Advanced Directives
Clinical Perspective

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Agenda
- Historical Development of AD
- Review types and purposes of different AD forms
- Discuss how AD integrate into medical decision making
- Review barriers of AD completion/integration

History
- Karen Ann Quinlan (1975)
  - Coma after mix of drugs/ETOH
  - Lived in vegetative state almost a decade after ventilator removed with artificial nutrition
  - Led to development of ethics committees in hospitals, NH, hospices, clarification of Catholic theology in end of life issues and euthanasia
  - Legal underpinnings of advance directive documents

History
- Nancy Cruzan (1983)
  - 3 week coma after car accident and resuscitation, lived off ventilator, removal of artificial nutrition
  - First “right to die” case heard by Supreme Court
  - Led states to formalize laws governing
    - Withhold or withdrawing life-sustaining treatments
    - Living wills
    - Healthcare proxies
  - Led to Patient Self-determination Act (1990)
    - Requires agencies receiving federal funds inform patients of right to complete an Advance Directive

History
- Terri Schiavo (1990)
  - Collapse at home, cardiac arrest, PVS
  - Issue was whether to terminate artificial nutrition/hydration as husband and legal guardian wished
  - Parents blocked decisions, state and federal legislation involved
  - 14 appeals, 5 suits in federal court
  - Involved “settled law” rather than establishing new legal ground
What is an Advance Directive?
- Formal advance directives are written in advance of serious illness allowing adult individuals to direct their medical care in the event they become incompetent and are unable to make medical decisions for themselves.
- AD statutes define those medical situations in which individuals can direct their future care and steps they need to take to best assure legal recognition of their advanced directives and wishes.

Purpose of Advance Directive
- Protect you from living a quality of life that would not be acceptable to you through medical intervention.
- Allow your voice to be a part of the discussion that your family and medical team may have, in order to address difficult end-of-life decisions.
- BY:
  - Appointing a person to speak for you when you are unable to speak for yourself.
  - Documenting your care preferences when it is determined that the application of medical technology will not:
    - cure you or
    - allow you to go on living with a quality of life that is unacceptable to you or
    - is only forestalling inevitable death.

Purpose/Interest in Completing AD
- Growing ability of medical technology to prolong life.
- Highly publicized legal cases involving comatose patients whose families wanted to withdraw treatment.
- Many people want to avoid extending personal and family suffering:
  - Quality of life issues
  - Family feuding
  - Financial burdens on family.
- The most effective way to retain control in such situations is to record your preferences for medical care in advance and share your decisions with your key people such as your physician, loved ones and clergy person.

Shifting EOL Demographic
#1 Reason
MEDICAL PROGRESS...
...has changed the way we live
...has changed the way we are sick
...has changed the way we die

Generations of AD
- First Generation
  - Living Will
- Second Generation
  - Power of Attorney for Health Care DPOAH
- Third Generation
  - Values History
  - Explores medical case scenarios
  - Five Wishes one example

Introduction of AD
  - Right to refuse treatment
  - Decisions better made by families, not courts.
- By 1992 all 50 states had passed legislation to legalize some form of AD.
Advanced Directives Recognized in Iowa

- Life Sustaining Procedures Act (Living Will)
- Durable Power for Health Care Decision Making (DPOAH)
- Out of Hospital Do Not Resuscitate (OOH-DNR)
- IPOST
- 5 Wishes

Living Will

- A living will is a document in which you can stipulate the kind of life-prolonging medical care you want if you become terminally ill, permanently unconscious, or in a vegetative state and... 
- You are unable to make your own decisions 
- It informs medical personnel that you do not want certain life-prolonging medical procedures if you may die soon. 
  - It helps your durable medical power of attorney, as well as family and loved ones, understand your wishes. 
  - Your durable medical power of attorney has the prerogative of overriding your living will. 
- NOT the same as DNR

What Does “Life-prolonging” Mean?

- The use of artificial/mechanical means to sustain or restore life when physicians determine your condition is terminal 
- Nutrition and Hydration 
  - nutrition and hydration are considered “life prolonging” if they are given through an IV or tube. 
  - food and water will be offered, but will not be given through a tube if death is near and you have signed a general living will. 
- Medication or procedures to limit pain or give comfort 
  - These not considered life-prolonging. It will be assumed you want these.

Durable Power of Attorney for Health Care
What is a Durable Power of Attorney for Health Care?

- By executing a power of attorney for health care, you are authorizing someone to make health care decisions on your behalf.
- Your power of attorney for health care may **ONLY** make medical decisions for you:
  - if you are unable to make them for yourself
  - May need to make decisions at any time, not just at the end of life.
- It is **not** the same as a power of attorney for financial matters.
- Document either witnessed or notarized.

Choosing a DPOAH

A family member or friend who:

- is at least 18 years old
- knows you well
- can be there for you when you need them
- you trust to carry out your own wishes and convey these to the medical team.
- Your agent cannot be your doctor or someone who works at your hospital or clinic, unless they are a family member.

Out of Hospital DNR

- Community based document
- Designed for adult with terminal condition:
  - Allow evaluation by EMS with limitations if related to terminal condition
  - Does not apply when patient in need of EMS for sudden accident, MVA, fire, other casualty outside of the scope of terminal illness.

IPOST

- Legal in Iowa 7/1/2012, nationwide initiative
- Appropriate for individuals who are frail, elderly or have chronic, critical or terminal medical conditions
- One page document addressing resuscitation, level of care desired and artificial nutrition:
  - Rationale for decisions identified
  - DPOAH identified on back of form
- Patient is owner of document, meant to “travel” with them across healthcare settings.
Five Wishes

- Five Wishes lets your family and doctors know:
  - Who you want to make health care decisions for you when you can’t make them
  - The kind of medical treatment you want or don’t want
  - How comfortable you want to be
  - How you want people to treat you
  - What you want your loved ones to know
  - Funeral arrangements/preferences

The paperwork is done, now what??
Who Should Have a Copy of My Advance Directives?

- Your Durable Power of Attorney for Healthcare
- Other Family members
- Your physician
- The ER/Hospital of Choice
- Your Pastor or Clergy Person
- Others

Where Are We Now?

Integration of AD in Medical Care

- Patient Self Determination Act 1991
- Medicare/Medicaid hospitals, SNF, home health, hospice, other organizations
  - Provide written information on admit
  - Maintain policies and procedures
  - Document if patient has an AD
  - Ensure compliance with state law
  - Provide education of staff
- Checkbox mentality, no real integration

Integration of AD in Medical Care

- Paper work done, conversation lacking
- No one pauses to question patient’s preferences or offer alternatives, we “do”
- Patients expected to follow medical recommendations, little thought into bigger picture of how this may affect overall life or end results
- AD helpful to identify decision maker
- Rare use of AD by medical providers to make a point with family – not offering interventions that are clearly contradicted in AD

Barriers to Success

- “Death Planning”, only for Elderly or at end of life
- Family feuds
- No identification/ recognition by health care providers
  - Conversations are time consuming
  - Currently time spent discussing not reimbursable
  - Difficult conversations to initiate
- When do parameters apply?
  - Definitions of terminal, end of life

The three main trajectories of decline at the end of life

The Communication Piece - Values Assessment

- What should I talk over with my loved ones?
- Who is the keeper of the information?

My Life is Only Worth Living if I Can:

- Talk to family or friends
- Wake up from a coma
- Feed, bathe, or take care of myself
- Be free from pain
- Live without being hooked up to machines
- Live outside of a care facility (nursing home)
- My life is always worth living no matter how sick I am

Values Assessment Example Questions

- Could you imagine reasons for temporarily accepting medical treatment for the conditions you described?
- How much pain and risk would you be willing to accept if your chances of recovery from an illness or an injury were good (50-50 or better)?
- What if your chances of recovery were poor (less than 1 in 10)?
- How would you accept or reject care depending on how old you were at the time of treatment? Why?

If I am so sick that I could die I want my doctors to:

- Try all life support treatments that my they think might help.
  - If the treatments do not work and there is little hope of getting better, I want to stay on life support machines.
- Try all life support treatments that my doctors think might help.
  - If the treatments do not work and there is little hope of getting better, I do not want to stay on life support machines.
- More of a black and white statement

A Few Additional Questions to Ponder:

- What do you value most about your physical and/or mental wellbeing.
- What are your fears regarding serious illness or end of life?
- Would you want to be sedated if it were necessary to control your pain, even if it makes you drowsy or puts you to sleep much of the time?
- Would you want a hospice team or other palliative care available to you?
- If you could plan today, what would the months of your life look like? Last weeks? Last days?
- How do you want to be remembered?
Who Will Make Decisions if I Don’t Have Advanced Directives?

- Iowa Code 144A.7 – Life Sustaining Procedures Act
- Life sustained procedures may be withheld or withdrawn from a patient unable to respond if deemed terminal
  1. My court appointed guardian (with court approval)
  2. My spouse
  3. My adult child or, if more than one, the majority of my children
  4. My parent or parents
  5. My adult brother or sister

Take Home Message

- AD important during all stages of life
  - Conversations rather than paper are most important
- Work in progress to incorporate into routine medical care
  - Often wait until interventions not going well to ask questions
- Gift to your family
  - Emotional vs. rational thought

Questions?

References/Resources

- State of Iowa Code -144 A, B, D
  - http://search.legis.state.ia.us/nxt/gateway.dll/ic?f=templates&fn=default.htm
- POLST – Physician’s Orders for Life Sustaining Treatment http://www.polst.org/
Choosing Wisely

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American Geriatric Society
Don't recommend percutaneous feeding tubes in patients with advanced dementia; instead offer oral assisted feeding.

What is a PEG tube

Symptoms of advanced dementia

- 86% of Dementia patients develop feeding difficulty
- Altered taste/smell
- Loss of interest in food
- Apraxia
- Deficits in attention
- Dysphagia leading to choking
- Weight loss
- Dehydration
- Poor wound healing
- Aspiration pneumonia
- Death

Intention of PEG placement

- In advanced dementia
  - Prevent aspiration pneumonia
  - Delay malnutrition
  - Delay death by starvation
  - Comfort
  - 11% of patients dying with dementia have feeding tube

Decision making regarding PEG

- Feeding most addressed issue in dementia
  - Poor support for decision making
  - Emotionally charged
  - Ethically challenging
  - Comes done between PEG vs assisted hand feeding
Aspiration Pneumonia

- Syndrome complex of pneumonitis
- Insidious
- Tachypnea
- Wheezing
- Fever
- Polymicrobial when infectious
- May resolve without antibiotics

Do Financial Incentives of Introducing Case Mix Reimbursement Increase Feeding Tube Use in Nursing Home Residents?

June M. Tero, MD, MSc, *, Zhulian Fong, PhD, *, Susan L. Mitchell, MD, MPH, **Sylvia Koo, MD, PhD, **Orna Hurwitz, PhD, **and Vincent Mas, PhD, **

Figure 1. Annual distribution of point prevalence of feeding tube use between 1993 and 2004 for 11,032 nursing home facilities in the United States.

Aspiration Pneumonia

- Tube feeds
  - Do NOT prevent aspiration
    - Continue aspiration of regurgitated gastric contents/saliva
    - PEG tube decreases pressure of lower esophageal sphincter
  - Actually increase risk for aspiration pneumonia
    - 3 case control studies demonstrated this
    - Higher death rate in PEG groups
  - Lower rates of aspiration with hand feeding
    - Nonrandomized, prospective study

Audit of Percutaneous Endoscopic Gastrostomy in Long-term Enteral Feeding in a Nursing Home

<table>
<thead>
<tr>
<th>Component of procedure</th>
<th>PEG group (n = 78)</th>
<th>Control group (n = 78)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure fidelity (%)</td>
<td>91 (94.9)</td>
<td>85 (87.1)</td>
</tr>
<tr>
<td>Tube leakage (%)</td>
<td>7 (9.1)</td>
<td>11 (14.1)</td>
</tr>
<tr>
<td>Aspiration</td>
<td>11 (14.1)</td>
<td>11 (14.1)</td>
</tr>
<tr>
<td>Death rate (%)</td>
<td>9 (11.8)</td>
<td>11 (14.1)</td>
</tr>
<tr>
<td>Complications (%)</td>
<td>6 (7.8)</td>
<td>11 (14.1)</td>
</tr>
</tbody>
</table>

*Corresponding author's note.

Table 3. Compliance in PEG group vs control group.
Dementia and Malnutrition

- Clinical signs of malnutrition
  - Decrease albumin
  - Low Prealbumin
  - Low Lymphocyte count
  - Decreasing Triceps skin fold size and BMI

- No great studies looking at dementia
- In other populations:
  - Neurological Impairment – no benefit in clinical markers
  - Cancer – 17 trials demonstrating no benefit
  - AIDS – higher death rates despite improved lab markers
  - No evidence for any dx which shows reversal of wasting improves outcomes
  - Increase rates of refeeding syndrome
  - Hyperphosphotemia
  - Worsened glycemic control
  - Higher rates of osteoporosis with tube feeds

Survival and Tube Feeds

- No improvement in mortality
- Procedure for PEG may cause death
- Mortality for patient tube fed is very high
- LTCF patients have no survival benefit with tube feeds

- Eating difficulties in patient with probable dementia of the Alzheimer type. Volicer et al.
  - Looked at 4 feeding types
    - Feed themselves
    - Needed help with feeds but no there eating issues
    - Patients who refused food
    - Patients who choked on foods/liquids
  - No survival difference between the groups at 2 years follow-up

The Risk Factors and Impact on Survival of Feeding Tube Placement in Nursing Home Residents With Severe Cognitive Impairment
By one year most studies have >50% mortality

No improvement with mortality
Procedure risk
Most patients receiving PEG are generally very high
Survival curve unchanged with PEG
Isn’t mortality the ultimate end point?

