Dilemmas in the Care of Geriatric Hospitalized Patients
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Dilemma #1: Anticoagulants and antiplatelet agents

* anticoagulants are started for AF or VTE in older adults with stable CAD?

An 87 yo F w/stable CAD, HTN, CKD (eGFR 30), hx iron deficiency (2012, declined GI w/u) falls → hip fx
Meds PTA: ASA 81mg, metoprolol, Lisinopril, simvastatin, omeprazole
Course: 3 wks post-op develops DVT, LMWH started

Question: The best approach to manage her anticoagulant & antiplatelet indications is:
1) Warfarin and continue ASA for CAD
2) Warfarin and stop ASA
3) Dabigatran and stop ASA
4) Caval Filter (anticoag too risky)
## Anticoag + Aspirin in Elderly: Oil and Water?

### Benefits: Warfarin and ischemic heart dz

1° prevention: Warfarin ↓ angina > ASA in ↑ risk pts  
*Arch Intern Med. 2002;162:881*

2° prevention CAD pts: Warfarin INR 2-3 vs control  
- Mortality risk ↓ 18% (95% CI, -6% to 37%)
- MI risk ↓ 52% (95% CI, 37%-64%);
- Stroke risk ↓ 53% (95% CI, 19%-73%)
*JAMA. 1999;282:2058-2067*

2° prevent s/p MI RCT: W INR 2.8-4.2 vs ASA 160mg  
- W ↓ reinfarction 26%, CVA 48%, mortality NS  
*NEJM 2002; 347(13):969*

- “... one can infer that OAC alone targeted to an INR of 2-3 can provide substantial protection against recurrent CAD  
*Chest 2012;141;531S*

- as warfarin in RCTs for AF & VTE

- Direct thrombin inhibitor dabigatran had signal of ↑ MI rates vs warfarin

## Anticoag + Aspirin in Elderly: Oil and Water?

### Risks: Warfarin + aspirin vs warfarin alone

- Kaiser cohort study: 2500 pts W vs 1600 pts W + ASA  
  - ORadj hemorrhagic events: 2.75 (95% CI 1.44 - 5.28)  
  - ORadj coronary events 0.99 (95% CI, 0.37- 2.62)  
*Chest 2008;133:948-954*

- “There is a cost to adding aspirin to OAC… a doubling of bleeding risk”  
*Chest 2012;141;531S*
DOACs + Aspirin in Elderly: Oil and Water?

- Canadian Recs re: direct oral anticoagulants for stroke prevention in A Fib (Sept 2015)
  - Adding aspirin to DOACs doubles bleeding risk
  - Routine addition of ASA is discouraged d/t doubles bleeding risk w/o added benefit for ↓ stroke or MI
  - Exceptions: mechanical valves, ACS, recent stents
- For pts on DOACs + antiplatelet rx, reassess indication & if the antiplatelet rx provides sufficient incremental benefit to warrant the definite increased bleeding risk

Weigh Risks & Benefits Carefully

- Case F/U: Coumadin added, ASA continued, Hct drop 29 to 20 w/retroperitoneal bleed.
- Conclude: Carefully weigh need to continue antiplatelet rx in elderly pts with new indication for coumadin (eg, new AF, DVT, P.E.)
- Caveats: Pertinent to stable CAD, n/a to pts w/ ACS, s/p recent stents, etc

Anticoagulants and antiplatelet agents

- Should aspirin be stopped when anticoagulants are started for AF or VTE in older adults with stable CAD?
- Yes unless compelling reasons to remain on ASA
“Doc I need a pill to sleep”

Dilemma #2: Sleep problems in hospitalized older adults

- Which, if any, medications for insomnia might be considered and which should be avoided in older hospitalized pts?

81 yo M is admitted to ACE unit w/PNA. PMH: HTN & mild cognitive impairment. Meds: hctz and donepezil. Pt c/o poor sleep despite no VS after 10p, quiet environment, and hs milk last night. He requests med rx be available for use tonight

Which of the following sleeping meds might be effective AND lower his risk of developing delirium?

