Medication Therapy Management –
Filling the needs of tribal communities

Wendy Brown Pharm.D, PA-C, AE-C
Associate Professor NDSU College of P,N, & AS
About the patient Clinical Coordinator
Objectives

- Explain how Medication Therapy Management improves medication use.
- Determine strategies that reduce the risk of medication adverse events.
- Evaluate approaches that improve medication adherence.
Disclosure

• Brown Speaker Bureau: Association of Asthma Educators
First introduced in the early 1990s as Pharmaceutical Care. This evolution in pharmacy practice utilized the pharmacist to provide clinical services that were “patient centered” and independent of a medication product.
With this new role the pharmacist has gained recognition as a “medication therapy expert” by health professionals and the public.
• 2003 Legislation: Medicare Prescription Drug, Improvement, and Modernization Act (MMA)

“Optional” Prescription Drug Benefit- Medicare Part D
Definition:

• **Services** that optimize therapeutic outcomes for individual patients
Formulate a medication treatment plan by selecting, initiating, modifying or administering medication(s)

Monitor a patient’s response to medication(s) (Ex. Safety/Effectiveness/Adverse Drug Events)

Prevent medication related problems

Educate and/or train the patient and/or their healthcare representative about their therapeutic regimen to enhance understanding, appropriate use and adherence
• Mechanism in place that allow the pharmacist or other qualified healthcare staff to identify eligible patients
  
  *Ex. Patient Registry*

• **Delivery of Service** is to a specific patient by the pharmacist
  
  *Ex. Face to face interaction is preferred*

• Mechanism for reimbursement that is based on the complexity of the patient encounter/visit
  
  *Ex. CPT code: 99605, 99606, 99607*

• Mechanism for documenting program quality, outcomes, and continuity of care
  
  *Ex. EMR, Validated Survey tools*
Patients with **actual** or **potential** medication related problems:

- Regardless of the number of medication
- Regardless of specific disease states
- Regardless of health care coverage
• Patient has at least 1 chronic medical condition
  • Heart Failure, Diabetes, Hypertension, Hyperlipidemia, Asthma, Osteoporosis, Osteoarthritis, Depression, COPD

• Patient has multiple prescribing health professionals
  Ex. PCP, ED, Hospitalist, Allergist/Pulmonology, Ob/Gyn

• Transition of care especially when the regimen has changed.
  Ex. Asthma Action Plan Development

• Patient is taking 5 + chronic medications
  Ex. Reliever Inhaler, Controller Inhaler and/or pill, Allergy Pill, Allergy Nasal Corticosteroid, Miscellaneous: Acne, Birth Control, ADHA, etc.
• Abnormal laboratory value that could be affected by medication
  *Ex. Low FEV1, High FENO*

• Medication that are **higher risk**
  *Ex. 10 yr on Fluticasone/Salmeterol 250/50mcg BID. Current potency of medication?*
  *Fluticasone 5-11 yrs daily dose: Low =100-200mcg*
  *Med= >200-400mcg*
  *High=>400mcg*

• **Communication**
  *Ex. Culture, Health Literacy and Community Health Workers*

• Patients who **self-identify** need for MTM
  • Reduce out-of-pocket costs
  • Change or loss of health benefit or insurance coverage

• **Adverse event** while receiving medical care. **Non-adherence** to a medication regimen
Def: POEM’s

- Patient
- Oriented
- Evidence that
- Matters

What goals are most important to my patients?

- Minimal or no chronic symptoms day/night
- No limitations on activities
- Minimal or no exacerbations
- No adverse effects from medications

### Medication Class

<table>
<thead>
<tr>
<th>Medication Class</th>
<th>Potential Adverse Effects</th>
<th>Special Considerations</th>
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<tbody>
<tr>
<td>SABA/LABA</td>
<td></td>
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<tr>
<td>Inhaled Corticosteroids</td>
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<tr>
<td>Leukotriene Modifiers</td>
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<tr>
<td>Immunomodulator</td>
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<td></td>
</tr>
<tr>
<td>Oral Corticosteroids</td>
<td></td>
<td></td>
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<tr>
<td>Methylxanthine</td>
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</table>

Figure 17. Guidelines for the Diagnosis and Management of Asthma.
A 16 year old present for refills of Albuterol. Denies and day or nighttime symptoms. Albuterol before exercise which she indicate is 3 times per week

**Objective:** Ht:55 Wt: 110 P:100 R: 20 T:98.6. ACT=25. FEV1%=75.

**Per Pharmacy:** Filling 3 Albuterol Inhalers per month over the last 3 months.
• Asthma Control vs. Albuterol Misuse

• Anecdotal reports of inhaler misuse for the Stimulatory effects and weight loss

• Correlation of Albuterol misuse higher rates of cigarette, alcohol, marijuana and other illicit drugs

• Association of “self-medicating” to intoxication with Albuterol due to comorbid psychiatric disorders

• Antisocial adolescents misusers were more likely to report euphoria, memory problems, slurred speech, blurred vision, confusion, and dizziness

• **Definition:** *the extent to which a person's behavior - taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider.*

http://apps.who.int/medicinedocs/en/d/Js4883e/6.html
ADHERENCE

The Five Dimensions of Adherence

1. Social & Economic
2. Health Care System
3. Condition-Related
4. Therapy-Related
5. Patient-Related

World Health Organization, 2003
ADHERENCE

- Special Populations
  - Children
    - Who is in “charge” of giving the medication?
  - Elderly
    - Memory Difficulty?
    - Multiple chronic conditions? Polypharmacy?

