From ABIM - Your Exam Will Be:

<table>
<thead>
<tr>
<th>Cross-Content Category</th>
<th>Relative Percentage</th>
</tr>
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<tbody>
<tr>
<td>Critical Care Medicine</td>
<td>10%</td>
</tr>
<tr>
<td>Geriatric Medicine</td>
<td>10%</td>
</tr>
<tr>
<td>Prevention</td>
<td>6%</td>
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<tr>
<td>Women's Health</td>
<td>6%</td>
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<tr>
<td>Clinical Epidemiology</td>
<td>3%</td>
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<tr>
<td>Ethics</td>
<td>3%</td>
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<tr>
<td>Nutrition</td>
<td>3%</td>
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<tr>
<td>Palliative/End-of-Life Care</td>
<td>3%</td>
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<tr>
<td>Adolescent Medicine</td>
<td>2%</td>
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<tr>
<td>Occupational Medicine</td>
<td>2%</td>
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<tr>
<td>Patient Safety</td>
<td>2%</td>
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<tr>
<td>Substance Abuse</td>
<td>2%</td>
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From ABIM (continued):

Top Categories Asked In Geriatric Medicine
1. Rheumatology/Orthopedics in the elderly
2. Neurology in the elderly
3. Cardiovascular disease in the elderly
4. Other primary geriatric topics

Others Geriatric Specific Questions:
- Dermatology, Endocrinology, End-of-life/Palliative care, Ethics, Gastroenterology, Hematology, Infectious disease, Nephrology/Urology, Nutrition, Oncology, Ophthalmology, Psychiatry, Pulmonary disease, Principles of the geriatric assessment, Rehabilitation in the elderly

Approach to Geriatric Syndromes

Geriatric Syndromes:

- Multifactorial
  - 48% of Medicare participants aged 65 have ≥ 3 chronic conditions
    - Partnership for Solutions 2000
    - Means likely more than 1 cause AND more than 1 helpful intervention for a case
- Effective intervention(s)
  - may require attention to functional impairments in seemingly unrelated systems

Geriatric Issue – Hearing Impairment
Question #1: Hearing Impairment

An 82 y/o male complains of hearing loss worsening for 5 years. The following audiogram was obtained.

Question #1: What is the best diagnosis?
1. Presbycusis
2. Menière's Disease
3. Cerumen Impaction
4. Otosclerosis

Physiologic Changes in Aging:

- Hearing:
  - Presbycusis (bilateral, high frequency, sensorineural)
- Vision:
  - Difficulty with glare & dark adaptation
  - Decreased accommodation
  - Decreased acuity
  - Decreased tear production
- Decreased immunity (Primarily cell mediated)
- Decreased physiologic reserve and homeostasis:
  - Recovery takes longer

Physiologic Changes in Aging:

- Sleep
  - Decreased sleep efficiency
  - Decreased total sleep time
  - Less and earlier REM sleep
  - Less deep (stage 3 and 4) sleep; more Stage 1 and 2
  - More napping, night time awakening, early morning awakening
- Skeletal System
  - Decrease in Bone Density

Geriatric Issue – Polypharmacy

An 80 y.o. woman with CHF, Afib, depression and DM2 presents with several months of intermittent nausea and anorexia without vomiting. She takes
- digoxin 0.25 mg qd,
- warfarin sodium 5 mg qd,
- furosemide 40 mg qd,
- lisinopril 20 mg qd,
- glipizide 6 mg qd,
- citalopram 20 mg qd, and
- occasional acetaminophen.

She has been on these doses for 5 years.

Question 2: Polypharmacy
Question 2: Polypharmacy

• Denies other GI symptoms or recent illnesses, and has not been taking other medications.
• Other than a 10 lb weight loss (110lbs to 100lbs), her vital signs and exam are normal except for a heart rate of 55.
• Serum creatinine is 1.2 mg/dl (unchanged in past 10 years), electrolytes normal, hemoglobin A1C is 7.2%, INR is 3.0, and hemoglobin 12.5 g/dl.