1) Ramelteon
2) Diphenhydramine
3) Lorazepam
4) Melatonin
5) Suvorexant
Sleep problems in hospitalized older adults

- Non-pharmacologic approach best
  - limited VS, quiet environment, sleep hygiene

- Pharmacologic rx may ↑ delirium
  - diphenhydramine, short-acting benzo

- Melatonergic pathway may be r/t delirium
  - RCT melatonin 3mg to prevent delirium s/p hip fx
  - Resoundingly (-): 30% melatonin vs 26% placebo
    CMAJ 2014;186(14):E547

Sleep problems in hospitalized older adults

- Ramelteon 8mg
  - Melatonin agonist
  - FDA approved tx insomnia (difficulty falling asleep)

- RCT to prevent delirium
  - 67 med ward/med ICU pts, mean age 78
  - Delirium incidence: 3% vs 32%, RR 0.09, p .003
  - No clinical outcome data
  - MOA? – no clear improvement in sleep
    JAMA Psychiatry 2014;71(4):397

Sleep problems: Other med rx considerations

- Whats new? --- Suvorexant (Belsomra)
  - FDA-approved 8/14: difficulty falling/staying asleep
  - Orexin receptor antagonist suppresses wake drive
  - marginal impact on sleep, potential serious ADEs (eg, sleep paralysis, ↓ balance, “mild cataplexy”
    Neurology 2012;79:2265

- Trazodone 25-100mg
  - Limited data that comparable to zolpidem effects on sleep latency/efficacy
  - Case series (7 pts) that trazodone ↓ delirium
    JAMA 2013;309:706
Dilemma #2: Sleep problems in hospitalized older adults

- Which, if any, medications for insomnia might be considered and which should be avoided in older hospitalized pts?
  
  ✓ Non-pharm strategies best
  ✓ Med Rx: Ramelteon 8mg, Trazodone 25-50mg
  ✓ Avoid: benzo’s & diphenhydramine > zolpidem

Dilemma #3: When, if, & how to use antipsychotics in older pts w/delirium

- When is the use of an antipsychotic appropriate in the management of an older adult with delirium?

Antipsychotics in older pts w/delirium

- 83 yo M falls & fx’s hip. S/P ORIF confusion increases and pt c/o pain. APAP scheduled + oxycodone prn ordered. Agitation ↑ thru the night, pt striking out against sitter, pulled out IV and constantly trying to get OOB.

The most appropriate intervention at this time is?
1) Soft restraints
2) Haloperidol
3) Lorazepam
4) Stop oxycodone
5) Donepezil
AGS 2014 Guideline for Postoperative Delirium in Older Adults

- When to consider antipsychotics
  - to treat severely agitated or distressed pts who are threatening substantial harm to self and/or others, and behavioral interventions have failed or are not possible
- Use the lowest effective dose for the shortest possible duration — lets operationalize that

J Am Geriatr Soc 2015; 63:142

Pharmacologic Treatment - ICU

- Haloperidol is the preferred rx for delirium in critically ill patients. (Grade C recommendation)

Dose: Haloperidol 2 mg q20 min while agitation persists

<table>
<thead>
<tr>
<th>Degree of Agitation</th>
<th>Initial Dose Haldoperidol PO, IM or IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>0.25-2mg</td>
</tr>
<tr>
<td>Moderate</td>
<td>2-4mg</td>
</tr>
<tr>
<td>Severe</td>
<td>4-8mg</td>
</tr>
</tbody>
</table>

Jacobi et al. Crit Care Med (2002); 30(1):119

Pharmacologic Treatment - ICU

Haldol Maintenance Dosing Dose:
- 50% of total loading dose is the maintenance dose divided every 6-8 hours daily
- Continue maintenance dose for 24-48 hours before tapering
- Assess for akathisia and extrapyramidal effects
- Monitor for EKG Δs (QT interval ↑ & arrhythmias)

Taper
- Taper maintenance dose by 20-30% daily to d/c

Jacobi et al. Crit Care Med (2002); 30(1):119
### Pharmacologic Treatment - ICU

#### Haldoperidol Administration

<table>
<thead>
<tr>
<th>Time</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00AM</td>
<td>2mg</td>
</tr>
<tr>
<td>2:30AM</td>
<td>2mg</td>
</tr>
<tr>
<td>3:00AM</td>
<td>2mg</td>
</tr>
<tr>
<td>3:30AM</td>
<td></td>
</tr>
</tbody>
</table>

Moderate Agitation controlled at 3:30AM.

- **Control**
- **Maintain** Order 1mg TID IV or PO x 24 hrs.
- **Taper** 0.5mg PO TID for 24 hrs, then DC

*Jacobi et al. Crit Care Med (2002); 30(1):119*

### Pharmacologic Treatment - Ward

#### General Recommendation:

- Haldoperidol 1-2 mg q2-4 hrs PRN
- May be administered PO/IM/IV

#### For Elderly Patients:

- Haldoperidol 0.25-0.5mg q4hrs PRN

*Practice Guideline for Treatment of Patients with Delirium (1999) American Psychiatric Association*

