Polypharmacy and Deprescribing

BOOSTER BLITZ: Geriatric Bootcamp - Managing Acute and Chronic Geriatric Medical Conditions

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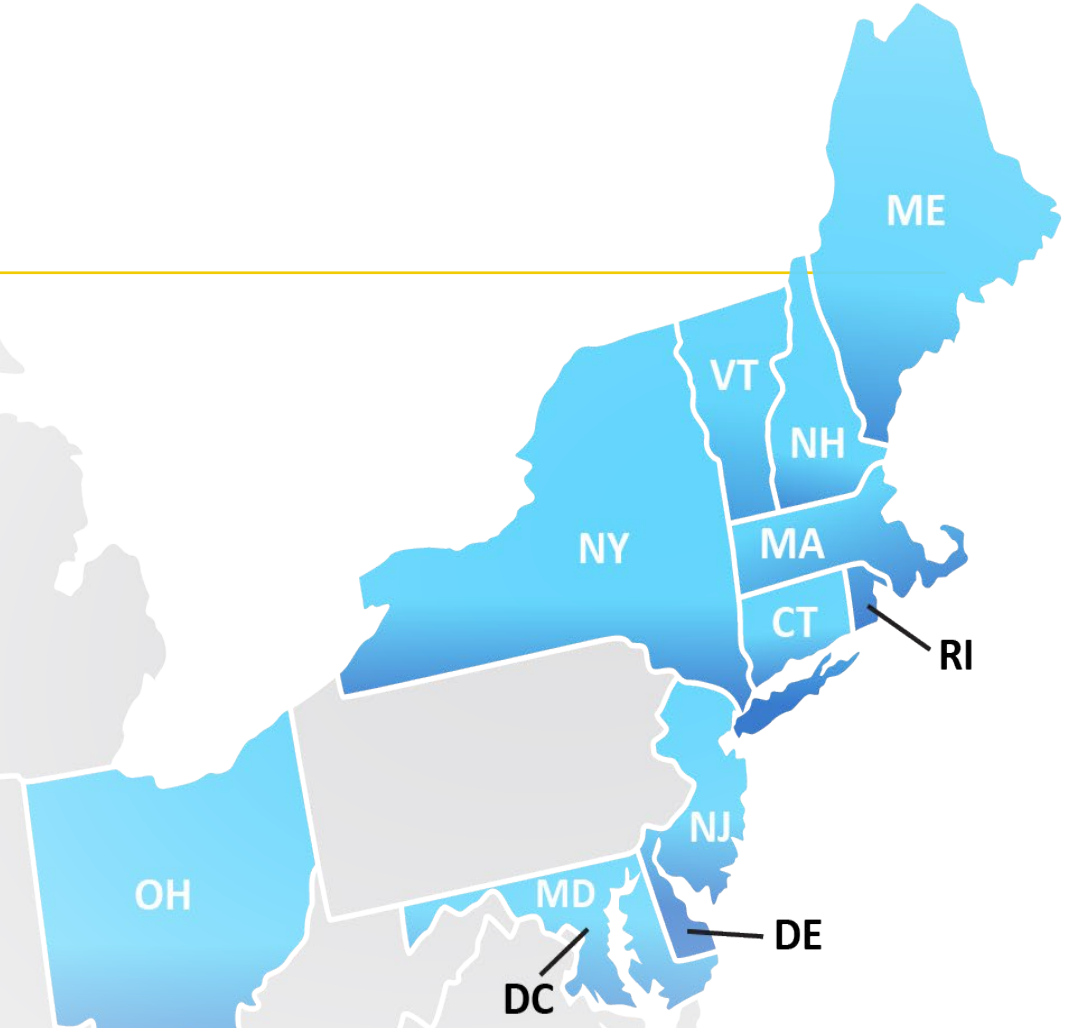

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Course Description

- The average nursing home resident is prescribed 6 to 8 medications.
- Medications are crucial to health, maintenance and recovery of our residents; but polypharmacy can cause concerns.
- During this session, we will discuss the prominence and issues of polypharmacy within nursing homes as well as talk about approaches to deprescribing.

