

PALLIATIVE PEARLS

BY ENCLARA PHARMACIA

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Patient Case

KC is an 88-year-old woman with a terminal diagnosis of dementia without behavioral disturbances who lives at home with her 90-year-old husband. KC's comorbidities include depression, hypertension, and hyperlipidemia. She experienced a CVA over 1 year ago and she has no known allergies. KC is admitted to hospice after a week-long hospital stay for pneumonia. Current medications are listed below. Indications for use, when known, are included in parentheses next to the listing.

- Levofloxacin 500mg daily for 7 days (pneumonia)
- Donepezil 10mg daily (dementia)
- Memantine 5mg BID (dementia)
- Simvastatin 20mg daily (hyperlipidemia)
- Amlodipine 10mg daily (hypertension)
- Lisinopril 20mg daily (hypertension)
- Furosemide 20mg daily (hypertension)
- Potassium chloride 20mEq daily (supplement)
- Omeprazole 20mg daily
- Mirtazapine 7.5mg at bedtime (insomnia)
- Sertraline 25mg daily (depression)
- Clopidogrel 75mg daily (CVA)
- Aspirin 81mg EC daily (CVA)
- Vitamin D3 2000units daily
- Ferrous sulfate 325mg BID
- Calcium + Vitamin D 600mg/200units daily
- Hydrocodone-acetaminophen 5mg/325mg - 1 to 2 tablets every 4 hours if needed (pain)
- Senna-S - 1 to 2 tablets BID if needed (constipation)
- Diphenhydramine 25mg at bedtime if needed (insomnia)
- Meclizine 25mg TID if needed
- Guaifenesin 100mg/5ml syrup - 10ml every 4 hours if needed (cough/congestion)
- Emergency Hospice Kit with morphine

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KC's condition is declining; she appears debilitated and is mostly bedbound. She is barely able to swallow, she no longer communicates verbally except for a few words and she moans occasionally. She is generally calm at night, but awakens frequently and spends much of the day sleeping. Her hospice nurse doubts that KC's husband is able to administer all of KC's medications, especially with her swallowing difficulties. Her husband looks anxious and exhausted.

Pharmacist Assessment

KC has 16 scheduled and 5 PRN medications, not including the emergency hospice kit that contains morphine among others drugs. This large number of medications, especially in the presence of complex comorbid conditions and older age, can exponentially increase the risk of drug-drug interactions, drug-disease interactions and adverse effects (ADRs). In addition, the burden of taking this volume of therapies can contribute to the patient's discomfort and debility and overwhelm her caregiver.

What Is Polypharmacy?

Polypharmacy is the use of multiple drugs concomitantly and/or the administration of more medications than clinically indicated. Polypharmacy is especially prevalent in the elderly with estimates that 30% to 50% take 5 or more medications. Polypharmacy can increase the risk of ADRs, and decrease medication adherence and quality of life. Multiple comorbidities, multiple prescribers and lack of recognition of ADRs are some of the most common contributors to polypharmacy.

To reduce polypharmacy, it is important to re-evaluate medication regimens regularly especially when goals of care change. We should consider discontinuing medications when (1) they are prescribed without an indication, (2) there is a duplication of therapy, (3) benefit is diminished or there is lack of evidence in palliative care, (4) goals of care have changed and interventions used to prevent possible long-term complications are no longer the primary aim of care and/or (5) they are causing ADRs.

When reviewing a medication regimen, identifying which medications are indicated for discontinuation and prioritizing which medications to stop is the first step. Then discuss and coordinate with the patient/caregivers and other health care providers to develop a care plan. Some patients and caregivers may be reluctant to make medication changes and view recommendations to stop medications as a form of abandonment. To gain their trust, help

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them to recognize the reasons behind the proposed changes and involve them from the start in the discussions and decision-making process.

Which Of KC's Medications Can Be Safely Discontinued on Hospice Care?

- **Vitamin D, ferrous sulfate and calcium + vitamin D:** In hospice, there are no benefits for vitamin/mineral supplements and they are adding to pill burden. Calcium supplements are used to prevent osteoporosis, which is no longer a priority.
- **Donepezil (Aricept®) and memantine (Namenda®):** Dementia drugs are generally indicated for patients who are functional enough to derive possible benefit. They have no effect on improving or maintaining cognitive function in end-stage dementia and can cause anorexia, nausea, vomiting, diarrhea, hemodynamic changes, drowsiness and dizziness. Based upon KC's current condition, discontinuing her dementia medications is recommended.
- **Simvastatin (Zocor®):** There is no proven benefit for statin therapy at end-of-life (EOL) and research has shown there are no negative effects from stopping statins in hospice patients. Statins can cause muscle pain and weakness and liver toxicity, especially when taken concomitantly with amlodipine, which can increase its levels.