Question 2: Polypharmacy

What physiologic change(s) best explain her symptoms:
1. Age related changes in drug absorption
2. Age related changes in hepatic glucuronidation
3. Age related changes in body composition and renal function
4. Age related changes in absorption and protein binding
5. Drug Drug Interaction

Drugs - Physiologic Changes in Aging:

• Pharmacokinetics:
  – Absorption: unchanged
  – Volume of Distribution:
    • Water soluble drugs -> more concentrated (digoxin)
    • Fat soluble drugs -> longer T1/2 (BDZ’s)
  – Metabolism/elimination:
    • Liver: glucuronidation generally not affected, may have reductions in cytochrome p450
    • Renal function may be affected

Drugs - Practical Considerations:

• Polypharmacy: The risk of drug interactions increases linearly with number of drugs prescribed
  – 43% of men and 57% of women use 5 or more prescription/OTC drugs/week
  – Institutionalized patients are prescribed an average 5-8 drugs
  – 10-17% of geriatric admissions are for adverse drug events
    – 2002 AMA CSA report

Drugs – Pearls for the Boards:

• Always put drug effect or drug interaction in the differential diagnosis for an elderly patient
• Don’t automatically “treat” a new symptom with a new drug
• Often the answer requires dose adjustment or drug discontinuation
• Older patients with a normal creatinine may have modestly impaired renal function
Geriatric Issue: Falls

Question #3: Falls

- A 78 y.o. woman with a history of coronary artery disease, hypertension, and dementia is brought in by her daughter for frequent falls that occur at night. She is often found disoriented and “wandering” out of her room.
- No syncope or any injuries with the falls.
- Denies palpitations, nausea, vomiting, shortness of breath, or chest pain.

Question #3: Which is the best way to prevent future FALLS in this patient?

1. Hip Protectors
2. Educate Family on modification of home hazards
3. Vitamin D 800IU Daily
4. Hospital Bed at home w/ Bilateral Full Siderails
5. Olanzapine for wandering behavior

Falls – Increase morbidity/mortality:

- 1/3 of older adults fall each year
- 10% of falls in the elderly result in a serious injury
- Fear of falling can lead to limitation of activity and increased debility

Falls - A multifactorial problem:

- Risk factors (history of falls strongest predictor):
  - Extrinsic:
    - environmental factors and hazards, footwear
  - Intrinsic:
    - Gait Disturbances
    - Decreased strength/flexibility
    - Cardiovascular function/response
    - Polypharmacy (especially psychotropics)
    - Comorbid conditions (Parkinsons, Dementia, Urinary Incontinence)
    - Sensory changes

Hip Protectors & Home Hazards

- Hip Protectors
  - No evidence for decrease in falls
  - Of question of their usefulness in fractures
- Non-specific advise about modification of home hazards
  - No proven effectiveness
- Multi-Factorial/Disciplinary Strategies
  - Best effectiveness

Stevens et al. JAMA 2008
French et al. JAGS 2008

JAMA. 2007;298:413-422, 454-455
Vitamin D & Falls

- 700-800IU of Vitamin D a day have shown a decrease in falls and fractures.
- 400IU trials do not show consistent benefit
- Good for nursing home residents and patients with adequate sun exposure as well

Anti-Psychotics And Dementia

- May increase falls due to adverse effects
  - Parkinsonian Symptoms
  - Sedation
  - Edema
- Does not effect wandering
  - Best used for “aggressive behaviors” associated with AD
- Increased Mortality Risk
  - 2004 Meta-analysis of 15 RCTs
  - 1.5-1.7 fold increase in death with atypical antipsychotics during typical 6-12 week study period
- Increased Mortality Risk
  - 2004 Meta-analysis of 15 RCTs
  - 1.5-1.7 fold increase in death with atypical antipsychotics during typical 6-12 week study period

Bilateral Full Siderails

- No reduction in likelihood for falls, serious injuries, or recurrent falls
- Adverse effects: increased immobility, infections, negative psychological effects, and urinary incontinence and infections
- 1985-2006: 691 entrapment reports, 413 deaths

Falls – Summary of Interventions

<table>
<thead>
<tr>
<th>Strategies to Reduce Falls in Community Dwelling Adults</th>
<th>Risk Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discontinue psychotropic medications</td>
<td>10%</td>
</tr>
<tr>
<td>Balance and Gait Training and strengthening exercise</td>
<td>14-27%</td>
</tr>
<tr>
<td>Home Hazard Reduction after Hospitalization</td>
<td>79%</td>
</tr>
<tr>
<td>Multi-factorial risk assessment with targeted management</td>
<td>15-39%</td>
</tr>
</tbody>
</table>

Tinetti. NEJM 2003

Geriatric Issue: Hip Fracture

- 87 year old with a history of:
  - Mild Parkinson’s Disease
  - Alzheimer’s type dementia (last MMSE 20/30)
  - Osteoporosis with DEXA T score of -2.7
- Fell on a rug at home while walking unaided to the bathroom
- Able to call 911 through a medical alert button

Question 4: Hip Fracture
Question 4: Hip Fracture

- Exam:
  - Shortened and externally rotated left leg.
  - B/L symmetric upper and lower mild rigidity. Mild resting tremor b/l hands
  - EKG: NSR. Prolonged QTc.
  - Dx: left non-displaced femoral neck fracture of the left hip

Question #4: Which is NOT part of the initial management in the hospital of a new hip fracture?

1. Prophylactic antibiotics 2 hours prior to surgery
2. Initiation of DVT prophylaxis
3. Limit the use of opioids to prevent delirium
4. Surgical repair within 48 hrs after admission
5. All are correct

Hip Fracture’s and Old Age

- At One Year Post-fracture
  - Mortality: 10-30%
  - Greatest risk at within 6 months
  - 55% 6 month mortality in advance dementia
  - 20% readmitted within 30 days -> 50% of these will die within a year
  - 60% recover pre-fracture walking ability
  - 50% recover ADLs
  - Little improvements beyond 6 months in functional recovery
  - Little improvements beyond 6 months in functional recovery
  - Stevens et al. JAMA 2008
  - French et al. JAGS 2008

Prophylactic Antibiotics

- Risk of deep wound infections decreased by 60 percent
- All patients should receive prophylactic antibiotics within 2 hours of surgery
- 1st generation cephalosporin (vancomycin if allergic)

DVT Prophylaxis in Hip Fracture Surgery

- Recommended Drugs:
  - Fondaparinux
  - Low Molecular weight heparin
  - Warfarin (target INR 2-3)
- Aspirin is not recommended for DVT prophylaxis
- Optimal timing is a question

Opioids and Hip Fractures

- Delirium risk increased in hip fracture patients who:
  - Received less than 10mg IV morphine equivalents per day
  - Received meperidine (Demerol)
  - Had severe pain
- Post op pain associated with longer lengths of stays, increased percentage of eligible PT sessions missed or shortened, and post-op complications.
Timing of Hip Surgery

- Surgical Hip Fracture Repair within 24-48hrs
  - Decreased pain
  - Decreased major post-operative complications
  - Decreased LOS
  - Trend in combined outcomes of death or needing total assistance for locomotion at 6 months
- Ok to first stablish serious comorbid illness (active angina, CHF, severe metabolic disturbances)

Geriatric Issue: Urinary Incontinence

Question #5: Urinary Incontinence

- The wife of your 75 y.o. moderately demented patient asks you to prescribe incontinence supplies.
- He has been having abrupt urgency, frequency, and nocturia. He denies dysuria, hesitancy, thirst, polyuria.

Question #5: Urinary Incontinence

- He has a history of hypertension, osteoarthritis, vascular dementia, and hyperlipidemia. He had a TURP 8 years ago without complications.
- Medications include aspirin, hydrochlorothiazide 12.5 mg daily, simvastatin 20 mg daily, and donepezil 10 mg daily.
- His general physical exam, including prostate exam, is normal. A post-void residual is 18 cc.

