A Process for Performing Medication Assessments

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Objectives

1. Learn an overview of a medication assessment process (with a focus on key messages/tips and providing access to resources for more in-depth learning)

2. Apply this process to a sample patient case with diabetes (focus on process NOT therapeutics)
Mavis

- 77yo, lives alone and independently
- Referred by family doc for medication assessment
- **MD question:** Do I need to adjust gliclazide dose for renal function (stable slowly declining chronic kidney disease, CrCl = 50 ml/min)
Medication list (from dispensing system):

1. Gliclazide MR 30 mg daily
2. Metformin 500 mg BID
3. Omeprazole 20 mg daily
4. Citalopram 20 mg daily
5. Ramipril 5 mg HS
6. Amlodipine 2.5 mg daily
7. Hydrochlorothiazide 12.5 mg daily
8. Salbutamol MDI prn
What is a Medication Assessment?

“A structured, critical examination of a patient’s medications with the objectives of reaching an agreement with the patient about their treatment and optimising the impact of medications on the patient’s health”

Who will benefit from a medication assessment with a pharmacist?

No clear guidelines or evidence...

- Multiple medications
- Recent hospitalization/new diagnosis
- High risk medications (insulin, sulfonylureas, anticoagulants...esp soon after initiation)
- All people with diabetes??
- Can use a screening tool available at: www.usask.ca/pharmacy-nutrition/primarycare
Medication Assessment Process: THREE STEPS

1. **Interview the patient** (collect info from the patient **and** their profile/chart)

2. **Systematically identify drug therapy problems** (**DTPs**)

3. **Create a care plan** to resolve problems (now) and follow up / monitor (in the future)

Step 1: The Patient Interview

PURPOSE:
Collect the relevant information that you will need to complete your assessment

- Are Mavis’ drug therapy needs being met?
- Are there any drug therapy problems?
  - Does her gliclazide dose need to be adjusted?
What additional information did you decide you needed from Mavis during your small group discussion?
Mavis

Medication list (from dispensing system):

1. Gliclazide MR 30 mg daily
2. Metformin 500 mg BID
3. Omeprazole 20 mg daily
4. Citalopram 20 mg daily
5. Ramipril 5 mg HS
6. Amlodipine 2.5 mg daily
7. Hydrochlorothiazide 12.5 mg daily
8. Salbutamol MDI prn
Step 1: The Patient Interview

**KEY MESSAGE:**

Use a **structured** and **logical** approach to the patient interview to ensure an **efficient** and **comprehensive** data collection.
Organizing an interview

A structured and logical approach:

1. Introduction and setting the stage
2. Determine pts’ main concern
3. Gathering information
4. Conclude the interview

Be flexible…while maintaining control
A structured & logical approach

1. Introduction and setting the stage
   - Who are you and what is your role?
   - Purpose of the interview
   - Process of the medication assessment
   - Estimate of time required
   - Ensure privacy understood
A structured & logical approach

2. **Determine patient’s main concerns (if any)**

“What is your biggest concern about the medications that you are currently taking?”
A structured & logical approach

3. **Information gathering**
   - Start with getting a good medication history
     - What are they taking and what are the indications
   - Next go through each condition one at a time…
     - Ask questions to get a detailed history of the management / control of each condition
Use ‘lines of questioning’

- Tell me about...
- Where is the symptom?
- What is it like?
- How severe is it? (e.g. use a 1-10 scale)
- How long or how often has it been present?
- How did it happen?
- What makes it worse?
- What makes it better?

Lots of examples available at:
www.usask.ca/pharmacy-nutrition/primarycare
A structured & logical approach

Gather any other relevant info *(depending on case)*

- allergies and intolerances
- other medical conditions or symptoms
  - Consider ‘head to toe’ approach/review of systems
- family/social history
- caffeine/alcohol/smoking/other drug use
- immunizations
- compliance aids and devices
- Cognitive and functional status
A structured & logical approach

4. Conclude the interview

- Summarize any issues identified or actions that pt needs to take
- Next steps for the pharmacist and the patient
- Ask pt if they have any additional questions or concerns
Patient Interviewing: Extra tips

• Takes time to get good at this

• 95% of DTPs can be ID’d from the pt interview

• Video on pt interview process in more detail:  
  www.youtube.com/watch?v=Ec2bFjCsR0g

• For more information, tips, suggestions:  
  www.usask.ca/pharmacy-nutrition/primarycare
Mavis – Key info that needed to be collected

• **Very adherent overall**
• **Pt main concern** – on “too many meds”
• **Meds**: Also on ASA 81 mg daily, Vit D 1000 IU daily, Valerian 150 mg HS
• **Diabetes:**
  - Diagnosed 10 yrs ago, never tried other meds
  - Home glucose AM fasting 3.8 – 7.0 mmol/L
  - No hypoglycemia episodes (she knows Sx to watch for)
  - Does not know her A1c, urine albumin/creatinine ratio
  - No complications (other than CrCl=50ml/min)
Mavis – Key info that needed to be collected

Indication for omeprazole?

• She doesn’t remember, but has no GERD / dyspepsia symptoms.
• Reports having a bleeding ulcer ~15 years ago
• Taking omeprazole every day for 5-6 years
• No side effects, covered by drug plan
Mavis – Key info that needed to be collected

Indication for citalopram?

- Depression x 5 years ago (when husband died)
- Working great – no concerns with mood or tearfulness in last few years
- No history of suicidal ideation
- No side effects, taking every day
Mavis – Key info that needed to be collected

Indication for ramipril, hydrochlorothiazide, amlodipine?