“Softer” measures of improvement
- Pressure ulcers
- Other infections
- Functional Status
- Comfort

Pressure ulcers
- No prospective studies
- Retrospective studies found no benefit
- Berlowitz et al, tube feeding does not help heal preexisting
- Bedridden/incontinent patients who are tube fed will likely make more urine and stool
- Incontinence is risk for pressure sure

Risk of other infections
- No published studies showing decreased infectious risk in patients with dementia
- PEG tubes risk:
  - Diarrhea (infected enteral feeds)
  - Local infection (3-15%)
    - Cellulitis
    - Abscess (5-8%)
    - Necrotizing fasciitis

Function Status
- Intention of improving function, self care, etc.
- No studies demonstrate improvement
- Oral protein supplements – no improvement without resistance training
- Retrospective study found no improvement at 18 months in NH patients
Comfort
- Dementia – inferred data cancer/stroke patients
  - Few experience hunger/thirst
  - Many times relieved with ice chips
- Hunger increased in ALS pts with PEG
- Restraint rates increase with PEG + dementia

Nutrition Management
- Assist with careful Hand Feeds
- Ad lib diets
- Staff education
- Dental care
- Strong flavored foods
- Hot and cold foods
- Gravy and juices

Nutrition Management
- Reduce medications
  - Anticholinergic – xerostomia
  - Sedatives – inattention
  - Esophagitis – bisphosphonates
  - Anorexia – NSAIDs
  - Movement disorders - antipsychiatics

This does not appear to be the reality

Barriers
- Family member emotions
- Poor communication
- Staffing ratios
- Costs
- Inappropriate goals

Helping patients decide
- Educate our patients and their families
- All of us need to discuss this issue
  - Earlier the better
- Develop cost effective models
- Provide patients/families with decision aids
Great Decision Aid

http://decisionaid.ohri.ca/docs/das/Feeding_Options.pdf
For more information about Simple Pleasures, see: http://www.health.ny.gov/diseases/conditions/dementia/edge/interventions/simple/index.htm

B. Causal and contributing factors must be fully assessed and treated before psychotropic medications are used. Ongoing monitoring of these factors is required.

Footnotes:
• Use of evidence-based interventions requires full understanding of the protocols and appropriate application to assure optimal outcomes.
• For more information about Simple Pleasures, see: http://www.health.ny.gov/diseases/conditions/dementia/edge/interventions/simple/index.htm

Algorithm for Treating Behavioral and Psychological Symptoms of Dementia (aka Problem Behaviors)

STEP 1: IDENTIFY, ASSESS, AND TREAT CONTRIBUTING FACTORS
- Determine and document frequency, duration, intensity, and characteristics of each problem behavior
- Identify, assess, treat or eliminate ANTECEDENTS and TRIGGERS

Unmet physical needs?
- Pain
- Infection/illness
- Dehydration/nutrition
- Sleep disturbance
- Medication side effects
- Sensory deficits
- Constipation
- Incontinence/retention

Unmet psychological needs?
- Loneliness
- Boredom
- Apprehension, worry, fear
- Emotional dysregulation
- Lack of enjoyable activities
- Lack of socialization
- Loss of intimacy

Environmental causes?
- Level/type of stimulation: noise, confusion, lighting
- Caregiver approaches
- Institutional routines, expectations
- Lack of cues, prompts to function & way-find

Psychiatric causes?
- Depression
- Anxiety
- Delirium
- Psychosis
- Other mental illnesses

Monitor outcomes to assure full treatment response
- If problem behavior persists after antecedents are adequately treated, use NON-DRUG INTERVENTIONS

STEP 2: SELECT AND APPLY NON-DRUG INTERVENTIONS
- Select interventions based on the TYPE of problem and ASSESSMENT of retained abilities, preferences, and resources
- Cognitive level
- Physical function level
- Long-standing personality, life history, interests/abilities
- Preferred personal routines and daily schedule
- Personal/family/facility resources
- Train staff to use selected interventions appropriately/following best practice and evidence-based guidelines
- Tailor intervention to individualized needs, combining approaches and interventions to promote comfort & function
- Monitor outcomes using rating scales to quantify behaviors

Adjust caregiver approaches
- Personal approach: be prompt, remind, distract
- Daily routines: simplify, sequence tasks; offer limited choices; use long-standing history & preferences to guide
- Communication style: simple words and phrases; speak clearly; wait for answers; make eye contact; monitor tone of voice/other nonverbal messages
- Unconditional positive regard: do not confront, challenge or “explain” misbeliefs (hallucinations, delusions, illusions); accept belief as “real” to the person; reassure, comfort, and distract
- Involvement/Engagement: tailor activities to increase involvement/reduce boredom; individualize social and leisure activities

Change the environment
- Eliminate misleading stimuli: clutter, TV, radio, noise, people talking; reflections in mirrors/dark windows; misunderstood pictures/decor
- Reduce environmental stress: caffeine; extra people; holiday decorations; public TV
- Adjust stimulation: reduce noise, activity, confusion if over-stimulated; increase activity/involvement if under-stimulated (bored)
- Enhance function: signs, cues, pictures to promote way-finding; increase lighting to reduce misinterpretation
- Involve in meaningful activities: personalized program of 1:1 and small group vs. large group
- Adapt the physical setting: secure outdoor areas; decorative tactile objects; home-like features; smaller, segmented recreational and dining areas; natural and bright light; spa-like bathing facilities; signage to promote way-finding

Use evidence-based interventions
- Agitated/Irritable: Calm, soothe, distract
- Physical exercise
- Simple Pleasures
- Pet therapy
- Physical exercise/outdoor activities
- Resistant to care: Identify source of threat; change routines and approaches
- Wandering/Restless/Bored: Engage, distract
- “Rest stations” in pacing path
- Adapt environment to reduce exit-seeking
- Physical exercise/outdoor activities
- Simple Pleasures
- Disruptive vocalization: Distract, engage
- Individualized music
- Presence therapy: tapes of family
- Apathetic/Withdrawn: Stimulate, engage
- Individualized music
- Simple Pleasures
- Repetitive questions/ mannerisms: Reassure, address underlying issue, distract
- Validation therapy/therapeutic lying
- Simple Pleasures
- Depression/Angry: Reassure, engage
- Physical exercise
- Pleasant activities
- Cognitive stimulation therapy
- Wheelchair biking

STEP 3: MONITOR OUTCOMES AND ADJUST COURSE AS NEEDED
- Quantify behavioral symptoms using rating scale(s)
- Assess adequate “dose” (intensity, duration, frequency) of interventions
- Provide/reinforce staff training and development activities to assure full understanding and cooperation in daily care
- Adapt interventions as needed to promote optimal outcomes
- Consider antipsychotics for persistent and severe cases that meet criteria for use. See Antipsychotic Prescribing Guide.
Dementia Antipsychotic Guide for Care Providers

General Guidelines:

1. **Look for reversible causes** of challenging behaviors or other target symptoms prior to asking for a drug to treat them. Examples include medical problems, drugs, modifiable stressors.
2. **Try non-drug strategies first.** Keep using these strategies even if antipsychotics are used.
3. **Clearly document treatment targets** (symptoms) before and after a strategy or drug is tried. Include frequency, severity, time of day, and environmental or other triggers of symptoms.
4. **Use of an antipsychotic should be well-justified.** The treatment target symptom must present a danger to the person or others, or cause the person to have one of the following:
   - inconsolable or persistent distress
   - a major decline in function
   - substantial difficulty receiving needed care
   Appropriate and inappropriate treatment targets from CMS are listed in the boxes below. Generally antipsychotics should not be used for inappropriate treatment targets.
5. **Monitor for effectiveness and side effects.** (see other side)
6. **If the drug doesn’t help, it should be stopped.**

Appropriate Antipsychotic Treatment Targets:

- Aggressive behavior (especially physical)
- **Hallucinations**: seeing, hearing, smelling, tasting or feeling things that seem real to the person but not others. For example, hearing voices or seeing people who aren’t there.
- Delusions: false personal beliefs that a person has in spite of evidence they aren’t true. For example, thinks husband or wife is having an affair without reason, or family members are imposters. **Note:** memory problems are sometimes mistaken for delusions, e.g. thinks people are stealing items that were misplaced and forgotten.
- Other severe distress as described above in #4 General Guidelines

Inappropriate Antipsychotic Treatment Targets:

- Wandering
- Not being social or friendly
- Poor self-care
- Restlessness
- Uncooperativeness without aggressive behavior
- Not caring about what is going on around them
- Speech or behaviors that are not dangerous to the person or others

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Dementia Antipsychotic Guide Monitoring for Response and Side Effects

**Monitoring for Response**

- Clearly document treatment target symptoms and whether they improve. The drug should be stopped if it does not help. Symptoms may change over time, with or without drug treatment.
- Do not expect an immediate response. Sedation from the drug may explain much of any effect seen in the first few days.
- Do not ask for higher doses too quickly. It may take several days to a week or more to see the full effect, depending on the drug (talk to prescriber for details). Higher doses cause more side effects.

**Monitoring for Side Effects**

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Report to RN or prescriber if these problems occur</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Movement Side Effects</strong></td>
<td>Tremors, tight muscles, changes in walking or falls, abnormal movements like face or eye twitching, drooling.</td>
</tr>
<tr>
<td><strong>Central Nervous System</strong></td>
<td></td>
</tr>
<tr>
<td>Sedation</td>
<td>Sleepiness, slow to respond, hard to wake up.</td>
</tr>
<tr>
<td><strong>Confusion, delirium, or other cognitive worsening</strong></td>
<td>Worsening mental status compared to normal. Seems more confused; sedated or agitated; worsened communication abilities; problems paying attention; slower movements or speech. These may be a sign of a serious medical illness or a drug side effect.</td>
</tr>
<tr>
<td><strong>Worsening psychotic symptoms (delusions or hallucinations)</strong></td>
<td>Hallucinations: seeing, hearing, smelling, tasting or feeling things that aren’t there. Delusions: false fixed beliefs that a person holds in spite of evidence they aren’t true. Antipsychotics usually lessen these symptoms, but sometimes make them worse.</td>
</tr>
<tr>
<td><strong>Cardiovascular / Metabolic</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rapid drop in blood pressure on standing</strong></td>
<td>Signs of dizziness or falls. Check an orthostatic blood pressure by checking the blood pressure when lying down then again shortly after standing. Drugs sometimes cause an unwanted drop in blood pressure.</td>
</tr>
<tr>
<td><strong>Swelling</strong></td>
<td>Swelling is most common in the legs and ankles, but can occur in other places.</td>
</tr>
<tr>
<td><strong>Weight gain</strong></td>
<td>Big increases in appetite. Hungry even after eating. Unwanted increases in weight.</td>
</tr>
<tr>
<td><strong>High blood sugar</strong></td>
<td>Confusion, increased thirst, frequent urination, unusual tiredness, blurred vision. Blood sugar can be checked to see if this might be the cause of these symptoms.</td>
</tr>
<tr>
<td><strong>Urinary Symptoms</strong></td>
<td>Changes in frequency—increased, or decreased with urinary retention. Worsened incontinence. Pain on urination. May be infection or drug-related problem.</td>
</tr>
<tr>
<td><strong>Constipation</strong></td>
<td>Fewer bowel movements. Hard stools. Poor appetite. Gut pain or distention.</td>
</tr>
</tbody>
</table>
Delirium Assessment and Management

**Definition of Delirium**

*Acute onset* of impaired attention, cognition (memory, orientation, language), consciousness, perception, behaviors, and/or emotions that may fluctuate, have a medical cause, and are not due to dementia. Often called “acute confusion.” *Terminal delirium:* irreversible and can occur in the days before dying; antipsychotics used more liberally for comfort in these cases.

1. **Is the person more confused today than usual?** If yes, the person might have delirium and a brief cognitive assessment should be done.

2. **Brief Cognitive Assessment:** People with the level of dementia indicated can usually perform these attention-based tasks, while those with delirium cannot. Severe dementia is difficult to test. Change in cognitive status is usually determined by observation. Compare vs. recent baseline.
   - *Mild Dementia:* list days of week and months of year backwards.
   - *Moderate Dementia:* count backwards from 20 to 1.

3. **Delirium Screening:** See the screening tool, derived from the Confusion Assessment Method (CAM), CAM-ICU, and MDS, on the other side.

