

## Potentially Inappropriate Medications for Older Persons

Medications	Reason that Use is a Problem
<b>Pain Relievers</b>	
propoxyphene and combination products (Darvon <sup>®</sup> , Darvocet N-100 <sup>®</sup> )	Used to control pain. Propoxyphene offers little pain-relieving advantage over acetaminophen (Tylenol <sup>®</sup> ), yet has the side effects of other narcotics.
indomethacin (Indocin <sup>®</sup> , Indocin SR <sup>®</sup> )	Used to control pain and swelling. Indomethacin produces many side effects, especially confusion, agitation, and ulcers.
pentazocine (Talwin <sup>®</sup> )	Used to control pain. Pentazocine is a narcotic pain reliever that causes confusion and hallucinations, more commonly than other narcotic medications.
cyclobenzaprine (Flexeril <sup>®</sup> ) methocarbamol (Robaxin <sup>®</sup> ) carisoprodol (Soma <sup>®</sup> ) oxybutynin (Ditropan <sup>®</sup> ); chlorzoxazone (Paraflex <sup>®</sup> ); metaxalone (Skelaxin <sup>®</sup> );	Used to ease muscle spasms. Most drugs used to relax muscles and reduce muscle spasms are poorly tolerated by older persons. These medications can cause sleepiness and weakness.
Meperidine (Demerol <sup>®</sup> )	Used to treat pain. Meperidine is not an effective oral pain reliever and has many disadvantages compared to other narcotics. Avoid using in older persons.
<b>Antidepressants</b>	
amitriptyline (Elavil <sup>®</sup> ) chlordiazepoxide/amitriptyline (Limbitrol <sup>®</sup> ) perphenazine/amitriptyline (Triavil <sup>®</sup> ) doxepin (Sinequan <sup>®</sup> )	Used to treat depression. These medications can cause sedation, weakness, blood pressure changes, dry mouth, problems with urination, and can lead to falls and fractures.
<b>Sleeping Pills and Antianxiety Medications</b>	
flurazepam (Dalmane <sup>®</sup> )	Used to treat insomnia. This medication produces prolonged sedation/sleepiness (often lasting for days and can worsen if taken daily) and can increase the risk of falls and fractures.
meprobamate (Miltown <sup>®</sup> , Equanil <sup>®</sup> )	Used to treat anxiety. Meprobamate is a highly addictive and sedating. Those who have been using it for long periods may be addicted and may need to be withdrawn slowly.

Medications	Reason that Use is a Problem
<b>Sleeping Pills and Antianxiety Medications</b>	
alprazolam (Xanax <sup>®</sup> )      2 mg lorazepam (Ativan <sup>®</sup> )      3 mg oxazepam (Serax <sup>®</sup> )      60 mg temazepam (Restoril <sup>®</sup> )    15 mg triazolam (Halcion <sup>®</sup> )    0.25mg zolpidem (Ambien <sup>®</sup> )      5 mg	Used to treat insomnia and anxiety. Older people should be prescribed small doses of these medications. Total daily doses should rarely exceed the suggested maximum doses noted to the left.
chlordiazepoxide (Librium <sup>®</sup> ) chlordiazepoxide/amitriptyline (Limbitrol <sup>®</sup> ) clidinium/chlordiazepoxide (Librax <sup>®</sup> ) diazepam (Valium <sup>®</sup> )	Used to treat insomnia and anxiety. Chlordiazepoxide and diazepam produce prolonged sedation (often lasting several days and can worsen if taken daily) and can increase the risk of falls and fractures.
All barbiturates except phenobarbital	Used to treat insomnia and anxiety. Barbiturates cause more side effects than most other drugs used to induce sleep in the elderly and are highly addictive. They should not be started as new therapy in the elderly except when used to control seizures; patients who have used barbiturates for a long period may be addicted.
<b>Heart Medications</b>	
disopyramide (Norpace <sup>®</sup> , Norpace CR <sup>®</sup> )	Used to treat abnormal heart rhythms (arrhythmias). Disopyramide, of all drugs used to treat arrhythmias, is the most likely to decrease the pumping action of the heart, which can lead to heart failure in older persons. When appropriate, other antiarrhythmics should be used.
digoxin (Lanoxin <sup>®</sup> ) Doses ABOVE 0.125 MG	Used to treat abnormal heart rhythms and heart failure. Because of decreased processing of digoxin by the kidney, doses in older persons should rarely exceed 0.125 mg daily, except when treating certain types of abnormal heart rhythms.
dipyridamole (Persantine <sup>®</sup> )	Used to help stop blood from clotting in people who have experienced strokes, heart attacks, and other conditions. Dipyridamole frequently causes light-headedness upon standing in older persons. Dipyridamole has been proven beneficial only in patients with artificial heart valves. Whenever possible, its use in older persons should be avoided.

