DISCLOSURES

Personal
- No financial conflicts of interest

Pharmacologic
- Many medications used in HPM are not FDA-approved for indications

Note – there are many clickable links in this presentation

HPM FELLOWSHIP COMPETENCIES

2.7. Describes the use of opioids in pain and non-pain symptom management
2.7.1. Lists the indications, clinical pharmacology, alternate routes, equianalgesia conversions, appropriate titration, toxicities, and management of common side effects for opioids, non-opioids (2.8.1).
2.9.2. Identifies the indications, clinical pharmacology, alternate routes, appropriate titration, toxicities, and management of common side effects for: opioids, anxiolytics, antiemetics, laxatives, psychostimulants, corticosteroids, antidepressants, antihistamines, neuroleptics, sedatives and other common agents used in palliative care practice
2.11.3. Describes the indications, contraindications, pharmacology, appropriate prescribing practice, and side-effects of common psychiatric medications

Competency Project via AAHPM
OBJECTIVES

1) Analyze the role for a pharmacist in hospice and palliative care settings
2) Demonstrate a structured approach to medication review and deprescribing
3) Identify three key resources for high-level, HPM-relevant drug information

OUTLINE

• Important Pharmacologic Themes in HPM
• Role of Pharmacy in HPM
• Medication Review and Deprescribing
LACK OF INFORMATION

- Off-label use and FDA approval
- Limited research
- Non-HPM journals
- Paucity of pediatric proof

OFF-LABEL USE AND FDA APPROVAL

- Role of the FDA – safe and effective
- How common is off-label prescribing?
- What is our responsibility?
- What do patients expect?
- International vs American differences
- Need to disclose in presentations

LIMITED RESEARCH IN HPM

- HPM is a young field
- Power of the anecdote
- Counter-culture eschews research
  - …but it’s changing
- If you see something, say something
- Read the literature, especially non-HPM
**PEDIATRIC CONSIDERATIONS**

- Check dose calculations
- Age & weight impact absorption/metabolism
- Neonates – low renal/hepatic clearances and higher distribution vol = prolonged half-life -> low dose & long interval
- Infants/children – high drug clearances, normal distribution = shorter half-life
- Liver enzymes may not be fully developed in neonates

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**HOW DRUGS WORK**

- Be an expert in
  - Mechanism
  - Metabolism
  - Receptors
  - Routes
MECHANISM

CONSTITUTION
- Bulk-forming
- Lubricants
- Surface-wetting
- Osmotic
- Stimulant
- Focused opioid antagonists

PAIN CONTROL
- Opioids
- Steroids
- Acetaminophen
- Muscle relaxants
- Anti-depressants
- Gabapentenoids

METABOLISM
- Hepatic impairment
- Methadone vs other opioids
- Short vs long acting
- Oral vs IV vs rectal differences
- Renal, liver, fecal clearance
- Infant, youth, geriatric, critically ill, dying

RECEPTORS
- Anti-cholinergic
- Anti-muscarinic
- Anti-nicotinic
- Psychiatric drugs
  - Serotonin
  - Norepinephrine
  - Dopamine
  - Muscarinic
  - Histamine
- Anti-emetics
  - Neurokinin
  - SHT_2, SHT_3, SHT_4
  - Dopamine
  - GABA
  - Anticholinergic
  - Histamine
  - Opioid
  - Alpha
  - Cannabionoid
**ROUTES**

- Intravenous vs subcutaneous
  - Not all drugs can do both
- Avoid intramuscular if subcutaneous could do
- Rectal absorption not guaranteed
  - Check rectal preferences before prescribing
  - Macy catheter – interesting concept, rarely seen
**BEING RESOURCEFUL**

- Drug-drug interactions
- Phind your pharmacist
- Online resources

**DRUG-DRUG INTERACTIONS**

- Does drug increase/decrease conc?
- Polypharmacy
- Combining infusions
- Cytochrome p450
- Serotonin syndrome
- QTc
ROLE OF PHARMACY IN HPM

• General pharmacist responsibility

• Hospice pharmacists

• Community pharmacy

• Pharmacists as part of the IDT
THE PHARMACIST’S RESPONSIBILITY

• Assess medical orders
• Timely provision of effective meds
• Counseling and educating the team
• Counseling and educating patients and families
• Know the regs and licensing
• Address financial impact
• Ensures safe and legal disposal

HOSPICE PHARMACISTS

• Often not at IDT, off-site review
• Opioid conversions, especially with PCA
• Compounding medications
• Key role in safety
• Key role for inpatient units
• Ensuring opioid access
COMMUNITY PHARMACY

- Not often considered, yet critical
- Opioid access getting more limited
- Rural, suburban, urban differences
- 24/7 pharmacies – ask your hospice RN
PHARMACIST IN PALLIATIVE CARE

• New challenges in outpatient PC
• Education of patients & families @ DC
• Research and advice on medications
• Addressing incidents and errors
• Making the case for having a pharmacist
• Few examples out there

MEDICATION REVIEW AND DEPRESCRIBING

• Medication review
• Safe storage
• Safe disposal
• Fitness to drive
• Deprescribing

MEDICATION REVIEW

• Important early intervention
• What do you take ______ for?
• How well does that work for your ___?
• How often do you take ______?
• Do you have any side effects from __?
**COMPLEX PRESCRIPTION REGIMENS**

Drug Names and Instructions.

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>PHENACETIN 300mg TAKE 1 TABLET BY MOUTH TWICE DAILY FOR 10 DAYS</td>
</tr>
<tr>
<td>B</td>
<td>Diphenhydramine 100mg TAKE 2 TABLETS BY MOUTH EVERY 12 HOURS</td>
</tr>
<tr>
<td>C</td>
<td>Zopiclone 7.5mg TAKE 1 TABLET BY MOUTH AT BEDTIME</td>
</tr>
<tr>
<td>D</td>
<td>Cetirizine 10mg TAKE 1 TABLET TWICE DAILY WITH MEALS AND LIQUID</td>
</tr>
<tr>
<td>E</td>
<td>Triamterene 100mg TAKE 1 TABLET BY MOUTH 3 TIMES DAILY</td>
</tr>
<tr>
<td>F</td>
<td>Ciprofloxacin 500mg TAKE 1 TABLET BY MOUTH 3 TIMES DAILY</td>
</tr>
<tr>
<td>G</td>
<td>Phenazone 50mg TAKE 2 TABLETS BY MOUTH 3 TIMES DAILY WITH FOOD AND WATER</td>
</tr>
</tbody>
</table>

**SAFE STORAGE**

- Keep controlled substances secure
- Up high away from pets & kids
- Counsel on ‘losing your meds’
SAFE DISPOSAL

- DEA issued guidance in 2014
- Take-back programs
- Mail-back programs
- Collection receptacles
- After death, hospice staff can assist and educate but CANNOT take possession

FITNESS TO DRIVE

- Federal Motor Carriers Safety Admin
- Small imperfect studies generally support chronic stable doses and driving

DEPRESCRIBING

- New concept popularized by CaDeN
- Public health effort in Canada
- Partnership with patient & prescriber
SUMMARY

• Pharmacologic Themes in HPM

• Role of Pharmacy in HPM

• Medication Review & Deprescribing

RESOURCES
AND OF COURSE…MARY LYNN MCPHERSON

PRIMARY BIBLIOGRAPHY

Oxford Textbook of Palliative Medicine, 5th ed, 2015
Hospice and Palliative Care Formulary USA, 2nd ed, 2008
Palliative Care Formulary, 5th ed, 2014


SECONDARY BIBLIOGRAPHY


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OPEN ACCESS

