How to write an order
And Other Pharmacy Tips

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USP’s MEDMARK® database for 2006-07

- 2.5% percent of pediatric medication errors led to patient harm.
  - Improper dose/quantity 37.5%
  - Omission error 19.9%
  - Unauthorized/wrong drug 13.7%
  - Prescribing error 9.4%
Causes for Medication Errors

- Performance deficit 43%
- Knowledge deficit 29.9%
- Procedure/Protocol not followed 20.7%
- Miscommunication 16.8%
- Followed by - calculation error, computer entry error, inadequate or lack of monitoring.
Medication errors from Wan JK, et al
Components of an Order

• ______________ & ______________
• ______________
• ______________
• ______________
• ______________
• ______________
• ______________ & ______________
Components of an Order

- Date & Time
- Drug Name (if needed must include specifications of appropriate salts)
- Drug Dose
- Drug Frequency
- Drug Route
- Mg/kg/day and mg/kg/dose
- Physician’s Signature with credentials and pager number
Patient Information

- Patient’s name - double check and make sure it is the correct patient
- Allergies
- Weight
Drug Information

• PRN – must include specific time interval and an indication – ALSO, important not to use overlapping indications if needed you can write out a more detailed plan. Such as:
  • Morphine 2 mg IV q2h prn for pain score 6-10 (0.5 mg/kg/dose)
  • Acetaminophen 60 mg po q4h prn for pain score 1-5 (15 mg/kg/dose)

• Fluids must have a rate - mL/hr
More Drug Information

• Tapering/Titrating Orders shall include the information parameters for administration based on lab results or physical exam criteria.
Unapproved Abbreviations

• IU
• MS
• MgSO₄
• MSO₄
• Q.D./q.d.
• QD/qd

• Q.O.D./q.o.d.
• QOD/qod
• U/u
• Trailing zero
  (Write X mg)
• Lack of leading zero
  (Write 0.X g)
• HLIV
Pediatric Order Requirements
(< 17 years of age except for obstetrics)

• Weights (kg or gm) are required for ALL pediatric patients

• Dose/kg/interval for all patient < 40 kg (mg/kg/dose or mg/kg/day)

**NOT peds DOSE - this is not appropriate**

• For medications given in combination the dose/kg interval should be specified for one of the medications in the combination.
Corrections to a Medical Record

- Hospital Policy 6.5.1: Standard procedure for making changes or corrections to the medical record information is as follows:
  - Draw a single, thin line through the each line of the inaccurate documentation, making certain that it is still legible
  - Date and initial
  - Add a note in the margin stating why the previous entry has been replaced
  - Enter the correction in chronological order
  - Indication which entry the correction is replacing
Corrections Continued

- Never obliterate material in the medical record by scratching out, using liquid paper, felt tip markers, etc.
- Careless alterations create the appearance of tampering
NO to Bedside Orders

- On occasion you may have a procedure done at the bedside, however, do not write an order to have medication at the bedside. Medication is supposed to be kept locked and secure not at the bedside. If you need medication for a procedure at the bedside then write medication needed for procedure.
Verbal Orders

- Verbal orders should be avoided. If you are in the hospital it is important to go write the order PERSONALLY if at all possible.
- Signatures should include first and last name, licensure status, and pager number.
- Are Authenticated within 5 days of the date that they are accepted - if not done a variance will be filed. The physician must sign, date and time the order.
Standard TIMES

• Pediatric Floor & PICU
  - Qday - 0900
  - BID - 0900, 2100
  - TID - 0600, 1400, 2200
  - QID - 0600, 1200, 1800, 2400

• NICU
  - Qday - 1300
  - BID - 0100, 1300
  - TID - 0100, 0700, 1600
  - QID - 0100, 0700, 1300, 1900
How do Standard Times Affect You?

• If the medication is an oral medication it will be entered on the standard times. So it is important that you know the standard times. If you need a dose right away then WRITE FIRST DOSE NOW!!

• Depending on the time written, antibiotics may be given at a different time.

• Policy online:
  http://www.sh.lsuhsc.edu/policies/policy_manuals_via_ms_word/hospital_policy/h_8.6.1.pdf
When do You Rewrite an Order?

• All drug orders are cancelled when the patient undergoes a surgical procedure in the OR, receives a general anesthetic, or is transferred to a different level of care

• A blanket re-instatement of previous medication orders are not acceptable
Pharmacy Automatically Discontinued Medication

- Narcotic analgesics \( \rightarrow \) after 72 hours
- Benzodiazepines & azithromycin \( \rightarrow \) after 14 days
- Ketorolac \( \rightarrow \) after 5 days
- All other medications \( \rightarrow \) after 30 days
Mickey Mouse's Order

Topamax is Non Formulary
Please complete a blue
Non-Formulary
Nasonex is NOT kept at the
Hospital - Patient must take
Home medication.
Non-Formulary

Why do we have Non-Formulary forms?

To help use Medications in a cost effective manner.