4. **If the screening suggests delirium, assess and treat possible causes:**
   - Vitals (pulse, blood pressure, temperature, respiratory rate, pulse-oximetry, pain).
   - Physical examination to diagnose infections or other acute medical conditions such as constipation, pneumonia, pressure ulcers, MI (heart attack), CVA/TIA (stroke).
   - Basic laboratory evaluation (urinalysis, creatinine, sodium, potassium, calcium, glucose, CBC with differential).
   - Review medications with particular attention to anticholinergics, benzodiazepines, or new medications (see *Drugs that May Cause Delirium or Problem Behaviors*). Discontinue if benefit does not outweigh potential harm.
   - Review restraints (foley catheter, IV lines, other restraints) and discontinue if benefit doesn’t outweigh potential harm.
   - Assess pain—is pain management adequate and appropriate?

5. **Use non-drug management:**
   - **Sleep:** Allow continuous sleep at night. Keep noise down. Recognize that an altered sleep-wake cycle is often a symptom of delirium.
   - **Orientation:** Orient to date and place. Clock and calendar in room. Light on from 7 a.m. to 7 p.m. (sunrise to sunset). Always introduce yourself.
   - **Environment:** Keep hearing aids and glasses accessible. Offer beverage of choice frequently for hydration. Encourage low-key family visits.

6. **Use antipsychotic short-term for agitation or distressing psychotic symptoms,** e.g. hallucinations. See *Antipsychotic Prescribing Guide*.
   - E.g. haloperidol 0.5 mg PO/IM q1 hour PRN agitation or distressing hallucinations. Can double dose if ineffective. Schedule once or twice daily dose based on the total amount needed to achieve treatment goal in 24 hours. When delirium resolves, discontinue the antipsychotic.

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Delirium Screening Tool

**Suspect delirium if answer is yes on items 1 + 2 + (3 or 4) below.**

First perform a Brief Interview of Mental Status, Staff Assessment, or brief cognitive test described on other side.

1) **Acute onset** [ ] yes [ ] no [ ] uncertain*
   - Is there evidence of an acute change in mental status from the person’s baseline?
   - *If uncertain, gather more information.

2) **Inattention** [ ] yes [ ] no [ ] uncertain*
   - Does the person have difficulty focusing attention (i.e., easily distracted or can’t follow what is being said)?
   - *If uncertain, perform an Attention Screening Examination (ASE):
     - **Directions:** Say to the patient, “I am going to read you a series of 10 letters. Whenever you hear the letter ‘A,’ indicate by squeezing my hand.” Read letters from the following letter list in a normal tone.

     **SAVEAHART**

     **Scoring:** Errors are counted when patient fails to squeeze on the letter “A” and when the patient squeezes on any other letter than “A.” Inattention is present if 3 or more errors are observed.

3) **Disorganized thinking** [ ] yes [ ] no [ ] uncertain*
   - Is the person’s thinking disorganized or incoherent, as evidenced by rambling or irrelevant conversation, unclear or illogical flow of ideas, unpredictable switching from subject to subject?
   - *If uncertain, conduct the following question/command assessments:
     - **Questions:** 1. Will a stone float on water? 2. Are there fish in the sea? 3. Does one pound weigh more than two pounds? 4. Can you use a hammer to pound a nail?
     - **Score:** Patient earns 1 point for each correct answer out of 4.
     - **Command:** Say to patient: “Hold up this many fingers” ( Examiner holds two fingers in front of patient then puts them back down) “Now do the same thing with the other hand” (Not repeating the number of fingers).
     - **Score:** Patient earns 1 point if does entire command. Disorganized thinking is present if combined scores are less than 4.

4) **Altered Level of Consciousness** [ ] yes [ ] no
   - Is the patient anything other than alert, calm and cooperative (at current time)? This may include vigilant (easily startled), lethargic (frequently dozed off when asked questions), or stuporous (very difficult to arouse and keep aroused), or comatose (could not be aroused).
   - **Psychomotor retardation:** (sluggishness, staring into space, staying in one position, moving slowly) may also count as a “yes” for this domain.
Caring for a person with dementia and problem behaviors can be challenging and stressful. The purpose of this document is to help caregivers learn to manage difficult situations, especially when the person with dementia is upset, angry, or scared.

1. First, tune in to your own ATTITUDES and FEELINGS about what is going on.
   -- Getting angry won't help and will probably make things worse.
   Remember: Being caught off guard puts you at risk for "fueling the fire" (e.g. the first time it happens you "fight back" vs. assess and problem-solve through the crisis).
   Likewise, if you are angry or resentful about past experiences with the person, you probably won't be effective.
   -- Try to remain calm, cool, and collected.
   -- Use positive self-talk to get yourself under control. For example, remind yourself:
     "This person is uncomfortable and needs my help."
     "I can handle this. I don't need to get upset too."
     "They're not really angry with me. They're just upset and I'm in the way."
   -- Avoid words or actions that might threaten the person even more.
   -- If you can't get your own feelings under control, leave the area immediately, alerting other staff if needed.

2. Keep track of what you are doing with your body and what that might mean to the person.
   -- Don't surprise them; move slowly and steadily.
   -- Keep your hands out where they can see them, palms up and open, which is non-threatening.
   -- Respect their "personal space;" the more threatened they are, the more distance you should give them.
   -- Don't stand squarely in front of them (which is very confronting and threatening); turn slightly to one side.
   -- Be careful to not stare, glare, or otherwise challenge the person with eye contact.
   -- Don't turn your back on the person.
   -- Always leave yourself an escape route.
   -- Avoid standing over the person (if they are sitting or reclining), which can be very threatening.
3. Think about WHAT you say and HOW you say it.
   -- Speak in short, simple phrases.
   -- Use a normal tone of voice and talk at a normal rate.
   -- Communicate concern and caring.
   -- Avoid sarcasm, insulting remarks, and even humor (which can easily be misinterpreted).

4. Use DIRECTIONS or EXPLANATIONS that are APPROPRIATE for the person and the situation. For example:
   -- "I'm sorry if I upset you. That wasn't what I meant to do."
   -- "Your behavior worries (frightens, upsets) me."
   -- "How can I help you be more comfortable?"
   -- "Mr. Smith, let's go to your room (a quiet place, etc.)."
   -- "It's all right now. You are safe with me. I won't let anything bad happen to you."

5. Listen carefully to what they are saying and try to respond to the message they are trying to communicate.
   -- Check for meaning, "You're saying that ..."
   -- Avoid giving advice.
   -- Respond to the content of their message (the actual meaning), not the way it's being said.
     * Try to understand what they are upset about.
     * Respond to that unmet need or feeling.
   -- Don't assume that they have heard or understood you.
     * Our focus becomes very narrow when we're anxious.

6. Try to calm or soothe them, remembering that the first priority is to protect yourself and others.
   -- Leave the room or area if they continue to threaten you.
   -- Get assistance, even if you aren't sure if you really need it.
   -- Use physical control only as the last resort! Try everything else first!
## Non-Drug Management of Problem Behaviors and Psychosis in Dementia

### Step 1: Assess & Treat Contributing Factors

**Focus on one behavior at a time**
- Note how often, how bad, how long, & document specific details
- Ask: What is really going on? What is causing the problem behavior? What is making it worse?

**Identify what leads to or triggers problems**
- **Physical**: pain, infection, hunger/thirst, other needs?
- **Psychological**: loneliness, boredom, nothing to do?
- **Environment**: too much/too little going on; lost?
- **Psychiatric**: depression, anxiety, psychosis?

**Reduce, Eliminate things that lead to or trigger the problems**
- Treat medical/physical problems
- Offer pain medications for comfort or to help cooperation
- Address emotional needs: reassure, encourage, engage
- Offer enjoyable activities to do alone, 1:1, small group
- Remove or disguise misleading objects
- Redirect away from people or areas that lead to problems
- Try another approach; try again later
- Find out what works for others; get someone to help

**Document outcomes**
- If the behavior is reduced or manageable, go to Step 3
- If the behavior persists, go to Step 2

### Step 2: Select & Apply Interventions

**Consider retained abilities, preferences, resources**
- Cognitive level
- Physical functional level
- Long-standing personality, life history, interests
- Preferred personal routines, daily schedules
- Personal/family/facility resources

**Develop a person-centered plan**
- Adjust caregiver approaches
- Adapt/change the environment
- Select/use best evidence-based interventions tailored to the person’s unique needs/interests/abilities

### Step 2: Select & Apply Interventions, Continued

**Adjust your approach to the person**
- **Personal approach**: cue, prompt, remind, distract; focus on person’s wishes, interests, concerns; use/avoid touch as indicated. Do not try to reason, teach new routines, or ask to “try harder.”
- **Daily routines**: simplify tasks and put them in a regular order; offer limited choices; use long-standing patterns & preferences to guide routines & activities
- **Communication style**: simple words and phrases; speak in short sentences; speak clearly; wait for answers; make eye contact; monitor tone of voice and body language
- **Unconditional positive regard**: do not confront, challenge or explain misbeliefs (hallucinations, delusions, illusions); accept belief as real to the person; reassure, comfort, and distract

**Adapt or change the environment**
- **Eliminate things that lead to confusion**: clutter, TV, radio, noise, people talking; reflections in mirrors/dark windows; misunderstood pictures or decor
- **Reduce things that cause stress**: caffeine; extra people; holiday decorations; public TV
- **Adjust stimulation**: if overstimulated—reduce noise, activity, and confusion; if under-stimulated (bored)—increase activity and involvement
- **Help with functioning**: signs, cues, pictures help way-finding; increase lighting to reduce misinterpretation
- **Involve in meaningful activities**: personalized program of 1:1 and small group or large group as needed
- **Change the setting**: secure outdoor areas; decorative objects; objects to touch and hold; homelike features; smaller, divided recreational and dining areas; natural and bright light; spa-like bathing facilities; signs to help way-finding

**Select and use evidence-based interventions**
- Work with the team to fit the intervention to the person
- Check care plan for additional information
- Contact supervisor with problems/issues

### Step 3: Monitor Outcomes & Adjust Course as Needed

- Track behavior problems using rating scale(s)
- Assure adequate “dose” (intensity, duration, frequency) of interventions
- Adapt/add interventions as needed to get the best possible outcomes
- Make sure all people working with the person understand and cooperate with the treatment plan and are trained as needed
Caring for People with Dementia and Problem Behaviors: A Step-by-Step Evidence-Based Approach

Go to igec.uiowa.edu for more information and references

This approach begins with evaluation and treatment of common causes of behaviors, then uses non-drug approaches to management. Antipsychotics are reserved for severe cases due to potential side effects, which include death. Document all behaviors, symptoms, interventions, and outcomes. Sections are color-coded to help guide you to accompanying resources, which are italicized in bold. Blue=Evaluation. Yellow=Non-drug. Pink=Antipsychotics.

1. Evaluation
   - Clearly characterize and document behavior or symptom, including frequency, severity, triggers, and consequences.
   - Consider environmental factors and triggers. Are they modifiable?
   - Perform medical evaluation (delirium, medical conditions, pain, depression, drugs). See Common Causes of Problem Behaviors [on other side], Delirium Assessment and Management, and Drugs that May Cause Delirium or Problem Behaviors.
     — Address these causes if they are identified.
   - Discuss with family any history that may explain or manage the behavior, e.g. patient habits, preferences, activities they enjoy.

2. Manage with non-drug approaches
   - Engage in meaningful activities, redirect, clear communication, etc. See Non-Drug Management.

3. Does the behavior pose risks to the resident or others, or is the resident severely distressed?
   - If yes, non-drug approaches fail, and medical work-up does not reveal another cause, consider drug therapy targeted at behaviors. See Antipsychotic Prescribing Guide.


5. Consider antipsychotic dose reduction or discontinuation if the drug is not effective, side effects occur, or the behaviors have been manageable. See Antipsychotic Prescribing Guide. Re-assess need for drug therapy periodically, at least twice a year.

