

# Reducing Polypharmacy in the Palliative Care Setting

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Polypharmacy is a major risk factor for adverse medication reactions and interactions, particularly in the geriatric population, which can result in excess morbidity and even mortality. Despite this recognition, there is no uniform or consensus definition of polypharmacy although either “the use of 6 or more concomitant medications” or “use of a potentially inappropriate or unnecessary medication” has been frequently cited. Regardless of the definition employed, we know that there are many drivers of polypharmacy including:

1. Multiple disease specific guidelines in patients with multiple comorbidities
2. Treating acute problems in patients with multiple comorbidities (adding meds to meds)
3. Multiple providers involved in treating multiple comorbidities
4. Misinterpreting and mistreating adverse medication reactions (adding meds to meds)
5. Patient and family perception of medication necessity

In the Palliative Care setting, we are most often dealing with patients with very severe and/or life-limiting illness including advanced dementia or other neurodegenerative diseases (Parkinson’s disease, ALS etc.), metastatic cancer, severe end-organ failure (CHF, cirrhosis/ESLD, COPD, CKD/ESRD) and others. Contrary to a common misperception, however, Palliative Care and Hospice are not one and the same and while Palliative Care patients have serious illness of any type, we often are helping to manage them for many months up to several years. In these circumstances all of the above drivers of polypharmacy are present and the most challenging issue to address is often item five, the patient and family perception of need for a whole host of medications that no longer may be helpful and can even be harmful. The most important way to address this issue is for treating physicians, in conjunction with palliative care consultants as needed, to frequently and systematically assess the **goals of care** for individual patients with serious and/or life-limiting illness. In many instances, if patients are primarily seeking symptom relief and/or maximization of overall functional status, then medications designed to prevent long term complications from chronic disease may no longer be appropriate. In those situations, a process of “**deprescribing**” should ensue, which is defined as an effort to taper, reduce dose or stop medications in an effort to reduce polypharmacy, minimize adverse medication effects and avoid ineffective or even potentially harmful medications. The potential financial cost savings of these kinds of efforts are also significant.

How the process of deprescribing is communicated to the patient and family is also critical, however. Relating it to the goals of care discussion is usually the first step - if symptom relief and/or functional status improvement are the major goals then many medications such as anti-hypertensives, statins, oral hypoglycemics, anticoagulants, vitamins and supplements that do not contribute to achieving those goals can often be discontinued. The language used in this process is also very

important – terms like, “optimize, individualize, limit pill burden, maximize benefit and minimize harm” are much better received than terms such as, “stopping, quitting, decrease cost, no longer covered, etc.” As with all issues in Palliative Care, this must be a process of shared decision making so patients and families do not feel like they are being abandoned or that their treating clinicians are “giving up.” In my experience, many patients who are taking six, eight or ten or more separate medications per day and often twice those numbers in terms of pills per day welcome the opportunity for this regimen to be streamlined. Furthermore, as most of us can attest to from experience, many patients do not feel worse as medications are withdrawn but may actually feel better, in which case it becomes much easier to convince them to reduce polypharmacy.

The most common classes of medications where there is often great opportunity to “deprescribe” in the Palliative setting with a high likelihood that the benefit (including just reducing the pill “burden” and reducing cost of care) outweighs the harm include:

1. Dementia medications – anticholinesterase inhibitors and memantine
2. Statins
3. Anticoagulants and aspirin
4. Anti-hypertensives
5. Insulin and oral hypoglycemics
6. Vitamins, iron supplements, calcium

Without going into great detail about each class, summaries of the relative risk-benefit issues to consider as to whether to continue these classes of medications in the Palliative Care setting are listed below.