Learning Objectives

- Understand the concepts of polypharmacy, prescribing cascade, and deprescribing.
- Identify key medication groups and categories to prioritize when putting a deprescribing protocol into action.
- Review steps of how to incorporate deprescribing into the monthly medication review process.

Research: Polypharmacy, Geriatric Syndromes, and Medication-Related Concerns

J Hosp Med. 2016 Oct;11(10):694-700. doi: 10.1002/jhm.2614. Epub 2016 Jun 3.

Medications associated with geriatric syndromes and their prevalence in older hospitalized adults discharged to skilled nursing facilities

Avantika A Saraf [1 2], Alec W Petersen [3], Sandra F Simmons [1 4 5], John F Schnelle [1 4 5], Susan P Bell [1 2 4], Sunil Kripalani [6 7], Amy P Myers [8], Amanda S Mixon [5 6 7], Emily A Long [1], J Mary Lou Jacobsen [1 5], Eduard E Vasilevskis [9 10 11]

Affiliations + expand

PMID: 27255830 PMCID: PMC5048583 DOI: 10.1002/jhm.2614

Free PMC article

Saraf AA, Petersen AW, Simmons SF, Schnelle JF, Bell SP, Kripalani S, Myers AP, Mixon AS, Long EA, Jacobsen JM, Vasilevskis EE. Medications associated with geriatric syndromes and their prevalence in older hospitalized adults discharged to skilled nursing facilities. J Hosp Med. 2016 Oct;11(10):694-700. doi: 10.1002/jhm.2614. Epub 2016 Jun 3. PMID: 27255830; PMCID: PMC5048583.

Study Design

- A list of 513 medications was developed as potentially contributing to 6 geriatric syndromes:

https://stock.adobe.com/images/cropped-shot-of-elderly-woman-and-female-geriatric-social-worker-holding-hands-women-of-different-age-comforting-each-other-close-up-background-copy-space/601739881

- cognitive impairment
- delirium
- falls
- reduced appetite or weight loss
- urinary incontinence
- depression

Saraf AA, Petersen AW, Simmons SF, Schnelle JF, Bell SP, Kripalani S, Myers AP, Mixon AS, Long EA, Jacobsen JM, Vasilevskis EE. Medications associated with geriatric syndromes and their prevalence in older hospitalized adults discharged to skilled nursing facilities. J Hosp Med. 2016 Oct;11(10):694-700. doi: 10.1002/jhm.2614. Epub 2016 Jun 3. PMID: 27255830; PMCID: PMC5048583.

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Findings: Commonly Prescribed Medications, Data

- Medications included 18 categories.
- Antiepileptics were associated with all 6 syndromes.
- Antipsychotics,
- antidepressants,
- antiparkinsonism,
- and opioid agonists were associated with 5 syndromes.

- In the prevalence sample, patients were discharged to SNFs.
- **Overall average of 14.0 (±4.7) medications.**
- An average of 5.9 (±2.2) medications that could contribute to geriatric syndromes.
- **Falls** having the most associated medications at discharge at 5.5 (±2.2).

Saraf AA, Petersen AW, Simmons SF, Schnelle JF, Bell SP, Kripalani S, Myers AP, Mixon AS, Long EA, Jacobsen JM, Vasilevskis EE. Medications associated with geriatric syndromes and their prevalence in older hospitalized adults discharged to skilled nursing facilities. J Hosp Med. 2016 Oct;11(10):694-700. doi: 10.1002/jhm.2614. Epub 2016 Jun 3. PMID: 27255830; PMCID: PMC5048583.

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The Prescribing Cascade

- A prescribing cascade begins when a drug is prescribed, an adverse drug event occurs that is misinterpreted as a new medical condition, and a subsequent drug is prescribed to treat this drug-induced adverse event.
- The identification and interruption of prescribing cascades is an important, actionable, and underappreciated opportunity to improve medication safety in older people.