6. Use prevention and maintenance approaches to reduce further exacerbations
   - Clear communication, meaningful activities, etc.
   - Simplify and create a calm environment
   - Manage medical conditions, depression, pain, etc.
   - See Non-Drug Management

Evaluation of Problem Behaviors in People with Dementia

<table>
<thead>
<tr>
<th>Common Causes of Problem Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical:</strong></td>
</tr>
<tr>
<td>• Pain</td>
</tr>
<tr>
<td>• Hunger</td>
</tr>
<tr>
<td>• Constipation, urinary retention</td>
</tr>
<tr>
<td>• Fatigue, insomnia, poor sleep</td>
</tr>
<tr>
<td><strong>Psychological:</strong></td>
</tr>
<tr>
<td>• Anxiety, fear, depression</td>
</tr>
<tr>
<td>• Impaired speech, frustration</td>
</tr>
<tr>
<td>• Boredom</td>
</tr>
<tr>
<td>• Autonomy/privacy</td>
</tr>
<tr>
<td><strong>Environmental:</strong></td>
</tr>
<tr>
<td>• Caregiver approaches</td>
</tr>
<tr>
<td>• Institutional routines,</td>
</tr>
<tr>
<td>expectations and demands</td>
</tr>
<tr>
<td>• Misinterpretation of events/setting</td>
</tr>
<tr>
<td>• Over/under-stimulation</td>
</tr>
<tr>
<td>• Changes from normal routine</td>
</tr>
<tr>
<td><strong>Deliem, secondary to medical issues such as:</strong></td>
</tr>
<tr>
<td>• Medication side effects</td>
</tr>
<tr>
<td>• Infections</td>
</tr>
<tr>
<td>• Metabolic/electrolyte disturbances</td>
</tr>
<tr>
<td>• Dehydration</td>
</tr>
</tbody>
</table>

Consider the Following Assessments

Check Vitals:
• Temperature, pulse, blood pressure, respiration, oxygen saturation

Physical Assessment:
• Signs of constipation or urinary retention
• Changes in breath sounds
• Peripheral edema
• Fluid status: orthostatic blood pressure, mucous membranes

Common Sources of Pain:
• Bed sores, other skin lesions, eye pain from corneal abrasion
• Joint pain, other musculoskeletal pain, foot pain (poorly fitting shoes)
• Oral pain related to dentures/mouth ulceration

Sensory:
• Hearing: check hearing aids, ear wax
• Vision: check glasses

Delirium Assessment:
• See Delirium Assessment and Management

Urinalysis, or other urinary symptoms

Blood glucose, CBC with differential, electrolytes if appropriate

Drug side effects:
• See Drugs that May Cause Delirium or Problem Behaviors

Recent changes: environmental, routine, family, drugs, medical
Dementia Antipsychotic Prescribing Guide

General Guidelines:
1. **Rule out reversible causes** prior to using a drug.
2. **Try non-drug management strategies first.**
3. **Clearly document treatment targets** (symptoms) before and after a treatment strategy is tried.
4. **Justify use of an antipsychotic.** The treatment target symptom must present a **danger to the person or others**, or cause the patient to experience one of the following:
   - intractable or persistent distress
   - a significant decline in function
   - substantial difficulty receiving needed care
5. **See Guidance for Special Populations**, if the patient has frontotemporal dementia, Parkinson’s disease, Lewy body dementia, renal impairment, or hepatic impairment.
6. **Consider the impact of side effects on comorbidities** when choosing a drug, and **start with a low dose**.
7. **If the drug doesn’t help, stop it** (use appropriate tapering).

### Appropriate antipsychotic treatment targets:
- Aggressive behavior (especially physical)
- Hallucinations (if distressing)
- Delusions (note: memory problems are often mistaken for delusions, e.g. thinks people are stealing lost items)
- **Severe** distress as described above in #4 General Guidelines

### Inappropriate antipsychotic treatment targets:
- Wandering
- Unsociability
- Poor self-care
- Restlessness
- Uncooperativeness without aggressive behavior
- Inattention or indifference to surroundings
- Verbal expressions or behaviors that do not represent a danger to the resident or others

*According to CMS regulations for long-term care facilities

### Antipsychotic Efficacy
Evidence supports modest symptom improvements with **aripiprazole**, **haloperidol**, **olanzapine**, **quetiapine**, and **risperidone**, but not with use of other antipsychotics in dementia. All antipsychotics appear to increase risk of death. The table below summarizes the strength of evidence supporting the efficacy of each **atypical antipsychotic** for different symptom domains.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Aripiprazole</th>
<th>Olanzapine</th>
<th>Quetiapine</th>
<th>Risperidone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dementia overall</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Dementia psychosis</td>
<td>+</td>
<td>+/-</td>
<td>+/-</td>
<td>++</td>
</tr>
<tr>
<td>Dementia agitation</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>++</td>
</tr>
</tbody>
</table>

++ = moderate or high evidence of efficacy
+ = low or very low evidence of efficacy
+/- = mixed results

Haloperidol has shown efficacy for aggression in randomized trials

### Adverse Effects Comparison Table

<table>
<thead>
<tr>
<th>Drug</th>
<th>Urinary incontinence</th>
<th>Weight gain/glucose</th>
<th>Edema</th>
<th>Orthostatic hypotension</th>
<th>Worsening psychotic</th>
<th>Confusion, delirium, cognitive dysfunction</th>
<th>Sedation</th>
<th>Central Nervous System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td><img src="Symptom1" alt="Symptom" /></td>
<td><img src="Symptom2" alt="Symptom" /></td>
<td><img src="Symptom3" alt="Symptom" /></td>
<td><img src="Symptom4" alt="Symptom" /></td>
<td><img src="Symptom5" alt="Symptom" /></td>
<td><img src="Symptom6" alt="Symptom" /></td>
<td><img src="Symptom7" alt="Symptom" /></td>
<td><img src="Symptom8" alt="Symptom" /></td>
</tr>
<tr>
<td>Olanzapine</td>
<td><img src="Symptom1" alt="Symptom" /></td>
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<td><img src="Symptom3" alt="Symptom" /></td>
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<tr>
<td>Quetiapine</td>
<td><img src="Symptom1" alt="Symptom" /></td>
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<td><img src="Symptom8" alt="Symptom" /></td>
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</tr>
</tbody>
</table>

0 = no evidence poor that the drug, but evidence that the effect on drug is very rare

- = most adverse effects are greater risk. Caution is advised with increasing risk.

<table>
<thead>
<tr>
<th>Movement Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haloperidol (12.5 mg)</td>
</tr>
<tr>
<td>Olanzapine (10 mg)</td>
</tr>
<tr>
<td>Quetiapine (100 mg)</td>
</tr>
<tr>
<td>Risperidone (1 mg)</td>
</tr>
</tbody>
</table>
### Dementia Antipsychotic Prescribing Guide

#### Dosing, Special Populations

**Timing:** Usually once daily at night or prior to sundowning. Beware of sedation-related adverse events if given earlier than bedtime.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Starting Dose (mg/day)</th>
<th>Max Dose for Maintenance* (mg/day)</th>
<th>Special Dosage Forms**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td>2-5</td>
<td>10</td>
<td>ODT, L, IM</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>0.25</td>
<td>2</td>
<td>L, IM</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>2.5-5</td>
<td>7.5</td>
<td>ODT, L, IM</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>12.5-25</td>
<td>150</td>
<td>XR</td>
</tr>
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<td>0.25-0.5</td>
<td>2</td>
<td>ODT, L</td>
</tr>
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*per CMS regulations for long-term care facilities. Doses for acute treatment sometimes exceed maintenance doses.

**ODT = orally dissolving tablet, L = liquid, IM = short-acting intramuscular, XR = extended release.

#### Guidance for Special Populations

- **Frontotemporal dementia:** Some evidence for trazodone. Mixed for SSRIs. See Iowa Geriatric Education Center website for details.

- **Parkinson’s disease (PD) and Lewy body dementia (LBD):**
  - Movement disorder treatments (dopamine agonists, carbidopa-levodopa, anticholinergics) can cause psychosis or delirium. Prior to antipsychotic use, consider reducing the dose of these drugs to see if the psychosis or behaviors resolve or become manageable.
  - People with PD and LBD are very sensitive to adverse effects, particularly movement side effects and neuroleptic malignant syndrome. If antipsychotics are used, expert guidelines recommend quetiapine or clozapine due to lower movement side effect risk.

- **Renal Impairment:** Reduce risperidone dose. Titrate slowly.

- **Hepatic Impairment:** Possibly reduce dose of olanzapine, quetiapine, risperidone. Caution with all.

#### Monitoring for Response

- **Clearly document** treatment target symptoms. If the drug does not help, discontinue the drug. These symptoms may also change over time, with or without drug treatment.

- **Do not expect an immediate response.** Sedation may explain much of any immediate effect that is seen. Response may take 2-4 weeks.

- **Do not increase doses too quickly** if the patient doesn’t respond right away. At a stable dose, drug blood levels may rise for several days to a week or more before reaching a steady state level. Increased doses lead to increased side effects.

#### Monitoring for Adverse Effects

Other possible adverse effects include: falls, constipation, urinary tract infection, urinary incontinence or retention, stroke, arrhythmias, and neuroleptic malignant syndrome.

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<th>Monitoring</th>
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<td>Sedation</td>
<td>Observation, sedation scale if needed.</td>
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<td>Confusion, delirium, or other cognitive worsening</td>
<td>Observation for mental status or behavior changes.</td>
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<td>Psychotic symptoms</td>
<td>Delirium screening tool, e.g. CAM (Confusion Assessment Method) if delirium is suspected.</td>
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<tr>
<td><strong>Cardiovascular / Metabolic</strong></td>
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<tr>
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<td>Observation for signs of dizziness or falls.</td>
</tr>
<tr>
<td>Edema</td>
<td>Orthostatic blood pressure (if feasible). Monthly, or if signs of dizziness occur. More frequent on initiation or after dose increase.</td>
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<tr>
<td>Weight gain</td>
<td>Observation for swelling of extremities.</td>
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<td>Monthly weight. Consider weekly for 1 month if overweight. Watch for increased appetite.</td>
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<td>Fasting blood lipid panel at baseline, 3 &amp; 6 months, then q6 months. Also PRN symptoms or mental status change. Monitor symptoms: increased thirst, urination, hunger, weakness.</td>
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### Dementia Antipsychotic Prescribing Guide

#### Monitoring for Response

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Choosing Wisely: Don’t Use Antipsychotics as First Choice to Treat Behavioral and Psychological Symptoms of Dementia

Jeff Reist PharmD, BCPS
Clinical Associate Professor
University of Iowa College of Pharmacy

Disclosures

• I have had no financial relationships any companies that produce proprietary products discussed in this presentation.
• No drug is FDA approved to treat neuropsychiatric/behavioral disturbances in dementia.

Objectives

At the conclusion of this program, the participant should be able to
• Define the rationale for antipsychotic use in elderly patients with dementia.
• Describe both non-pharmacological and pharmacological treatments for patients with behavioral disturbances resulting from dementia.
• Devise a rational plan for monitoring and discontinuing a patient with dementia being treated with antipsychotics for behavioral disturbances.

Special Thanks

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  – Susan Lenoch, MA
• Brian Gryzlak, MA, MSW: project manager
• The rest of the IA-ADAPT team
• All the participants who so kindly provided their input to improve the products

Neuropsychiatric Symptoms Associated with Dementia

• Psychotic
  – Delusions and hallucinations
• Depressive
  – Can accelerate decline if untreated
• Apathy
• Manic-like
• Agitation or aggression

Problem Behaviors and Psychosis in Dementia

Problem Behaviors or Psychosis
Severity and Type of Dementia
Depression/Anxiety/Insomnia
Medical Conditions
Unmet Needs
The Challenge

- Very few drugs help for problem behaviors or psychosis in dementia
- Antipsychotics have been the main drug treatment used
  - In 2010, ~22% of LTCF residents got antipsychotics
  - Varied by state and facility (~16.3-29.1%)
  - Effectiveness is modest
  - Serious side effects, including death
- Non-drug methods are preferred
  - Providers may feel or be poorly trained to use non-drug behavior management techniques


Latest Data on Antipsychotic Use

- CMS Reported in September 2014
  - 17.1% reduction in prevalence of antipsychotic use over previous 21 months
    - From 23.8% to 19.8%
- New CMS goals to reduce antipsychotic use
  - By 25% by end of 2015
  - By 30% by end of 2016
- Antipsychotic use in Iowa NFs
  - 22.2% in 2011
  - 19.7% in 2014

Costs of Antipsychotic Drug Therapy

- Medicare Part D spending in 2011
  - $7.6 Billion
  - 2nd highest class of drugs
  - 8.4% of total Part D spending

The Problem with Antipsychotics

~22% of antipsychotic prescriptions in nursing homes are problematic per Centers for Medicare and Medicaid Services (CMS) standards

<table>
<thead>
<tr>
<th>Problem per CMS standards</th>
<th>% of claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive dose</td>
<td>10.4%</td>
</tr>
<tr>
<td>Excessive duration</td>
<td>9.4%</td>
</tr>
<tr>
<td>Without adequate indication</td>
<td>8.0%</td>
</tr>
<tr>
<td>Without adequate monitoring</td>
<td>7.7%</td>
</tr>
<tr>
<td>In the presence of adverse effects that indicate the dose should be reduced or discontinued</td>
<td>4.7%</td>
</tr>
</tbody>
</table>


Antipsychotics and Mortality in Dementia

- Black Box Warning Issued in 2004
  - Elderly with dementia-related psychosis treated with these drugs at increased risk for death compared to placebo
- Consistent across all antipsychotics
  - Accumulating evidence suggests conventional antipsychotics have a higher risk
- Relative risk = 1.6-1.7
  - Absolute risk = 3.5% vs. 2.3% with placebo
- Number Needed to Harm = 83
- Number need to treat = 5-14


More Evidence of Harm

- Increased risk of acute kidney injury in adults >65 receiving atypical antipsychotics
  - Population based cohort study RR 1.73 (95% CI 1.55-1.92)
- All-cause mortality
  - RR 2.39 (2.28-2.50)
  - NNH = 27

Antipsychotic Adverse Effects

- Sedation
- Postural hypotension
- Falls
- Extrapyramidal
  - Parkinsonism
- Cerebrovascular
  - OR 2.1
- Mortality
  - Infection and cardiac
- Metabolic side effects (weight gain, etc.)