### Delirium Management

#### Pharmacologic approaches

- If med rx absolutely necessary, use haloperidol
  - mild delirium: 0.25-0.5 mg po or 0.125-0.25 mg IV/IM
  - severe delirium: 0.5-2 mg IV/IM, then q 60 min prn
- Exception: PD or EPS, quetiapine 25-100mg 1-2x/d
  - General rule: 1mg haloperidol → 100mg quetiapine
- Gen NOT benzos (lorazepam 0.5 mg q6-12hr prn)

*BMJ 2010;341:247 J Gen Intern Med 2009;24(7):848*
AGS 2014 Guideline for Postoperative Delirium in Older Adults

Other key points
• Optimize pain management (preferably w/nonopioids)
• Antipsychotics & benzos should be avoided for tx of hypoactive delirium
• Ongoing use of antipsychotics should be re-evaluated daily with in-person pt exams
• Multicomponent nonpharmacologic interventions should be administered to all at-risk older adults to prevent delirium — let’s operationalize that

J Am Geriatr Soc 2015; 63:142

Delirium Prevention

<table>
<thead>
<tr>
<th>Multi-Component Interventions To Prevent Delirium</th>
<th>Six EBM Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors</td>
<td></td>
</tr>
<tr>
<td>Cognitive Impairment</td>
<td>Orientation protocol</td>
</tr>
<tr>
<td>Sleep Deprivation</td>
<td>Sleep enhancement</td>
</tr>
<tr>
<td>Immobility</td>
<td>Early mobility, ↓ lines/foley</td>
</tr>
<tr>
<td>Visual Impairment</td>
<td>Glasses, vision correction</td>
</tr>
<tr>
<td>Hearing Impairment</td>
<td>Hearing protocol</td>
</tr>
<tr>
<td>Dehydration</td>
<td>Hydration protocol, close f/u</td>
</tr>
</tbody>
</table>

JAMA Intern Med 2015:175:512

Dilemma #3: When, if, & how to use antipsychotics in older pts w/delirium

Q: When are antipsychotics appropriate in the management of older adults w/delirium?

A: “The use of antipsychotics at the lowest effective dose for the shortest possible duration may be considered to tx pts w/delirium who are severely agitated or distressed or who are threatening substantial harm to self and/or others”

Dilemma #4: Utility of percutaneous feeding tubes in advanced dementia

- Is there a role for gastric feeding tubes in pts with advanced dementia and recurrent aspiration PNA?

Dilemma #4: Is there a role for feeding tubes in pts w/advanced dementia

- An 86 y/o F w/severe dementia is admitted w/recurrent PNA. Over the past 6 months her dysphagia has worsened w/coughing at meals, ↓ intake & wt loss (120 to 108 lbs). Which of the following is true regarding the effects of initiating g-tube placement and TFs?

  1) Increased survival time
  2) Decreased likelihood of developing new pressure ulcer
  3) Increased use of physical restraints
  4) Decreased incidence of aspiration PNA
  5) Improved quality of life

Dilemma #4: Is there a role for feeding tubes in pts w/advanced dementia

- Which of the following is true regarding the effects of initiating g-tube placement and TFs?

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PEG Tubes in the Elderly

- Focus on Pts with Advanced Dementia
  - Not s/p acute CVA or head & neck CA
  - Progressive dementia often assoc w/ ↓ intake
  - NG TFs generally not an option
    - poorly tolerated, often pulled
    - not accepted in NHs
  - Marker of end-of-life vs time to act?
  - PEG prev in NH adv dementia pts 34% (!)

JAMA 2003;290:73  JAMA 2010;303:544

PEG Tubes in Elderly with Dementia
Who, Where & Why Are They Placed?

- NH pts w/advanced dementia: 5% incidence
- Average age 84yo
- Most were highly dependent in ADLs
- Where?: 68% PEGs inserted during an acute care hospitalization

J Am Med Dir Assoc 2009;10:264

PEG Tubes in the Elderly
Incidence Data in Dementia Pts

Incidence new PEGs in NH pts w/advanced dementia 2000-01.

J Am Med Dir Assoc 2009;10:264
PEG Tubes in Elderly with Dementia
Who, Where & Why Are They Placed?

Why: Selected Goals of PEG tubes in older pts
• To decrease aspiration, PNA
• To improve nutrition and hydration
• To improve wound healing
• To ↓ infection/improve function
• To improve quality of life
• To decrease mortality, prolong life
Do they fulfill their promise?

