Taking the Wreck out of Medication wReconciliation

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No disclosures

Objectives

✔ Explain the importance of medication reconciliation to people who like food or traveling

✔ Identify seven potential wreck points in the med rec process

✔ List at least three solutions to improve the med rec process

Mama’s Stromboli

- 1lb Ground round
- ½ tsp. Oregano
- ½ tsp. Salt
- ½ tsp. Garlic powder
- 1 Frozen loaf of bread dough
- ½ tsp Pepper
- 1 Tbsp. Dried parsley
- 4 cups Shredded mozzarella
- Tomato Sauce
- Add provolone (chef’s

Ground round
Oregano
Salt
Garlic powder
Dough
Pepper
Parsley
Mozzarella
Mama's Kate's Stromboli
1 lb Ground round Italian Sausage
½ tsp Oregano
½ tsp Salt
½ tsp Garlic powder 2 Garlic Cloves
1 Frozen loaf of bread dough
½ tsp Pepper
1 Tbsp Dried parsley Basil
¾ cup whole milk ricotta

Unsuccessful Recipe Reconciliation Process

Before Cooking
Refer only to what is written on the recipe (don't ask about changes)

During Cooking
Guido/Kate makes their own personal touches to recipe

After Cooking
Tell Chef what was done; don't write it down

Successful Recipe Reconciliation Process

Beginning of Cooking
Ask Chef what he actually put in

During Cooking
Update recipe as necessary and update chef
End of Cooking
Update the recipe with what was happening before this chef got it
Direct the chef to change what they are doing after this
Successful Medication Reconciliation Process

- Update patient's "home" list with what was happening before today's visit
- Direct the patient to change what they are doing after the visit
- Update the list to reflect what patient is taking
- Ask patient what they actually take
- Medication Reconciliation Background
  - Joint Commission
  - 2005 National Patient Safety Goal
  - Revised 2011: Goal 03.06.01
  - Patient Safety
  - PubMed 1990
  - Meaningful Use requirement by CMS

Benefits of Medication Reconciliation
How Are We Doing?

Patients interviewed by PAS: 540

- Pts w/prior review of meds by provider or RN: (241)
  - No changes made by PAS (20)
  - Changes made by PAS: (221)

- Pts w/o prior review of meds: (299)
  - 92% of lists previously touched required updates by PAS

571 patients seen by PAS in 2 weeks in ED

- 31 patients unable to complete

Patients requiring updates by PAS: n=221
- Med rec not yet done: n=91
  - 64% were marked as reviewed
  - 5.2 changes/pt by PAS

SI Harm Score:
- Level 3: 71.5%
- Level 4: 24.5%
- Level 5: 4%

- Med rec done: n=130
  - 49% were marked as reviewed
  - 5.3 changes/pt by PAS

SI Harm Score:
- Level 3: 75%
- Level 4: 23%
- Level 5: 2%

27% of errors had potential to require additional monitoring or intervention to prevent harm

- 52% of the patients were seen in ED
- 48% originated from ED but were seen once on the inpatient unit

If the airlines were as good as our documentation of a medication lists...

- EVERY DAY on the news: (2,470,000 passengers/day)
  - 2,272,400 passengers would have an issue (92%)
    - 1,704,300 would have to check bag instead of carry on (75%)
    - 522,652 passengers would lose luggage or experience a significantly delayed flight (23%)
    - 45,448 passengers would be flown to the wrong destination (2%)
**Unsuccessful Medication Reconciliation Process**

<table>
<thead>
<tr>
<th>Beginning of Encounter</th>
<th>During Encounter</th>
<th>End of Encounter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask patient if they are still taking meds documented on list from last time</td>
<td>Decide what to prescribe</td>
<td>Tell patient what to change taking</td>
</tr>
</tbody>
</table>

**Downstream Implications**

- 50% of patients experience a med error within 30 days of discharge*
- Significantly more patients who experience a medication discrepancy (p<0.04) are readmitted within 30 days of discharge**

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**Overall Challenges:**

1. Shared EHR
2. Challenges with the Medication History:
   - Cleaning up the medication list
   - Patient knowledge of medications
   - What to document
3. Ordering of Medications:
   - Ordering meds correctly for inpatient stay
4. Fixing the orders for discharge
5. Communication with Patient
   - Giving the patient written information about medication updates

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**Coleman EA et al. Arch Intern Med. 2005
• Does an orthopedic provider CARE what dose of sertraline their patient takes?