Jeste et al, Neuropsychopharmacology 2008;33:957-70

We Need A Different Approach

- Non-pharmacological approach preferred
  - Must try this first and continue interventions
- Certain medications may be helpful
  - Antidepressants for depressive symptoms
  - Pain medications for un-identified pain
- Antipsychotics
  - Not first line
  - Reserved for selected symptoms and situations

IA-ADAPT Training and Resource Website

- Iowa Geriatric Education Center
- http://www.healthcare.uiowa.edu/igec/IAADAPT

- Hard copy laminated pocket guides and algorithms are $10 per set plus shipping (our cost)
- PDF copies free
- Free CE/CME for physicians, pharmacists, nurses

Step-wise Approach to Problem Behaviors or Psychosis in Dementia

- Establish
  - dangerousness of situation
  - clear diagnosis/etiology
  - severity and frequency of symptoms

- Explore
  - past treatments and outcomes

- Discuss
  - risks and benefits of potential treatments

Meeks and Jeste, Current Psychiatry 2008;7(6):50-65

Step One: Assess the Person & Situation

- Proximal Factors ➔ Identify, assess, treat, eliminate Antecedents and/or Triggers to problem behaviors
  - Unmet physical needs
  - Unmet psychological needs
  - Environmental causes
  - Psychiatric causes

What does the behavior tell you?

- Wandering? ➔ Boredom?
- Calling out? ➔ Loneliness?
- Grabbing? ➔ Fear of pain?
- Pushing? ➔ Desire for privacy?
- Agitated? ➔ Over-stimulation?
- Withdrawn? ➔ Under-stimulation?
- Intrusiveness? ➔ Hunger, thirst?

Many possibilities! Assessment is key!
Assessment of Behaviors

• Focus on one behavior at a time:
  – Unmet physical needs:
    • Pain, illness, hungry, thirsty, sleep disturbance, constipation, incontinence, elimination needs, medications
  – Unmet psychological needs:
    • Loneliness, boredom, apprehension, worry, fear, lack of socialization, loss of intimacy, lack of enjoyable activities
  – Environmental causes:
    • Level/type of stimulation, noise, confusion, lighting, caregiver approach, institutional routines/expectations, lack of cues
  – Psychiatric causes:
    • Depression, anxiety, delirium, psychosis, other mental illness

Step Two: Select and Apply Non-Pharmacological Approaches

• Interventions
  – Select interventions based on the type of problem and assessment of retained abilities, preferences and resources:
    • Cognitive level
    • Physical function level
    • Long-standing personality, life history, interest/abilities
    • Preferred personal routines and daily schedule
    • Personal/family/facility resources

Non-Pharmacological Interventions

• Adjust caregiver approaches
  – Personal approach, daily routines, communication style, unconditional positive regard, involvement/engagement
• Change the environment
  – Eliminate misleading stimuli, reduce environmental stress, adjust stimulation, enhance function, involve in meaningful activities, adapt the physical setting
• Use evidence-based interventions
  – Based upon symptoms

Step Three: Monitor Outcomes and Adjust as Needed

• Track behavior problems
• Assure adequate “dose” (intensity, duration, frequency) of interventions
• Adapt/add interventions as needed to get the best possible outcomes
• Make sure all people working with the person understand and cooperate with the treatment plan and are trained as needed.

WHAT IF BEHAVIORS CONTINUE?

CONSIDER PHARMACOLOGICAL APPROACHES TO TREAT PROBLEM BEHAVIORS ASSOCIATED WITH DEMENTIA

Overview of Evidence for Pharmacologic Intervention

• Pain medications
• Anticonvulsants
• Antidepressants
• Sedative/Hypnotics
• Antipsychotics
Pain Medications: Husebo et al

- Empiric pain management protocol in nursing home residents with agitation
  - 8 week cluster RCT vs. usual care, n=352
    - Step 1: acetaminophen (68%)
    - Step 2: oral morphine (2%)
    - Step 3: buprenorphine patch (23%)
    - Step 4: pregabalin (7%)
- Agitated symptoms improved at 8 weeks with treatment vs. usual care, and worsened in 4 week after washout

Husebo et al, BMJ. 2011;343:d4065

Pain: Cohen-Mansfield et al

- Open label medication
  - Acetaminophen 650 mg-1000 mg QID
  - Oxycodone 2.5 mg-10 mg PLUS Acetaminophen 1000 mg QID
- Most used acetaminophen only
- Those using pain medications reported better pain than control group
  - Scale used appropriate for dementia patients

Cohen-Mansfield et al. PAIN 2008;134:16-23

Antidepressants

- SSRIs
  - 5 studies vs. placebo
  - 3 studies vs. typical antipsychotics
  - Possible small benefits on agitated symptoms
  - Useful for associated depressive symptoms
- Other Antidepressants
  - Trazodone
    - 2 studies = haloperidol, small N
    - 1 study = placebo

Seitz et al, Cochrane Reviews 2011;2:CD008191

Antidepressants: The CitAD Trial

- Evaluate citalopram for efficacy for agitation in patients with Alzheimer's disease
- RCT double blind placebo trial
- N= 186 followed for 9 weeks
- All received psychosocial intervention
- Citalopram 30 mg (n=94) Vs Placebo n=92

Porsteinsson AP et al. JAMA 2014;311(7):682-691

Cit-AD Outcome Measures

- Primary Outcomes
  - Neurobehavioral Rating Scale agitation subscale (NBRSA)
  - Alzheimer’s Disease Cooperative Study-Clinical Global Impression of Change (mADCS-CGIC)
- Other outcomes monitored
  - Cognition, ADRs (QT prolongation), ADLs caregiver stress

Antidepressants: The CitAD Trial

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- RCT double blind placebo trial
- N= 186 followed for 9 weeks
- All received psychosocial intervention
- Citalopram 30 mg (n=94) Vs Placebo n=92

Porsteinsson AP et al. JAMA 2014;311(7):682-691

Cit-AD Results

- Citalopram group showed significant improvement in
  - NBRSA and mADCS-CGIC scores
  - Caregiver stress scores
- Citalopram group had increase in ADRs
  - Worsening of cognition
  - QT Prolongation
**Cit-AD Conclusions**

- Addition of citalopram reduced agitation and caregiver stress
- However... cognitive decline and QT prolongation may limit use
- Need to study other SSRIs which are not as likely to result in QT prolongation

**Anticonvulsants**

- Divalproex
  - 4 studies = placebo, poorly tolerated
  - Cognitive decline and hippocampal damage?
  - Not recommended
- Carbamazepine
  - Mixed evidence
  - Concerns of poor tolerability, drug interactions
  - Not Recommended

**Sedatives/Anxiolytics**

- Oxazepam, alprazolam, diphenhydramine, buspirone
  - 3 studies = haloperidol
  - No placebos, trial design problems, cognitive impairment issues with most of these drugs
  - Not recommended for scheduled use due to adverse effects and likelihood of worsening cognition
  - Meeks and Jeste, Current Psychiatry 2008;7(5):52-65

**Antipsychotics**

- Evidence supports modest symptom improvements with
  - Haloperidol (Haldol®)*
  - Olanzapine (Zyprexa®)*
  - Quetiapine (Seroquel®)*
    - less supportive evidence
  - Risperidone (Risperdal®)*
  - Aripiprazole (Abilify®)
  - Research does not support use of other antipsychotics in dementia
  - *available as generic

**Evidence for the Use of Antipsychotics for Behavioral Disturbances**

- Modest efficacy in RCTs with some drugs
  - Risperidone for psychosis
  - Aripiprazole and Risperidone for neuropsychiatric symptoms
    - Benefits ↑ in those without psychosis, in nursing homes, and with severe cognitive impairment
  - Haloperidol similar efficacy to atypicals
  - 4 negative placebo controlled trials with quetiapine

**Evidence for the Use of Antipsychotics for Behavioral Disturbances**

- CATIE-AD
  - Time to discontinuation was primary outcome
    - Olanzapine, Quetiapine, Risperidone no better than placebo
  - Time to discontinuation due to lack of efficacy favored Olanzapine and Risperidone
  - Time to discontinuation due to adverse effects favored placebo

AHRQ Summary of Efficacy: Atypical Antipsychotics

<table>
<thead>
<tr>
<th></th>
<th>Aripiprazole</th>
<th>Olanzapine</th>
<th>Quetiapine</th>
<th>Risperidone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dementia-Overall</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Dementia-Psychosis</td>
<td>+</td>
<td>+/-</td>
<td>+/-</td>
<td>++</td>
</tr>
<tr>
<td>Dementia-Agitation</td>
<td>-</td>
<td>++</td>
<td>+/-</td>
<td>++</td>
</tr>
</tbody>
</table>

Legend:

++ = Moderate or high evidence of efficacy
+ = Low or very low evidence of efficacy
+/− = Mixed results

http://www.effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?productid=786&pageaction=displayproduct

Use of Antipsychotics for Behavioral Problems in Dementia

- May be used after other approaches fail
  - Not first choice!!

- FDA status
  - Antipsychotics are not indicated for the treatment of dementia-related psychosis

- Should discuss the risk of increased mortality with patients and families

Shared Decision Making

- Decisions that are shared by the healthcare team, patients and families
- Informed by best evidence available
- Weighed according to the specific characteristics and values of the patient

Shared Decision Making: Antipsychotic Use

- Handout to help discuss the risks and benefits of antipsychotics with families and patients if appropriate
- Written with a focus on health literacy
- Lawsuits are less likely if the family is involved with these decisions

Important Areas to Discuss When Considering Antipsychotics

- Information gathering
  - What are the overall patient goals and what are the specific goals of treatment
  - Good time to share prognosis and correct unrealistic assumptions
  - Why do they think the patient is having these behaviors?

- Share the facts
  - What has been tried
  - The goals for treatment
  - Offer all alternative treatments (i.e., if chooses not to allow an antipsychotic behavior may warrant transfer to the hospital)
  - Risks of treatments

- CMS acceptable reasons

Use of Antipsychotics for Behavioral Problems in Dementia

- Clearly document treatment targets before starting drug therapy
  - Frequency
  - Severity
  - Time of day
  - Environmental or other triggers
- Use quantitative and qualitative descriptions
- Be specific (biting rather than agitation)
- Continue to document during use
Potentially Appropriate Antipsychotic Treatment Targets

- Hallucinations
- Delusions (note: memory problems are often mistaken for delusions, e.g. thinks people are stealing lost items)
- Aggressive behavior (especially physical)

Appropriate Antipsychotic Treatment Targets

- If the symptom presents a danger to the patient or others
- Or, causes the patient to experience
  - Inconsolable or persistent distress
  - Significant decline in function
  - Substantial difficulty receiving needed care

Inappropriate Antipsychotic Treatment Targets

- Wandering
- Unsoicliability
- Poor self-care
- Restlessness
- Impaired memory
- Inattention or indifference to surroundings
- Verbal expressions or behaviors that do not represent a danger to the resident or others
- Nervousness
- Uncooperativeness
- Fidgeting
- Mild anxiety

Antipsychotic Choice

- If an antipsychotic is thought to be necessary, follow these steps
  - Does the patient have Parkinson’s disease, Lewy body dementia, or frontotemporal dementia?
  - If yes, special considerations.....