<b>Medications</b>	<b>Reason that Use is a Problem</b>
<b>Heart Medications</b>	
methyldopa (Aldomet <sup>®</sup> ) methyldopa/HCTZ (Aldoril <sup>®</sup> )	Used to treat high blood pressure. Methyldopa may cause a slowed heart beat and worsen depression. Alternate treatments for hypertension are generally preferred.
reserpine (Serpasil <sup>®</sup> ) reserpine/HCTZ (Hydropres <sup>®</sup> )	Used to treat high blood pressure. Reserpine imposes unnecessary risk in older persons, inducing depression, impotence, sedation, and light-headedness upon standing. Safer alternatives exist.
Ticlopidine (Ticlid <sup>®</sup> )	Used to help prevent blood from clotting in people who have had strokes, heart attacks, and other conditions. Ticlopidine has been shown to be no better than aspirin in preventing clotting (except in a few specific conditions, such as after use of a cardiac artery stent) and is considerably more toxic. Avoid use in older people.
<b>Diabetes Medications</b>	
chlorpropamide (Diabinese <sup>®</sup> )	Used to control blood sugar in people with diabetes. Chlorpropamide can cause prolonged and serious low blood sugar.
<b>Stomach and Intestinal Medications</b>	
dicyclomine (Bentyl <sup>®</sup> ) hyoscyamine (Levsin <sup>®</sup> , Levsinex <sup>®</sup> ) propantheline (Pro-Banthine <sup>®</sup> ) belladonna alkaloids (Donnatal <sup>®</sup> ) clidinium/chlordiazepoxide (Librax <sup>®</sup> )	Used to treat stomach and intestinal cramps. These medications can cause sedation, weakness, blood pressure changes, dry mouth, problems with urination, and can lead to falls and fractures. All of these drugs are best avoided in older persons, especially for long term use.
trimethobenzamide (Tigan <sup>®</sup> )	Used to control nausea. Trimethobenzamide is one of the least effective medications used to control nausea and vomiting, yet it can cause severe side effects, such as stiffness, shuffling gate, difficulty swallowing, and tremor.

Medications	Reason that Use is a Problem
<b>Antihistamines</b>	
chlorpheniramine (Chlor-Trimeton®) diphenhydramine (Benadryl®) hydroxyzine (Vistaril®, Atarax®) cyproheptadine (Periactin®) promethazine (Phenergan®) tripeleennamine (PBZ®) dexchlorpheniramine (Polaramine®) Actifed C® Poly-Histine CS® Bromfed DM® Ambenyl® Novahistine DH® Polyhistine DM® Tussionex®	Used to treat the runny nose of the common cold and allergy symptoms. Most nonprescription and many prescription antihistamines can cause sedation, weakness, blood pressure changes, dry mouth, problems with urination, and can lead to falls and fractures. Many cough and cold preparations are available without antihistamines, and these are safer substitutes in older persons.
diphenhydramine (Benadryl®)	Used to treat allergies and insomnia. Diphenhydramine can cause sedation, weakness, blood pressure changes, dry mouth, problems with urination, and can lead to falls and fractures.. When used to treat or prevent allergic reactions, it should be used in the smallest possible dose and with great caution.
<b>Miscellaneous</b>	
iron supplements Doses ABOVE 325 MG	Used to treat low iron, but frequently given to older people with other types of anemia, for which they do not help. Iron supplements rarely need to be given in doses exceeding 325 mg of ferrous sulfate daily. A common side effect of iron supplements is constipation.