

Strategic Use of Psychopharmacology in Primary Care: Clinical Cases

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Case # 1

- Woman in mid 30's experiencing a reoccurrence of cancer, no appetite, significantly low weight, clinically depressed.
- What are your concerns for the patient, and how does that influence your choice of an antidepressant?

Case#1-Clinical Strategy

Sometimes you can use medication side effects to treat your patients.

Case 2

- 5 year old child with hx of atypical responses to a variety of medications, including sedative Atarax at most recent dentist visit.
- Was behaviorally, emotionally, physiologically agitated for several days following exposure to Atarax. Was also allergic to Bendryl, Aspirin, and a number of other medications.

Consulting with Primary Care Physician

- I left a message the PCP's nurse, requesting a study of the child's CYP-450 enzymes in order to determine whether his CYP profile was contributing to the atypical responses to the medications.
- Later that week the PCP called me to inquire about my rationale for the CYP-450 enzyme, which enzymes I wanted reviewed, and the clinical textbook(s) I was using for my rationale.
- This was not our typical discussion.

Clinical Consulting Game Show: “The answer might be C”

- Following our discussion, the pediatrician informed me which of the following? :
 - A. He was not going to take the advice of a behavioral health expert on matters pertaining to which physical labs to order.
 - B. He thought the parents were over-reacting to the child's responses to the medications.
 - C. In 28 years of practice he had never ordered a CYP-450 study.
 - D. C, and he wasn't going to start now.

Consulting with Primary Care Physician

- The labwork was ordered, and upon receipt of the labs I learned the child possessed 2 atypical CYP450 enzymes.

Enzyme 2D6

- Phenotype interpretation of ultra rapid metabolizer, difficult to attain therapeutic efficacy with normal doses.
- 37 pharmacological agents that decrease CYP 2D6 activity were identified in the report, while 57 different agents undergo metabolism by CYP-2D6

Enzyme 2C9

- Phenotype interpretation of intermediate metabolizer, a genotype associated with reduced enzyme activity.
- 22 medications undergo metabolism by 2c9 while 3 agents increase 2c9 activity.
- 15 medications decrease 2c9 activity.

Dentist

- Did not know what CYP₄₅₀ enzymes were, and would not see the child until I had provided a suggestion of what agent to use, actually cancelled the child's appointment until he had heard from me.
- I consulted with the PCP, defined appropriate agent, dentist then refused to use this agent on the child, even though the agent was FDA approved for sedation in children.

Clinical Stratgey

- Medication side effects are not simply an issue of the individual being given a bad medication. Side effects are always an issue of what is the body doing to the medication, and what is the medication, in turn, doing to the body?

Case #3

- The neuropsychological evaluation that didn't happen
 - Women in mid 20's presenting for a neuropsychological evaluation relative to a history of seizures.
 - Accompanied by spouse, who provided me with a list of medications which included Amitriptyline, Ativan, Phenygran, Zanaflex.

5 Medication Contraindications Were Identified

- The concurrent use of Amitriptyline and Ativan caution is biased because the combination may increase the risk CNS depression and psychomotor impairment relative to additive effects.

Medication Contraindications

- Amitriptyline and Phenytoin is cautioned, especially with high environmental temperature as the combination may increase the risk of CNS depression, psychomotor impairment, Hyperpyrexia, anticholinergic effects, QT prolongation than other cardiovascular adverse effects.

Medication Contraindications

Use of Amitriptyline and Zanaflex has a cautionary advisement relative to the combination may increase the risk of CNS depression due to additive effects.

Medication Contraindications

- Phenytoin and Ativan caution is advised because the combination the increased risk CNS depression and psychomotor impairment relative to additive effects.

Medication Contraindications

- Ativan and Zanaflex caution is advised is the combination increased risk CNS depression and psychomotor impairment relative to additive effects.

Clinical Decision Making

- Cancelled the appointment due to confounding effects of medication on patient's basic CNS functioning, not to mention test performance.
- Consulted with PCP, who did not know the patient was taking some of the medications.
- Was contracted by case manager from medical risk management of the managed care company regarding why the appointment was cancelled.

Clinical Stratgey

- If you don't know who else is writing prescriptions for your patients, then its not integrated/collaborative care.

EMR

- Whatever vendor your team chooses, make sure the vendor has the ability/track record of adding modules, adding features to current modules.
- Make sure that ability is written into the contract with incentives/penalties for efficiency or hassles.

Questions

- and hopefully some answers