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31188-1/fulltext

Has This Occurred at Your Facility?

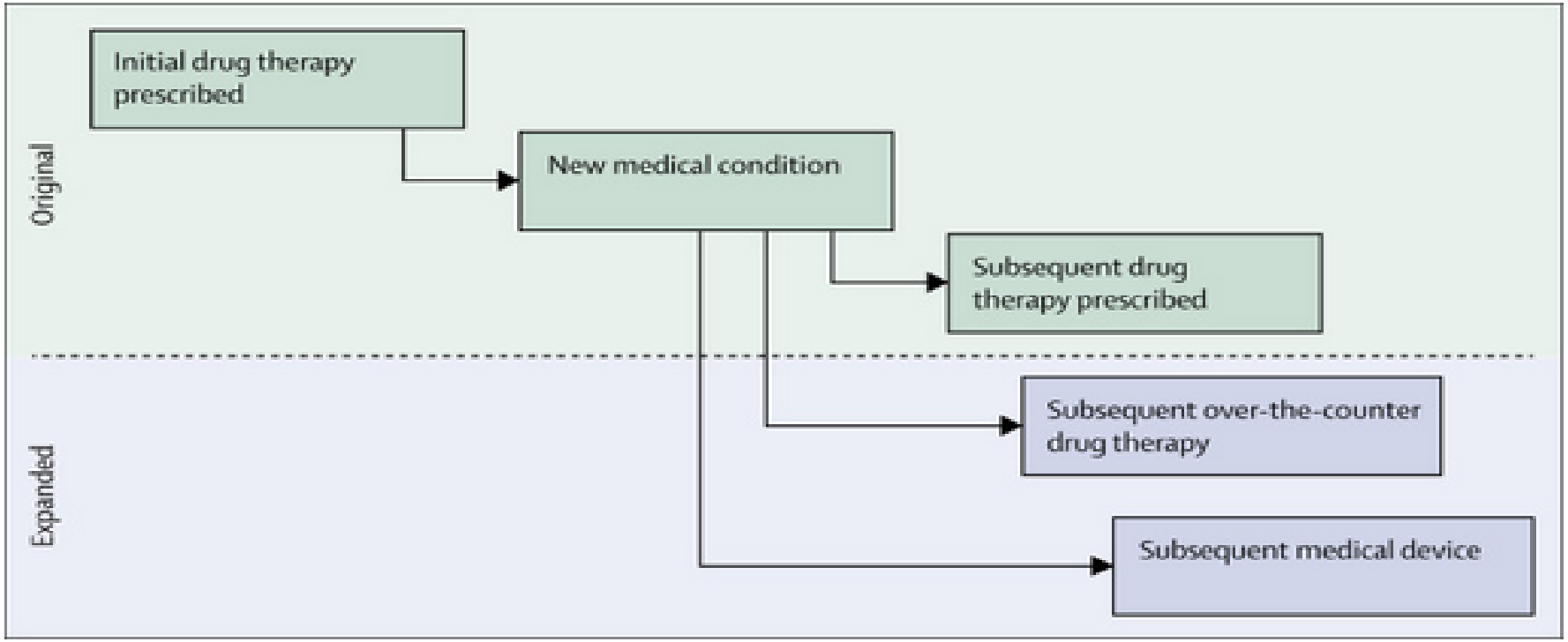

Figure The prescribing cascade

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31188-1/fulltext

Polypharmacy and Health Related Quality of Life

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PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

Polypharmacy and Health-Related Quality of Life/Psychological Distress Among Patients With Chronic Disease

ORIGINAL RESEARCH — Volume 19 — August 18, 2022 Am score 24

| Print

Lisa Van Wilder, PhD[1]; Brecht Devleesschauwer, PhD[2,3]; Els Clays, PhD[1]; Peter Pype, PhD[1]; Sophie Vandepitte, PhD[1]; Delphine De Smedt, PhD[1] (VIEW AUTHOR AFFILIATIONS)

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PEER REVIEWED

https://www.cdc.gov/pcd/issues/2022/22_0062.htm

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Polypharmacy and Health Related Quality of Life

- Chronically ill patients tend to have a high risk of multimorbidity; hence, multiple drug use is common.
- Polypharmacy (use of ≥5 medications) increases the risk of adverse drug–drug or drug–disease interactions, which may negatively affect patients' health-related quality of life (HRQOL).

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https://www.cdc.gov/pcd/issues/2022/22_0062.htm

Polypharmacy and Health Related Quality of Life

- No significant associations were found for the mental component of HRQOL or psychological distress, suggesting an unfavorable effect of polypharmacy only on the physical domain of patients' HRQOL.

- Results support the need for health care professionals to:
  - recognize drug-related adverse events.
  - recognize the negative effects of polypharmacy on HRQOL, especially among patients with multimorbidity.

https://www.cdc.gov/pcd/issues/2022/22_0062.htm

Concerns Related to Polypharmacy in Nursing Homes

- The medication regimen complexity.
- Doses, side effects, interactions, therapeutic duplications, adverse drug events.
- The time needed to administer multiple medications for multiple residents, safely.
- Specialists for every organ system: multiple prescribers who may not communicate or review the entire picture.
- Pharmacy provider concerns (insurance, prior authorizations).

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What is Deprescribing?

- Deprescribing refers to:
  - The thoughtful and systematic process of identifying problematic medications.
  - Either reducing the dose or stopping these medications, in a manner that is safe, effective, and helps people maximize their wellness and goals of care.

US Deprescribing Research Network

https://deprescribingresearch.org/about-us/what-is-deprescribing/

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Deprescribing Actions and Benefits

- Provider performs a benefit vs. risk assessment of medications, with a goal to reduce unnecessary medications.
- Reduce risks for side effects, adverse effects, and improve quality of life.
- When deprescribing, the reduction of risks may or may not reduce overall mortality associated with multiple medication use.
- Deprescribing is NOT just discontinuing (DC'ing) medications but includes a thorough review of the entire regimen.

Learning Question No.1

Which of the following is **FALSE** ?

Deprescribing:

a. Involves a systematic review of medications
b. Involves stopping one medication at a time, if possible
c. Is required according to CDC guidelines for safe medication use
d. Is one approach to combat the risks of polypharmacy

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How to Start: Select Medication Categories for Focus

- Identify key medication groups and categories to prioritize when putting a deprescribing protocol into action.

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Deprescribing Medications by Drug Classification

- Evidenced-based guidelines exist for the following drug categories:
  - Proton Pump Inhibitors.
  - Antihyperglycemics.
  - Antipsychotics.
  - Benzodiazepines and “z” drugs.
  - Cholinesterase Inhibitors.

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Canadian Medication Appropriateness and Deprescribing Network

