The National Palliative Care Summit

Polypharmacy: Too Much of a Good Thing

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Learning Objectives

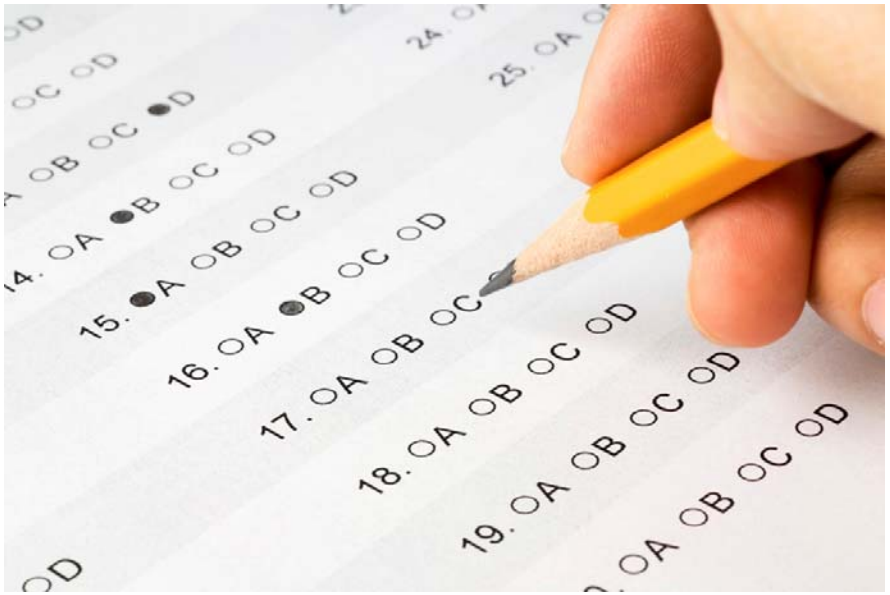
- Describe problem of polypharmacy in hospice and palliative care
- Identify factors that contribute to polypharmacy
- Identify barriers to discontinuing medications
- Recognize clinical situations in which medications could be discontinued at the end of life
- Discuss a process for appropriate medication discontinuation
- Describe a QAPI project aimed at reduction of polypharmacy in hospice care

Polypharmacy

- Use of multiple drugs and/or the administration of more medications than clinically indicated
  - Consider OTC medications and herbals / complementary remedies

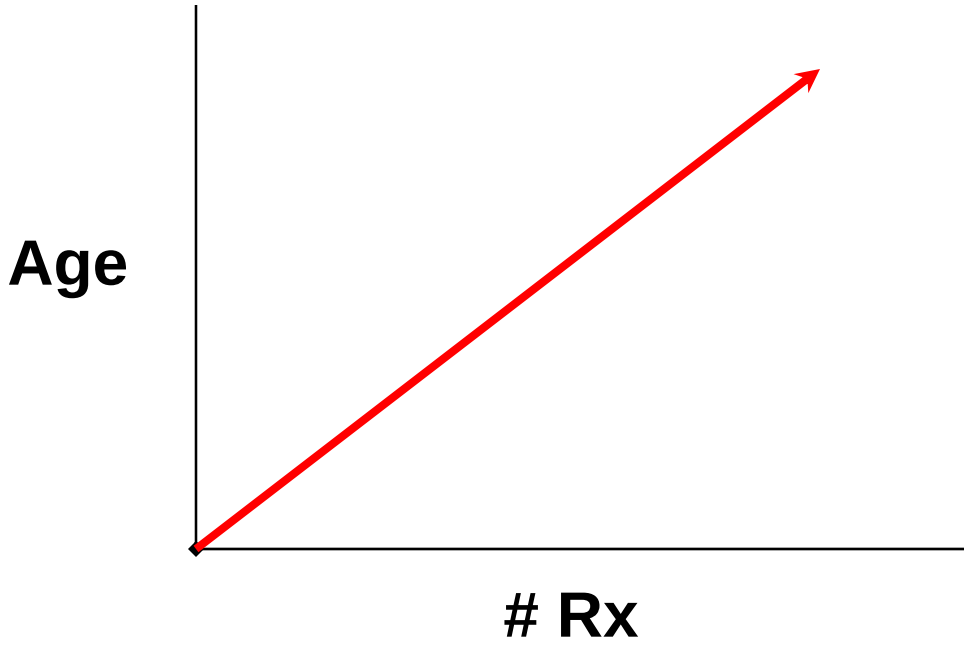
Pop Quiz !!!

- Polypharmacy includes considering content of OTC products (i.e. acetaminophen) that must be added to that of prescription analgesics to avoid toxicity
  - A. True
  - B. False



Prevalence

- Direct relationship exists between age of the patient & number of daily prescriptions

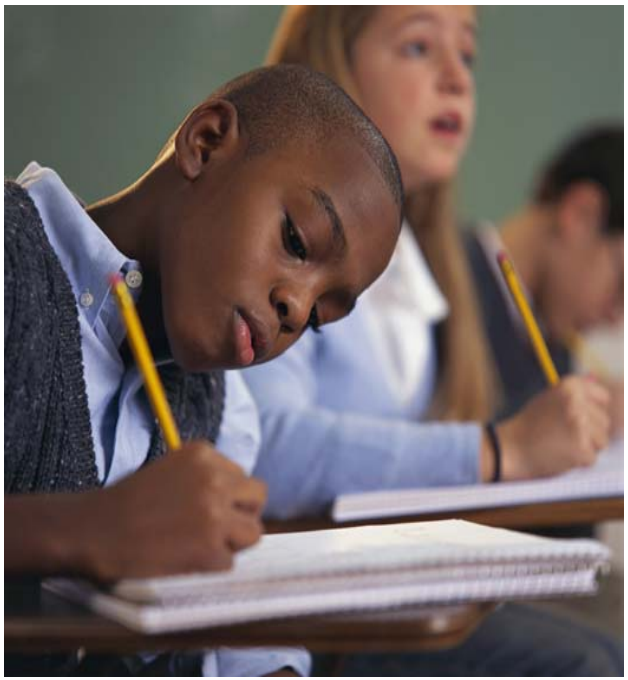


Facts & Figures

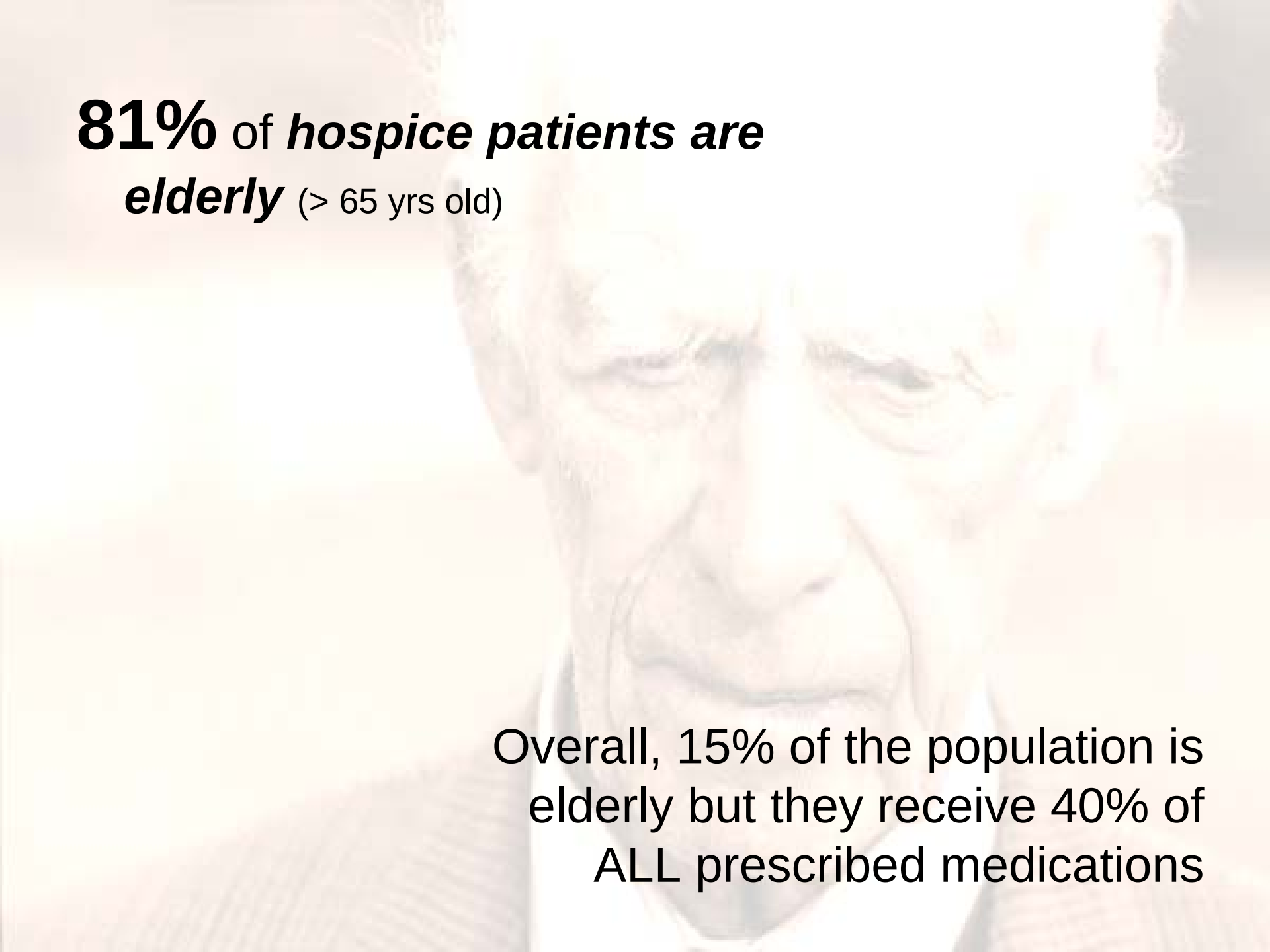
- **20%** of ***community-dwelling palliative care patients*** & **50%** of ***hospice inpatients*** were found to have received at least one pair of interacting drugs that could have caused clinically significant interactions.

Fill in the Blank !