• Meaningful Use
  • Providers indicate review of list
  • One button means “reviewed and updated”
  • People downstream don’t know that Dr. Ohtro is actually an Orthopedist and didn’t update the list to be correct

• Un-Meaningful Use of the EHR

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**Which medication is most complete?**

**A**

**B**

Technically, the electronic version is most complete, however, we still need to question its accuracy because it says the patient is using a 12-hr tablet, whereas it’s more likely that he uses a 24-hr tablet.

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**Which medication is most likely to be accurate?**

1. Handwritten List

2. Electronic List

3. Neither of the above are likely to be correct

The paper version is likely not accurate: either the XL is missing, or if the patient is using the non-XL form, the frequency is usually BID electronic version is likely not accurate because metoprolol XL is not typically dosed BID.
1. Sharing the Electronic Health Record

**Positives**
- List available for everyone to see
- Enhances efficiency
- Real-time Drug-Drug and Drug-Disease checks
- Trend medication adjustments
- Full history
- House forgettable information (IUD)

**Paus-itives**
- Too easy to trust
- Assuming that all meds were updated/corrected
- Wrong assumptions & decisions if information is incorrect

2. Cleaning up the Med List

- **Update** medications already in the list
- **Remove** medications the patient really isn’t taking
- **Add** medications not already documented in the list
  - Include PRN medications, vitamins, OTCs, etc.
  - Add on medications to start in the future, if known!

5.3 changes/patient by Pharmacy Admission Specialist

**Why do we need to remove meds?**
- UCH → an average of 1-2 medications on patient’s medication list are not being used (per admission interview)

  Nurses, pharmacists, pharmacy technicians, and medical assistants have been approved to use a protocol that allows them to remove a medication from a patient’s home med list.

  This is documenting, not prescribing.
Users may remove a medication from a patient's medication list if the reason for non-use falls into one of the following categories:

<table>
<thead>
<tr>
<th>PATIENT REPORTED medications</th>
<th>PROVIDER PRESCRIBED medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Patient reported medications that patient reports no longer using</td>
<td>• Duplicate medications</td>
</tr>
<tr>
<td>• Erroneous entries</td>
<td>• Therapy complete</td>
</tr>
<tr>
<td></td>
<td>• Old prescriptions</td>
</tr>
<tr>
<td></td>
<td>• Alternate therapy</td>
</tr>
<tr>
<td></td>
<td>• Patient request through online EHR portal</td>
</tr>
</tbody>
</table>

3. Patient knowledge of what they take

"Patient's don't know what they're taking..."

• Do you know what YOU take?
  (99 patients over 1 week)
  • For patient's we normally wouldn’t have called the pharmacy about, 1 medication clarification for every 4 patients
  • (0.26 medication changes per patient)
• We can’t hold patients accountable for telling us accurate information until we know how to document that information accurately!

4. What to document

• Patients may use medication differently than it is prescribed
  • Document as the patient is actually using the medication
Med wRecks

• Patient’s medication list had gabapentin 600mg TID documented; provider re-ordered for use during inpatient stay.

• Patient became sedated. Later discussion revealed that patient had only been using 300mg BID at home.

5. Ordering medications for the inpatient stay

• Thinking the list was updated when it wasn’t
  • “The electronic list is already there, so isn’t it ready to go?”

• Time of last dose/not taking

• Ordering doses that the patient wasn’t really using

Med wRecks

• Patient on lamotrigine 50mg BID at home for history of seizures. Provider intended to re-order medication for inpatient use, but got side tracked when a code was called for a patient in the room next door

• 2 days into hospital admission, patient suffered seizure and care team realized that the lamotrigine hadn’t been ordered upon admission
6. Ordering for after the visit

128 prescriptions documented as being used differently than prescribed (n=99 patients)

Evaluated how they were ordered for admission and discharge from an inpatient stay...