https://www.deprescribingnetwork.ca/

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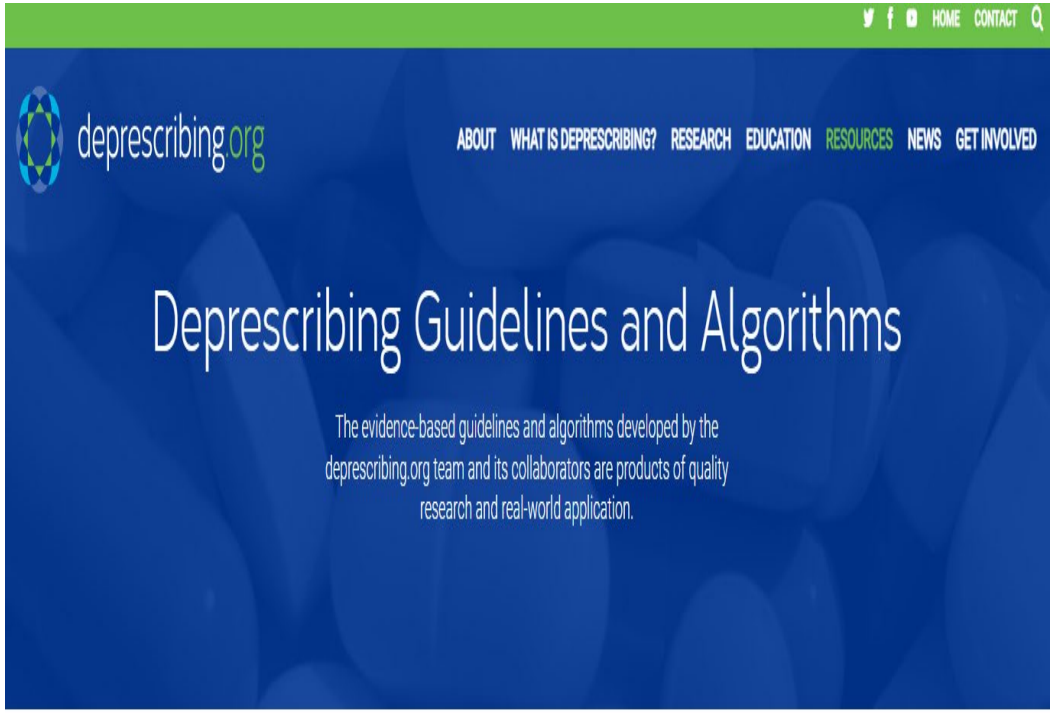
Proton Pump Inhibitors



- Proton pump inhibitors – or PPIs – are a class of drugs used to treat heartburn, gastroesophageal reflux disease and gastric ulcers. PPIs reduce the production of acid by blocking the enzyme in the wall of the stomach that produces acid.
- Proton Pump Inhibitor evidence-based deprescribing guideline (published in Canadian Family Physician)
- Proton Pump Inhibitor deprescribing algorithm (English)
- Proton pump inhibitor deprescribing guideline information pamphlet (English)
- Proton pump inhibitor deprescribing infographic (English)
- Proton pump inhibitor patient decision aid
- Whiteboard video on using the Proton Pump Inhibitor deprescribing algorithm (English)

https://deprescribing.org/resources/deprescribing-guidelines-algorithms/

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Deprescribing Medications Associated With Increased Risks for Adverse Drug Events

Analgesics	**Central Nervous Systems Agents**
Antibiotics	**Hypnotics**
Anticonvulsants	**Musculoskeletal Agents**
Antidepressants	**Urinary Drugs**
Antihistamines	
Antihypertensives	
Antipsychotics	
Anxiolytics **Benzodiazepines**	

2019 American Geriatrics Society Beers Criteria Update Expert Panel. American Geriatrics Society 2019 updated AGS Beers criteria for potentially inappropriate medication use in older adults. J Am Geriatr Soc 2019 Jan 29. doi: 10.1111/jgs.15767

Clinical Resource, Potentially Harmful Drugs in the Elderly: Beers List.
Pharmacist's Letter/Prescriber's Letter. March 2019. 3120 West March Lane, Stockton, CA 95219 ~ TEL (209) 472-2240 ~ FAX (209) 472-2249

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Medications with Anticholinergic Burden

High levels of anticholinergic burden have been linked to an increased risk and severity of drug-related adverse effects, including:

- Lower physical functioning.
- Higher risk of falls.
- Higher risk of cognitive decline.
- Higher all-cause mortality.

Greta Lozano-Ortega, Karissa M. Johnston, Antoinette Cheung, Adrian Wagg, Noll L. Campbell, Roger R. Dmochowski, Daniel B. Ng, A review of published anticholinergic scales and measures and their applicability in database analyses, Archives of Gerontology and Geriatrics, Volume 87,2020, 103885,ISSN 0167-4943, https://doi.org/10.1016/j.archger.2019.05.010. Accessed 12/21/22

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Drug Regimen Review (Medication Regimen Review)

- Review the pros and cons of incorporating deprescribing into the medication regimen review process.

