

Side Effects of Psychiatric Medications in Long Term Care

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Objectives

- Delineate common psychiatric medications used in long-term care
- Identify common side effects associated with those medications

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The Falling Man

- 78 year old white male
 - Parkinson's disease
 - Hypothyroidism
 - Hypertension
 - High cholesterol
 - Constipation
 - Insomnia
 - Cognitive decline
 - Depression

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The Falling Man

- Getting along fairly well up to a week ago
 - Onset of delusions about wife and children stealing his money, staff is poisoning his food
 - Fearful, weight loss, verbal and physical aggression
 - CBC, CMP, TSH, UA, vital signs all normal
 - Medical cause seems ruled out
 - Seroquel 12.5mg at bedtime started
 - Within a day his delusions decline
 - Falls twice in three days
 - Medication stopped, delusions return

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The Falling Man

- Other medications
 - Sinemet and Mirapex
 - Zoloft
 - Aricept
 - Synthroid
 - Lasix and Lopressor
 - Colace, MOM
 - Trazodone

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Classes

- Antidepressants
- Anti-anxiety agents
- Mood stabilizers
- Antipsychotics
- Sleep agents
- Dementia medications

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Why do you get side effects?

- Medications try to alter brain chemicals
 - Just the wrong drug
 - Reasonable choice, dosage, etc.
 - Dose may be too high
 - Dose-dependent
 - May not see at lower doses
 - Many of these chemicals present throughout the body
 - Medications cannot be specific only to the brain
 - Targeting the brain, problems in the stomach
 - Allergic reactions
 - Rash to anaphylaxis
 - Drug to drug interactions

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Don't all medications have side effects?

- Yes, so does breakfast cereal
 - Look at common side effects
 - Help you with recognition
 - Much more informed patients and guardians
 - Rare side effects not focus
 - Make your head swim
 - Zillions listed
 - Even if it happened once
 - Someone may have gotten this from the medication
 - Some times concurrent things happen
 - Had gastroenteritis during the drug study

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Antidepressants

- SSRIs
 - Selective Serotonin Reuptake Inhibitors
- Most widely used class
 - Relatively safe in overdose, few drug interactions
- Readily prescribed in the elderly
 - Prozac (fluoxetine)
 - Zoloft (sertraline)
 - Paxil (paroxetine)
 - Celexa (citalopram)
 - Lexapro (escitalopram)

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Antidepressants

- SSRIs
 - Nausea, diarrhea
 - Sexual dysfunction
 - Need to ask!
 - Headache
 - Rash
 - Agitation, anxiety, restlessness, insomnia
 - Tend to be activating
 - Weight gain
 - Increased sweating
 - Drowsiness
 - Suicidal thoughts

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Antidepressants

- SNRIs
 - Serotonin and Norepinephrine Reuptake Inhibitors
- Effexor (venlafaxine)
- Pristiq (desvenlafaxine)
 - Hot flashes
 - Chemical cousin to Effexor
 - Newer, expensive
- Cymbalta (duloxetine)
 - Neuropathic pain

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Antidepressants

- SNRIs
 - Fatigue
 - Dizziness
 - Abnormal dreams
 - Elevated blood pressure
 - Especially if used above recommended dosages
 - Chest palpitations, fast heart rate
 - Anxiety
 - Suicide

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Antidepressants

- Remeron (mirtazepine)
 - Abnormal dreams and thinking
 - Increased appetite, weight gain
 - Especially at lower doses (7.5-15mg)
 - Sleepiness, fatigue, weakness
 - Especially at lower doses (7.5-15mg)
 - Constipation, dry mouth
 - Dizziness

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Antidepressants

- Wellbutrin (bupropion)
 - Dry mouth, headache
 - Increased sweating
 - Nausea/vomiting, constipation
 - Anxiety
 - Fatigue
 - But generally seen as activating
 - Blurred vision
 - Seizures
 - Extended release lessens risk to 2/1000 chance from 4/1000

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Antidepressants

- **Tricyclic antidepressants**
 - Elavil (amitriptyline)
 - Used more for pain, sleep
 - Pamelor (nortriptyline)
 - Less robust side effects than amitriptyline
- **Older antidepressants**
 - Cheap, but effective
 - Not very specific as to brain transmitters
 - Wide variety of side effects
 - Potentially fatal in overdose
 - Makes the heart beat irregularly

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Antidepressants

- **Tricyclic Antidepressants**
 - Increased appetite, weight gain, sleepiness
 - Blurry vision, constipation, urinary retention, racing heart beat, confusion
 - Dizziness upon standing
 - Sexual problems
 - Dry mouth

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Anti-anxiety Agents

- **Benzodiazepines**
 - Dependency-producing
 - Be aware of the patient's history
 - Difficult to use in the elderly
 - Sedation, confusion, ataxia
 - Xanax(alprazolam)
 - Ativan (lorazepam)
 - Klonopin (clonazepam)
- **BuSpar (buspirone)**
 - No dependency, sedation issues
 - Efficacy, long time to work

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Anti-anxiety Agents

- **Benzodiazepines**
 - Epilepsy
 - Restless leg syndrome
- **Depress the brain**
 - Sedation
 - Slurred speech, aspiration
 - Confusion, delirium
 - Falls

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Anti-anxiety Agents

- BuSpar (buspirone)
 - Dizziness
 - Nausea
 - Headache
 - Nervousness, excitement
 - Lightheadedness

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Mood Stabilizers

- Bipolar disorder
 - Agitation, aggression
- Eskalith, Lithobid
 - Lithium carbonate-pills, tablets
 - Lithium citrate-liquid
- Anticonvulsants
 - Depakote (valproate)
 - Tegretol (carbamazepine)
 - Lamictal (lamotrigine)

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Mood Stabilizers

- **Lithium**
 - Usual medication in bipolar disorder
 - Narrow safety index
 - Therapeutic level
 - Overdose is a concern
 - Look intoxicated
 - Sedation, coma
 - Causes of overdose
 - Sweating, vomiting, diarrhea
 - Excessive urination
 - Goes along with excessive drinking
 - Use of diuretics
 - HCTZ, acetazolamide
 - Tegretol (carbamazepine)

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Mood Stabilizers

- **Lithium**
 - Mild-moderate overdose
 - N/V, diarrhea
 - Drowsiness
 - Weak muscles
 - Slurred speech
 - Lack of coordination
 - Severe overdose
 - Giddiness
 - Ataxia
 - Blurred vision
 - Tinnitus
 - Large output of dilute urine

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Mood Stabilizers

- Lithium
 - Caffeine, theophylline
 - Lower lithium level
 - NSAIDs, ACEIs, CCBs
 - Worsen potential neurotoxicity
- Chronic problems
 - Damages kidney
 - Nephrogenic diabetes insipidus
 - Damages thyroid
 - Hypothyroidism

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Mood Stabilizers

- Anticonvulsants
 - Depakote (valproate)
 - Slows down the brain
 - Therapeutic level
 - Oversaturated, slurred speech, ataxia
 - Epilepsy
 - Migraine headache
 - Bipolar disorder

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Mood Stabilizers

- Anti-convulsants

- Depakote (valproate)

- Sedation
 - Blood cell abnormalities
 - White blood cells
 - Platelets
 - Hepatitis, pancreatitis
 - Nausea, vomiting, dyspepsia
 - Dizziness
 - Abdominal pain
 - Weight gain
 - Rash

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Mood Stabilizers

- Anticonvulsants

- Tegretol (carbamazepine)

- Therapeutic level
 - Overdose results in sedation, slurred speech and ataxia
 - Low level may be due to medication itself

- Epilepsy
 - Trigeminal neuralgia, migraine
 - Bipolar disorder

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Mood Stabilizers

- Anticonvulsants
 - Tegretol (carbamazapine)
 - Many side effects are similar to Depakote
 - Dizziness
 - Drowsy
 - Dry mouth
 - Nausea, vomiting
 - Unsteady gait
 - Less common
 - Hepatitis, pancreatitis
 - Blood cells
 - Anemia
 - White blood cells
 - Platelets

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Mood Stabilizers

- Anticonvulsants
 - Lamictal (lamotrigine)
 - Rash
 - Can be severe and even fatal
 - Under 1%
 - Various dosing schedules
 - A bit higher risk if also on Depakote
 - Otherwise
 - Sedating, dizziness, double vision, headaches

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Antipsychotics

- Many agents
 - Older
 - Haldol (haloperidol), Haldol decanoate
 - Newer
 - Risperdal (risperidone), Risperdal Consta
 - Invega (paliperidone), Invega Sustenna
 - Zyprexa (olanzepine)
 - Geodon (ziprasidone)
 - Seroquel (quetiapine)
 - Abilify (aripirazole)
 - Clozaril (clozapine)
 - Saphris (asenapine)

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Antipsychotics

- Psychosis
 - Main function
 - Schizophrenia to delirium
- Behavioral problems in dementia
 - No evidence that they work
 - Everyone has some story...
- Bipolar disorder
 - Newer indication with novel agents

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Antipsychotics

- Main side effects
 - Motor problems
 - Extra-pyramidal side effects
 - Blood sugar and cholesterol
 - Metabolic syndrome
 - Risks in dementia
 - Increased mortality risk
 - Others

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Antipsychotics

- Movement problems
 - Dystonia
 - Sustained muscle contraction
 - Wry neck
 - Rare in the elderly
 - Problem of young people
 - Easily treated if new
 - Benedryl (diphenhydramine), Cogentin (benztropine)
 - Harder to treat tardive dystonia
 - Botulinum toxin IM

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Antipsychotics

- **Movement problems**
 - Akathisia
 - Cannot sit still
 - Very uncomfortable
 - Especially in the legs
 - Rule out Restless Leg Syndrome, anxiety
 - Treatment
 - Beta blockers
 - Benzodiazepines

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Antipsychotics

- **Movement problem**
 - Parkinsonism
 - Drug-induced Parkinsonism (DIP)
 - More likely in older patients
 - Tremor, stiff, slow
 - Both sides at once
 - Stop medication or lower dose
 - Seroquel, Abilify, Clozaril
 - Takes weeks at least
 - May not improve
 - Parkinson's medications don't work too well
 - May cause worse psychosis

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Antipsychotics

- Movement problems
 - Tardive dyskinesia
 - Repetitive non-purposeful movement
 - Mouth, head, limbs, trunk
 - Usually takes years
 - Common in persons with schizophrenia
 - Less time, less drug with the elderly
 - No treatment
 - Recognition
 - Stop medication
 - Change agents

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Antipsychotics

- Blood sugar and cholesterol
 - May be partially due to weight gain
 - Induce or worsen diabetes
 - Induce or worsen elevated cholesterol
 - Fasting blood glucose and lipids recommended
 - All can cause these symptoms
 - Zyprexa and Clozaril most likely

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Antipsychotics

- Risks with dementia
 - FDA warning
 - Increased mortality risk
 - Almost double the rate of a sugar pill
 - Sedation, Parkinsonism, tardive dyskinesia
 - Aspiration pneumonia
 - Cardiac conduction
 - Strokes, especially

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Antipsychotics

- Other
 - Sedation
 - Low blood pressure upon standing
 - Especially Seroquel
 - Prone to falls
 - Cardiac conduction
 - Especially Geodon
 - Prone to heart attack, stroke
 - Low WBC count
 - Clozapine
 - Prone to infection
 - Requires weekly CBCs
 - Neuroleptic malignancy syndrome
 - Rare
 - Emergency
 - Very rigid, high fever, confusion

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Sleep Agents

- Hypnotics
 - Only for sleep
 - Benzodiazepine-like
 - Ambien (zolpidem)
 - Sonata (zaleplon)
 - Melatonin mediator
 - Rozerem (ramelteon)
 - Antidepressants
 - Desyrel (trazodone)
 - Elavil (amitriptyline)
 - Remeron (mirtazapine)

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Sleep Agents

- Ambien and Sonata
 - Short term use
 - Daytime drowsiness
 - Diarrhea
 - Dizziness
 - Longer use
 - Drugged feeling
 - Dizziness
 - Abnormal thinking, behavior changes, complex behaviors
 - Rare
 - Driving, eating, e.g.

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Sleep Agents

- Rozerem
 - Dizziness
 - Daytime drowsiness
 - Fatigue
 - Nausea, diarrhea
- Trazodone
 - Drowsiness, insomnia, fatigue
 - Agitation
 - Dry mouth
 - Constipation
 - Headache
 - Drop in blood pressure upon standing
 - Priapism

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Dementia Medications

- All are capable of modestly slowing functional decline
 - Use both classes together
- Cholinesterase inhibitors
 - Aricept (donepezil)
 - Exelon (rivastigmine)
 - Razadyne (galantamine)
- NMDA antagonists
 - Namenda (memantine)

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Dementia Medications

- Cholinesterase inhibitors
 - Common
 - Diarrhea, nausea and vomiting, loss of appetite
 - Weight loss
 - Insomnia, sleepiness
 - Muscle cramps
 - Less common
 - Nightmares
 - Agitation
 - Frequent urination
 - Bruising

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Dementia Medications

- Namenda
 - Well-tolerated
 - No side effect occurred in 5% and double the placebo rate in controlled trials
 - Dizziness
 - Headache
 - Confusion
 - Constipation

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The Falling Man

- What to do?
 - Falls
 - Parkinson's disease gait
 - Parkinson's disease orthostasis
 - Parkinson's disease medications
 - Plus could be contributing to the psychosis
 - Trazodone orthostasis
 - Dehydration, poor nutrition
 - Hypothyroidism
 - Zoloft hyponatremia
 - Apraxia from cognitive decline/dementia

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The Falling Man

- Orthostasis
 - Per standing, sitting blood pressure readings
 - Low blood pressure upon standing
 - Dizzy, fall
- Dementia changes
 - Should be more insidious
- Parkinson's medications
 - Not changed in dose
- Hypothyroidism, dehydration, nutrition, Zoloft, UTI
 - All ruled out by lab tests
- Multiple influences
 - Orthostasis from Parkinson's disease, trazodone, Seroquel
- Seroquel pushed the risk of orthostasis over the top
 - Must stop Seroquel?
 - Could stop trazodone
 - Still psychotic
 - Abilify or Clozaril

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- Questions?

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