- Admission:
  - 90 medications providers chose to:
    - Order as patient reports
    - Order different dose than reported or prescribed
    - Not order

- Discharge: 88% of these medications were ordered at discharge
  - 81% were “resumed” and told patient to change dose at home
    - Instructed dose was different from prior to admission dose and/or in-hospital dose

Med wRecks

- Patient had prescription for fentanyl 12mcg patch, but provider had recently increased the dose and verbally told patient to start using 2 patches, or 24mcg

- Patient taking 24mcg at home, then inpatient provider ordered that dose during inpatient stay

- On discharge, provider selected “Resume home med” and patient’s AVS instructed him to decrease the dose of fentanyl to 12mcg

- Error noticed during random chart review and patient called day after discharge to clarify that dose should continue at 24mcg

Med wRecks

- Bone Marrow Transplant patient was originally prescribed cyclosporine 100mg capsules, take 2 capsules (200mg) BID

- Dose adjusted to 100mg BID and CSA levels were within therapeutic range

- Dose re-ordered appropriately at 100mg BID during inpatient stay

- On discharge, provider selected “Resume home med,” which instructed patient to change and increase dose back to the prescribed dose of 200mg BID

- Patient came to clinic 2 days after discharge with supra-therapeutic cyclosporine levels
6. Ordering for after the visit

- Update medication orders to match what you tell the patient to do
  - Don't let specialties only document dose changes in their own special part of the chart

7. Giving the patient a list

- Need to give the patient a list of what to do, including changes
  - Some EHRs designed to say "start" "stop" "change" "modify"
    - DON'T works if used correctly
  - Add indications!

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**Med wRecks**

- Patient's home medication list included carvedilol 25mg PO BID
  - During hospital stay, provider decreased the dose to 12.5mg PO BID, and a new prescription was written on discharge
  - During d/c med rec, provider also selected to "resume" the carvedilol 25mg PO BID
- After Visit Summary provided to patient stated to "continue carvedilol 25mg PO BID" and to "start carvedilol 12.5mg PO BID"
  - Patient started taking 25mg + 12.5mg for total dose of 37.5mg BID at home, returned to ED for hypotension
How do you manage a patient’s health or medications when you don’t know why they are taking medications?

VISION

• Patients will know why they are taking their medications

• Providers will know why other providers prescribed medications for their patients

Providers

Only 29-38% report an indication on a prescription

Patients

15-70% don’t know why they are on their medications

© 2016 Epic Systems Corporation. Confidential
• Prints on the medication bottle:
• Will show on medication list for other providers to see:
• Will show on the After Visit Summary:

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Post Implementation Survey Results

60% Helpful to see an indication on the medication list and/or After Visit Summary

67% Takes less than 5 seconds per prescription to add an indication

91% Report having no issues, agreeing that the benefits outweigh the frustration, or are neutral with the new requirement to add an indication

31% Have encountered barriers

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Overall Solutions:

1. Shared EHR → be aware of the pitfalls and treat the list with skepticism

2. Cleaning up the medication list → okay to remove medications that the patient really isn’t taking! Develop guidelines for what to remove.

3. Patient knowledge of medications → don’t assume patient is NOT knowledgeable; let patient be part of the process—but be ready for them!

4. What to document → start by documenting what the patient is ACTUALLY taking so that we can appropriately guide the patient what to do differently going forward

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Overall Solutions:

5. Ordering meds correctly for inpatient stay → pay attention to time of last dose and what dose patient actually uses at home

6. Fixing the orders for discharge → Discharge Med Rec! Don’t forget to compare original home dose to the dose used during inpatient stay

7. Giving the patient written information about medication updates → Review the written directions! Add indications! Providing an accurate list can set the patient up for successful adherence after the visit
Questions?

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