F756
(Rev. 173, Issued: 11-22-17, Effective: 11-28-17, Implementation: 11-28-17)

§483.45(c) Drug Regimen Review.
§483.45(c)(1) The drug regimen of each resident must be reviewed at least once a month by a licensed pharmacist.

§483.45(c)(2) This review must include a review of the resident's medical chart.

§483.45(c)(4) The pharmacist must report any irregularities to the attending physician and the facility's medical director and director of nursing, and these reports must be acted upon.

(i) Irregularities include, but are not limited to, any drug that meets the criteria set forth in paragraph (d) of this section for an unnecessary drug.

(ii) Any irregularities noted by the pharmacist during this review must be documented on a separate, written report that is sent to the attending physician and the facility's medical director and director of nursing and lists, at a minimum, the resident's name, the relevant drug, and the irregularity the pharmacist identified.

(iii) The attending physician must document in the resident's medical record that the identified irregularity has been reviewed and what, if any, action has been taken to address it. If there is to be no change in the medication, the attending physician should document his or her rationale in the resident's medical record.

https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf

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Deprescribing and Medication Review

When should a review occur?

- At every care transitions including home to hospital, hospital to facility, facility to home.
- At the facility during medication regimen review, by a pharmacist with help from a nurse if appropriate.
- At a “brown-bag” event in assisted living facilities, performed with patients and families by a pharmacist.
- At a prescriber’s office, performed by patient or family and nurse or practitioner.

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Creating a Deprescribing Initiative

- Collaborate with facility stakeholders: director of nursing, medical director, pharmacist, and resident and family/caregivers.
- Request reports from pharmacy vendor; download from your EHR.
- Create a goal, with dates to accomplish the steps.
- Perform during the 30-day/60-day medication orders renewal.
- Recognize clinical inertia where medications are routinely continued, never changing.

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Prior to Incorporating the Deprescribing Process

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Successfully evaluating and incorporating a process involves:

- Education by the facility medical director, director of nursing, consultant pharmacist.
- Include the medical providers: attending physician, others (NP, PA).
- Resident council discussion topics to include polypharmacy and deprescribing for the residents/patients.

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Benefits Accrue from Deprescribing

- Patients, residents, and the health care system.
- Facility, by potentially fewer discharges to hospital due to adverse drug events.
- Facility, as methodical review of medications helps meet the requirement to eliminate unnecessary medications.

F757
(Rev. 173, Issued: 11-22-17, Effective: 11-28-17, Implementation: 11-28-17)

§483.45(d) Unnecessary Drugs—General.
Each resident's drug regimen must be free from unnecessary drugs. An unnecessary drug is any drug when used—

§483.45(d)(1) In excessive dose (including duplicate drug therapy); or

§483.45(d)(2) For excessive duration; or

§483.45(d)(3) Without adequate monitoring; or

§483.45(d)(4) Without adequate indications for its use; or

§483.45(d)(5) In the presence of adverse consequences which indicate the dose should be reduced or discontinued; or

§483.45(d)(6) Any combinations of the reasons stated in paragraphs (d)(1) through (5) of this section.

https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf

Learning Question No.2

Which of the following is **FALSE**?

The medication review process:

a. Provides opportunity to reduce unnecessary medications.

b. Gives patients and their families quality time with a professional to focus on their medication regimen.

c. Takes into account duplications and med pass schedule in a facility.

d. Is similar to the medication regimen review performed monthly in a SNF by the consultant pharmacist.

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Multiple Medical Co-Morbidities and Deprescribing

- Generalists or specialists order medications to treat one condition.
- Failure to evaluate all medications which may be on board.
- Common co-morbidities include:
  - Heart failure.
  - Diabetes.
  - Hypertension.
  - Behavioral health.
  - Chronic pain.
  - Substance Use Disorder (SUD).

