

CQI:Delirium

COI

1. *Identify Problem*
2. *Analyze Problem*
3. *Suggest Solution*
4. *Implement Solution*
5. *Evaluate Change*

PDSA Cycle:

1. *Plan: determine process change, gather baseline data*
2. *Do: Implement process improvement*
3. *Study: Evaluate effectiveness of intervention (follow up data)*
4. *Act: implement modified or refined intervention*

Delirium:

Background: There is evidence from multiple trials (Inouye et al) that delirium can be prevented in frail older patients admitted to the hospital, but all of these studies also demonstrate that once delirium develops it is difficult to treat and results in longer hospital stays and increased risk of complications. Patients who are older, have more comorbidities, and have an underlying dementia are at increased risk for developing delirium during their hospital stay. Unfortunately, we are often unaware of delirium until a patient is called to our attention as being “agitated”. At this point, patients too often are restrained with physical devices or given sedating medications such as benzodiazepines or antipsychotic medications.

The problem: The use of antipsychotic medications for the “treatment” of delirium

Although frequently used, antipsychotic medications are not approved for the treatment of delirium or behavioral problems associated with dementia in elderly patients. A few studies have looked at risperidone in the management of delirium in elderly hospitalized patients, but these studies are small and open to many biases. The atypical agents have been in recent favor because of their risk profile and tolerability in older patient. There are times when a patient is delusional, paranoid, violent or a danger to self or others when these agents are noted to be useful.

The problem arises when these agents are overused as “chemical restraints”. The second problem arises from the fact that these agents are being used in an unapproved manner with little evidence to support how they are used. The third problem is that there is concern about the safety of the newer “atypical” antipsychotic agents. In April of 2005, the FDA issued a public health advisory about the off-label or unapproved use of these atypical agents in the treatment of behavioral problems in elderly patients with dementia. 17 placebo controlled trials, average duration 10 weeks, demonstrated an increased risk of death (RR 1.7 with a rate of death in treated patients of 4.5% compared to a mortality rate in placebo treated patients of 2.6%). The agents included in the trials included:

Olanzapine (Zyprexa)
Quetiapine (Seroquel)
Risperidone (Risperdal)
Ziprasidone (Geodon)

Analyze the Problem: Your task for the beginning of this 2 week analysis is to identify whether or not there is a problem in our prevention and management of delirium, specifically relating to the use of antipsychotic medications for the management of behavioral symptoms in elderly patients.

Chart Audits from the Med A census for 3 days during the first week:

Baseline Data:

1. Are patients assessed at admission for their risk of delirium?
2. Are baseline and follow-up cognitive assessments done (MMSE, CAM)?
3. Were patients on antipsychotic medications prior to admission?
4. During the hospital stay, did delirium develop?
5. If delirium developed, were antipsychotic agents used or increased?
6. Were patients discharged on new or higher doses of antipsychotic medications?

Suggest Solution: What can be done differently? Should patients admitted to the service have cognitive assessments done as a baseline? Should we document at risk patients to be followed closely for delirium? What are nonpharmacological methods to prevent or manage delirium? Is part of the solution education of the medical team?

Implement Solution for 2 weeks....

Evaluate Change: Repeat chart audits from census for last 3 days of 2 week block; What are the differences? Were changes implemented? How can the system be refined???

Audit Form: Delirium
Baseline or Post Intervention?