Which Medications Should The Medical Director Further Evaluate?

- **Amlodipine (Norvasc®), lisinopril (Zestril®) and furosemide (Lasix®):** The need for blood pressure (BP) medications and diuretics should be re-evaluated. Tight BP control may not be necessary to palliate symptoms and may place the patient at risk for hypotension and hemodynamic shifts that can result in falls. Consider tapering these medications one at a time while monitoring response (i.e., BP, HR, fluid retention). Also, re-evaluate the need for potassium supplementation – it may not be necessary, especially when furosemide is stopped.
- **Clopidogrel (Plavix®) and omeprazole (Prilosec®):** KC's CVA was over a year ago. She is taking aspirin in addition to clopidogrel and there are no documented cardiac conditions that would increase the risk of a secondary stroke. Continuing KC's clopidogrel lacks benefit and increases the risk of bleeding, especially in combination with aspirin. Omeprazole has no indication listed. Often patients are placed on acid suppression therapy during a hospital admission for stress ulcer prophylaxis and inadvertently continued on this therapy. Omeprazole may also reduce the effectiveness of clopidogrel

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by decreasing its levels. The risks of these medications outweigh potential benefits, indicating that they both should be discontinued.

- **Mirtazapine (Remeron®) and sertraline (Zoloft®):** Both medications are antidepressants and are prescribed at low doses indicating they may be recently initiated therapies or perhaps not needed. Streamlining these therapies to just one agent is recommended. Mirtazapine is sedating and may increase appetite/weight gain. Considering KC's lack of appetite and night time wakening, the dose of mirtazapine could be increased and sertraline discontinued.
- **Diphenhydramine (Benadryl®) and meclizine (Antivert®):** Both medications are antihistamines and anticholinergics, thereby increasing risk of ADRs such as dizziness, confusion, urinary retention and GI disturbances, especially in the elderly. Diphenhydramine was prescribed for insomnia, however, it takes only 3 days of scheduled use for patients to develop tolerance to the sedating side effect, making this therapy futile, and there is no known indication for meclizine. Re-evaluate KC's need for either medication and consider stopping both.

Which Medications Should Be Continued?

- **Levofloxacin (Levaquin®):** KC was recently discharged from the hospital where she was treated for pneumonia. She should complete her 7-day course. Consider switching therapy to commercially available levofloxacin oral solution if necessary to ease administration.
- **Hydrocodone-acetaminophen (Lortab®, Vicodin®):** Pain/discomfort is one of the top reported symptoms experienced by patients on hospice care, including those with dementia. Consider switching to hydrocodone-acetaminophen liquid oral solution if easier to administer.
- **Senna-S:** Opioids such as hydrocodone inevitably cause constipation. Stimulant laxatives should be continued as long as patient is on opioid therapy.
- **Guaifenesin (Robitussin®):** Secretions may become thick at EOL and be difficult to clear. Guaifenesin helps thin secretions making them easier to expectorate.
- **Emergency Hospice Kit with morphine:** Most emergency hospice kits contain a few days supply of therapy for symptoms needing urgent resolution (i.e., pain, nausea/vomiting, anxiety, agitation). Having these available may help to quickly control a symptom while awaiting maintenance therapy from a pharmacy.

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Discuss these suggestions with the patient’s family and physician to develop a plan to reduce the medication burden on KC and her family. Effective communication when discussing medication changes should:

- Use a shared decision-making model guided by the patient’s goals of care
- Weigh expected benefits vs. burdens
- Consider treatment goals
- Be timed appropriately on admission, prior to recertification, during routine visits or conferences, when ordering or changing a med or when the level or location of care changes
- Provide alternative recommendations based on hospice formulary

For Additional Information On This Topic, Please Review These References:

- Enclara Pharmacia’s On Demand Educational Webinar, “Lightening the Load: Reducing Pharmaceutical Burden with Appropriate Discontinuation Strategies”. Click [here](#) to log in.
- Atayee R, McPherson ML, Pirrello R, Prommer E, Roeland E, et al. The polypharmacy police versus the patient advocate: An evidence-based, patient-tailored approach to medication simplification strategies for the palliative care patient. AAHPM 2015.
- Abernathy AP, Kutner J, Blatchford PJ, et al. Managing comorbidities in oncology: A multisite randomized controlled trial of continuing versus discontinuing statins in the setting of life-limiting illness. ASCO 2014.
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