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What's New in the Patient Safety World

June 2020

The Antipsychotics in Dementia Conundrum

Use of antipsychotics in patients with dementia has long under fire because of limited efficacy and occurrence of serious adverse effects, such as an increase in stroke and mortality. They may also cause sedation, extrapyramidal signs, and some may produce orthostatic hypotension. The latter may all contribute to falls and fractures. Some also predispose to development of metabolic syndrome or glucose intolerance. And some may be associated with severe reactions, such as the neuroleptic malignant syndrome.

Several of our columns have addressed attempts by CMS to reduce use of antipsychotic agents in nursing home patients with dementia (see our February 3, 2015 Patient Safety Tip of the Week "CMS Hopes to Reduce Antipsychotics in Dementia" and our May 2018 What's New in the Patient Safety World column "Antipsychotic Use in Nursing Homes: Progress or Not?").

In 2005, the US Food and Drug Administration (FDA) issued a boxed warning for the use of AAPs in elderly patients. But no one really considered the possibility that unintended consequences might pop up once those drugs were discontinued. In a new study, Rubino et al. (Rubino 2020) found that prescription of atypical antipsychotics to patients age 65 and older who had a diagnosis of dementia did decrease significantly following addition of the FDA black box warning. As hoped, falls and fractures and cerebrovascular events also decreased. But they found that opioid use, antiepileptic use, cardiovascular events, and 2-year mortality risk increased. Health-related quality of life remained relatively unchanged.

Our first thought was that this period likely coincided with a rise in opioid use in the general population. However, Rubino et al. note that a study in Medicare beneficiaries found that opioid use remained stable between 2007 and 2017, suggesting that the increase observed may be specific to the population of elderly patients with dementia. The reasons for the increased rate of opioid use are unclear because the evidence base for their use in treatment of dementia-related agitation is limited. They note it is possible that opioids could have been used to treat pain in some cases because pain is increasingly recognized as a contributor to agitation in patients with dementia. The article did not provide a breakdown by specific antiepileptic drug. It would have been helpful to know

whether the increased use was primarily for gabapentinoids, which might have been being used adjuncts for pain management rather than as antiepileptics.

So, should we go back to prescribing antipsychotics for agitation in patients with demenia? Of course not. But the Rubino study does tell us we must remain vigilant for unintended consequences any time we implement a solution designed to improve one aspect of care.

Several other recently published studies deal with antipsychotics in patients with dementia.

One study from Finland (Tapiainen 2020) found that antipsychotic use may increase the risk of head injuries and traumatic brain injuries in persons with Alzheimer's Disease.

Another study looked at the prevalence of psychotropic medicine (antipsychotic, benzodiazepine, or antidepressant medicines) dispensing before and after older people enter residential care in Australia (Harrison 2020). They found that dispensing of psychotropic medicines was high before they enter residential care but increased markedly soon after entry into care. The authors stress that non-pharmacological behavioral management strategies are important for limiting the prescribing of psychotropic medicines for older people in the community or in residential care.

Another article from Australia (Byrne 2020) notes we tend to blame prescribing of psychotropic medication for people living in residential aged care facilities (RACF's) on prescribers. But, the author notes that many RACF's are poorly equipped for managing cognitively impaired older people with challenging behaviors, particularly ambulant residents with dementia. Byrne notes that not all RACF's have adequate circulation space for reducing the likelihood of aggressive incidents, or accessible outside areas for regular physical exercise. Some RACF's have insufficient natural light for maintaining normal sleep/wake cycles, and many do not have enough staff trained in managing the behavioral and psychological symptoms of their residents. In some locations, public sector mental health services can assist with the assessment and management of RACF residents with mental illness or challenging behavior, but these services are often under-resourced and unable to respond quickly. We suspect all these circumstances are also common in long-term care facilities in the US.

So, how do we reduce inappropriate prescribing of antipsychotics to patients with dementia? Obviously, provision of non-pharmacologic means of behavioral modification is the best approach.

