Field Guide to Reduce Medication Burden During COVID-19

DISCLAIMER/CAUTIONARY STATEMENT: *This list provides practical recommendations for making decisions about deprescribing unnecessary medications during the COVID-19 pandemic. The intent of deprescribing at this time is to decrease nursing touch points and resident medication burden. Recommendations are meant to assist with, not dictate, decision making and risk/benefit weighing in conjunction with residents and the interdisciplinary team.*

Potentially Inappropriate medications (PIMs) should be specifically assessed and eliminated where possible during the COVID-19 outbreak. Eliminating nursing touch points, in any capacity, will help reduce viral transmission.

Objectives:

- Utilize current guidelines to eliminate PIMS for chronic diseases not shown to improve outcomes or when clinical benefit is unlikely
- Access PIMs lists and tools like the "Choosing Wisely" campaign, STOPP criteria, and Beers Criteria to target potentially inappropriate medications.[1,2,3]

When the medication is being tolerated well, is considered essential, and has not raised any safety issues, then it may be continued, if necessary.

- Strongly consider avoiding combinations of medications that are central nervous system (CNS) depressants (e.g. sedative-hypnotics, opioids, gabapentin, pregabalin).[4] These medications require reducing dose to gradually deprescribe when no clear indication exists.

Evaluating and deprescribing CNS depressants in general, may reduce the risk of pneumonia in COVID-19 residents.

Respiratory Medications:

- Transition short acting respiratory agents (i.e. albuterol/ipratropium) to long acting agents
- Discontinue, or change to PRN, scheduled short acting agents if on scheduled long-acting agents
- Continue inhaled (or oral) corticosteroids in COPD during the COVID-19 pandemic.[5]
- Use short-acting agents only PRN
- GOLD standards recommend maintaining nebulized formulations.[5]

(Global Initiative for Chronic Obstructive Lung Disease)

Considerations should include:

- Changing short acting agents to long acting agents if possible
- Changing to hand held inhaler in highly suspect or COVID + patients only.
- Add holding chamber or spacer when applicable.
- Assess ability to administer or use the device properly.
- Evaluate availability of products in the market.

Dietary Supplements:

- Continue only over the counter (OTC) vitamins/minerals used to treat an active acute deficiency diagnosis (i.e. vitamin D deficiency, vitamin B12 deficiency, pernicious anemia, iron deficiency anemia, thiamine deficiency related to alcohol use).
- Discontinue all other non-essential herbals/supplements (e.g. glucosamine/chondroitin, fish oil, magnesium, etc.)
- If OTC vitamins indicated, decrease to minimum effective dosing frequency (e.g. iron supplement once daily or every other day)
- Collaborate with Dietary and consider the following:
  - Discontinue supplemental nutrition
  - Discontinue medications for appetite stimulation
  - Discontinue multivitamins

Cardiovascular Medications:

- Reconsider statins (age 76 and older) and/or aspirin (age 70 and older) for primary prevention
- Fibrates and fish oil (4 gm/day) are only for hypertriglyceridemia (>500 mg/dL)
- Re-evaluate clopidogrel and NOAC/warfarin duration of therapy and indication
- Reconsider aspirin concurrently with blood thinners
- Evaluate antihypertensive polypharmacy and consolidate agents where possible (i.e. is beta blocker still indicated for remote NSTEMI)

Gastrointestinal Medications:

- PPI and H2 receptor antagonists: evaluate for an appropriate indication. If not present, then decrease dosing frequency, tapering, and/or dose to promote use of lowest effective dose. (consider the recent issues with ranitidine's recall)
- Discontinue docusate and unused PRN antacids
- Simplify bowel regimens (i.e. changing polyethylene glycol 3350 and psyllium fiber to Senna to reduce time spent in room)

Diabetes Mellitus Medications:[6]

- Eliminate sliding scale insulin orders for residents requiring minimal coverage and those with tight glycemic control
- Ensure A1C goals align with goals of therapy to avoid intense glycemic control
- Consider therapy modification to replace mealtime insulin (i.e. injectable GLP-1 agonists to reduce injection and blood sugar testing frequencies)
- If getting long-acting insulin twice daily, consolidate to once daily administration
- If getting a predictable amount of mealtime coverage, increase long-acting insulin dose and discontinue meal-time coverage
- Discontinue bedtime sliding scale insulin and snacks
- Optimize oral hypoglycemics to de-intensify insulin regimen or even eliminate need for insulin (i.e. if no contraindication to metformin, switch to gold standard first line agent)
- If resident's HbA1c below goal, consider stopping oral hypoglycemics which lower HbA1c less than 1% (i.e. sulfonylureas, gliptins) to reduce daily pill burden

Analgesics:

- When NSAID is used for pain management (i.e. for OA), it may be continued as there is no current evidence to support discontinuation related to COVID-19 status.
- Scheduled doses of acetaminophen are first line for non-opioid pain management.