J Palliative Medicine 2008;11:1130

Utility of PEG Tubes in Elderly w/Dementia

To decrease aspiration & PNA
• No data that TFs ↓ aspiration
• Saliva and/or reflux gastric contents often source of asp PNA
• Oral hygiene, avoid PPI/H2-block may ↓ risk
• 3 case-control studies → TFs ↑ risk asp PNA

J Am Med Dir Assoc 2008;9:455
J Am Geriatr Soc 2003;51:1018

Utility of PEG Tubes in Elderly w/Dementia

To improve nutritional status
• little to no ↑ wt or albumin
• nutrient deficiencies/marasmic like state often persists
• ↑ nutrition or reversal of wt loss not associated with better clinical outcomes

JAMA 1999;282:1365
Cochrane Database 2009 Apr 15;1(2):CD007209
Utility of PEG Tubes in Elderly w/Dementia

**Improve wound issues, ↓ infxn, ↑ funx**
- Nutrition & pressure ulcer association is weak
- TFs → 2x↑ risk new ulcers, ↓ likelihood of healing pressure sores
- No impact on infxn rates, may ↑ (eg cellulitis, PNA)
- Funx – not examined as an outcome

Arch Intern Med. 2012;172(9):697-701
Cochrane Database 2009 Apr 15 ;(2):CD007209

Utility of PEG Tubes in Elderly w/Dementia

**To improve quality of life**
- Palliative care data → few pts w/anorexia experience hunger or thirst
- TFs may ↓ QL
  - Diarrhea, nausea, local discomfort
  - agitation ↑, restraints ↑, pulled G-tubes → ED
  - Deprive pt of hedonic qualities of eating
  - ↑ isolation, ↓ human interaction


Utility of PEG Tubes in the Elderly

**To improve mortality**
- s/p PEG placement
  - 30d mortality 18-24% s/p PEG
  - 1 yr mortality 64%, median survival 56 days
  - No ↑ survival relative to controls w/o TFs
- Natural hx advanced dementia
  - w/feeding probs 6m mortality approaches 50%
  - w/recurrent PNA 1yr mortality approaches 90%
- Conclude: ↓ intake w/adv dementia is a symptom of terminal CNS process, not a primary dx to tx

PEG Tubes in Elderly with Dementia

Do PEG TFs fulfill their promise?

• To decrease aspiration, PNA - No
• To improve nutrition – No
• To improve wound healing - No
• To ↓ infection/improve function - No
• To improve quality of life - No
• To decrease mortality, prolong life – No

J Palliative Medicine 2008;11:1130

Dilemma #4: Is there a role for feeding tubes in pts w/advanced dementia

AGS Choosing Wisely

• Don’t recommend percutaneous feeding tubes in pts w/advanced dementia
• Instead offer oral assisted feeding
• Hand feeding is at least as good as TFs for outcomes of death, aspiration PNA, functional status & pt comfort. Food is the preferred nutrient.
• Tube feeding is assoc w/agitation, ↑ physical & chemical restraint use, & worsening pressure ulcers


Dilemma #4: Is there a role for feeding tubes in pts w/advanced dementia

• Q: Is there a role for gastric feeding tubes in pts with advanced dementia and recurrent aspiration PNA?

• A: No!
Dilemma #5: Challenges related to older adults medical care decisions and capacity

• 3 brief T/F case scenarios
• w/credit to Dr Larry Robbins

Scenario #1
Your pt with moderate dementia has gangrene involving 3 toes on her right foot. Re-vascularization is not possible and the surgeons recommend a BKA. You and the surgeon explain the surgery to the pt, believe she understands the pros & cons, and the pt consents to BKA. The daughter is the MDPOA and objects. You should proceed with surgery.

1. True
2. False

• Determining capacity: Capacity to make a given medical decision is an isolated measure. If a pt understands the benefits and risks of an intervention (can take in, repeat and demonstrate processing of info) and is consistent in her response, then the pt is deemed to have capacity re: the issue at hand
• DPOA has no authority to overrule the patient.
• Generally a good idea to have two or more doctors independently confirm that the pt understands her decision (need not be psych!)
Scenario #2
Your pt w/advanced dementia has recovered from her acute medical problem and is now ready for discharge. She had been living with her daughter, the DPOA, who states she can no longer take care of her mother. The patient insists she is going home and refuses nursing home placement. The daughter can give consent to transfer her to the NH.
1. True
2. False

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• Limits of DPOA or proxy: If the patient objects to a treatment plan (despite dementia or incapacity) then the matter must be presented to the court and a guardian assigned if the patient is determined to be incompetent
• Physicians assess capacity, courts determine competency

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Scenario #3
Your pt has a cardiac arrest on the day she is to be transferred to the nursing home. She is revived and intubated in the ICU. The daughter has DPOA and asks you to remove her mother immediately from life support. Her mother’s written advanced directive states that she wants life support for at least 3 days before terminating it. You do not extubate her.
1. True
2. False
• Limits of DPOA and proxy: Written advanced directives supersede instruction from the DPOA whose role is to enforce that directive and help make decisions not clearly addressed in the Advance Directive

ANY Questions!