- At least _____ of ***older adults*** take at least one prescription daily - most take two or more daily prescriptions
    - A. 30%
    - B. 50%
    - C. 75%
    - D. 90%



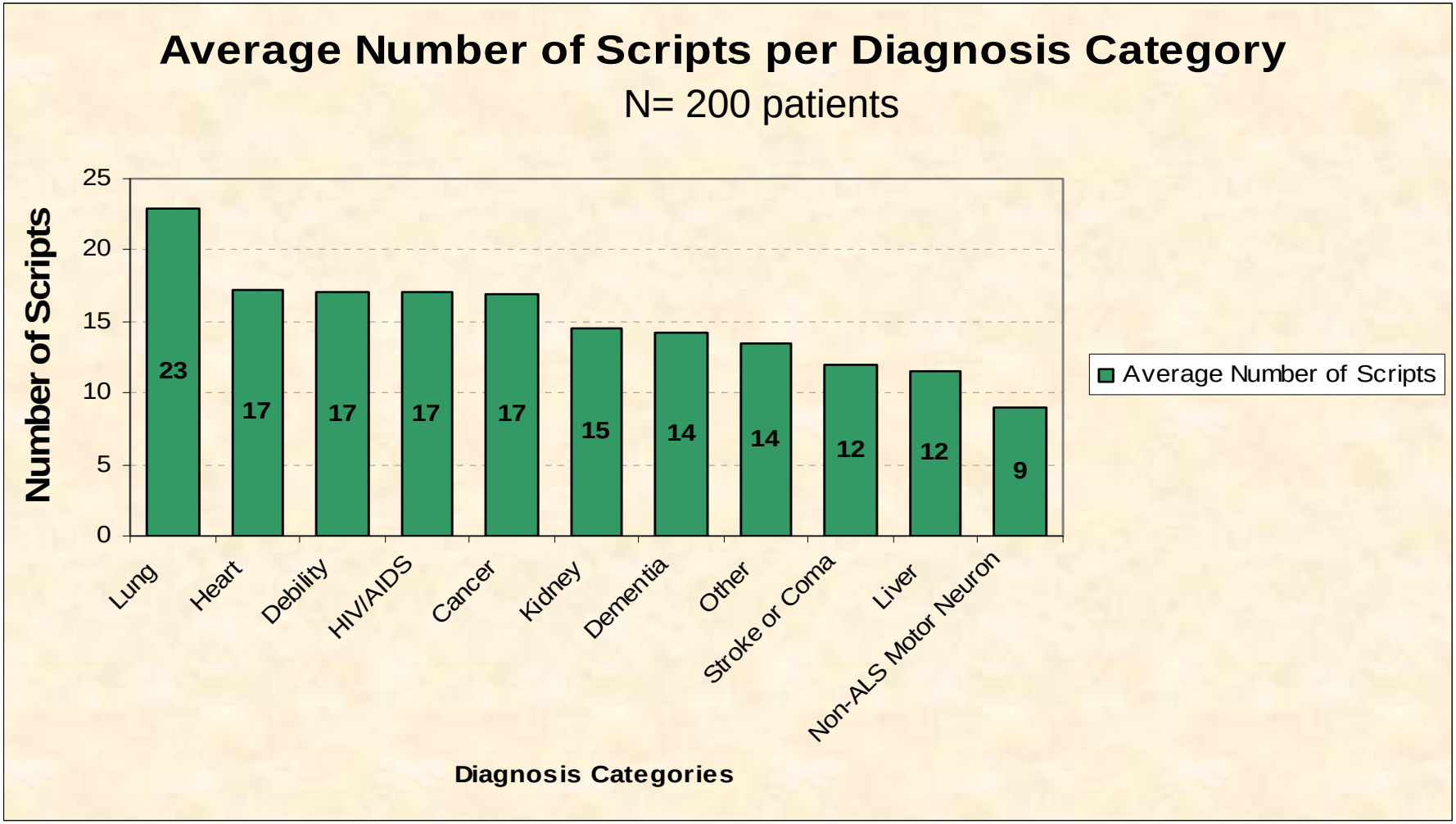
81% of ***hospice patients are elderly*** (> 65 yrs old)



Overall, 15% of the population is elderly but they receive 40% of ALL prescribed medications

- **Elderly** use more drugs because they *commonly suffer from multiple disease states*
  - Cardiovascular disease
  - Arthritis
  - Gastrointestinal disorders
  - Bladder dysfunction, etc