Question #5: Urinary Incontinence

The most likely cause of his urinary incontinence is:

1. Detrusor overactivity
2. Diuretic use
3. Stress incontinence
4. Post-TURP urinary sphincter damage
5. Benign prostatic hypertrophy

Urinary Incontinence: First Things to Rule Out - DIAPPERS

- D elirium
- I nfection
- A trophy
- P harmaceuticals
- P sychologic
- E ndocrine or excess urine output
- R stricted mobility
- S tool impaction
Urinary Incontinence - Types

- **Overflow:**
  - Bladder Outlet Obstruction
  - BPH
  - Small volume leakage, high PVR
  - alpha antagonists (prazocin, terazocin, tamsulosin, doxazocin) +/- finasteride, surgery
  - Saw palmetto - no better than placebo
- Impaired Detrusor Contractility
  - “Neurogenic”, high PVR
  - Supportive treatment, Intermittent catheterization

Urinary Incontinence - Types

- **Urge:** Detrusor Overactivity
  - loss of urine with sensation of urgency
  - Risks: Age, local bladder irritation (UTI, stones, tumors), stroke, cervical stenosis
  - Symptoms/Signs: Urgency, Low PVR
  - Behavioral Therapy
    - Cognitively Intact: Bladder Training
    - Cognitively Impaired: Scheduled Voiding
  - Pharmacotherapy
    - Anticholinergics - oxybutinin, tolterodine
    - Efficacy: 60 - 70% reduction in urge UI (30 - 50% placebo effect)
    - Adverse events: Dry mouth in 20-25% (5% “severe”)

Urge Incontinence, Falls, and Fractures

- 6,049 women, mean age 78.5
- 25% reported urge UI (at least weekly)
- Followed for 3 yrs
- 55% reported falls, 8.5% fractures
- Odds ratios for urge UI and
  - Falls: 1.26
  - Non-spine fracture: 1.34

Urinary Incontinence - Types

- **Stress Incontinence:**
  - loss of urine on effort or exertion, or on sneezing or coughing
  - Cause: Impaired urethral sphincter mechanism
    - Childbirth, pelvic floor laxity, radical prostatectomy, alpha antagonists
  - Signs/Symptoms: Leakage with cough/sneeze, low PVR
  - Treatment:
    - Pelvic floor exercises (Kegels)
    - Role of estrogen less clear
    - Surgery

Mixed Incontinence

- Mixed incontinence is the most common type of incontinence in older women, accounting for approximately one-half of all cases
  - Urgency incontinence alone next most common and stress incontinence the least common

Functional Incontinence

To stay dry requires adequate:

- Lower urinary tract function
- Mental function
- Mobility, Dexterity
- Environment
- Motivation (patients, caregivers)
Mr. D, a 70 year old man with coronary artery disease, chronic obstructive pulmonary disease, and dementia, is brought in by his family because of increased difficulty walking x 1 year. They are also concerned by his report that family members, long deceased, have been “visiting” him in the evenings for the last 6 months. Mr. D’s caregivers are worried about his “visitors” and his tendency to roam around the house at night.

Exam is significant for tremor & rigidity in upper extremeties, MMSE of 20/30, and normal labs including a normal TSH and B12.

Question #6: Mr. D’s clinical presentation is most consistent with which of the following?