Dementia Type-Specific Issues

- Parkinson’s Disease / Lewy Body Dementia
  - Tolerate antipsychotics poorly
  - Reduce antiparkinson med doses for psychosis
  - Cholinesterase inhibitors may reduce hallucinations (but can cause syncope)
  - Memantine may produce global improvements
- Frontotemporal Dementia
  - Preliminary data for trazodone and stimulants
  - Mixed data on paroxetine
  - May worsen cognition

Selecting an Antipsychotic

- Receptor Binding – and effects
- Consider adverse effect impact on patient co-morbidities when choosing an antipsychotic
  - Metabolic Disease (Diabetes, Hyperlipidemia)
    - Avoid olanzapine
  - Parkinson’s Disease
    - Avoid haloperidol and most antipsychotics (quetiapine may be preferred, though evidence for efficacy is poor1,2)
    - Clozapine an option
  - Start with a low dose

## Selecting an Antipsychotic

<table>
<thead>
<tr>
<th>Drug</th>
<th>(daily dose range)</th>
<th>Brand Name</th>
<th>(daily dose range)</th>
<th>Brand Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td>2-10 mg</td>
<td>Abilify</td>
<td>0.5-2 mg</td>
<td>Haldol</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>4-8 mg</td>
<td>Zyprexa</td>
<td>5-10 mg</td>
<td>Olanzapine</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>12.5-150 mg</td>
<td>Seroquel</td>
<td>0.5-2 mg</td>
<td>Risperdal</td>
</tr>
<tr>
<td>Risperidone</td>
<td>0.5-2 mg</td>
<td>Risperdal</td>
<td>0.5-2 mg</td>
<td></td>
</tr>
</tbody>
</table>

### Movement Side Effects

<table>
<thead>
<tr>
<th>CNS</th>
<th>Sedation</th>
<th>Confusion, delirium, other cognitive worsening</th>
<th>Worsening psychotic symptoms</th>
<th>Orthostatic Hypotension</th>
<th>Edema</th>
<th>Weight gain/glucose</th>
<th>Triglyceride</th>
<th>Urinary incontinence/UTI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>?</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

## Monitoring Antipsychotic Use

- Start with a time limited trial
- Monitor for effectiveness
  - Specific target behaviors
- Monitor for adverse effects

## Managing Adverse Effects

- Dose Reduction
  - In response to adverse effects
  - Determine continued need
- Change Drug
- Discontinue the medication

## Discontinuing Antipsychotics

- Use periodic gradual dose reductions to assess continued need
  - At least twice yearly
    - Probably much sooner on initial prescription, e.g. 3 months max, but monitor closely for relapse
  - If used in delirium, DC or taper after resolution
  - Consider 25% decrease every 4-6 weeks as a general GDR guideline
    - More precise schedules are half-life dependent

- Continue medication only if there is clear evidence of efficacy

- Many do not experience exacerbation of agitation when medication withdrawn
  - Some evidence shows reduction in depressive symptoms with antipsychotic DC

## Discontinuing Antipsychotics

- Use periodic gradual dose reductions to assess continued need
  - At least twice yearly
    - Probably much sooner on initial prescription, e.g. 3 months max, but monitor closely for relapse
  - If used in delirium, DC or taper after resolution
  - Consider 25% decrease every 4-6 weeks as a general GDR guideline
    - More precise schedules are half-life dependent

- No role for PRN antipsychotic medications

- Look at discontinuation or gradual dose reduction for residents on medications for greater than 12 weeks (3 months)

- Evaluate need for antipsychotics being started on residents during the evening/night shift or over the weekend

(Information reviewed from a presentation by Dr. David Gifford, AHCA/ACAL)
Relapse Risk After Discontinuation: ADAD trial

- Patients with Alzheimer’s disease with psychosis or agitation/aggression
- Treated with risperidone for 16 weeks
- Responders then randomized to one of three regimens
  - Continued risperidone for 32 weeks
  - Continued risperidone for 16 weeks then 16 weeks of placebo
  - Continued use of placebo only for 32 weeks

ADAD: Results

- First 16 weeks
  - Relapse rate greater in placebo group than other two groups
    - 60% vs. 33% P=0.004
    - HR 1.94 (95% CI 1.09-3.45)
- Second 16 weeks
  - Relapse rate greater in the group that switched from risperidone to placebo compared to the group that continued to receive risperidone
    - 48% vs. 15% P=0.02
    - HR 4.88 (95% CI 1.08-21.98)

ADAD: Implications

- Increased relapse rate but not everyone relapsed
  - Still can make a case for a trial reduction or discontinuation to evaluate for continued need
- Need good behavioral symptom documentation
  - To evaluate effect of discontinuation
  - If need to justify re-institution of medication

Summary: Use of Antipsychotics For Dementia Problem Behaviors

- Significant risks.....some possible benefits
  - Use should be limited
- Quality person-centered caregiving approaches may reduce need for antipsychotics
- When needed, clearly document justification & monitor effects
- Agents differ in their effectiveness and side effects
  - Select based on patient characteristics
- Antipsychotics are not forever
  - or often don’t need to be.... try to DC
Choosing Wisely

Nick Butler MD, DABFP
Assistant Clinical Professor
Department of Family Medicine
University of Iowa

Jeff Reist pharmD, BCPS
Associate Clinical Professor
School of Pharmacy
University of Iowa

Choosing Wisely

- Initiative of the American Board of Internal Medicine Foundation
- Over 60 professional medical societies
- Partnered with Consumer Reports and many other private organizations
- Started in 2012

Choosing Wisely

- Goal
  - Right Patient
  - Right Treatment
  - Right Time
- Need to be
  - Supported by evidence
  - Free from harm
  - Truly necessary

Specialty Groups Contributions

Region and State Associations

- Goal
  - Right Patient
  - Right Treatment
  - Right Time
- Need to be
  - Supported by evidence
  - Free from harm
  - Truly necessary

Conflicts of Interest Statement

Within the past 12 months, I have had NO financial relationships with proprietary entities that produce health care goods and services.
Disseminating data through many consumer partnerships to get information to patients

- AARP
- Alliance Health Network
- The Leapfrog Group
- Covered California
- Midwest Business Group on Health
- Minnesota Health Action Group
- National Business Coalition on Health
- National Center for Farmworker Health
- National Hospice and Palliative Care organization
- National Partnership for Women & Families
- Oregon Health Care Quality Corporation
- Pacific Business Group on Health
- Puget Sound Health Alliance
- SEIU Union Plus
- Washington State Medical Association
- Wikipedia

American Geriatric Society

1. Don't recommend percutaneous feeding tubes in patients with advanced dementia; instead offer oral assisted feeding.
2. Don't use antipsychotics as first choice to treat behavioral and psychological symptoms of dementia.
3. Avoid using medications to achieve hemoglobin A1c <7.5% in most adults age 65 and older; moderate control is generally better.
4. Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium.
5. Don't use antimicrobials to treat bacteriuria in older adults unless specific urinary tract symptoms are present.

Terminology

- UTI – bacterial load 1x10⁵ with leukocyturia and typical symptoms (1x10⁴ for indwelling catheter)
- Asymptomatic bacteriuria - bacterial load 1x10⁵ without symptoms

Asymptomatic Bacteriuria Prevalence

- Age > 70
  - 50% of men
  - 50% of women
- CA-ASB 75%–100%

American Geriatric Society

Don't use antimicrobials to treat bacteriuria in older adults unless specific urinary tract symptoms are present.

Infectious Diseases Society of America Guidelines for the Diagnosis and Treatment of Asymptomatic Bacteriuria in Adults

<table>
<thead>
<tr>
<th>Population</th>
<th>Prevalence, %</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy premenopausal women</td>
<td>1-6-6.5</td>
<td>[21]</td>
</tr>
<tr>
<td>Pregnant women</td>
<td>1-6.5</td>
<td>[19]</td>
</tr>
<tr>
<td>Postmenopausal women aged 50-70 years</td>
<td>2.8-4.6</td>
<td>[19]</td>
</tr>
<tr>
<td>Diabetes patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>9-21-27</td>
<td>[20]</td>
</tr>
<tr>
<td>Man</td>
<td>5-27-41</td>
<td>[20]</td>
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<tr>
<td>Elderly persons in the community&lt;a&gt;</td>
<td>10.8-16</td>
<td>[21]</td>
</tr>
<tr>
<td>Woman</td>
<td>13-19</td>
<td>[21]</td>
</tr>
<tr>
<td>Man</td>
<td>14-22</td>
<td>[21]</td>
</tr>
<tr>
<td>Elderly persons in a long-term care facility</td>
<td>28-60</td>
<td>[21]</td>
</tr>
<tr>
<td>Woman</td>
<td>28-60</td>
<td>[21]</td>
</tr>
<tr>
<td>Man</td>
<td>28-60</td>
<td>[21]</td>
</tr>
<tr>
<td>Patients with severe clot risk factor</td>
<td>23-89</td>
<td>[21]</td>
</tr>
<tr>
<td>Interstitial catheter use</td>
<td>23-89</td>
<td>[21]</td>
</tr>
<tr>
<td>Sphincterotomy and condom catheter in place</td>
<td>24</td>
<td>[21]</td>
</tr>
<tr>
<td>Patients undergoing hemodialysis</td>
<td>28</td>
<td>[21]</td>
</tr>
<tr>
<td>Patients with indwelling catheter use</td>
<td>8-23</td>
<td>[21]</td>
</tr>
<tr>
<td>Unspecified</td>
<td></td>
<td>[21]</td>
</tr>
</tbody>
</table>

*a* age >65 years.
Asymptomatic bacteriuria among elderly and middle-aged rural community-dwellers in South-Western Nigeria

- N=128
- Community dwelling individuals
- Age > 40
- May not apply to our patient population

### Table 2: Age distribution and prevalence of significant bacteriuria in male and female volunteers

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Male volunteers</th>
<th>Female volunteers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-49</td>
<td>2 (4.4%)</td>
<td>1 (2.2%)</td>
<td>3 (2.4%)</td>
</tr>
<tr>
<td>50-59</td>
<td>3 (6.6%)</td>
<td>2 (4.4%)</td>
<td>5 (4.1%)</td>
</tr>
<tr>
<td>60-69</td>
<td>3 (6.6%)</td>
<td>1 (2.2%)</td>
<td>4 (3.2%)</td>
</tr>
<tr>
<td>≥70</td>
<td>2 (4.4%)</td>
<td>1 (2.2%)</td>
<td>3 (2.4%)</td>
</tr>
</tbody>
</table>

### Characteristics

- Bacteriuria status: 2 (4.4%) significant, 11 (14.5%) non-significant
- No growth: 31 (44.6%), 44 (57.9%), 75 (60.5%)

### Bacterial organisms

- Escherichia coli: 5 (7.1%), 11 (14.5%), 16 (13.8%)
- Klebsiella species: 1 (1.4%), 4 (5.3%), 5 (4.0%)
- Proteus species: 1 (1.4%), 2 (2.6%), 3 (2.4%)
- Pseudomonas aeruginosa: 1 (0.8%), 1 (1.3%), 1 (0.8%)

### Why Asymptomatic Bacteriuria or UTI

- Adhesin fimbriae assist attachment
- More adhesin usually more virulent
- P fimbriae attach to cells
- Type 1 attach bacteria together
- Fast doubling rate
  - Some with less adhesin and are more likely colonizers

**FYI:** Fungus Not Uncommon with indwelling catheter
No real difference
McGeer Criteria

At least 3 of the following:

- Fever (≥38°C) or chills
- New or increased burning pain on urination, frequency, or urgency
- New flank pain or suprapubic pain or tenderness
- Change in character of urine
- Worsening mental or functional status

Loeb Criteria

- Loeb are criteria for antibiotic needs in LTC patient with respiratory, urinary and skin symptoms

- Acute dysuria alone or
- Fever (≥37.5°C or 1.5°C increase above baseline temperature) and at least 1 of the following:
  - Urgency
  - Frequency
  - Suprapubic pain
  - Gross hematuria
  - Costovertebral tenderness
  - Urinary incontinence

Revised McGeer Criteria

- Criteria from both 1 and 2
  - At least 3 of the following subcategories of signs or symptoms:
    - Acute dysuria or acute pain, swelling, or tenderness of the urethra, epididymis, or prostate
    - Fever or leukocytosis and at least 1 of the following localizing urinary tract symptoms:
      - Acute costovertebral angle pain or tenderness
      - Suprapubic pain
      - Gross hematuria
      - New or marked increase in frequency
      - New or marked increase in urgency
      - New or marked increase in hematuria
      - In the absence of fever or leukocytosis, 3 or more of the following localizing urinary tract symptoms:
        - Suprapubic pain
        - Gross hematuria
        - New or marked increase in frequency
        - New or marked increase in urgency
        - New or marked increase in hematuria
  - One of the following microbiologic criteria:
    - ≥10^5 cfu/ml of no more than 2 species of microorganisms in a voided urine sample
    - At least 10% of any number of organisms in a specimen collected by In-situ catheter
Delayed antibiotics did not increase rates of pyelonephritis/sepsis

- Antibiotic
  - Leads to antibiotic resistance
  - Not recommended
- Cranberry Juice
  - 250-300 ml/day
  - May not do much
  - Time to benefit >2 months
- Topical estrogen
  - If vaginal atrophy present

Prophylaxis

Resources
Discussion

- Strategies to change practice at your institution
- How to educate other providers
- Barriers/resistance to these recommendations
- Methods of working with providers unwilling to change practice
Choosing Wisely: Don’t Use Benzodiazepines or other Sedative/Hypnotics in Older Adults as First Choice for Insomnia, Agitation or Delirium

Jeff Reist
Clinical Associate Professor
University of Iowa College of Pharmacy

Benzodiazepines/ Sedative Hypnotics

Benzodiazepines
- Alprazolam (Xanax®)
- Diazepam (Valium®)
- Lorazepam (Ativan®)
- Clonazepam (Klonopin®)
- Chlordiazepoxide (Librium®)
- Estazolam
- Quazepam (Doral®)
- Temazepam (Restoril®)
- Triazolam (Halcion®)

Non-Benzodiazepines
- Zolpidem (Ambien®)
- Eszopiclone (Lunesta®)
- Zaleplon (Sonata®)

Use in LTC Facilities

- 2014
  - Iowa
    - Anti-anxiety 23.7 %
    - Hypnotics 3.3 %
  - National
    - Anti-anxiety 22.5 %
    - Hypnotics 6.7 %
- 2008
  - Iowa
    - Anti-anxiety 21.8 %
    - Hypnotics 3.0 %
  - National
    - Anti-anxiety 18.5 %
    - Hypnotics 6.8 %

Evidence for Efficacy

- Tampi reviewed trials
- 5 trials using benzodiazepines for behavioral symptoms associated with dementia
- Most looked at BDZ vs. antipsychotic
- Difficult to analyze due to
  - Many study dropouts
  - 30% drop out rate in 3 of the 5 studies
  - Only one study compared to placebo
  - Short term IM use

Evidence for Toxicity

- Studies indicate use of these agents associated with an increase risk of
  - Motor vehicle accidents
  - Falls
    - Fractures
    - Cognitive decline
    - Delirium
- All agents are listed on the Beers Criteria

Beers Criteria Available at: http://www.americangeriatrics.org accessed 10/6/2014

Evidence for Efficacy

- Evidence for efficacy is limited
- Few controlled studies
- Small number of participants
- Short term duration
- Large number of drop outs

Evidence for Toxicity

- Studies indicate use of these agents associated with an increase risk of
  - Motor vehicle accidents
  - Falls
    - Fractures
    - Cognitive decline
    - Delirium
- All agents are listed on the Beers Criteria

Beers Criteria Available at: http://www.americangeriatrics.org accessed 10/6/2014
Why All of These ADRs?

