Polypharmacy: Is Your Loved One on Too Many Medications?

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Are you amazed at the amount of medications that are prescribed by physicians these days? The numbers are staggering. Polypharmacy is often defined based on the number of medications that are routinely taken (e.g. five or more), but can also be defined simply as taking too many medications or unnecessary medications. Based on these definitions, polypharmacy is common in older adults. As many as 28 percent of older adults over age 65 years will take five or more prescription medications. Older adults represent 12 percent of the population in the U.S.; yet consume over 30 percent of prescription drugs. In the long-term care setting, patients across the country are on an average of 9 medications per day per patient with at least 3-4 prn or "as needed" pills. Thus, your loved one may be at risk for polypharmacy and possibly an adverse drug event if new medications are prescribed.

First of all, it is important to ask the question, how did we get to this point as a society? That is a great question and I am not sure it has been systematically studied. Based on my practice and "retrospectoscope" over the past twenty years, I would offer a few insights. Western society and our medical practices are very "drug" or "pharmacy" based. Doctors often turn to medications first, since writing a prescription is so easily done (e.g. pain medication instead of massage therapy or acupuncture).

We have also raised several generations now in the US on drug prescribing, so it has now become the widely accepted norm. People want a "pill" to provide the answer or magic bullet, or at least part of the answer. It has also been noted that the more subspecialists you have on the case the more medications you are likely to prescribe. Everyone wants to be seen by a specialist and often the primary care physician's scope of practice has narrowed. The primary care doc may need a subspecialist to assist on care for certain conditions for which they receive little or no training (e.g. Parkinson's disease). There is an obvious trend for treating one diagnosis with multiple medications. For instance, if you are diagnosed with coronary artery disease and have a stent placed, you may find yourself on a statin for cholesterol, a betablocker and ACE inhibitor (heart or blood pressure medications) that may reduce the risk of future heart attacks, aspirin and/or plavix (5 meds!). Throw on the fact that many of our patients have multiple medical problems and will require/accept treatment for many of them and it does not take long to develop polypharmacy.

So, many of our older adults in long term care are at higher risk for adverse drug events, due to age-related changes in drug metabolism, taking more routine medications increasing the changes for drug-drug or drug-disease interactions, and the presence of co-morbidities. The proportion of fat tissue increases with aging so medications such as benzodiazepines (e.g. Valium, Xanax) will have a longer duration of action. Elderly persons have decreased lean body skeletal/muscle mass. Total body water decreases by 15 percent over age 80 years so the volume of distribution for hydrophilic drugs such as alcohol or cimentidine is decreased resulting in higher drug concentrations. Many medications are excreted by the kidney and will often need to be adjusted by estimating kidney function by age and body weight, since kidney function declines with aging.