Though the 2005 FDA Black Box Warning noted above may have reduced prescribing of atypical antipsychotics, attempts to accomplish the goal by education have not met with success. A study just published (Tadrous 2020) evaluated the effectiveness of "academic detailing" in nursing homes in Ontario, Canada targeting appropriate prescribing of antipsychotics. Academic detailing was delivered by health professionals (eg, nurses or pharmacists) through meetings with administrators, physicians, pharmacists, nurses, and

support workers, presentations, group visits (with 2-6 clinicians), and 1-on-1 visits (traditional academic detailing visits). Those doing the academic detailing had direct and ongoing contact with the nursing homes from the time of launch. Unfortunately, the intervention did not further reduce antipsychotic prescribing in nursing homes beyond system-level secular trends occurring alongside usual care. Interestingly, the intervention group had significant reductions in pain and depression compared to the control group.

And then there are the serendipitous findings. We like to retell one of our favorite anecdotal stories about unintended consequences. This one was a positive unintended consequence. One month a skilled nursing facility (SNF) reported a dramatic decline in the number of patient falls. Surely, this must have been a reporting error. No, it wasn't. It turned out that the SNF's contract with a psychiatrist had expired so there were no renewals of antipsychotics, antidepressants, and other psychotropic drugs that had been ordered for patients with dementia. Of course, that is not a randomized, controlled trial but the implications of the observation are dramatic.

No, we don't actually recommend you cut your ties with your behavioral health consultants! But we think that using clinical decision support (CDS) tools can provide reminders to assess the need or continuing need for antipsychotics in your long-term care patients. If you decide that such use is not appropriate or no longer appropriate, consider deprescribing. The deprescribing.org website has a nice algorithm for deprescribing antipsychotics and links to a guideline for deprescribing antipsychotics (Bjerre 2018).

Some of our past columns on Beers' List and Inappropriate Prescribing in the Elderly:

- January 15, 2008 "Managing Dangerous Medications in the Elderly
- June 2008 "Potentially Inappropriate Medication Use in Elderly Hospitalized Patients"
- October 19, 2010 "Optimizing Medications in the Elderly"
- September 22, 2009 "Psychotropic Drugs and Falls in the SNF"
- September 2010 "Beers List and CPOE"
- June 21, 2011 "STOPP Using Beers' List?"
- December 2011 "Beers' Criteria Update in the Works"
- May 7, 2013 "Drug Errors in the Home"
- November 12, 2013 "More on Inappropriate Meds in the Elderly"
- January 28, 2014 "Is Polypharmacy Always Bad?"
- March 4, 2014 "Evidence-Based Prescribing and Deprescribing in the Elderly"
- September 30, 2014 "More on Deprescribing"
- February 10, 2015 "The Anticholinergic Burden and Dementia"
- May 2015 "Hospitalization: Missed Opportunity to Deprescribe"
- July 2015 "Tools for Deprescribing"
- November 2015 "Medications Most Likely to Harm the Elderly Are…"
- August 2, 2016 "Drugs in the Elderly: The Goldilocks Story"

- October 31, 2017 "Target Drugs for Deprescribing"
- January 2018 "What Happens After Delirium?"
- May 2018 "Antipsychotic Use in Nursing Homes: Progress or Not?"
- June 2018 "Deprescribing Benzodiazepine Receptor Agonists"
- October 2018 "STOPP/START/STRIP"
- November 27, 2018 "Focus on Deprescribing"
- March 19, 2019 "Updated Beers Criteria"
- March 10, 2020 "Medication Harm in the Elderly"

Some of our past columns on deprescribing:

- March 4, 2014 "Evidence-Based Prescribing and Deprescribing in the Elderly"
- September 30, 2014 "More on Deprescribing"
- May 2015 "Hospitalization: Missed Opportunity to Deprescribe"
- July 2015 "Tools for Deprescribing"
- April 4, 2017 "Deprescribing in Long-Term Care"
- October 31, 2017 "Target Drugs for Deprescribing"
- January 2018 "What Happens After Delirium?"
- June 2018 "Deprescribing Benzodiazepine Receptor Agonists"
- November 27, 2018 "Focus on Deprescribing"
- March 19, 2019 "Updated Beers Criteria"
- March 10, 2020 "Medication Harm in the Elderly"

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