- Older adults have increased sensitivity to these agents
  - Pharmacodynamic changes
- Slower metabolism results in elevated serum levels
  - Pharmacokinetic changes
- Both long-acting and short-acting cause problems
  - Long-acting accumulate resulting in higher levels
  - Short-acting have more difficult withdrawal symptoms

Evidence for Association with Falls

- Leipzig et al in 1999
  - Systematic Review and Meta-analysis
    - Psychotropic medications
    - Cardiovascular medications and analgesics
- Woolcott et al in 2009
  - Updated Leipzig data
  - Included additional medication classes

Leipzig 1999: Psychotropics

- Reviewed 40 studies from 1975-1993
  - All were cohort, case control or cross-sectional studies
- Studies had to include subjects > 60 years of age taking any of the following:
  - Sedative/hypnotics
  - Antidepressants
  - Neuroleptics (antipsychotics)

Data Pooled for Eight Classes

- Psychotropics
- Antidepressants
- Tricyclic antidepressants (TCAs)
- Neuroleptics
- Sedative/hypnotics
- Benzodiazepines
- Long-acting benzodiazepines
- Short-acting benzodiazepines

Pooled Odds Ratios (OR 95% CI) for One or More Falls

- Any psychotropic use OR 1.73 (1.52-1.97)
- Neuroleptic use OR 1.50 (1.25-1.79)
- Any antidepressant use OR 1.66 (1.41-1.95)
- TCA use OR 1.51 (1.14-2.00)
- Sedative/hypnotic use OR 1.54 (1.40-1.70)
- Any benzodiazepine use OR 1.48 (1.23-1.77)
- Short-acting benzodiazepine OR 1.44 (1.09-1.90)
- Long-acting benzodiazepine OR 1.32 (0.98-1.77)

Additional Information

- Most studies in the analysis found
  - Combinations of 2 or more psychotropic agents increased risk of falls
  - Higher doses associated with increased risk
- No affect on OR among subgroups:
  - Age <75 vs. >75
  - Subject place of residence
    - Home or facility
What About Non-benzodiazepines?

- Not Safer than Benzodiazepines
  - Associated with falls
  - Amnestic sleep activities
    - Cooking
    - Eating
    - Sleep driving

Evidence: Berry et al

- Nonbenzodiazepine sleep medication use and hip fractures in nursing home residents
  - Zolpidem, eszopiclone, zaleplon
- Published JAMA Internal Medicine March 4, 2013
- Self controlled case-crossover study
- Looked at association between non-benzo use and hip fracture
- Looked at two distinct time frames

Evidence: Wang et al

- Zolpidem associated with 2 fold increase in risk of hip fracture
  - OR 1.95 (95% CI 1.09-3.51)

Evidence for Cognitive Decline

- Billioti et al
  - Case Control Study in BMJ September 2014
- Studied association with exposure to BZD and development of Alzheimer’s Disease
  - Use of BZD at least 5 years prior to Dx
- Ever BZD use associated with increase risk of developing AD
  - OR 1.51 (95% CI 1.36-1.69)
  - OR 1.43 (95% CI 1.28-1.60) when adjusted for anxiety depression and insomnia

Exposure Density

- Strength of association increased with exposure density
  - <91 prescribed daily doses
    - No association
  - 91-180 prescribed daily doses
    - OR 1.32 (95% CI 1.01-1.74)
  - >180 prescribed daily doses
    - OR 1.84 (95%CI 1.62-2.08)
Short vs Long Acting BZD

• Strength of association increased with drug half-life
  – Shorter half-life BZD
    • OR 1.43 (95% CI 1.27-1.61)
  – Longer half-life BZD
    • OR 1.70 (95% CI 1.46-1.98)

Treatment of Agitated Behaviors

• Use non-pharmacological approach
  – See “Don’t Use Antipsychotics” slides
• Treat unmet needs
  – Physical
    • Pain, hunger, thirst
  – Calm the environment
    • Eliminate unnecessary noise and commotion
  – Treat underlying psychiatric conditions
  – Address psychological needs
    • Loneliness, boredom

Identify and treat co-morbid conditions

— BPH
  • Give alpha-blockers early in the day
    – Good bladder emptying throughout the day
    – Selective agents don’t have to be given at bedtime
      » Tamsulosin (Flomax®)
— Pain
  • Give scheduled acetaminophen especially at bedtime
  • Avoid Tylenol PM® !!
— Depression
  • Mirtazapine or trazodone are most sedating
  • SSRIs → careful → some are activating in some people
  • Avoid bupropion at bedtime → activating

Treatment of Insomnia

• Good sleep hygiene
  – Avoid caffeine and alcohol before bedtime
  – Regular sleep schedule
  – Avoid daytime naps
  – Go to bed when ready to sleep
  – Exercise > 6 hours before bedtime

Cognitive Behavioral Therapy for Insomnia (CBT-I)

• Combination of cognitive therapy and behavioral treatments
• Modify overvalued beliefs and unrealistic sleep expectations
• Delivered in 6-8 individual sessions by specially trained behavioral therapist
• Evidence for effectiveness pretty good

Systematic Review

• Review of 59 trials evaluating psychological treatments for insomnia (n=2102)
• Relaxation interventions
  – Progressive muscle relaxation
  – Meditation
  – Yoga
  – Hypnosis
• All about equally effective

**Other Pharmacological Options For Insomnia**

- **Ramelteon (Rozerem©)**
  - Melatonin receptor agonist
  - Meta-analysis (2014) of 11 trials with 5700 patients showed improvement in
    - Sleep latency
    - Total sleep time
  - Not related to other agents
    - No problems with hypnotic side effects, withdrawal
    - Not habit-forming
    - Not a controlled substance
    - Expensive


**Melatonin**

- OTC Supplement
- Hormone secreted by pineal gland
- Dose 1-10 mg at bedtime
- Efficacy is mixed
  - Studies do not show strong evidence of effectiveness
  - May help with sleep latency
- Appears safe
- May be useful for jetlag

**Delirium Assessment and Management**

- Use a screening tool to assess
- Look for possible causes
  - Medications
  - Medical conditions
    - Dehydration, constipation, pneumonia, TIA/stroke
- Use non-pharmacological methods first
  - Allow for sleep
  - Orientation to place and date
  - Calm the environment
- Use antipsychotics short term if necessary

**CASES**

**Case One**

- JR is an 82 year-old male admitted to NF
  - Memory difficulties increasing
- Current Medical Problem List
  - HTN, Mild cognitive impairment, BPH, Insomnia
- Medications
  - Chlorthalidone 25 mg daily
  - Tamsulosin 0.4 mg daily
  - Zolpidem 5 mg at bedtime as needed for sleep

**Case Two**

- AB is an 86 year-old female with dementia
  - MMSE is 10/30
- Combative with cares
- Hits out at caregivers when they transfer her from wheelchair to bed
- Current medical problem list
  - Dementia, hypothyroidism, osteoarthritis, HTN, depression
Case Two (con’t)

• Medications
  – Levothyroxine 88 mcg daily
  – Bupropion 150 mg daily
  – Lisinopril 10 mg daily
  – Lorazepam 0.5 mg q 4 hour prn agitation
    • Given about twice a day on average
  – Acetaminophen 650 mg q 6 hour PRN pain
    • Given twice last month
Avoid using medications to achieve hemoglobin A1c <7.5% in most adults age 65 and older; moderate control is generally better.

Diabetes Mellitus in the Elderly
- >25% of adults >65 have DM type II
- Prevalence of DM type II to double in 20 years
- DM II clearly linked to obesity epidemic
- Age > 75 have greatest complication rates of ESRD, MI, vision impairment and amputation
- Age > 75 are 2x more likely to visit ER for hypoglycemia
- 1/2 of older adults meet pre-diabetes or diabetes criteria

Diabetes Mellitus
- Diabetes Mellitus Type I - autoimmune disorder resulting in destruction of insulin producing beta-cells
- Diabetes Mellitus Type II - insulin resistance of peripheral tissues with relative insulin deficiency

Complications of DM
- Heart Disease
- Retinopathy
- Nephropathy
- Neuropathy
- Stroke
- Peripheral Vascular Disease

Goals
- Definitions
- Function of Insulin
- Diabetes Screening
- Treatments for Diabetes Mellitus type II
- Treatment Goals

Insulin
- Responsible for carbohydrate and fat metabolism in the body. Leads to glucose absorption by liver, muscle and fat cells
Islet of Langerhans contain beta cells producing insulin.

Insulin Production

Glucose Converted to Fatty Acids

Intracellular Role of Insulin

The insulin interplay

Normal physiologic changes of aging

- Adiposity
- Sarcopenia
- Relative Inactivity
- Decline in Pancreatic Islet Function
- Decline in glucose tolerance with aging

Diabetes Screening

Or Should We?
Symptomatic Screening

- Polyuria
- Polydipsia
- Polyphagia
- Weight Loss
- Fatigue
- Blurred Vision
- Paresthesia
- Frequent Infections

Asymptomatic Screening

- Overweight adults – BMI ≥ 25
- All adults >45
- Screen every 1-3 yrs with FBG, HbA1c or glucose tolerance test

Glucose Testing

Glycated Hemoglobin

- Measures amount of hemoglobin bound by glucose
- 3 month BG levels
- Gold Standard measure of control
- Does not pick-up peaks and valleys
- A1c ≥ 6.5% = DM

Caution for hemoglobin A1C

- Anemia
- Blood Transfusions
- Hemolysis

Serum Glucose Level

- Measures one point in time
- May be checked throughout the day
- Easy to perform
- Random ≥ 200 or fasting ≥ 126 = DM
- Glucose tolerance test 75 gm glucose load
**Post Diagnosis Evaluation**

- HbA1c
- UA with glucose
- Microalbuminuria
- Chemistry Panel
- Fasting Lipid Panel
- ALT
- EKG
- Foot Exam
- Dilated Eye Exam

**Scenario**

Betty is an 86 yo female whom you have followed for many years. You have just received a hemoglobin A1c level on her and it is 8.8%. Betty has been declining over the past several years. She now lives in an ICF due to moderate dementia. She needs assistance with most of her ADLs but remains continent of bowel and bladder. What would be your next step for her diabetic management?

**Treatment and further assessment**

- Multidisciplinary team
- Ease of access for all
- Nutritional Assessment and Diabetic nutritional education

**Diabetic Education**

- Regular exercise
- Preferred over metformin for impaired fasting glucose and borderline DM patients
- Dietary Changes

**Lifestyle Modification**

- AD and VD 2x more likely
- Women have higher rate of fracture after fall w/DM
- DM and Co-morbid conditions limit mobility and decreases function
- Frailty associated with increased hypoglycemia risk

**Geriatric Syndrome Assessment**
Geriatric Syndrome Assessment

- Higher Rates of polypharmacy (> 6 medications)
  - Higher rate of Depression
  - 1 in 5 older adults with DM report vision impairment
  - Incontinence

Metformin

- Universally first line
- Increases insulin sensitivity
- Decreased CV and overall mortality
- Low risk of hypoglycemia
- Diarrhea
- Creatinine 1.4 and 1.5 limits
- Monitor Renal function in patients > 80

Sulfonylureas

- Second Line Agent
- Increase pancreatic insulin release
- Weight Gain, Hypoglycemia
- Avoid glyburide and 1st gen in elderly
- ADA: after metformin
- Use caution for hypoglycemic risk

DPP-4 inhibitor/GLP-1 agonist

- Increased incretin causes insulin release
- Decreases gastric absorption of glucose
- Decreased glucagon release
- Mortality data sparse
- Significant risk for nausea and diarrhea
- Increased pancreatitis and pancreatic cancer risk
- Januvia, Byetta, Victoza (injectable)

Thiazolidinedione (TZD)

- Pioglitazone (Actos) and Rosiglitazone (Avandia)
  - Enhance insulin sensitivity
  - Side effects: heart failure, heart attack, weight gain, fluid retention
  - Add on therapy to metformin
  - Consider between this and sulfonylurea as second agent
  - Increased risk of bladder cancer with pioglitazone – Black box warning
**Insulin**
- Long acting 24 hour insulin
- Good A1C lowering potential
- Weight gain, hypoglycemia
- Caution in Renal impairment
- Beer’s against sliding scale in elderly

**Scenario**
John is a 78 yo male who comes in to establish care. He informs you of his longstanding history of diabetes mellitus type II, high cholesterol, hypertension, coronary artery disease with previous bypass grafting and now has congestive heart failure NYHA class II. He would like you to review his medications and discontinue as many as possible. He is independent with his IADLs. Other than his chronic medical conditions he feels he is doing well. What is his HbA1c goal?