Polypharmacy QAPI Project Data Collection



Polypharmacy Risks

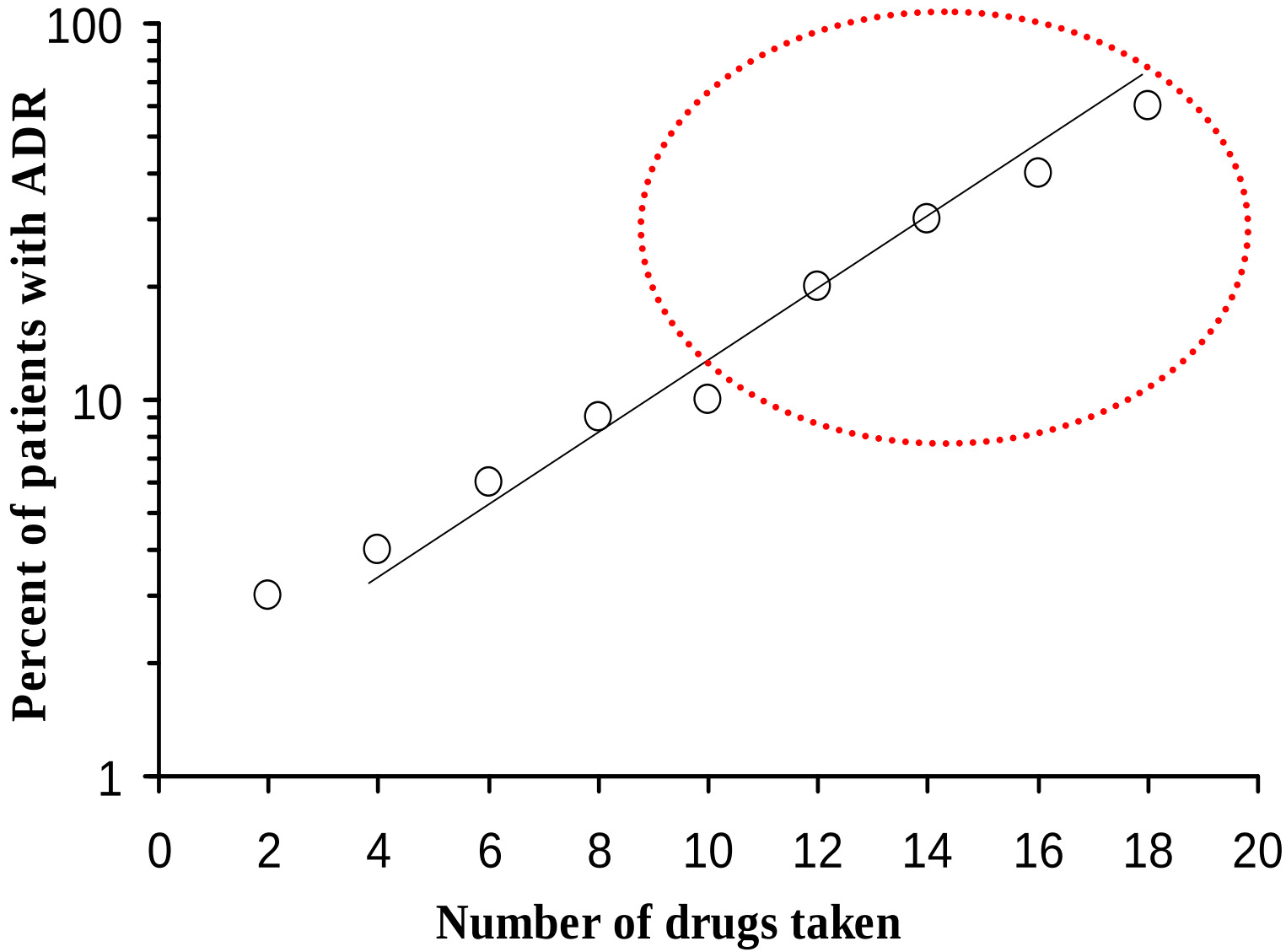
- More Adverse Drug Reactions (ADR)
  - Between 25 - 50% of adverse drug reactions in older adults may be preventable
- Decreased adherence to drug regimen
  - Number of medications prescribed is the strongest predictor of non-adherence
- Worse patient outcomes
  - Poor quality of life
  - Unnecessary medication expenses

Risk Factors for Adverse Drug Reactions

- Advanced age
- Female
- Hepatic or Renal Insufficiency
- Lower body weight
- History of prior adverse drug reaction
- **Polypharmacy**

Adverse Drug Reactions

- The most consistent risk factor for ADR's is the **number (#) of drugs taken**
  - Risk rises exponentially as the number of drugs taken increases
  - The risk of an adverse medication interaction is **greater than 80%** when more than 7 medications are taken regularly


100
10
1
Percent of patients with ADR
0
2
4
6
8
10
12
14
16
18
20
Number of drugs taken

Case

- DM is a 92 yo male admitted to hospice on 4/2010 with Debility. He is currently residing in a LTC facility. He has no disclosed secondary diagnoses and NKDA.

- The hospice nurse calls the pharmacy to profile the patient's medications
  - ***Currently he is taking 24 medications***

Case

- Is DM at risk for ADRs associated with polypharmacy?
  - A. Yes
  - B. No
  - C. Maybe

Case

- What potential risk factors does DM possess that can contribute to ADRs?
  - A. Advanced age
  - B. Renal/liver insufficiency
  - C. Polypharmacy
  - D. A & C only
  - E. A, B & C

High Risk Drugs

- Drugs most frequently associated with adverse reactions in the elderly:
  - psychotropic drugs (e.g. benzodiazepines)
  - anti-hypertensive agents
  - diuretics
  - digoxin
  - NSAIDS
  - corticosteroids
  - warfarin
  - theophylline

Contributing Factors in Hospice and Palliative Care

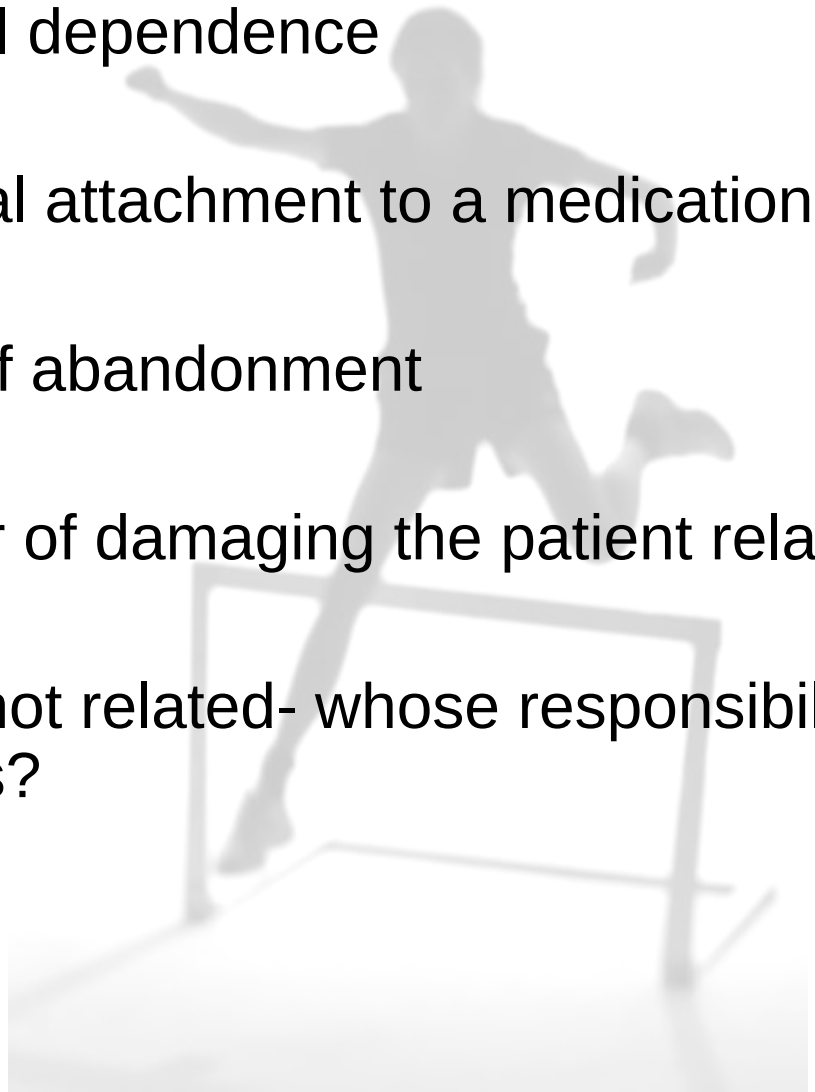
- Multiple prescribers
- Lack of indication for prescribed drugs
- Multiple co-morbidities
- Need for additional medications to manage symptoms
- Lack of recognition of ADRs (using more drugs to treat drug-related problems)

Support for Discontinuation

- Medication regimens should be re-evaluated when goals of care change
- Most medications can be discontinued in a substantial proportion of patients late in life without generating any harm
- Even when adverse drug withdrawal events occurred, these events were easily mitigated by recommencing the medication
- Discontinuing certain medications has benefits such as reducing the risk of falling and improving cognitive function

Barriers to Discontinuation

- Physiological dependence
- Psychological attachment to a medication
- Perception of abandonment
- Clinician fear of damaging the patient relationship
- Related vs. not related- whose responsibility is it to D/C certain drugs?



When Should We Discontinue Medications at the EOL?

- Medications…
  - prescribed with no indication
  - performing duplicate therapy
  - with diminished benefit OR no longer meeting goals of care
  - with ADRs or those that contribute to side effects

Process for Discontinuation

1. **Recognize** indication for discontinuation

2. **Identify** and prioritize the medication(s) to be targeted for discontinuation

3. **Plan**, communicate and coordinate medication discontinuation with pt/caregivers/and health care providers

4. **Monitor** the patient for beneficial and harmful effects

Weaning

Be prudent when weaning with certain medications:

- Neuroleptics
- Anticonvulsants
- Benzodiazepines
- Antihypertensives
- Opioids
- Antidepressants

Close follow-up and assessment is essential when weaning these agents!

Medication Reconciliation

- <u>Medication Reconciliation-</u> an effort to reduce the number of medication errors which occur world-wide every day

