



University of Idaho
WWAMI Medical Education



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ECHO IDAHO: BEHAVIORAL HEALTH IN PRIMARY CARE

**Non-psychiatric medication prescribing:
implications for mental health and
psychiatric care**

Aug. 19, 2020

The speakers have no relevant financial relationships

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LEARNING OBJECTIVES

- Review non-psychiatric medications that have implications for mental health and psychiatric care
- Review causes of confusion and psychotic symptoms in the setting of non-psychiatric medications and medical illness



CASE 1: LW 27 YO F BIPOLAR PATIENT

YOU HAVE FOLLOWED LW FOR 2 MONTHS ON THE FOLLOWING MEDICATIONS:

- Medication Allergies: Duloxetine (tremor), Fluoxetine (tremor, increased depression), Paroxetine (tremor)
- Levothyroxine 50mcg Q0630
- Oxcarbazepine ER 300mg BID
- Citalopram 10mg Daily
- Trazodone 100mg HS
- Quetiapine 400mg HS

- LW wants to start birth control. What should you suggest?
 - No adjustment to medication, just start combination ethinyl estradiol and levonorgestrel birth control (OBC)
 - Suggest she consider medroxyprogesterone IM due to convenience of only dosing every 3 months
 - Switch to lithium as oxcarbazepine is lacking evidence in treating bipolar and will not interact with OBC
 - Switch to carbamazepine as oxcarbazepine is lacking in evidence in treating bipolar
 - Switch to divalproex knowing you may have to use higher doses due to OBC decreasing plasma concentrations



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-
- Which of LW's medications should be challenged to reduce or remove?
 - What lab test should be verified to be within normal limits for LW?



KEY POINTS

BIRTH CONTROL

- Many mood stabilizers will interact with birth control
- Lithium can interact with medroxyprogesterone IM via kidney function
- Carbamazepine will decrease oral birth control effectiveness



CASE 2: EN 62 YO F ER FOLLOW UP PATIENT

EN IS FOLLOWING UP AT CLINIC FOLLOWING RECENT ER VISIT ON MEDICATIONS:

- Medication Allergies are: Haloperidol [Haldol] (itching), Fluoxetine (unknown), Omeprazole (itching)
 - Levothyroxine 112mcg Q0630 (hypothyroidism)
 - Cephalexin 500mg QID started 24hr ago in ER (UTI)
 - Atorvastatin 10mg Daily (hyperlipidemia)
 - Olanzapine 10mg HS started 24hr ago in ER (mood)
 - Olanzapine 10mg Q6H PRN mood instability
 - Gabapentin 400mg HS (restless leg syndrome)
-
- Was the best antibiotic chosen for this patient?



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- What lab test should be verified to be within normal limits for EN?
 - How does your clinic/site clarify medication allergies?



KEY POINTS

UTI TREATMENTS

- Verify antibiotics are appropriate coverage and length of treatment
- Follow up on vague allergies and this can lead to increased cost
- Verify that the patient's TSH is normal



CASE 3

- 57 yo female with a history of diabetes mellitus, presenting to psychiatric hospital with depression, self harm behavior
 - Normal neurological exam
 - Med list includes metformin
 - Depression resistant to medications while inpatient



CASE 3 CONTINUED

- Labs drawn:
 - TSH 1.37— No thyroid dysfunction
 - A1c 6.7—Diabetes well controlled
 - CBC normal—No anemia
 - B12 level 205—low normal



B12 DEFICIENCY

- Symptoms:
 - Psychiatric effects: Cognitive defects, depression, altered mental status, delusions, irritability, paranoia, mania
 - Many physical effects– neurologic, hematologic, loss of taste/smell
- Many causes
 - Metformin use (likely contributing in this case)
 - Antacid use
 - History of gastrectomy, gastric bypass, H. Pylori infection
 - Inflammatory bowel disease
 - Vegetarian/vegan diet
 - Nitrous oxide use (therapeutic or recreational)
- Should confirm low or low normal test with homocysteine and methylmalonic acid test if available
- Treatment: Oral or injectable vitamin B12



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CASE 4

- 86 yo with a history of mild cognitive impairment, hypertension, mild depression presents with acute worsening of confusion (rearranging furniture for no reason, acute worsening of short-term memory) along with increased urinary frequency and new incontinence. Brought to clinic by daughter for evaluation.



CASE 4 CONTINUED

- Exam: Pleasant, but significantly more confused than baseline. Not oriented to place or time. Requires consistent redirection of topic
- Urinalysis: + Nitrites, + leukocytes (consistent with infection)

DELIRIUM VS. DEMENTIA



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| SYMPTOM | Delirium | Dementia |
|---|-----------------|-----------------|
| Forgetfulness, memory loss, impaired judgment | X | X |
| Confusion and disorientation | X | X |
| Paranoia | X | X |
| Variable and fluctuating mental status | X | |
| Overt impairment—acute in onset | X | |
| Frequent hallucinations | X | |
| Insidious onset | | X |
| Chronic and progressive course | | X |
| Normal behavior until advanced stages | | X |



ASYMPTOMATIC BACTERIURIA

- DO NOT TREAT (in general)
- Delirium alone without ANY urinary symptoms—need to look for a different cause
 - Difficult in advanced dementia if cannot illicit symptoms
 - More common to have frequency/urgency, not pain
- Many other causes of delirium, not just UTI
 - Metabolic (hypoxia, hypothermia, hypoglycemia)
 - Infections
 - Toxins and substances (illicit or prescribed or OTC)



CASE 5

- 27 yo patient presents with new onset depression
 - Nexplanon birth control implant inserted 6 weeks prior
 - Also with some relationship stress
 - Reports depressed mood, poor sleep, poor concentration



COMMON PRESCRIPTIONS AND MOOD SYMPTOMS

- Depression/mood changes are a known side effect of hormonal contraception along with MANY other medications
- May be compounded if patient on multiple medications with depression as a side effect
 - Antacids
 - Anti-anxiety medication
 - Allergy medication
 - Montelukast—Recent black box warning for serious neuropsychiatric effects
 - Pain medications
 - Gabapentin, narcotics
 - Antidepressants
- Estimated prevalence of depression 15% for those reporting use of 3 or more medications with depression as an adverse effect vs. 4.7% for those not using such medications (*JAMA, 2018;319(22)2289-2298*)



REFERENCES

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- • Drug Facts and Comparisons[database online]. Facts & Comparisons. St. Louis, MO: Wolters Kluwer Health, Inc; March 2005. Accessed January 9, 2020
- • Clinical Pharmacology [database online]. Tampa, FL: Gold Standard, Inc.; 2006. URL: <http://cp.gsm.com>. Updated January 2020.

WHITAKER

- Qato DM, PharmD, PhD; Ozenberger K, MS; Olfson M, MD MPH. Prevalence of Prescription Medications with Depression as a Potential Adverse Effect Among Adults in the United States. *JAMA*, 2018;319(22)2289-2298)
- Lippman S MD & Perugula ML, MD. Differential Diagnoses, Delirium or Dementia. *Innovation in Clinical Neuroscience*. Volume 13, Number 9-10, September-October 2018.
- Additional resources available upon request.



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