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), Nitroglycern (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 is used for treating high blood	Dizziness; lightheadedness; sensitivity to sunlight;	Elderly may be more sensitive	Impaired concentration,			
(Lasix)	pressure or water retention	may need to urinate more frequently	to its effects, especially	attention and overall decline			
	associated with congestive heart		dehydration. For any change in	in cognitive-linguistic			
	failure, liver disease, or kidney		mental status monitor	functioning with electrolyte			
	disease. Lasix is a loop diuretic.		electrolytes and renal function.	imbalance. Potential for			
				dehydration.			
Levothyroxine	Synthroid is used for treating low	Anxiety; diarrhea; flushing; mood swings; muscle	Elderly may be more sensitive	Anxiety can impact attention			
(Synthroid;	thyroid activity and treating or	weakness; hair loss; sleeplessness; stomach cramps;	to its effects, may require a	and concentration. Potential			
Levoxyl)	suppressing different types of	tiredness; vomiting	lower than normal dosage.	for weight loss and			
	goiters. Synthroid is a thyroid			dehydration.			
	hormone.						
Lisinopril	Lisinopril is an angiotensin	Lightheadedness; fainting; urinating more or less than	Elderly may be more sensitive	Tiredness, dizziness,			
(Prinivil;	converting enzyme (ACE) inhibitor.	usual; fever, chills, body aches, flu symptoms;	to its effects.	headache could impact SLP			
Zestril)	It is used to treat high blood	tiredness, muscle weakness; pounding or uneven		treatment			
	pressure, congestive heart failure,	heartbeats; chest pain; swelling; rapid weight gain;					
	and to improve survival after a heart	cough; dizziness; drowsiness; headache; nausea;					
	attack.	vomiting; diarrhea; upset stomach; mild skin itching					
Sertraline	Zoloft is used for treating depression	or rash Anxiety; constipation; decreased sexual desire;	Elderly may be more sensitive	At risk for weight loss; loss			
(Zoloft)	or obsessive-compulsive disorder	diarrhea; dizziness; drowsiness; dry mouth; increased	to its effects, especially low	of appetite impacts dysphagia			
(Zoloit)	(OCD).	sweating; loss of appetite; nausea; nervousness;	blood sodium levels. Be	treatment			
	It is a selective serotonin reuptake	stomach upset; tiredness; trouble sleeping; vomiting;	cautious of possible anorexia.	treatment			
	inhibitor (SSRI). It works by	weight loss	cautious of possible anotexia.				
	restoring the balance of serotonin.	weight loss					
Donepezil	Aricept is used for treating dementia	Abnormal dreams; diarrhea; dizziness; loss of	Cannot be used if the patient	At risk for weight loss; loss			
(Aricept)	(eg. Impairment of memory,	appetite; muscle cramps; nausea; tiredness; trouble	has Parkinson disease or	of appetite impacts dysphagia			
	judgment, and abstract thinking;	sleeping; vomiting; weight loss	metabolism problems.	treatment			
	changes in personality) in patients		1				
	with Alzheimer disease. It is a						
	cholinesterase inhibitor.						
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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.