Allergy Medications:

- Evaluate continued need of nasal corticosteroids.
- Consider second generation antihistamine alternatives where appropriate and consider converting scheduled antihistamines to PRN.

Antibiotics:

- Discontinue unnecessary prophylactic antibiotics
- Transition IV to PO as soon as clinically appropriate
- Ensure ordered shortest effective duration for indication

Anticholinergic Medications:

- Reduce anticholinergic burden to reduce fall risk and to possibly decrease risk of pneumonia (e.g. first-generation antihistamines, muscarinic receptor blockers for overactive bladder, paroxetine as SSRI, etc.)[7,8]

Topicals/Treatments:

- Evaluate and discontinue topicals/treatments when duration of therapy is complete
- Evaluate and discontinue eye drops/artificial tears and simplify glaucoma regimens
- Change eye drops to manage symptoms (i.e. artificial tears) to PRN

Decreasing Routine Medication Monitoring and Laboratory Testing Frequency:

- Identify any labs ordered that can be discontinued, held or made less frequent (i.e. maintenance thyroid-function tests, lipid panels, HbA1cs, LFTs)
- Consolidate resident's lab orders on one day to decrease frequency of blood draws
- Order therapeutic drug levels only when indicated (i.e. suspect toxicity)
- Extend INR interval for warfarin dosing as clinically appropriate
- For residents on low hypoglycemic risk DM regimens, reduce finger sticks to once or twice weekly if stable on current regimen.
- Decrease vital sign monitoring to 1-2x per week, or less frequently, if resident stable
- Eliminate hold parameters for cardiac medications if vitals are stable. If vitals are unstable, consider de-escalation of regimen to reduce risk of hypotension (i.e. if medication is held more often than given, discontinue order or reduce dose and if medication is given more often than held, discontinue parameter)
- Evaluate goals of therapy and avoid tight BP control if not indicated.
- Loosen glycemic control; target higher HbA1c goals
- If discontinuing mealtime coverage/sliding scale insulin, decrease blood sugar testing (i.e. no longer needed with each meal)

Consolidating and Streamlining Nursing Med-Pass:

- Streamline medication administration times to reduce nursing time and minimize entry to resident rooms
- Consider a switch to equivalent once daily dosing of agents within same therapeutic class.
- Ensure that narrow therapeutic medications continue to be evaluated, especially antiseizure medications (ASM). Efforts should be made to retain the original ASM medication when possible. (The American Epilepsy Society has specific guidance supporting pharmacist's management strategies.)[9, 10]
- Switch short-acting to long-acting agents to cut down on daily medication burden (ensure resident is able to swallow if you are switching to an extended-release formulation) (e.g. switch vitamin D from 1000 units once daily to 50,000 units once monthly)
- Reduce dose or frequency of renally-eliminated medications based on renal function
- Administer crushed oral medications together if appropriate
- Consider switching thyroid supplement from early morning to bedtime if it is their only early morning medication
- Consider switching therapies targeting specific symptoms from scheduled to PRN (e.g. artificial tears, normal saline nasal spray, simethicone, TUMS)
- Discontinuing unused and unneeded PRNs
- Ensure appropriate stop dates are in place (i.e. anticoagulants, antibiotics, PPIs, probiotics, PRN psychotropics)
- Adding a hold order for specified amount of time may be a good option for any type of medication/testing/intervention that may not be essential during COVID-19, but for whatever reason, should not have a finite discontinuation

Medication Deprescribing Requiring More Intensive Risk-Benefit Considerations:

- Consider conversion of warfarin to novel oral anticoagulants (NOACs) to minimize INR requirements when clinically appropriate. Considerations may include renal dosing and history of mechanical prosthetic valves or moderate-severe mitral stenosis.[11, 12, 13]
- Assess for prescribing cascade and consider deprescribing offending agent(s), if possible (i.e. diuretic to treat edema caused by calcium channel blockers [CCBs]; antihypertensives to treat hypertension caused by NSAIDs; overactive bladder medications to treat incontinence from cholinesterase inhibitors; etc.)[14]

Hospice and Palliative Care Considerations:

- Consider time to benefit when evaluating therapies in residents with limited life expectancy
- Discontinue all non-essential medications (e.g. cholinesterase inhibitors; memantine, statins, bisphosphonates, etc.). Continue only those used for symptom management/quality of life.

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More information on the COVID-19 Emergency can be found at www.ascp.com/disaster

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