Reconciling Medications
Recommended Practices
(as approved at 11/12/02 Consensus Group meeting)

Core Recommendation:
Adopt a systematic approach to reconciling medications at admission

*Reconciling medications* is a systematic process that develops an accurate, up-to-date medication list for patients at admission, and then compares that list against the physician’s admission orders. Discrepancies are brought to the attention of the physician and, if appropriate, changes are made to the orders. Any resulting changes in orders are documented. The process is designed to promote communication and information transfer at patient handoffs, a well-known opportunity for error.

**Policies**

1. Assign primary responsibility for reconciling to someone with sufficient expertise, within a context of shared accountability (the ordering physician, RN, and pharmacy work together to achieve accuracy)

2. Reconcile patient medications within specified time frames

3. Develop clear policies and procedures for the steps in the reconciling process

**Technique**

4. Adopt standardized form for reconciling medications*

5. Place reconciling form in consistent, highly-visible location in patient chart

6. Provide access to drug information and pharmacist advice at reconciling

7. Improve access to complete medication lists at admission

**Support & Maintenance**

8. Provide orientation and ongoing education on procedures for reconciling medications to all healthcare providers

9. Provide feedback, ongoing monitoring (within context of non-punitive learning from mistakes/near misses)

*Includes both electronic and paper-based forms
Reconciling Medications at Admission
Practices for Promoting Medication Safety

The following detail provides additional context and discussion of implementation strategies to support the practices for reconciling medications at admission summarized on the preceding page.

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<td><strong>POLICIES</strong></td>
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</table>
| 1. Assign primarily responsibility for reconciling to someone with sufficient expertise | - Generally will be nurse for admission reconciling effort (floor nurse, admission nurse if there is one, triaging RN for ED admissions); can be pharmacist  
- Require pharmacist involvement for special situations (e.g. on high-risk meds, >5 meds, elderly)  
- Involving case managers  
- Ensure accountability: verifier initials  
- Shared accountability: ordering MD w/ active role, when to stat page MD, when to call pharm, role of ED RN vs floor RN  
- Support communication against the authority gradient |
| Establish context for shared accountability: the ordering physician, RN, and pharmacy work together to achieve accuracy |                                                                                                      |
| 2. Reconcile medications within specified time frames                      | Alternative specifications include strategies to vary time frame based on time of admission, medication risk:  
- before next therapeutically prescribed dose  
- before morning rounds  
- reconcile a specified set of high-risk medications w/in 4 hours of admission, others within 24 hours  
Sample list of high-risk medications requiring 4-hour reconciling:  
antibiotics (?) insulins  
antihypertensives-multiple dosing  
antirejection antiarrhythmics  
inhalers antiseizure  
antianginal eye medications  
pain medications oral hypoglycemic agents-multiple dosing |
### Practices

3. **Develop clear policies and procedures for the steps in the reconciling process**

   - Generate patient’s home medication list
   - Compare list to physician orders
   - Specify when to call/stat page physician to review discrepancies
   - Back-up procedures for special situations: unavailability of ordering physician, evening/weekend admissions
   - Process for nurses to pass off non-reconciled meds at shift change for follow-up by next shift
   - Identify high-risk situations requiring pharmacist involvement (e.g. on high-risk meds, >5 meds, elderly)
   - Identify high-risk situations for involving specialist consults, case managers
   - Prohibit blanket orders such as “continue home meds”, “resume all meds”

### Strategies, Implementation Context

*Copies of sample policies and procedures are provided in toolkit. Policies cover:*

- Generating patient’s home medication list
- Comparing that list to physician orders
- Specifying when to call/stat page physician to review discrepancies
- Back-up procedures for special situations: unavailability of ordering physician, evening/weekend admissions
- Process for nurses to pass off non-reconciled meds at shift change for follow-up by next shift
- Identify high-risk situations requiring pharmacist involvement (e.g. on high-risk meds, >5 meds, elderly)
- Identify high-risk situations for involving specialist consults, case managers
- Prohibit blanket orders such as “continue home meds”, “resume all meds”

### TECHNIQUE

4. **Adopt standardized form for reconciling medications**

   At a minimum, form should include:
   - For each medication:
     - Dosage
     - Frequency
     - Date/time of last dose
     - Compliance with prescribed dosages and frequency
   - Patient identification
   - Allergies
   - Space for verifier initials
   - Physician signature line

   *Copies of sample forms being used successfully by organizations implementing reconciling are provided in toolkit*

   Other items included on some forms: medication purpose, prescriber, pharmacy contact, weight, liver/kidney failure, pregnant/breast feeding, person providing information, checklists to help capture OTC, herbals

5. **Place reconciling form in consistent, highly-visible location in patient chart**

   *e.g. 1st sheet in chart; stapled on top special color*
<table>
<thead>
<tr>
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<tr>
<td><strong>6. Provide access to drug information and pharmacist advice at reconciling</strong></td>
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<tr>
<td>Evidence-based: good data supporting benefits</td>
<td>− Offer failsafe backup plan to ensure pharmacist expertise is available 24/7 (pharmacist hotline, satellite pharmacy agreements, etc.)</td>
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<td>− Specify conditions when consult should be required (anticonvulsants, &gt;5 meds, patient not able to provide lists, abnormal dosages reported)</td>
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<tr>
<td></td>
<td>− Provide access to drug information, available to clinicians at the time when it is needed; address access to computer terminals, access to up-to-date resources covering new drugs, infrequently used drugs, non-formulary drugs, etc.</td>
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<td><strong>7. Improve access to complete medication lists at admission</strong></td>
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<td>Recognize as a long-term strategy but fundamental patient safety issue; error prevention requires accurate medication list to reconcile new orders against</td>
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<td></td>
<td>− Pharmacy-to-pharmacy fax transmission of medication regimen at time of admission to hospital whenever possible</td>
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<td>− Special initiatives for scheduled surgery: list generated at all pre-op medical risk assessment/clearances, pharm tech used to take medication history by phone</td>
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<td>− Provide completed medication wallet cards at discharge as starting point</td>
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<td></td>
<td>− Outreach to amb. clinics, SNFs, PCPs</td>
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<td>− Outreach in community (senior centers)</td>
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<td>− Develop open-access patient record including all prescriptions</td>
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<td><strong>SUPPORT &amp; MAINTENANCE</strong></td>
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<td><strong>8. Provide orientation and ongoing education on procedures for reconciling medications to all healthcare providers</strong></td>
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<tr>
<td>Nursing, pharmacy, and clinical staff</td>
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<td></td>
<td>− Involve nursing education department in project planning phase</td>
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<td>− Build training into orientation, inservice</td>
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<td>− Ensure clinicians well informed of errors prevented and efficiency gains</td>
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<td><strong>9. Provide feedback, ongoing monitoring</strong></td>
<td>- Define parameters for data collection clearly; ensure consistent measurement over time</td>
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<td>Needs to be implemented within <em>culture of safety:</em></td>
<td>- Minimally, draw random sample of 20 charts/month (from units and/or patient population of implementation)</td>
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<td>- adopt a systems approach</td>
<td>- Have strategy to share results</td>
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<td>- create non-punitive environment</td>
<td>- Encourage reporting of errors identified through reconciling and potential hazardous conditions, within context of learning from mistakes/near misses</td>
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<tr>
<td>- learn from mistakes</td>
<td>- Ensure engagement of leadership</td>
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<td>- promote teamwork</td>
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