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Recognize Risk Factors: Social Determinants of Health

- Age.
- Sex.
- Race.
- Socio-economic factors.
- Home environment: “home” includes residential setting, facility.
- Health literacy.
- Ability to self-advocate.

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Deprescribing Efforts

- Pros: efforts can help in risk mitigation, nursing time and cost savings, and improved quality of life for residents.
- Cons: when the efforts are not a team approach, with the resident's best interest at the forefront.
- Include a follow up assessment to evaluate the response to the deprescribing.

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Barriers to Deprescribing

- Resistance from patients or family members.
- Fear of losing the patient-provide relationship.
- Concern from clinicians to discontinue medications started by another provider.
- Time expenditure.
- Fear of drug-withdrawal side effects.
- Lack of resources (i.e., clinical pharmacist, database availability).

Adapted from:
Polypharmacy and Deprescribing: A Guide for Hospitalists, Kristin Hueftle, MD PGY4 Fellow, Division of Geriatrics University of Utah

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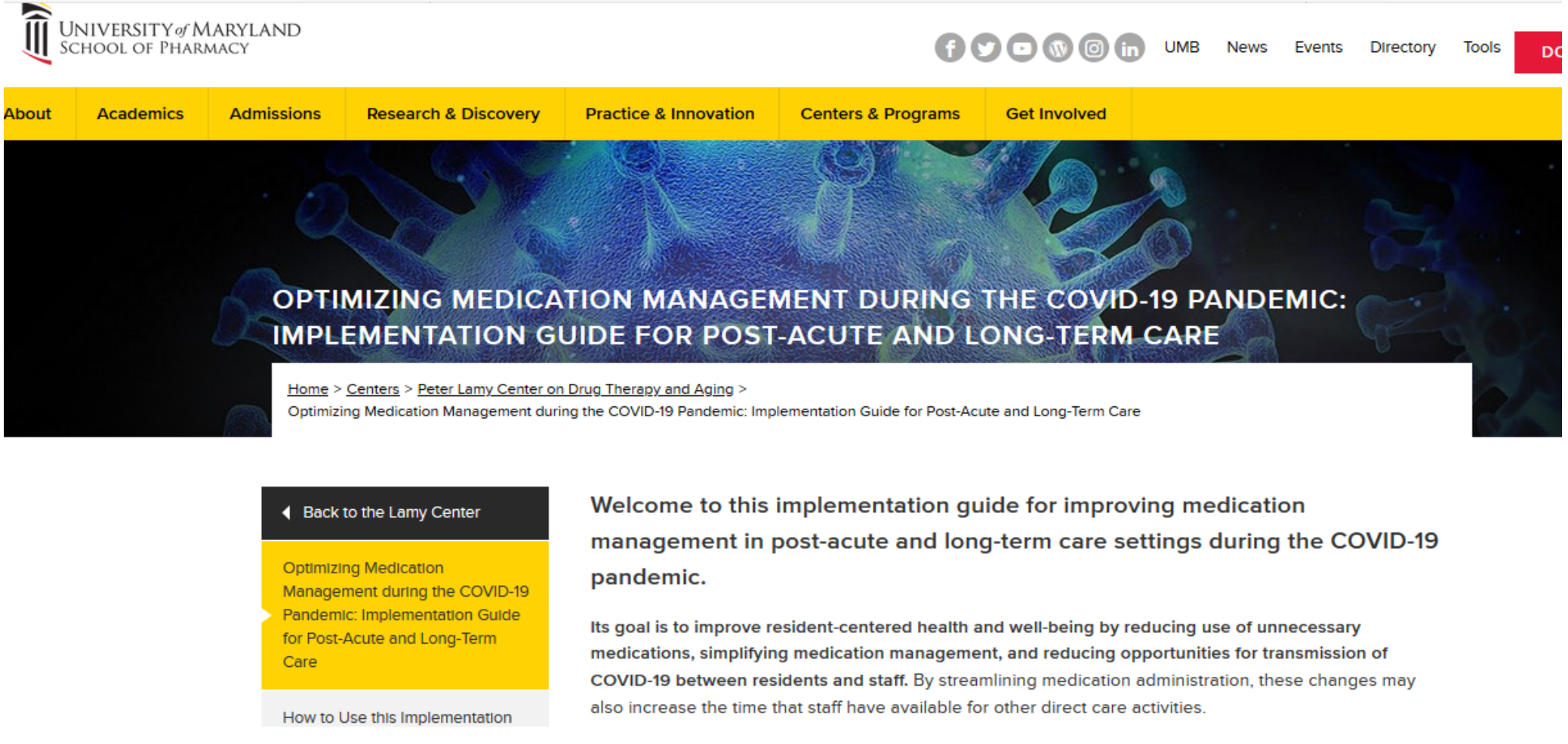
Creating Solutions During the COVID-19 Crisis