1. Fronto-temporal dementia
2. Vascular dementia
3. Dementia with Lewy bodies
4. Alzheimer’s Disease
5. Delirium

Dementia:

• Diagnostic criteria
  – Memory impairment WITH 1 or more of:
    • Aphasia (impairment in language)
    • Apraxia (impairment in learned movements)
    • Agnosia (impairment in recognition)
    • Decreased executive functioning
  – Deficits limit social or occupational function
  – Deficits represent change from prior level of functioning

Dementia:

• Mild cognitive impairment (MCI)
  – MCI causes memory deficits generally without functional impairment.
  – Risk of progression to Alzheimer’s disease was 16% over 3 years in one study

Delirium vs Dementia:

<table>
<thead>
<tr>
<th>DELIRIUM</th>
<th>DEMENTIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute onset</td>
<td>Insidious onset</td>
</tr>
<tr>
<td>Changes with time</td>
<td>Slowly progressive</td>
</tr>
<tr>
<td>(wax and wane)</td>
<td>over years</td>
</tr>
<tr>
<td>Attention severely</td>
<td>Memory mainly</td>
</tr>
<tr>
<td>affected</td>
<td>affected</td>
</tr>
<tr>
<td>Often reversible</td>
<td>Not reversible</td>
</tr>
<tr>
<td>Needs urgent attention</td>
<td>Better to dx after hospitalization</td>
</tr>
</tbody>
</table>
Dementia – DDx Pearls:

- Alzheimer’s Disease: 60-70% of all
- Vascular dementia: “step-wise progression”
- Dementia with Lewy bodies:
  - Dementia & Parkinsonian symptoms, fluctuation in cognition, hallucinations, sensitivity to neuroleptics,
- Parkinsons Disease: Dementia late in Disease
- Frontotemporal dementia
- Normal pressure hydrocephalus
  - wet/wacky/wobbly
- “Reversible” dementias:
  - Thyroid, B12, Syphilis, Depression (pseudodementia)
  - Other: HIV, drug or toxin related

Dementia - Diagnostic Workup:

- History and Physical: look for reversible causes
- Cognitive testing
  - Mini Mental State Exam (MMSE):
    - good screening test, not sufficient to establish diagnosis.
  - Mini-Cog:
    - 3 item recall and clock draw test. Easier for non-English speakers
  - Neuropsychological testing:
    - not required for diagnosis, but may help

Dementia - Diagnostic Workup:

- Neuroimaging: either CT or MRI
  - Controversial, but recommended by the American Academy of Neurology
- Laboratory testing:
  - CBC, Calcium, Renal/Lytes, B12, TSH
  - RPR and HIV not routinely recommended: evaluate pt’s risk
  - Heavy metal testing if supported by history
  - APOE is NOT recommended

Dementia - Treatment Options:

- Acetylcholinesterase inhibitors
  - Some benefit in mild-moderate dementia (MMSE 18-24): AD2000 1 point increase in MMSE at 2 yr
  - Controversies: severe dementia, MOI
  - Donepezil, rivastigmine, galantamine
  - Main side effects are GI: nausea, vomiting, diarrhea, anorexia; ?incontinence
- NMDA receptor blockers: Memantine
  - For moderate to severe AD
  - Main SE are CNS: confusion, dizziness

Dementia - Pearls:

- Alzheimer’s disease -> most common
- Dementia may predispose to delirium and may overlap with both depression
- Dementia with Lewy bodies: unlike the dementia from Parkinson’s disease, the cognitive impairment occurs earlier in the illness
  - May have dangerous reactions to neuroleptics particularly those with D2 dopamine receptor effects (typical antipsychotics).

Geriatric Issue
Delirium
Question #7: Delirium

Which of the following cases carries the greatest risk of delirium?
1. An 82 y/o female with dementia seen in clinic for a UTI
2. A 72 y/o male with admitted to the wards for a heart failure exacerbation
3. A 78 y/o female post-op day #1 for an elective hip repair
4. A 70 y/o female admitted to the hospital for a hip fracture
5. A 70 y/o male admitted to the ICU with pneumonia

How Common is it?
- 20-60% in the Nursing home or post-acute care
- 10-50% of hospitalized older patients
- 15-53% in postoperative patients
- 70-87% in the ICU

Inouye, NEJM. 2006.

What do we see in delirium?
- Acute and fluctuating clouding of consciousness
- Difficulty paying attention or maintaining focus
- And
  - Disorganized or jumbled thoughts
  or
  - A change in the level of consciousness.