- Cultural
  - Beliefs about illness and treatment
  - Fear of the health care system
  - Distrust in prescribed therapies
A 8 yof comes with her mother and siblings (6 yom, 4 yof) for refills of medications. Mother indicates the child’s asthma is well controlled and only needs the refills since they will be moving to Fargo. There is a strong odor of tobacco in the room.

**Med:** Albuterol prn, Fluticasone 44mcg 2 puff BID

**Objective:** Vital WNL. ACT=20. FEV1=80%. Two no show visits for well child exam.

**Pharmacy records:** 4 albuterol inhalers and 1 fluticasone MDI (fill 2 weeks before visit) in the last 6 months.
• **Factors:**
  - Socioeconomic
  - Health System
  - Condition-related
  - Therapy-related
  - Patient-related

Improving Outcomes for Patients With Chronic Disease: The Medication Adherence Project (MAP)

Intermittent Asthma
Consult with asthma specialist if step 3 or higher care is required
Consider consultation at step 2

Patient Education and Environmental Control at Each Step

Step 1
Preferred: SABA prn
Alternative: Montelukast, Cromolyn Neb

Step 2
Preferred: Low-dose ICS

Step 3
Preferred: Medium-dose ICS

Moderate
Step 4
Preferred: Medium-dose ICS + either LABA Or Montelukast

Severe
Step 5
Preferred: High dose ICS + either LABA Or Montelukast

Severe
Step 6
High dose ICS + either LABA Or Montelukast
Oral systemic Corticosteroid

Assess Control
Step up if needed
(first, check adherence, inhaler technique, environmental control)

Step down if possible
(and asthma is well controlled at least 3 months)

Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma. NIH Publication No. 08-4051
Intermittent Asthma

Consult with asthma specialist if step 4 or higher care is required
Consider consultation at step 3

Patient Education, Environmental Control and Management of Comorbidities at Each Step
Consider subcutaneous allergen immunotherapy for patients who have allergic asthma at steps 2 through 4

Mild
Step 2
Preferred: Low-dose ICS
Alternative: Cromolyn Neb, LTRA, or Theophylline

Moderate
Step 3
Preferred: Medium-dose ICS + LABA
Alternative: Medium-dose ICS + either LTRA or Theophylline

Severe
Step 4
Preferred: High-dose ICS + LABA
Alternative: High-dose ICS + either LTRA or Theophylline

Severe
Step 5
Preferred: High dose ICS + LABA
Alternative: High-dose ICS + either LTRA or Theophylline

Severe
Step 6
High dose ICS + LABA + oral systemic Corticosteroid
Alternative: High-dose ICS + either LTRA or Theophylline + oral systemic Corticosteroid

Step up if needed (first, check adherence, inhaler technique, environmental control)

Step down if possible (and asthma is well controlled at least 3 months)
### Intermittent Asthma

Consult with asthma specialist if step 4 or higher care is required
Consider consultation at step 3

### Persistent Asthma: Daily Medication

<table>
<thead>
<tr>
<th>Step</th>
<th>Preferred Medication</th>
<th>Alternative Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mild</strong> Step 1</td>
<td>Preferred: Low-dose ICS</td>
<td>Alternative: Cromolyn Neb, LTRA, Theophylline</td>
</tr>
<tr>
<td><strong>Mild</strong> Step 2</td>
<td>Preferred: Low-dose ICS + LABA OR Med.-dose ICS</td>
<td>Alternative: Med.-dose ICS + either LTRA, Theophylline or Zileuton</td>
</tr>
<tr>
<td><strong>Moderate</strong> Step 3</td>
<td>Preferred: Medium-dose ICS + LABA</td>
<td>Alternatives: Med.-dose ICS + either LTRA, Theophylline or Zileuton</td>
</tr>
<tr>
<td><strong>Severe</strong> Step 4</td>
<td>Preferred: High dose ICS + LABA AND Consider Omalizumab for Patients who have allergies</td>
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<tr>
<td><strong>Severe</strong> Step 7</td>
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### Patient Education, Environmental Control and Management of Comorbidities at Each Step

Consult subcutaneous allergen immunotherapy for patients who have allergic asthma at steps 2 through 4

### Assess Control

Step up if needed (first, check adherence, inhaler technique, environmental control)

Step down if possible (and asthma is well controlled at least 3 months)
A 55 year old patient with asthma presents for medication refill. Indicates adherence to controller medication, minimal albuterol use and no new triggers. No day or night symptoms.

Med: Mometazone 220mcg 1 puff daily, Albuterol 2 puffs prn.

Objective: Vitals WNL. ACT=18. In-Check Dial= MDI> 120L/min, DPI=100L/min. FEV1%=72. Per Pharmacy: Consistent with picking up Mometazone monthly. Last albuterol 3 months ago.

What is this patient's level of control?
  • Well controlled, Not well Controlled, Very Poorly controlled
• Questions?