Medication Reconciliation

Where Does It Fit?
Design of Tools

Fruzsina Pataky, B.Sc(Pharm), MBA
Medication Safety Coordinator
Providence Health Care
Objectives

• Discuss the integration of Medication Reconciliation into the flow of care in Residential Care at PHC

• Discussion

• Discuss the development of tools and some hot tips…

• Discussion
Providence Health Care

- 554 Acute care beds
- 697 Residential care beds
- 76 Rehab beds
- Pharmacy: GEMS RxTFC version 4.01
- HIS: Eclipsys Sunrise Clinical Manager
- ADT, lab interfaces, RxTFC lookup in SCM
In the beginning…

• Team was formed in response to a need
• 40% of PHC residential admissions came from PHC acute sites
• How can we streamline the process?
  – to minimize transcription
  – to ensure that meds are not overlooked
• “TMO” was proposed
• Trialed on acute geriatric/FP unit using PDSA
Providence Health Care

This is a PERMANENT RECORD for the patient's HealthCare Record

RESIDENTIAL / REHAB TRANSFER MEDICATION ORDERS
(AS OF 0951 19Jul2005)

TEST, Passing the
Birth Date: 01Jun1950

From: SPH 8D To: ________________
MRN: 99100162-9/00001

Allergies:

Instructions:
1. Sending MD to complete. Write any new orders on final page.
2. Sending form with patient upon transfer to residential care / rehab.
3. Receiving UC / Nurse to fax form immediately to Pharmacy - 22652. Pharmacy will send MAR based on these orders.
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7. Form to be kept in chart as part of permanent record.

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### Additional Medications: (For sending Physician Only)

Initiating MD: ___________________ MD Signature: ___________________ Date: _______________ Pager: ____________

(Processed by: ___________________ FAXED at: ___________________ Reviewed by: ___________________)

(Required) (Print) (Required) (Required) (Nurse’s Signature)

Receiving physician: Confirm continuation of the above orders within 48h (any changes will require a new Direct Physician’s Order Sheet)

Receiving MD: ___________________ MD Signature: ___________________ Date: _______________ Pager: ____________

(Processed by: ___________________ FAXED at: ___________________ Reviewed by: ___________________)

(Required) (Print) (Required) (Required)

(Required) (Signature & Title) (Date & Time) (Signature & Title) (Date & Time)

Received by: ___________________ Nurse’s Signature: ___________________

AFTER COMPLETION, FAX TO 22652 (PLACE ORIGINAL IN CHART)
Bump in the road…

- MAC did not approve “bridge” prescription by acute care physician
- Transfer process required redesign
- …an opportunity in disguise!
- Examined all “moving in” processes related to medications
Admissions to Residential Care

• Via Priority Access
• PHC acute care = 40%*
• Other 60% from:
  – Community*
  – Other acute care facilities
  – Other residential care facilities*
  – Readmissions
• Potential lag time of days to months from date first assessed
Admissions to Residential Care

• Harmonize moving-in process
• Coordinated by CNL and RN
• Source medication documents:
  – PHC acute: MIMO
  – Community: PhamaNet extract
  – Other acute: facility medication profile
MIMO (Moving-in-Medication Order)

- RN contacts Pharmacy to remote print on day of arrival
- RN reviews and reconciles medications
- MIMO faxed to physician
- MIMO modified if required, signed by physician and faxed back to unit
- Signed MIMO faxed to Pharmacy
- Initial MAR supplied with meds
RESIDENTIAL/REHAB MOVING-IN MEDICATION ORDERS
(Page <#> of <Total Pages>)

From: <Acute Care Location> to: ________________.