How to Work-Up & Treat Delirium
- A directed medical workup
  - CBC, chemistries, LFT's, CXR, U/A, EKG
  - Assure adequate hydration and oxygenation.
  - CT's are rarely helpful if non-specific neuro exam.
- Medications are related to 40% of case of delirium
- Sitters are preferable to restraints.
- When all else fails:
  - Haldol starting at 0.5mg
  - Sedation and QT prolongation may occur.

Medications!!!
- Sleeping Meds
  - Benadryl
  - Ambien
- Anxiety Meds
  - Ativan, Valium
- Pain Meds
  - Meperidine (Demerol)
- Antiparkinsons Meds
- Anti-cholinergic Meds
  - Ditropan
  - Atropine
  - Benadryl
  - Anti-nausea Meds
  - Phenergan
  - Reglan
  - Antidepressents
  - Muscle Relaxants
  - Flexeril

Geriatric Issue - Pressure Ulcers
Question #8: Pressure Ulcers

The nursing home calls to report that your new admission, a frail 92 year old man who is recovering from pneumonia, has a 2.5 cm stage 2 ulcer on his sacrum with mild surrounding erythema and a 1 cm eschar on his left heel. He is bed bound and has been in the hospital for 10 days.

In addition to improving his nutritional status and frequent turning, the most appropriate management for his skin issues would be:

1. Wet to dry dressing for sacrum, debride the heel eschar
2. Topical antibiotic to sacrum and enzymatic debridement to heel
3. Hydrocolloid dressing to sacrum and elevate heels
4. Hydrocolloid dressing to sacrum, elevate heels, and prescribe oral antibiotic

Pressure Ulcers - Risk Factors:

- Mechanical/local environmental factors
  - Pressure
  - Friction/shear
  - Moisture: urinary/fecal incontinence
- Host factors
  - Malnutrition, decreased albumin
  - Excessively dry skin
  - Immobility and debility
  - Sensory impairment

Pressure Ulcers - Classification:

- Stage I
  - Non-blanchable erythema of intact skin
- Stage II
  - Partial thickness loss of dermis presenting as a shallow open ulcer
- Stage III
  - Full thickness tissue loss. SQ fat may be visible but bone, tendon or muscle are not
- Stage IV
  - Damage down to the muscle, tendon, bone
- Unstageable
  - Full thickness tissue loss in which the base of the ulcer is covered by and/or eschar

*** Remove eschar prior to staging EXCEPT on heels

Pressure Ulcers - Friction and Shear

- Friction: Skin/tissue against surface
- Shear: bone against tissues

From: www.ahrq.gov

Pressure Ulcers - Treatment:

- Reduce pressure
- Keep surface moist and covered
- Absorb exudates
- Debride necrotic tissue
- Antibiotics only if signs of infection: fever, purulence, markedly increased erythema, osteomyelitis.
- As pressure ulcers are subject to polymicrobial colonization, routine wound cultures are generally not helpful.
Incontinence Associated Dermatitis (IAD) vs Pressure Ulcers

- Erythema: Diffuse
  - Buttocks, inner thigh, perineal area
- Ulcers:
  - Multiple areas, Partial thickness
  - Edges diffuse, irregular
- Location: low buttocks, perineal area
- Pain, itching, burning
- History: Incontinence, urinary &/or fecal

Ethical Issues

Question #9: Ethical Issues

- Mrs. X is an 87 y/o retired attorney with dementia who is homebound due to severe arthritis
- Lost 20 lbs in the last 12 months. Her home smells strongly of urine and there is a significant amount of clutter.
- She endorses depressive symptoms, but no suicidal ideation.
- She hasn't refilled her medications in some time. She says that she doesn't want to take pills anymore and likes things the way they are: “I want to stay here until I die.”

