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"An illustration of Polypharmacy and the Prescribing Cascade"

Story From the Front Lines:

A woman in her 60s with COPD, bipolar disorder hypertension, and hypothyroidism presented with complaints of bowel incontinence. She relayed a history of rectal tear and prolapse following childbirth several decades prior. After surgical repair, she suffered from poor rectal tone and intermittent incontinence. However, her symptoms had become worse over the past 6 months and had been having frequent episodes of diarrhea. Given her poor tone, she often could not control her bowels during these episodes. It had become so bothersome and frequent that she wasn't leaving her home for fear of an "accident." Chart review revealed that she was taking 16 medications. Twelve months earlier, she had been seen by a different physician and was prescribed docusate and senna to treat constipation. Bisacodyl suppositories and milk of magnesia were added one month later for ongoing constipation. She presented again several months later with complaints of diarrhea and loperamide was added. The patient was not instructed to adjust her existing bowel regimen. When she presented to my clinic with incontinence, she was taking docusate, senna, milk of magnesia, and several doses of loperamide daily.

Teachable Moment:

This case illustrates the concept of the "prescribing cascade" - the act of one medication being prescribed to treat the side effect(s) of another medication.\(^1\) It often stems from polypharmacy, an increasingly important problem as prescription medication use has precipitously increased over the past 10 years. Approximately 48.5% of Americans use at least one prescription drug and 21% use three or more.\(^2\) In addition, approximately 75% of clinic visits involve drug therapy in some way.\(^3\) In many cases this is appropriate, but not always. One study showed that the more prescriptions a patient takes, the more likely they are to have inappropriate medications prescribed.\(^3\) In this particular case, rather than de-escalating the patient’s medical regimen by removing bowel stimulants, another medication was added to treat her diarrhea. There are several possible explanations for this occurrence, though chart review did not reveal a clear rationale. Perhaps her physician did not review her medications due to time or other constraints. Alternatively, maybe the patient specifically requested a new medication to treat her symptom or the physician assumed this was the patient’s expectation. Providers can feel pressure to offer clinical interventions during visits. This may stem from a perceived or real notion that patient's expect action, usually in the form of a prescription medication to treat their symptoms. For instance, one study found that patient expectations largely influenced a provider’s likelihood of prescribing antibiotics for upper respiratory infections, regardless of the clinical indication.\(^4\) Unfortunately it is often easier to prescribe a medication than it is to explain why additional therapies may
not be needed.

Why is polypharmacy and the prescribing cascade important? Up to 28% of hospital admissions for elderly adults in the United States have been attributed to drug related problems, of which 70% involved an adverse drug reaction. Additionally, of patients admitted to the hospital, those with adverse drug reactions have higher hospital costs and longer stays. The United States spends more on health care per capita than any other country, and the prescribing cascade is an important piece of the overspending puzzle. It would behoove us all to pay close attention to the reconciliation of medications and consider discontinuing medications without clear evidence of benefit. The prescribing cascade is an important problem in today’s medical culture that deserves our time and attention and is an important topic for further study moving forward.

References: