

Top Ten Medications Prescribed in Skilled Nursing Facilities – Revisited

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As speech-language pathologists, we need to be aware of the side effects of the medications our patients take. We play an important role in monitoring for potential negative side effects of medications and drug interactions. This role would include noting our observations and consulting with the nursing department as well as physicians regarding these issues. Elderly patients can be at increased risk from medicines for several reasons, including taking multiple medications and the fact that the aging body can be more susceptible to the side effects of medicines (www.netdoctor.co.uk/health_advice/facts/medicationelderly.htm). This increased risk in the elderly intensifies the need for increased awareness.

Current prescription medication usage was analyzed for 280 patients who are residents of five skilled nursing facilities in northern Minnesota in July of 2007.

The top ten most frequently prescribed medications and their associated side effects were identified.

These results were compared to a study the authors completed regarding the medications most frequently prescribed at these same five facilities in 2003. There were also 280 residents in the 2003 study.

The eleven most frequently prescribed medications in 2003 were: Lasix (73), Ativan (51), Zoloft (49), Synthroid (48), Risperdal (37), Lanoxin (31), Celebrex (30), Nitroglycerin (30), Paxil (25), Norvasc (21), and Remeron (21).

The most frequently prescribed medications in 2007 are: Lasix (90), Synthroid (71), Lisinopril (65), Zoloft (50), Aricept (46), Ativan (42), Seroquel (41), Coumadin (37), Remeron (37), and Protonix (35).

When comparing the 2003 study and the 2007 study, five medications were identified in both studies.

Medications on both lists include: Lasix, Ativan, Zoloft, Synthroid, and Remeron.

Medications new to the list in 2007: Lisinopril, Aricept, Seroquel, Coumadin, and Protonix.

These medications are listed by their most common name, although equivalents were also counted. For example, the number of patients who were prescribed Ativan also includes those who were prescribed Lorazepam, the generic equivalent.

Although a single medication may be prescribed for a number of different reasons, these frequently prescribed medications are most commonly used as listed below (www.drugs.com):

Lasix—loop diuretic used for treating high blood pressure or water retention.

Zoloft—antidepressant. Used for treating depression or obsessive-compulsive disorder (OCD).

Lisinopril—angiotensin converting enzyme (ACE) inhibitor. Used for treating high blood pressure, congestive heart failure, and to improve survival after a heart attack.

Aricept—used for treating dementia of the Alzheimer's type.

Seroquel—an antipsychotic medication used to treat the symptoms of conditions such as schizophrenia and bipolar disorder.

Ativan—anti-anxiety medication used to treat anxiety or anxiety associated with symptoms of depression.

Coumadin—anticoagulant used to treat or prevent blood clots.

Protonix—a proton pump inhibitor which decreases the amount of acid produced in the stomach. Used to treat erosive esophagitis and other conditions involving excess stomach acid.

Remeron—an antidepressant, used for treating depression.

Synthroid—thyroid hormone used to treat low thyroid activity.

The most frequently occurring side effects of these ten medications and the frequency of these side effects are as follows: muscle weakness (6), nausea (5), dizziness (4), diarrhea (4), drowsiness (4), stomach upset (4), tiredness (4), headache (3), sleeplessness (3), lightheadedness (3), and constipation (3).

Side effects such as Dizziness, Weakness, Drowsiness, Tiredness, Headache, Sleeplessness, and Lightheadedness could all trigger changes in cognitive status such as decreased attention and concentration or increased risk for disorientation. These side effects could also potentially impact endurance for SLP treatment sessions.

Side effects such as Nausea, Diarrhea, Stomach upset, and Constipation could all potentially increase the risk of weight loss and dehydration. There would be a negative impact on the patient's ability to participate with dysphagia treatment.

It is apparent that these side effects could have a significant impact on the way patients function both in and outside treatment sessions.

SLP awareness of these side effects and their potential impact is critical for success in the clinical setting. As healthcare professionals, we should work together with nursing staff and physicians to provide the best possible care and outcomes for our patients. This may involve teaming up with the nursing staff to identify, track and document possible side effects. It may also involve consulting with physicians regarding concerns when medication side effects appear to be impacting therapy outcomes. Options which may be considered and questions to ask might include the following:

- What is the cost/benefit of the medication; does the benefit it provides outweigh the side effects? Is it considered a critical part of the patient's drug regimen?
- Can dosage be changed?
- What is the anticipated duration the patient is expected to be on the medication?
- Are the side effects typically ongoing or do they typically subside after a short time (per the drug literature)?
- Are there alternate/similar drugs available which don't carry the same side effect?
- Could the individual take a drug holiday to assess how they would function without that medication?

Successful Speech-Language Pathology intervention and optimal therapy outcomes can only be facilitated by our awareness and attention to potential medication side effects.

Drug	Pharmacologic Implications	Common Side Effects	Geriatric Considerations	Implications for SLP
Furosemide (Lasix)	Lasix is used for treating high blood pressure or water retention associated with congestive heart failure, liver disease, or kidney disease. Lasix is a loop diuretic.	Dizziness; lightheadedness; sensitivity to sunlight; may need to urinate more frequently	Elderly may be more sensitive to its effects, especially dehydration. For any change in mental status monitor electrolytes and renal function.	Impaired concentration, attention and overall decline in cognitive-linguistic functioning with electrolyte imbalance. Potential for dehydration.
Levothyroxine (Synthroid; Levoxyl)	Synthroid is used for treating low thyroid activity and treating or suppressing different types of goiters. Synthroid is a thyroid hormone.	Anxiety; diarrhea; flushing; mood swings; muscle weakness; hair loss; sleeplessness; stomach cramps; tiredness; vomiting	Elderly may be more sensitive to its effects, may require a lower than normal dosage.	Anxiety can impact attention and concentration. Potential for weight loss and dehydration.
Lisinopril (Prinivil; Zestril)	Lisinopril is an angiotensin converting enzyme (ACE) inhibitor. It is used to treat high blood pressure, congestive heart failure, and to improve survival after a heart attack.	Lightheadedness; fainting; urinating more or less than usual; fever, chills, body aches, flu symptoms; tiredness, muscle weakness; pounding or uneven heartbeats; chest pain; swelling; rapid weight gain; cough; dizziness; drowsiness; headache; nausea; vomiting; diarrhea; upset stomach; mild skin itching or rash	Elderly may be more sensitive to its effects.	Tiredness, dizziness, headache could impact SLP treatment
Sertraline (Zoloft)	Zoloft is used for treating depression or obsessive-compulsive disorder (OCD). It is a selective serotonin reuptake inhibitor (SSRI). It works by restoring the balance of serotonin.	Anxiety; constipation; decreased sexual desire; diarrhea; dizziness; drowsiness; dry mouth; increased sweating; loss of appetite; nausea; nervousness; stomach upset; tiredness; trouble sleeping; vomiting; weight loss	Elderly may be more sensitive to its effects, especially low blood sodium levels. Be cautious of possible anorexia.	At risk for weight loss; loss of appetite impacts dysphagia treatment
Donepezil (Aricept)	Aricept is used for treating dementia (eg. Impairment of memory, judgment, and abstract thinking; changes in personality) in patients with Alzheimer disease. It is a cholinesterase inhibitor.	Abnormal dreams; diarrhea; dizziness; loss of appetite; muscle cramps; nausea; tiredness; trouble sleeping; vomiting; weight loss	Cannot be used if the patient has Parkinson disease or metabolism problems.	At risk for weight loss; loss of appetite impacts dysphagia treatment

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Drug	Pharmacologic Implications	Common Side Effects	Geriatric Considerations	Implications for SLP
Lorazepam (Ativan)	Ativan is used for treating anxiety or anxiety associated with symptoms of depression. It is a benzodiazepine. It works by slowing down the movement of chemicals in the brain which results in a reduction of anxiety.	Clumsiness; dizziness; drowsiness; headache; lightheadedness; unsteadiness; weakness	Elderly may be more sensitive to its effects.	Risk of decreased endurance and ability to sustain attention for SLP sessions.
Quetiapine (Seroquel)	Seroquel is an antipsychotic medication that works by changing the actions of chemicals in the brain. Seroquel is used to treat the symptoms of psychotic conditions such as schizophrenia and bipolar disorder.	Constipation; dizziness; drowsiness; dry mouth; lightheadedness; nasal congestion; sore throat; stomach pain or upset; tiredness; vomiting; weakness; weight gain	May increase the risk of death when used to treat mental problems caused by dementia in elderly patients. Most deaths were linked to heart problems or infection. Elderly patients, especially women, may develop uncontrollable muscle movements. This may affect arms, legs, tongue, face, mouth, or jaw.	SLP may be the first to note uncontrollable muscle movement of the articulators. Most side effects listed would impact SLP treatment significantly
Warfarin (Coumadin)	Coumadin is an anticoagulant. It works by blocking the formation of certain blood clotting factors. Used for treating or preventing blood clots that may occur in the veins and lungs, or that may occur because of atrial fibrillation or heart valve replacement. It is used to reduce the risk of death, recurring heart attack, or blood clotting (stroke) after a heart attack.	No common side effects	Can cause severe and sometimes fatal bleeding. People who are older than 65 years are at greater risk of side effects, especially bleeding.	SLP/dietary dept. need to be aware of diet restrictions: green leafy vegetables, broccoli, and liver may be restricted. Cranberry products, including cranberry juice may be forbidden.
Mirtazapine (Remeron)	Remeron is used for treating depression. It is a tetracyclic antidepressant that is thought to increase the activity of certain chemicals in the brain to help elevate mood.	Abnormal dreams; abnormal thinking; constipation; dizziness; drowsiness; dry mouth; flu symptoms; increased appetite; weakness; weight gain	None listed	Potential for impact on cognitive functioning. Risk of decreased endurance and ability to sustain attention for SLP sessions.
Pantoprazole (Protonix)	Protonix is a proton pump inhibitor that decreases the amount of acid produced in the stomach. It is used to treat GERD or Zollinger-Ellison syndrome.	Diarrhea; headache; nausea; stomach pain; vomiting	None listed	Risk of dehydration.