Allergies: <Allergies>

The following are the medications the above patient was receiving as of <Date> <Time>. Please indicate any changes and fax back to the Residential Care Unit at (604) ________________

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**Additional Orders:**

***DRAFT***
From Community

- RN contacts Pharmacy to remote print PharmaNet extract on day of arrival
- RN Reviews and reconciles medications
- PharmaNet extract faxed to physician
- PharmaNet extract modified if required, signed by physician and faxed back to unit
- Signed PharmaNet extract faxed to Pharmacy
- Initial MAR supplied with meds
<table>
<thead>
<tr>
<th>Pharmanet Profile as of: 1215 02May2005</th>
<th>Actual Use (As confirmed with patient)</th>
<th>In-hospital treatment (Check one on Admit)</th>
<th>Discharge treatment (Check one on discharge)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAMIVUDINE TABLET 20050502 150MG 180</td>
<td>As per Pharmanet Actual dose: D/C for ______</td>
<td>Continue as PTA Discontinue, or</td>
<td>Continue as PTA Discontinue, or</td>
</tr>
<tr>
<td>NELFINAVIR MESYLATE TABLET 20050502 250MG 900</td>
<td>As per Pharmanet Actual dose: D/C for ______</td>
<td>Continue as PTA Discontinue, or</td>
<td>Continue as PTA Discontinue, or</td>
</tr>
<tr>
<td>TAKE ONE TABLET TWICE DAILY. TAKE WITH FOOD.</td>
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</tr>
<tr>
<td>STAVUDINE CAPSULE 20050502 40MG 180</td>
<td>As per Pharmanet Actual dose: D/C for ______</td>
<td>Continue as PTA Discontinue, or</td>
<td>Continue as PTA Discontinue, or</td>
</tr>
<tr>
<td>TAKE ONE CAPSULE TWICE DAILY</td>
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</table>

990406241
Helen, AMB Test
F
12Oct1980
How does Medication Reconciliation Fit?

• Start with areas/programs/units that are already “sort of” doing it on admissions
  – Residential care
  – Pre-op assessment clinics
  – Surgery versus Medicine?
  – EMG not usually recommended unless dedicated resources available

• Can’t be exclusively a Pharmacist responsibility

• Tweak processes to standardize and develop tools to support the standardized practices

• Small tests of change/PDSA
Discussion

Where/how have you been able to incorporate Medication Reconciliation into your practice?
Tool Design

Hot Tips…
<table>
<thead>
<tr>
<th>(REPUBLICAN)</th>
<th>(REFORM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEORGE W. BUSH</td>
<td>PAT BUCHANAN</td>
</tr>
<tr>
<td>DICK CHENEY</td>
<td>EZOLA FOSTER</td>
</tr>
<tr>
<td>(DEMOCRATIC)</td>
<td>(SOCIALIST)</td>
</tr>
<tr>
<td>AL GORE</td>
<td>DAVID McREYNOLDS</td>
</tr>
<tr>
<td>JOE LIEBERMAN</td>
<td>MARY CAL HOLLIS</td>
</tr>
<tr>
<td>(LIBERTARIAN)</td>
<td>(CONSTITUTION)</td>
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<tr>
<td>HARRY BROWNE</td>
<td>HOWARD PHILLIPS</td>
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<tr>
<td>ART OLIVIER</td>
<td>J. CURTIS FRAZIER</td>
</tr>
<tr>
<td>(GREEN)</td>
<td>(WORKERS WORLD)</td>
</tr>
<tr>
<td>RALPH NADER</td>
<td>MONICA MOOREHEAD</td>
</tr>
<tr>
<td>WINONA LaDUKE</td>
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</table>

Remember this?
2000 US Presidential Election:

Confusion over Palm Beach County ballot

Although the Democrats are listed second in the column on the left, they are the third hole on the ballot.