The Med Rec Mandate

- JC: National Patient Safety goals: #8

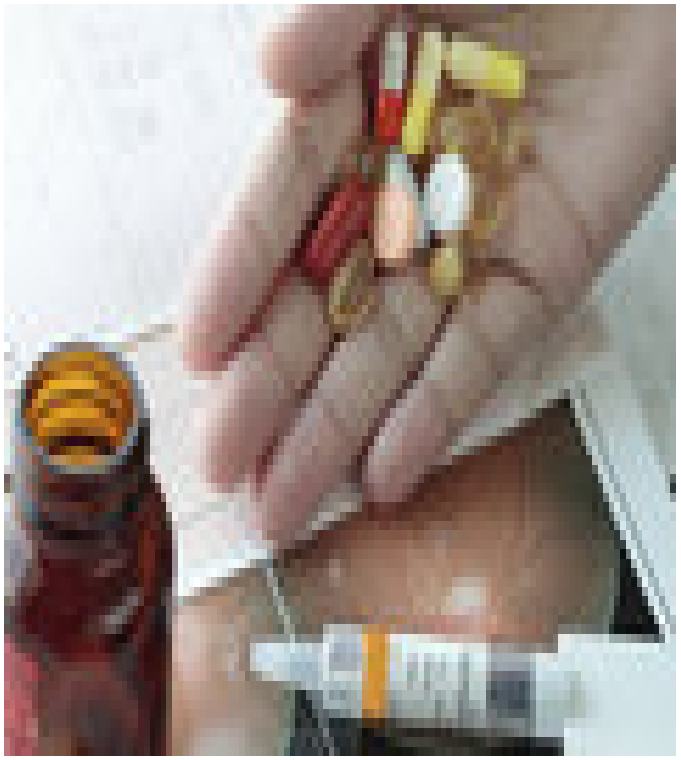
- “Accurately and completely reconcile medications across the continuum of care”

The Joint Commission

HELPING HEALTH CARE ORGANIZATIONS HELP PATIENTS

Bottom Line:

- Review and document a complete and current medication list
  - Communicate to the next provider of service upon referral or transfer within or outside the organization



Medication Reconciliation: Best Practices

- Medication allergies/co-morbid disease states?
- List of current medications
  - All prescriptions, over-the-counter medications, and herbals
  - What is the dosage taken? What formulation?
  - How frequently do you take this medication?
  - How long have you been taking this medication?
  - What is the purpose of the medication?
  - What monitoring is required for each medication?

NOTE: Use probing questions

Medication Reconciliation: Best Practices

- What are the side effects of these medications?
- Are there any special instructions for taking each medication, i.e., special foods or times or activities which might effect the benefits of the medication? Special dosage forms besides oral- i.e. inhalers, topical, etc?
- With each new medication added, should you continue to take your previous medications?
- Are there other medication names that sound just like or look just like this one?

Case

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- The hospice nurse calls the pharmacy to profile the patient's medications
  - ***Currently he is taking 24 medications***

Case: Medication Profile

- Vit. B12 IM every month (anemia)
- Iron 325mg QD (anemia)
- Warfarin 1mg QD (A. Fib)
- Zymar ® 0.3% 1gtt every M & Th (conjunctivitis)
- Proscar ® 5mg QD (BPH)
- Flomax ® 0.4mg QHS (BPH)
- Dulcolax ® 10mg 1PR QD prn (constipation)
- Docusate 100mg BID (constipation)
- MOM 30mL QD prn (constipation)
- Guiatuss 10mL Q4H prn
- Cymbalta ® 20mg QD (depression)
- Remeron ® 7.5mg QHS (depression)
- Puralube ® eye oint prn (dry eyes)
- Refresh ® liquigel TID (dry eyes)
- Alamag Plus 30mL Q6H prn (dyspepsia)
- Omeprazole 20mg QD
- Albuterol via neb TID prn
- Gemfibrozil 600mg BID (hypercholesterolemia)
- Atenolol 50mg QD (HTN)
- Trazodone 25mg QHS (insomnia)
- Antivert ® 25mg BID prn
- Vicodin HP ® Q4H (6a-10p) & Q4H prn (pain)
- Benadryl ® 25mg QHS & Q8H prn
- Cranberry tab BID (UTI)

Case

1. **Recognize** indication for discontinuation
2. **Identify** and prioritize the medication(s) to be targeted for discontinuation

- What medications should be considered for D/C due to *lack of established indication*?

Case: Medication Profile

- Vit. B12 IM every month (anemia)
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Case

1. **Recognize** indication for discontinuation
2. **Identify** and prioritize the medication(s) to be targeted for discontinuation

- What medications should be considered for D/C due to *duplicate therapy*?

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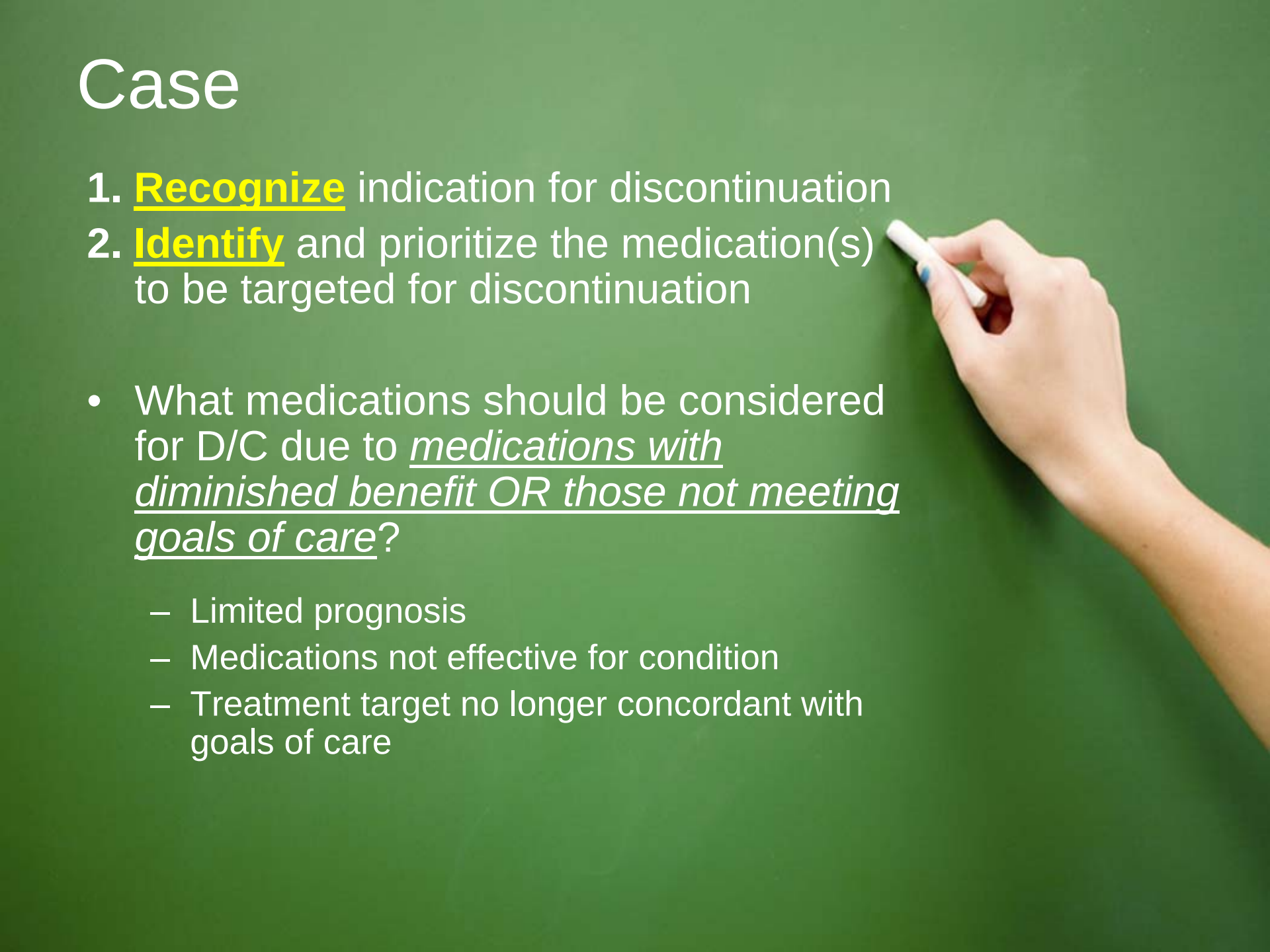
Case

1. **Recognize** indication for discontinuation
2. **Identify** and prioritize the medication(s) to be targeted for discontinuation

- What medications should be considered for D/C due to *medications with diminished benefit OR those not meeting goals of care*?
  - Limited prognosis
  - Medications not effective for condition
  - Treatment target no longer concordant with goals of care



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- Cranberry tab BID (UTI)

Case

1. **Recognize** indication for discontinuation
2. **Identify** and prioritize the medication(s) to be targeted for discontinuation

- What medications should be considered for D/C due to *potentially significant or active ADRs/side effects*?

Case: Medication Profile

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Case - Wrap-up

3. **Plan**, communicate and coordinate medication discontinuation with pt/caregivers/and health care providers

4. **Monitor** the patient for beneficial and harmful effects

QAPI Project - Next Steps

- Identify patients at risk for polypharmacy
  - COPD patients
  - Dementia patients
- Perform chart review on subset of patients
  - What is the patient using and what do they need?
  - What can be discontinued based upon declining functional status and changing goals of care?
- Identify drugs that can be potentially discontinued
  - Educational initiative that questions use in hospice patients
  - Indication
  - Risks associated with use

CARE: Avoiding Polypharmacy

- **C**aution and Compliance
  - Understand side effect profiles
  - Identify risk factors for an ADR
  - Consider a risk to benefit ratio
  - Keep dosing simple- QD or BID
  - Ask about compliance!

Reference: Marcu, O. Swedish Family Medicine (2006)
https: *fammed.washington.edu/network/sfm/Bagful%20of%20Pills.ppt*

CARE: Avoiding Polypharmacy

- **A**djust the Dose
  - Start low and go slow- titrate!
  - Unique pharmacokinetics in elderly
  - Altered:

    Absorption

    Distribution

    Metabolism

    Excretion

Reference: Marcu, O. Swedish Family Medicine (2006)
https: *fammed.washington.edu/network/sfm/Bagful%20of%20Pills.ppt*

CARE: Avoiding Polypharmacy

- **R**eview **R**egimen **R**egularly
  - Avoid automatic refills
  - Look for other sources of medications- OTC
  - Caution with multiple providers
  - Don’t use medications to treat side effects of other meds
  - What can you discontinue or substitute for safer med?

Reference: Marcu, O. Swedish Family Medicine (2006)
https: *fammed.washington.edu/network/sfm/Bagful%20of%20Pills.ppt*

CARE: Avoiding Polypharmacy

- **E**ducate
  - Talk to your patient about potential ADRs
  - Warn them for potential side effects
  - Educate the family and caregiver
  - Ask pharmacist for help identifying interactions

Reference: Marcu, O. Swedish Family Medicine (2006)
https: *fammed.washington.edu/network/sfm/Bagful%20of%20Pills.ppt*

Case

- Hospice nurse calls back, 5 days later, to profile additional medications:
  - Levaquin® 500mg QD for lower respiratory infection
  - Aricept® 5mg QHS for dementia
- Upon further discussion, the nurse notes that the patient has been experiencing severe diarrhea and is generally feeling very poor

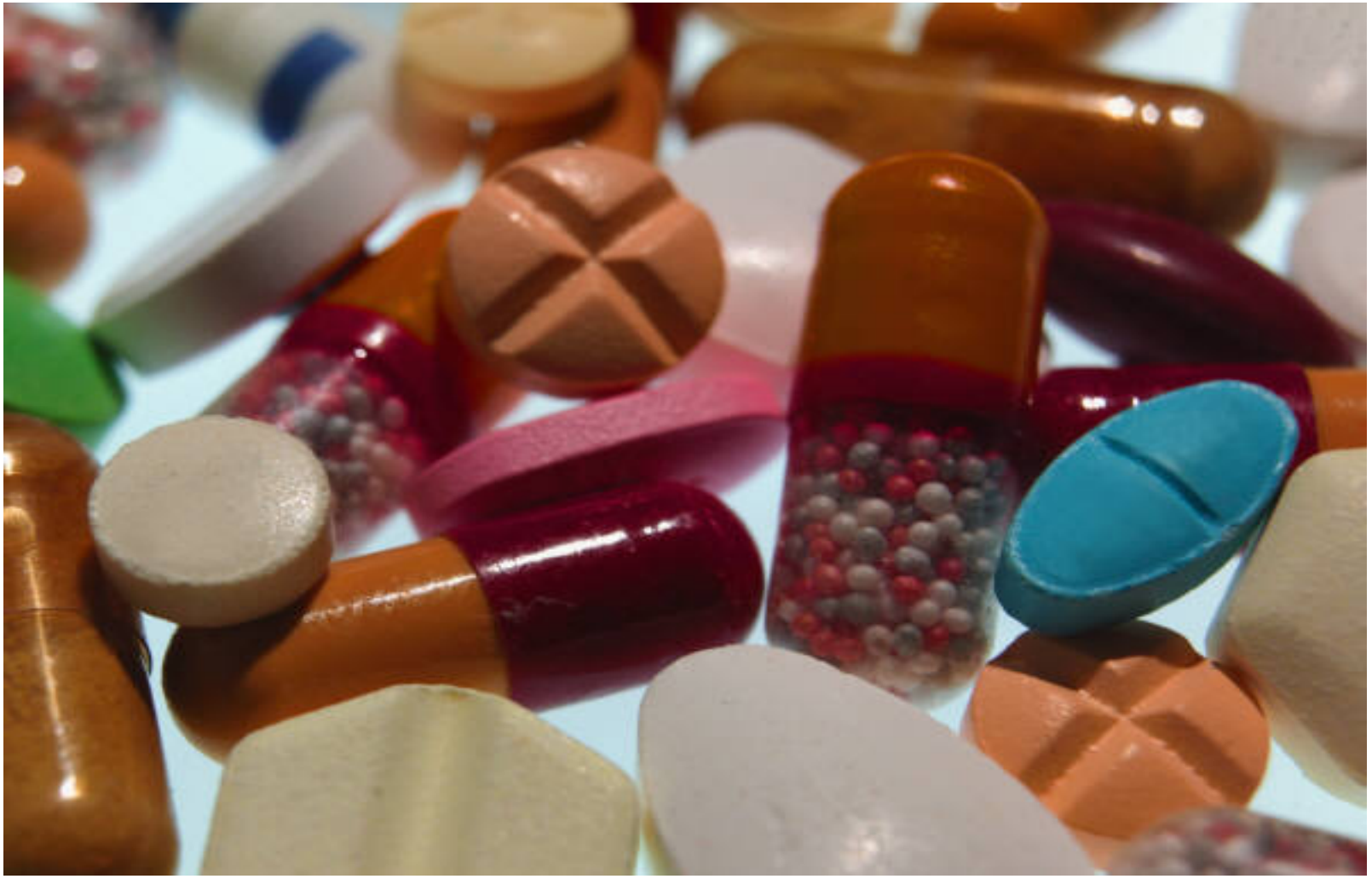
Case

- Should DMs profile be re-evaluated considering the addition of these medications?
  - A. Yes
  - B. No
  - C. Absolutely!

Case

- What should be considered for D/C at this point and why?
  - A. Warfarin, if not already discontinued - diminished benefit, lack of required monitoring, DI with Levaquin®
  - B. Levaquin® – Inc. risk for serious ADRs and DI with warfarin; Dose too high
  - C. Aricept® – not indicated for Debility; potentially causing diarrhea; not inline w/ goals of care
  - D. None of the above
  - E. All of the above

Closing thoughts…



Thank You for Participating!

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