When writing the reason you need the medication, it should be literature-based, not just my attending wants it.
Commonly Used Non-Formulary Medications

- Xopenex Inhalation
- Topamax Tablets
- Actigall Oral Suspension & Capsules
- Tobramycin IV
- Pulmicort Respules
Pharmacy Consult

When using home medications you MUST:
1. Write an order stating patient may take home medication
2. Have pharmacy verify the medication is for that patient and identify the medication
Medications that commonly require consults

- Nasal Sprays (Nasonex, Flonase, etc...)
- Detrol LA
- Dye-Free Medication

- Must also write an order stating patient may take home medication.
What is Wrong with this Order??

1. Order should not be written in mL's - All orders should be in mg or grams
2. Should have mg/kg/day or mg/kg/dose
3. Needs another patient identifier
What’s Wrong?

1. No Time
2. Needs another patient identifier
3. Dose needs to be divided out by 4
   520 mg q6h does not equal 40 mg/kg/day
What’s Wrong?

1. Ibuprofen should only be given every 6 or 8 hours
2. Needs another patient identifier
3. MD name is hard to read
4. You CAN’T write a range order - it must either read every 6 hours or every 8 hours - NOT BOTH
5. Needs an indication for PRN
Blood Product Ordering Form

<table>
<thead>
<tr>
<th>Louisiana State University</th>
<th>Health Sciences Center - Shreveport Department of Pharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor Concentrate Physician Order Sheet</strong></td>
<td>(Please see reverse side for dosage recommendations based on weight of patient)</td>
</tr>
</tbody>
</table>

**Dose calculation for factor VIII (FVIII) replacement**
- Patient's body weight (kg) x FVIII level desired x 0.5 = units (FVIII) needed
- Infuse units of Alphanate, Hemiron, or Kogenate (Recombinant product)
- Infiltrate by slow IV push at a rate not to exceed 3 ml/min in adults

**Dose calculation for factor IX (FIX) replacement**
- Patient's body weight (kg) x factor IX level desired = units of factor IX needed
- Infuse units of Alphanate
- Infiltrate by slow IV push at a rate not to exceed 3 ml/min in adults

**Dose calculation for BeneTech (Recombinant factor IX)**
- Adult
  - Patient's body weight (kg) x factor IX level desired x 1.2 = units needed
- Pediatric < 15 years old
  - Patient's body weight (kg) x factor IX level desired x 1.4 = units needed
- Infuse units of BeneTech (Recombinant product)
- Infiltrate by slow IV push at a rate not to exceed 3 ml/min in adults

**Dose calculation for Recombinant activated factor VIIa (FVIIa) for replacement or hemophilia A or B with presence of inhibitors**
- 50 mg x patient's weight (kg) = mg of NovoSeven needed
- Administer as a slow IV bolus injection over 2-5 minutes
- Infuse mg of NovoSeven (Recombinant product)
- Infiltrate by slow IV push at a rate not to exceed 3 ml/min in adults

**Dose calculation for anti-thrombin III (Antithrombin III deficiency)**
- Desired AT-III level = Baseline AT-III level x weight (kg) x 1.4 = units needed
- Infuse units of Thrombate
- Infiltrate by slow IV push at a rate not to exceed 3 ml/min in adults

**Dose of Hemate P (VWF:RCoF) for von Willebrand Disease**
- Infuse units (VWF:RCoF) of Hemate P
- See reverse side for dosing of Hemate P
- Hemate P is indicated for both von Willebrand's disease and factor VIII deficiency.
- Determine based on units of von Willebrand's Ristocetin cofactor needed

**Physician's Signature**

Physician's Printed Name: [signature]

Page #: [signature]
Combination Medications

- **Unasyn (ampicillin/sulbactam)**
  - Dosed based on ampicillin component
  - Unasyn 3 grams (2 g ampicillin & 1 g sulbactam)
  - Ampicillin dose * 1.5 = Unasyn dose

- **Zosyn (piperacillin/tazobactam)**
  - Dosed based on piperacillin component
  - Zosyn 2.25 grams (2 g piperacillin & 0.25 g tazobactam)
  - Piperacillin dose * 1.125 = Zosyn dose

- **Bactrim (sulfamethoxazole/trimethoprim)**
  - Dosed based on trimethoprim
Pediatric Handbook –
Important Reading Material

• Pharmacy/Medications
  - Compounded Medications
    • Important NOT to copy the MAR
    • Medicaid doesn’t pay for compounding
  - Medications Brought into the Hospital by Patients
  - Vancomycin Guidelines
  - Standard Concentrations
Pediatric References

• Lexi-Comp’s Pediatric Dosage Handbook
• Harriet Lane
• NeoFax
Orders

• If we call you about an order and we need something clarified it is important that you go write it.
• We are not trying to be mean or picky it’s all about Patient Care.
• If you have questions or need something please call us.
Pediatric Pharmacy

- Enters orders for Nursery, NICU, PICU, Pediatric Floor (5 and 6)
- Reviews Kinetics
- Rounds (most mornings)
- Answers ALL drug information calls
  - You can even call from the pediatric clinic!!!
How to get in touch with Pediatric Pharmacists

- Satellite Number 5-7398
- Pager Number 0701
- From 12-1:00 we have a lunch break
- 1-2:00 we check pediatric oral medication (#7185)
Questions?

Feel free to call the Pediatric Satellite with any questions you have.