Punching the second hole casts a vote for the Reform Party.

| (Republican) | George W. Bush · President | 3 → |
| (Democratic) | Al Gore · President | 5 → |
| (Libertarian) | Harry Browne · President | 7 → |
| (Green) | Ralph Nader · President | 9 → |
| (Socialist Workers) | James Harris · President | 11 → |
| (Natural Law) | John Hagelin · President | 13 → |
| (Constitution) | Howard Phillips · President | 6 → |
| (Socialist) | David McReynolds · President | 8 → |
| (Reform) | Pat Buchanan · President | 4 → |
| (Workers World) | Monica Moorehead · President | 10 → |
| Write-in Candidate | To vote for a write-in candidate, follow the directions on the long stub of your ballot card. |

Sun-Sentinel graphic/Daniel Niblock
Hot Tips

• It’s only a tool …
• Borrow shamelessly
**PHYSICIAN’S ORDERS**

**SUMMARY OF AUTOMATIC STOP ORDERS**

Medication orders not stating the number of days or doses will be subject to the following automatic stops:

<table>
<thead>
<tr>
<th></th>
<th>ACUTE</th>
<th>RESIDENTIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Antibiotics</td>
<td>7 DAYS</td>
<td>7 DAYS</td>
</tr>
<tr>
<td>Injectable Antibiotics</td>
<td>3 DAYS</td>
<td>3 DAYS</td>
</tr>
<tr>
<td>Narcotics/Controlled Drugs</td>
<td>7 DAYS</td>
<td>365 DAYS</td>
</tr>
<tr>
<td>Oral / IV Anticoagulants</td>
<td>7 DAYS</td>
<td>10 YEARS</td>
</tr>
<tr>
<td>SC Anticoagulants</td>
<td>28 DAYS</td>
<td>28 DAYS</td>
</tr>
<tr>
<td>Nebulized Medications</td>
<td>7 DAYS</td>
<td>10 YEARS</td>
</tr>
<tr>
<td>All Other Medications</td>
<td>10 YEARS</td>
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</tr>
</tbody>
</table>

If medications are needed for duration of hospital stay, indicate this duration as: F.D.H.S. (Acute Care Only)

No drug will be dispensed or administered without a completed Drug Contraindication form.

<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>NOTED BY</th>
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SPH only: For antibiotics use “Antibiotic Order” form

**ORDERS**

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<tr>
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**PHYSICIAN’S SIGNATURE**

<p>| |</p>
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Hot Tips

• It’s only a tool …
• Borrow shamelessly
• Keep It Simple (KISS)
### CARDIAC CATHETERIZATION & PCI: POST-PROCEDURE ORDERS

**ALL PATIENTS:** NPO until hemostasis of site, then resume previous (cardiac) diet.

**Fluids:**
- **Contrast-Induced Nephropathy Protocol:** NS 1mL/kg/hr IV until tomorrow AM;
  - Cr 2-3 days (next day) OR NS 75mL/hr until drinking OR NS T1KVO for dialysis pts.
  - Saline lock when drinking.

**Vital Signs, activity, sheath site management:** as per Post-Procedure Nursing Protocols. Foley pm ECG post-PCI & pm if chest pain more than when leaving cath lab. **CALL MD FOR THIS**

**Bloodwork:**
- Same day if leaves before 12 hrs, next AM for others
  - CBC
  - Lytes
  - Cr

**ALL PATIENTS:** Continue previous medications.

**If on GP IIb/IIIa I N H I B I T O R:**
- Indicate agent
  - Eptifibatide
  - Abciximab
  - Tirofiban

**Infusion as per Medication Manual monograph:** Continue infusion until _______ (day/hr)

- **D/C Heparin infusion**
  - Hold 1800 dose of enoxaparin, resume in AM

- **Heparin infusion as per Low-Target Nomogram:** Restart at _____ hours.
  - Bolus
  - No Bolus

- **EC ASA:**
  - 31 mg
  - 325 mg daily

- **Clopidogrel 75mg** daily

**ALL PCI PATIENTS, UNLESS HR > 100:**
- Atropine 0.6 mg IV pre-femoral sheath removal
- Atropine 0.6 mg IV for symptomatic systolic BP < 90 & HR < 90
- Prochlorperazine 5 - 10 mg PO 4th pm
Hot Tips