• Hypertension for many years
• No history of vascular disease
• Does not remember any recent med changes
• Home BP: 120/80 mmHg
• BP in your pharmacy: 115/78 mmHg
• Some light-headedness every AM but no falls
• Taking all of them regularly, no side side effects
Mavis – Key info that needed to be collected

Indication for salbutamol?

• Asthma x decades
• Uses salbutamol 1-2 times week during allergy season, but no inhaled corticosteroid
• No severe exacerbations, no ER visits
• Has detailed asthma action plan
• Inhaler technique excellent
Mavis – Key info that needed to be collected

Indication for ASA and herbals?

- ASA – her son told her to take it for her heart
- Vit D – doc told her to take it for “health”
- Valerian – her son told her to take it for her depression years ago
Medication Assessment Process: 

Three Steps

1. Interview the patient (and collect info from the patient profile/chart)

2. Systematically identify drug therapy problems

3. Create a care plan to resolve problems (now) and follow up / monitor (in the future)

What are Mavis’ drug therapy problems (DTPs)?
Mavis

Medication list (from dispensing system):

1. Gliclazide MR 30 mg daily
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3. Omeprazole 20 mg daily
4. Citalopram 20 mg daily
5. Ramipril 5 mg HS
6. Amlodipine 2.5 mg daily
7. Hydrochlorothiazide 12.5 mg daily
8. Salbutamol MDI prn
9. ASA 81mg QD
10. Vit D 1000 IU QD
11. Valerian HS
Step 2: Identifying drug therapy problems

**KEY MESSAGE:**

- If you don’t use a **systematic** (thought) process to identify DTPs in **complex** patients you **WILL** make mistakes, you **WILL** miss problems and you **WILL NOT** optimally care for your pts.
How to identify DTPs…

1. Pattern recognition
2. Therapeutic thought process
3. Pharmacotherapy work-up
Therapeutic thought process
FOUR questions to ask yourself regarding the pt data you collected

1. Are the pts’ undesirable signs/symptoms/conditions being caused by drug therapy?
2. Is drug therapy needed?
3. Is the patient taking the best drug(s)?
4. Why is/are the drug(s) not working?

Adapted from Winslade and Bajcar. Therapeutic Thought Process (1991)
Pharmacotherapy Workup: FOUR STEPS

1. Evaluate appropriateness of indication
2. Determine drug effectiveness
3. Establish safety of the drug regimen
4. Ensure patient adherence/compliance

For more information…

www.usask.ca/pharmacy-nutrition/primarycare

**BOTTOM LINE:** Do not rely on pattern recognition alone…use a **systematic** thought process when dealing with complex pts.
Mavis’ DTPs
Medication Assessment Process:

Three Steps

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Step 3: Create a care plan

- What is the purpose of a care plan?
- Can be formal (using standard forms) or not

What is in a care plan?
1. Need to define goals of therapy
2. Need to make solution focused interventions (if DTPs were identified)
3. Need a monitoring plan
1. Sample goals of therapy

Purpose of goals of therapy?

Short term goal example:

• Reduce fasting glucose to 5-7mmol/L within 1 month

Long term goals:

• Reduce A1c to <7% within 6 months
• Prevent long term diabetes complications
2. Solution focused recommendations

- For when you find DTPs…

- If you cannot make the change independently, it is vital to provide specific recommendations (to physician, NP and the patient) re: WHAT needs to be done, by WHOM and WHEN
Example: General

- “Suggest that the family doctor writes a new prescription today to stop the gliclazide and continue with metformin 500mg BID”

- **NOT:**
  - “Suggest physician start metformin today”
  - “Suggest physician switch glyburide to alternate diabetes medication”
Some examples: Mavis

- Suggest reducing omeprazole for 20mg every other day for 2 weeks then stop
- Stop ASA today
- Many others for Mavis…
- Also need to consider how you would prioritize implementing multiple changes (since Mavis has MANY recommendations)
3. Monitoring plans

- “If you don’t follow up – you don’t care”

- Key is to define WHAT needs to be monitored, by WHOM and WHEN

- Be specific

- Consider effectiveness, safety, adherence
## Sample Diabetes Monitoring Plan: Mavis

<table>
<thead>
<tr>
<th>What</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home glucose</td>
<td>Mavis</td>
<td>Once daily variable times</td>
</tr>
<tr>
<td>Hg A1c</td>
<td>Family doc</td>
<td>Every 3 months</td>
</tr>
<tr>
<td>Complications (feet, vascular, eyes)</td>
<td>Family doc</td>
<td>Every 3 months</td>
</tr>
<tr>
<td>Urine albumin creatinine ratio</td>
<td>Family doc</td>
<td>Annual</td>
</tr>
<tr>
<td>Serum creatinine</td>
<td>Family doc</td>
<td>Every 3 months</td>
</tr>
<tr>
<td>Hypoglycemic events</td>
<td>Pharmacist</td>
<td>To ask at Rx refills</td>
</tr>
<tr>
<td>Metformin side effects</td>
<td>Pharmacist</td>
<td>To ask at Rx refills</td>
</tr>
<tr>
<td>Serum electrolytes (K, Mg, Na)</td>
<td>Family doc</td>
<td>Every 3 months</td>
</tr>
<tr>
<td>Medication adherence</td>
<td>Pharmacist</td>
<td>To ask at Rx refills</td>
</tr>
</tbody>
</table>
Step 3: Care Plans

KEY MESSAGES:

• Importance of clear, specific goals of therapy

• Importance of specific, solution focused recommendations

• Importance of good monitoring & follow up plan

Sample standardized forms available at:
www.usask.ca/pharmacy-nutrition/primarycare
Additional Resources
More LIVE Sessions...

Day-long workshops:

- CPhA Conference May 31/14
- Can be specially organized for your staff
Want even more??
QUESTIONS

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