https://www.pharmacy.umaryland.edu/centers/lamy/optimizing-medication-management-during-covid19-pandemic/

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Polypharmacy, Prescribing Cascade, and Deprescribing

Polypharmacy

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Prescribing Cascade

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Deprescribing

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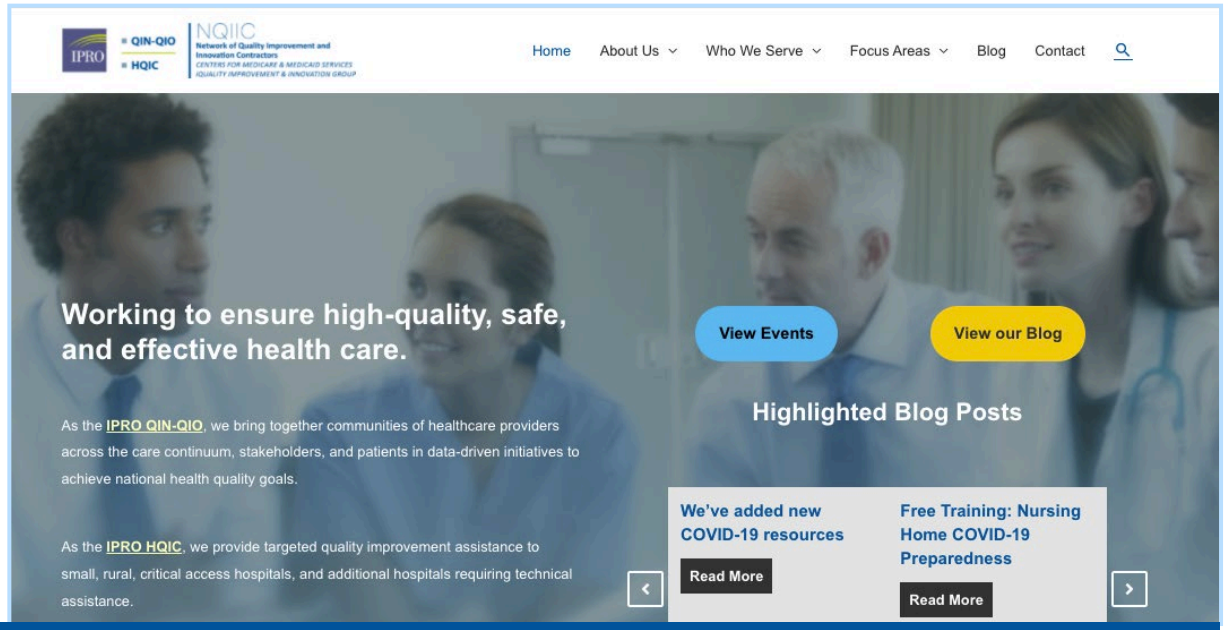

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