• It’s only a tool …
• Borrow shamelessly
• Keep It Simple (KISS)
  – Avoid overcrowding
  – Consider type size
  – Group like objects
  – Avoid jargon/cryptic abbreviations
  – Ask only what you really need
Hot Tips

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• Borrow shamelessly
• Keep It Simple (KISS)
• Make it intuitive
  – flowchart the process before you design the tool
Hot Tips

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• Be consistent
• Minimize handwriting
Hot Tips

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• Make it intuitive
• Be consistent
• Minimize handwriting
• Use prompts
Hot Tips continued…

• Allow flexibility but make it easy to choose preferred option
**HEPARIN STANDARD PROTOCOL 2005**

`**all blanks must be filled in by prescriber**`

`check boxes must be selected to be ordered`

**DATE:**

**Patient Weight:** ____________ kg  
☐ Actual  ☐ Estimate

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No IM injections; discontinue all previous heparin orders, including dalteparin, enoxaparin, or tinzaparin.

**Platelets Q3D**

**Heparin 25,000 units in 500 mL IV fluid (50 units/mL); initiate therapy as below OR**

☐ omit bolus dose  ☐ omit initial heparin dose and proceed to maintenance dose adjustment guide

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**INITIAL HEPARIN DOSE**

**Heparin 25,000 units in 500 mL IV fluid (50 units/mL)**

<table>
<thead>
<tr>
<th>Patient Weight</th>
<th>Bolus Dose</th>
<th>Infusion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 – 35.9 kg</td>
<td>2400 units (48 mL)</td>
<td>500 units/h (10 mL/h)</td>
</tr>
<tr>
<td>36 – 45.9 kg</td>
<td>3200 units (64 mL)</td>
<td>700 units/h (14 mL/h)</td>
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<tr>
<td>46 – 55.9 kg</td>
<td>4000 units (80 mL)</td>
<td>900 units/h (18 mL/h)</td>
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<tr>
<td>56 – 65.9 kg</td>
<td>4800 units (96 mL)</td>
<td>1100 units/h (22 mL/h)</td>
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<tr>
<td>66 – 75.9 kg</td>
<td>5600 units (12 mL)</td>
<td>1250 units/h (25 mL/h)</td>
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<tr>
<td>76 – 85.9 kg</td>
<td>6300 units (12 mL)</td>
<td>1400 units/h (26 mL/h)</td>
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<tr>
<td>86 – 95.9 kg</td>
<td>7200 units (14 mL)</td>
<td>1600 units/h (32 mL/h)</td>
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<td>96 – 105.9 kg</td>
<td>8000 units (16 mL)</td>
<td>1800 units/h (36 mL/h)</td>
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<td>106 – 115.9 kg</td>
<td>8800 units (18 mL)</td>
<td>2000 units/h (40 mL/h)</td>
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Hot Tips continued…

• Allow flexibility but make it easy to choose preferred option

• Always default to the safer option
<LASTNAME>, <Firstname>

Birthdate: <Birthdate>
MRN: <MRN>

BARCODE HERE

From: <Acute Care Location> to: ________________.

Allergies: <Allergies>

The following are the medications the above patient was receiving as of <Date> <Time>. Please indicate any changes and fax back to the Residential Care Unit at (604) ________________

***NOTE: Medications for which no action is indicated will be DISCONTINUED***

<table>
<thead>
<tr>
<th>Medication</th>
<th>Start Date</th>
<th>Indicate</th>
<th>Revised Dose/Directions</th>
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• Data extract MUST contain date and time
RESIDENTIAL/REHAB MOVING-IN
MEDICATION ORDERS
(Page <#> of <Total Pages>)

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• Prescriber’s signature should always be accompanied by printed name and contact information
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**Additional Orders:**

***DRAFT***

(Date) (Physician Signature) (Physician Printed Name) (Phone/Pager Number)
Final Hot Tip…

*Get naïve user input early*
Discussion

What hot tips have you found useful in designing tools?