1. Dementia Medications<sup>1</sup>
  - a. Acetylcholinesterase Inhibitors (AChEI) may be efficacious in slowing disease progression for mild to moderate Alzheimer’s Disease, less helpful and more harmful in advanced disease
  - b. Memantine has small beneficial effect at six months only in moderate to advanced dementia and no clear added benefit in combo with AChEI
  - c. Rivastigmine may help in Lewy Body disease but none of these agents are clearly helpful in vascular dementia and may be harmful in Frontotemporal dementia
  - d. Potential side effects including nausea, diarrhea, insomnia, and others not usually well tolerated in Palliative Care population
  - e. It is safest to wean these medications over two weeks when stopping
2. Statins
  - a. Highly prevalent in Palliative Care population (including those with metastatic cancer) for prevention of cardiovascular morbidity which often is no longer relevant
  - b. Recent study<sup>2</sup> showed no difference in mortality at 60 days when statin is discontinued in Palliative Care setting
  - c. Many Palliative Care patients have anorexia, weight loss or poor nutrition for which cholesterol lowering no longer makes sense

3. Anticoagulants
  - a. Is it treatment or prophylaxis of VTE, AFib, ischemic or valvular heart disease?  
The role of prophylactic anticoagulation is limited in this setting
  - b. The use is highly dependent on goals of care and bleeding risk versus (usually) low short term risk of thrombosis or stroke
  - c. Inconvenience and cost of monitoring (warfarin) must be factors in the decision
  - d. Bleeding risk of warfarin in patients with liver disease or metastasis and/or poor nutrition and low albumin can increase significantly
4. Antihypertensives
  - a. The main purpose of these agents is long-term reduction of heart failure, myocardial infarction, stroke, and kidney disease incidence which often become moot in Palliative Care setting
  - b. The agents have minimal role in preventing or avoiding symptoms
  - c. The Risks for orthostasis, dehydration, falls and other adverse events or side effects are often higher in Palliative Care population
  - d. If continued, the dose or number of agents can often be reduced and goal blood pressure can be less aggressive
5. Insulin and oral hypoglycemic
  - a. The main role for long-term prevention of micro and macrovascular disease often becomes moot in Palliative Care population
  - b. The risk of hypoglycemia often increases with occurrence of anorexia, decreased food intake and weight loss in many Palliative Care patients
  - c. Avoiding extremes of blood glucose is usually more sensible than “tight control” in Palliative Care setting
6. Vitamins, Iron, Supplements
  - a. Vitamin D and calcium for osteoporosis prevention no longer is relevant in most Palliative Care patients
  - b. Anemia of chronic disease is often misdiagnosed as iron deficiency leading to unnecessary supplementation and frequent GI side effects
  - c. Added pill burden and cost for little benefit

### **Summary and Conclusion**

Just as in the geriatric population, in the Palliative Care setting, a “less is more” approach to medication management is often the most sensible. While many patients and their clinicians tend to think of Palliative Care as akin to hospice and only dealing with patients who are “dying,” the real target population for a more conservative medication approach are many patients with a variety of serious or life limiting illnesses. While prognostication is fraught with hazard and uncertainty, one of the simple questions Palliative Care clinicians often ask when evaluating a patient is the so called “surprise” question: “would I be surprised if this patient were not alive one year from now?” If the answer to this question is, “no” (and clinicians’ gut response to this question is surprisingly accurate) then reconsidering the goals of medication therapy in these patients is very appropriate. Does it really make

sense to continue medications designed to reduce mortality and mortality over many years when life expectancy is likely far less than that? Do the benefits of continuing a medication outweigh the risks (side effects, adverse events) and/or disadvantages (inconvenience, cost)? Is a given medication providing any *symptomatic* relief, or is it actually causing side effects or harm? Frequently reviewing the goals of care for patients with serious illness and engaging in effective communication and shared decision making to guide medication therapy and help achieve those goals is the optimal way to reduce polypharmacy and improve outcomes for Veterans.

#### References:

1. Mitchell SL. Advanced Dementia. N Engl J Med 2015; 372;26:2533-40.
2. Kutner JS, Blatchford PJ, Talyor DH et al. Safety and benefit of discontinuing statin therapy in the setting of advanced, life-limiting illness: a randomized clinical trial. JAMA Intern Med. 2015; 175:691-700.