Question #9: Ethical Issues

- PMH: dementia, hypertension, urinary incontinence and chronic obstructive pulmonary disease.
- Exam: Her BP is 170/100, HR 100. Thin elderly female. 6/15 on the Geriatric Depression Scale (positive is > 5).
- Your plan is to start an antidepressent but she refuses

Question #9: Ethical Issues

What is the most appropriate assessment of the current situation?
1. The patient is depressed and unable to make rational decisions
2. The patient may be depressed but is aware of the legal issues and is competent to make her own decisions
3. The patient may be depressed but has the capacity to make decisions
4. The patient may be depressed but her capacity is unknown

Ethical Issues - Capacity vs Competence:

- Decision making capacity is not the same as legal competence
- Capacity may be determined by the clinician
- Capacity is situational and specific to a particular decision
Ethical Issues - Capacity:

- Patients with decision making capacity:
  - Able to make and communicate a choice
  - Able to appreciate the medical situation and prognosis
  - Able to appreciate the nature of recommended care
  - Able to appreciate risks, benefits, and consequences of options
  - Decisions are not the result of delusions and are not coerced

Ethical Issues - If the patient lacks capacity:

- Is there an advance directive and/or has a health care proxy been identified?
  - If so, the DPOA for health care is legally able to make healthcare decisions.
- If there is no documented advance directive, is there a surrogate?
  - Role is to use “substituted judgment”
- If not, what is in the patient’s best interest? May require ethics consultation.

Ethical Issues – Elder Abuse

- Types
  - Self-Neglect
  - Neglect
  - Physical Abuse
  - Financial Abuse
  - Psychological Abuse
  - Sexual Abuse
- Screening questions:
  - Has anyone close to you tried to hurt or harm you recently?
  - Has anyone forced you to do things that you didn’t want to do?

Elder mistreatment

- Clinician’s responsibilities
  - Documentation of injuries/statements
  - Assessment of capacity: patients have the right to make poor choices
  - Appropriate referrals to social services / Adult Protective Services (APS)
  - Reporting: suspicion for abuse is grounds for mandatory reporting in most states

Weight Loss For The Boards

- Think Multifactorial
  - Medical
    - Co-Morbid Conditions
      - Cancer, Endocrine d/o, COPD, CHF, Dementia, dysphagia
    - Medication Side Effect
    - Poor Dentition
  - Social
    - Finances, social isolation, difficult with food prep, shopping or feeding
    - Psychological: Depression, alcoholism

Palliative Medicine: Pain Management
**Pain Management - Case #11:**

A 75 year old woman with widely metastatic breast cancer has previously had good pain relief from sustained release morphine, 200 mg every 8 hours, but now she reports severe pain once every 3 days.

**Pain Management - Case #11:**

Which of the following is the most appropriate therapy for her breakthrough pain?

1. Fentanyl 25mcg/h transdermal q3days prn
2. Morphine solution 60mg q2h prn
3. Oxycontin 10mg q4h prn
4. Codeine 30 mg q4h prn
5. Vicodin 5/500 q4h prn

**Pain Management - Opiate Basics:**

- Determine total opiate requirement in 24 hours
- Use extended release formulas around the clock if pain is continuous
  - fentanyl patch may take 12-24 hours to take effect, 72 hours to reach steady state
- Conversion of IV morphine to PO:
  - 1 mg iv morphine = 3 mg po morphine
- If uncontrolled, increase doses by 25-50% for mild-moderate pain, 50-100% for severe pain

**Pain Management - Opiate Basics:**

- Rescue or breakthrough analgesia is often needed
- Each rescue dose = 10% of total 24 hour dose
  - Example:
    - basal dose sustained release morphine 200 mg q8h (600 mg/24 hours)
    - then breakthrough is liquid morphine 60 mg q2h prn
- For rapidly changing pain, offer q1h prn orally, q30 minutes pm SC/IM or q10 minutes prn IV.

**Pain Management - Pearls**

- Prevent constipation aggressively
- Opiate related nausea is mediated by D2 receptors
  - Antidopaminergic antiemetics: prochlorperazine, haloperidol.
- NSAIDs may be helpful for bone pain
- Gabapentin and tricyclic antidepressants may be helpful for neuropathic pain