mental health needs?

Regarding Ms. H's previous outpatient care, optimal psychiatric care of reproductive-aged women necessarily includes proactive and collaborative discussion of the patient's family planning goals, contraceptive needs, and preconception planning. When prescribing medication treatment, potential teratogenic effects should be discussed. In the event where a patient is either trying to conceive or not using reliable contraception, a full and personalized preconception planning discussion should include potential risks of the patient's underlying illness, risks of the patient's prescribed medications, and a plan for how to best minimize these risks. Of note, a woman's risk for relapse is increased if she does not continue maintenance medication. One prospective study found that among women with BD who were euthymic at birth, those who discontinued their mood stabilizer had twice the risk of relapse than those who remain on medication. Rapid discontinuation (tapering off within 2 weeks) was associated with greater risk of relapse than those who tapered more gradually.[1] While some early studies have suggested an association between first trimester lithium use and cardiac abnormalities, more recent data shows lower magnitude of risk than originally reported. Lithium is also highly effective in preventing relapse at throughout the peripartum period. Finally relapse during the peripartum is not only precipitated by hormonal fluctuations but also psychological and social changes. It is thus important to discuss non-pharmacological strategies for maintaining wellness. Such considerations could include modifying or reducing work hours, postponing non-essential projects or bolstering emotional and physical support from one's community. Among the most important modifiable risk factors is protection of sleep. Sleep physiology is altered during the peripartum. Nighttime feedings during the postpartum period further contribute to poor sleep quality. Sleep disruption is a commonly reported precursor to a mood episode thus a discussion about breastfeeding plans should be discussed. Formula feeding should be considered and planning for additional help with nighttime feedings is critical to ensure a peripartum mother is getting as much continuous sleep as possible.

[1]Viguera AC, Whitfield T, Baldessarini RJ, et al: Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation. Am J Psychiatry 164(12):1817-1824, 2007

Given the fact that Ms. H was engaged in outpatient care prior to pregnancy, her treating psychiatrist had an opportunity to provide Ms. H with pertinent information and collaborate with her on a treatment plan *prior to* her pregnancy. Once Ms. H did not return to care, best practice would also include appropriate outreach attempts to gauge her safety and explore barriers to treatment.

2. Ms. H self-tapered her medications upon learning she was pregnant at approximately 12 weeks gestation. What teratogenic concerns regarding lithium or quetiapine might have been discussed at that time?

May be helpful to review the fact sheet on "critical periods of development" freely available on the website of the organization Mother To Baby: https://mothertobaby.org/fact-sheets/critical-periods-development/

3. Consider the treatment Ms. H received in the emergency department. If you were caring for Ms. H in the ED, how might you approach agitation management in the setting of pregnancy?

4. Describe potential negative consequences for Ms. H due to illness recurrence during pregnancy.

Clinical Vignette Part 2: post-hospitalization outpatient appointment

During her 2 weeks inpatient stay, she was restarted on her pre-pregnancy doses of lithium (900mg at bedtime) and quetiapine XR (400mg at bedtime) as well as several doses of lorazepam for acute anxiety in the first few days of treatment.

Li level measured in interim between hospital discharge and this appointment was 0.65. Historically, her Li level on maintenance treatment has ranged between 0.8 and 1.0.

On today's appointment, Ms. H reports she is "a little better." Her delusional beliefs have remitted, and she is no longer ruminating about death. However, she continues to feel depressed and anxious. She states she has been unable to return to work after the hospitalization as she "just can't bear to deal with it all." She hasn't reached out to her fiancé or other supports as she just can't get motivated to do so. She often feels hopeless and has guilty ruminations about not being able to "tough it out" without medication. She worries that she will be a terrible mother.

Discussion Questions

5. Consider why Ms. H's Li level is below her typical range on her maintenance dose. What are some potential contributors? How might these contributors affect your decision-making around Li management?

6. How might you counsel Ms. H about the reproductive safety of lithium when used in the 3rd trimester of pregnancy?

7. What are some relative contraindications for use of lithium during pregnancy?

8. Ms. H asks you if it is safe to continue quetiapine going forward in her pregnancy. How might you describe the risks and benefits of this treatment?

Learners should be aware of the National Pregnancy Registry for Atypical Antipsychotics (https://womensmentalhealth.org/clinical-and-research-programs/pregnancyregistry). Patients or clinicians can call or email the registry to enroll patients in this large registry study.

9. Is ECT a possibility for Ms. H? How might you counsel her about ECT?

10. What non-pharmacologic measures would you discuss with Ms. H?

11. How might you counsel Ms. H about her risk of symptom recurrence in the postpartum period and potential preventative strategies?

12. Ms. H expresses a strong desire to breastfeed and asks you if it will be safe for her and her baby. What advice might you offer?

13. After discussing a treatment plan, Ms. H calls to let you know that at her f/u Obstetric visit, her OB provider voiced concerns about her medication regimen. She is now second-guessing her choices and would like to discuss this with you. How might this be approached?