**What are the treatment goals?**

**Conflicting Research Data**
- UK prospective Diabetes Study
  - none enrolled > 65
  - early intention to treat
  - + reduction in mortality, MI, microvascular disease

**Hazard Ratios improve vs conventional therapy**
Conflicting Research Data

- Action to Control Cardiovascular risk in Diabetes (ACCORD)
- Action in Diabetes and Vascular Disease: Preterax and Diamicron MR controlled Evaluation (ADVANCE)
- Veterans Affairs Diabetes Trial (VADT)

All enrolled people in their 60’s
- Patients had established diabetes
- Many with known cardiac disease

Effects of Intensive Glucose Lowering in Type 2 Diabetes

- Excessive deaths in intensive tx arm
- CV and stroke deaths not reduced
- Hypoglycemia more common in tx arm
- Control 8.1% Hba1c
- Intervention 6.0% Hba1c

Effects of Intensive Glucose Lowering in Type 2 Diabetes

- No mortality difference between intensive and control arms
- No cardiovascular benefit
- Reduced kidney disease
- Severe hypoglycemia in intensive arm
- Goal < 6.5% on HbA1c in intervention arm, 7.3% in control
Conflicting Research Data

- **VADT**
  - No effect on CV events or death
  - Reduction in albuminuria
  - Newer dx of DM (dx in past 15 years) did better with intensive control
  - HbA1c: 6.9% in intervention 8.4% in treatment group

- **UK General Practice Research Database**
  - U-shaped HbA1c and mortality curve
  - Lowest mortality at HbA1c of 7.5%

- **Diabetes Care Journal Consensus Report (ADA)**

Guidelines for Improving the care of older adults with diabetes mellitus: 2013 update

- **HbA1c**
  - 8-9% with poor health and limited life expectancy
  - 7.5-8% most patients
  - 7.0-7.5% healthy older adult with few co-mobidities

**Lipid Management**

- Statin Therapy along with diet and activity
- No specified LDL goal
- High or low efficacy statin
- Benefits seen in 2-3 years
- No mortality benefit with other cholesterol medications
Hypertension
- Goal ≤ 140/90
- Harm if systolic < 120
- No mortality benefit between classes of meds
- Monitor electrolytes and renal function
- Consistent with JNC-8 working group recommendation

Aspirin
- DM + CVD = ASA
- Insufficient evidence for primary prevention
- Dose no greater than 81 mg daily

Additional Recommendations
- Recommend smokers to quit
- Dilated eye exam at least every 2 years for low risk patients
- Foot exam yearly to include vascular, neurologic and visual inspection
- Microalbuminuria testing annually
- 150 minutes/week of moderate-intensity exercise

Additional Recommendations
- Screen for Depression within 3 months of dx then annually
- Screen for Dementia with any functional decline
- Screen for Incontinence annually
- Screen for Falls annually
- Review medication list at each visit

References
- Holman, Rury R. et al. 10 Year follow-up of intensive glucose control in type 2 diabetes. NEJM. 2008; 359:1577-89
- The ADVANCE collaborative group. Intensive blood glucose control and vascular outcomes in patients with type 2 diabetes. NEJM. 2008; 358:2560-70
- Drug Classes for Type 2 diabetes. Pharmacist’s Letter. May 2010, Volume 26

Questions
Objectives
1. Discuss what depression looks like in the older adult
2. Discuss risk factors and consequences
3. Discuss screening for depression in Heart Failure and COPD throughout the continuum and ensuring follow through

So Why Older Adults with Chronic Illness?
- “The Vital Link Between Chronic Disease and Depressive Disorder”
- “The Impact and Cost of Mental Illness and Depression”
- “Treating depression in patients with chronic disease”
- “NAMI: Depression and Chronic Illness”
- “NAMI: Depression in Older Person Fact Sheet”

Comorbid Behavioral Health and Chronic Conditions

<table>
<thead>
<tr>
<th>Chronic Medical Condition</th>
<th>% with depression/anxiety</th>
<th>% treated for depression/anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>32.3%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>30.5%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Chronic Pain</td>
<td>61.2%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>30.8%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Asthma</td>
<td>60.5%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Coronary Artery Disease</td>
<td>48.2%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Cancer</td>
<td>39.8%</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

Changes in physical health, functioning or medical conditions
Changes in circumstances, living alone, social support, stress or recent loss/grief

Common Risk Factors

Consequences:

Quality of Life

So Why Older Adults with Chronic Illness?

Common Risk Factors

Consequences:

Quality of Life

Money
Depression

- NAMI 2014 Facts: Depression affects more than 6.5 of the 35 million American aged 65 years and older with only 10% receiving treatment.
- Within elderly home care patients: 30% suffer with depression many are undiagnosed and untreated.

Undiagnosed/Untreated???

- The presence of chronic medical illness may reduce the likelihood that health care professional recognize or treat depression.
  - 80% of older adults have at least one chronic health condition and 50% have two or more.
- Demands of chronic disease management crowd concerns of depression out of visit agenda.
- Recognition and treatment are crucial, depression worsens the course of chronic illness.

Too often masked & misunderstood

- Societal attitudes
  - Normal to be “old and sad”
  - Understandable, given their problems
- Attributed to other problems
  - Chronic Disease
  - Medications
  - Physical
  - Social
  - Economic
- Perception of symptoms of depression by older adults. 2010 Gum Journal of Applied Gerontology

Hallmarks of Depression

- Depressed mood
  - Sadness, discouragement, crying
  - “Down in the dumps” – “Blues”
- Loss of ability to experience pleasure
  - Withdrawal, inactivity, isolation
  - “Nothing is fun” – “Don’t care”

PHQ2
Older adults – relate more to sadness, blue
Down in the dumps

The Patient Health Questionnaire-2 (PHQ-2)

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Date of Visit</th>
</tr>
</thead>
</table>

Over the past 2 weeks, how often have you been bothered by any of the following problems?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Several Days</th>
<th>More Than Half the Days</th>
<th>Every Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

1. Little interest or pleasure in doing things
   0 | 1 | 2 | 3
2. Feeling down, depressed or hopeless
   0 | 1 | 2 | 3
Diagnostic criteria are KEY; however, many other signs and symptoms may signal depression!

- **Irritability**
- **Anxiety and worries**
- **Confusion** – memory problems
- **Apathy, indifference** – social withdrawal
- **Pessimism, expecting “the worst”**
- **Feeling like a failure, not liking oneself, being excessively critical of oneself** over “little” things – hopeless and helpless
- **Recent Loss** – **Grief**
Older Adults: Physical complaints → not just mood
- Aches and pains – vague complaints that can’t be accounted for
- Digestive problems
- Constipation/Bowel irregularities
- Decreased sexual interest
- Loss of appetite – weight
- Disheveled appearance/neglecting personal cares
- Slowed movements
- Slowed speech, decreased amounts of speech, low or monotonous tones of voice

Depression Screening: Tools
- PHQ 2
- PHQ 4
- PHQ 9 (Patient Health Questionnaire)
- GDS (Geriatric Depression Scale)
- Suicidal Assessment

Consider depression screening tool as well as looking closely at patient. Depression screening tool is an indication not a diagnosis.

Providing Care:
- Listen
- Acknowledge the sadness, irritability, withdrawal
- Do not give advice
- Normalize/Universality

UnityPoint HF and COPD Projects/Depression
- Instituting evidence based depression screening across the continuum
- Building documentation protocols
- Developing treatment protocols using evidence based interventions
- Developing treatment structure and protocols
- Collaborating across the system with plan of care

Take Away:
- Depression in older adults with chronic illnesses are harder to diagnosis
- Red flags – mood and physical
  - Look and Listen
- Depression/suicidal risk screening scales/tools
- Address and Normalize

Goal: Best Outcome for Every Depressed/Chronically Ill Older Adult Every Time

Thank You!
Geriatric Depression Scale (Short Form)

Patient’s Name: ___________________________ Date: ______________________

**Instructions:** Choose the best answer for how you felt over the past week. Note: when asking the patient to complete the form, provide the self-rated form (included on the following page).

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Answer</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Are you basically satisfied with your life?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Have you dropped many of your activities and interests?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Do you feel that your life is empty?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Do you often get bored?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Are you in good spirits most of the time?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Are you afraid that something bad is going to happen to you?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Do you feel happy most of the time?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Do you often feel helpless?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Do you prefer to stay at home, rather than going out and doing new things?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Do you feel you have more problems with memory than most people?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Do you think it is wonderful to be alive?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Do you feel pretty worthless the way you are now?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Do you feel full of energy?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Do you feel that your situation is hopeless?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Do you think that most people are better off than you are?</td>
<td>YES / NO</td>
<td></td>
</tr>
</tbody>
</table>

(Sheikh & Yesavage, 1986)

**Scoring:**
Answers indicating depression are in bold and italicized; score one point for each one selected. A score of 0 to 5 is normal. A score greater than 5 suggests depression.

**Sources:**
Geriatric Depression Scale (Short Form)
Self-Rated Version

Patient’s Name: _______________________________ Date: ________________

*Instructions: Choose the best answer for how you felt over the past week.*

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Answer</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Are you basically satisfied with your life?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Have you dropped many of your activities and interests?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Do you feel that your life is empty?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Do you often get bored?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Are you in good spirits most of the time?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Are you afraid that something bad is going to happen to you?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Do you feel happy most of the time?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Do you often feel helpless?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Do you prefer to stay at home, rather than going out and doing new things?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Do you feel you have more problems with memory than most people?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Do you think it is wonderful to be alive?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Do you feel pretty worthless the way you are now?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Do you feel full of energy?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Do you feel that your situation is hopeless?</td>
<td>YES / NO</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Do you think that most people are better off than you are?</td>
<td>YES / NO</td>
<td></td>
</tr>
</tbody>
</table>

(TOTAL)

(Sheikh & Yesavage, 1986)
# PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

**NAME:**

**DATE:**

Over the last 2 weeks, how often have you been bothered by any of the following problems? (use “✓” to indicate your answer)

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Feeling down, depressed, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Feeling tired or having little energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Poor appetite or overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead, or of hurting yourself</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

*Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card.*

**TOTAL:**

---

10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?  

- Not difficult at all
- Somewhat difficult
- Very difficult
- Extremely difficult

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PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓'s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder
- if there are at least 5 ✓'s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder
- if there are 2-4 ✓'s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient. Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓'s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying PHQ-9 Scoring Box to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✓ Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3

Interpretation of Total Score

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Depression Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>Minimal depression</td>
</tr>
<tr>
<td>5-9</td>
<td>Mild depression</td>
</tr>
<tr>
<td>10-14</td>
<td>Moderate depression</td>
</tr>
<tr>
<td>15-19</td>
<td>Moderately severe depression</td>
</tr>
<tr>
<td>20-27</td>
<td>Severe depression</td>
</tr>
</tbody>
</table>

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A2662B 10-04-2005
An Ultra-Brief Screening Scale for Anxiety and Depression: the PHQ-4

The Patient Health Questionnaire for Depression and Anxiety (PHQ-4) was developed to create an ultra-brief screener for depression and anxiety for use during outpatient or home visits any time during pregnancy or up to one year postpartum. The PHQ-4 can be administered by health care personnel or it can be self-administered. The PHQ-4 combines two validated two-item screeners. A recent study found that increasing PHQ-4 scores were strongly associated with functional impairment, disability days, and health care use, and that anxiety had a substantial effect on functional status that was independent of depression (Kroenke et al.). Total score is determined by adding together the scores for each of the 4 items. Scores are rated as normal (0-2), mild (3-5), moderate (6-8), and severe (9-12). Any woman with a positive screen (mild, moderate or severe) should be assessed for suicidal ideation. A positive score, the presence of suicidal ideation and/or your clinical judgment can indicate that further assessment is warranted. Immediate referral is recommended for those with suicidal ideation and/or a severe score. Women with a mild or moderate screen could be provided with education and resource information, and re-screened at a later visit as appropriate. The PHQ-4 is only a screening tool and does not diagnose depression – that is done by appropriately licensed health care personnel.

**Patient Health Questionnaire (PHQ-4)**

Name: ____________________________________
Due Date/ Delivery Date: _______________
Today’s Date: ___________________________

<table>
<thead>
<tr>
<th>Over the past 2 weeks have you been bothered by these problems?</th>
<th>Not at all</th>
<th>Several days</th>
<th>More days than not</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling nervous, anxious, or on edge</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Not being able to stop or control worrying</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling down, depressed, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

The thought of harming myself has occurred to me (circle one)    No       Yes

Administered by (initial):    MD    CMA    Self    TOTAL

Notes:

Reviewing provider: