Inpatient Order Verification

Ed Portillo, PharmD
PGY1/2 Pharmacy Administration Resident
William S. Middleton VA Hospital
## Objectives

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.)</td>
<td>Describe the importance of pharmacist order verification</td>
</tr>
<tr>
<td>2.)</td>
<td>Breakdown the order verification process</td>
</tr>
<tr>
<td>3.)</td>
<td>Apply information learned to a patient case</td>
</tr>
</tbody>
</table>
## Objectives

1.) Describe the importance of pharmacist order verification

2.) Breakdown the order verification process

3.) Apply information learned to a patient case
Order Verification Importance

1.) Prescriber Enters Order
2.) Pharmacist Verifies Order
3.) Nurse Administers Order
Order Verification Importance
# Objectives

1.) Describe the importance of pharmacist order verification

2.) Breakdown the order verification process

3.) Apply information learned to a patient case
# Objectives

1.) Describe the importance of pharmacist order verification

2.) Breakdown the order verification process

3.) Apply information learned to a patient case
Order Verification: The SEA method

Medication Order

Safe

Effective

Appropriate

Patient Specific Factors
The SEA method in action!

1. Order priority
2. Identify patient
3. Medication review
4. Patient and drug-specific considerations
The SEA method in action!

1. Order priority
2. Identify patient
3. Medication review
4. Patient and drug-specific considerations
1. Order Priority

Prioritize so you can be **Safe**

- Stat vs urgent vs routine
  - Medication
  - Patient location
  - Transition
The SEA method in action!

1. Order priority
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The SEA method in action!

1. Order priority
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2. Identify Patient

Identify correct patient so you can be Safe

• Date of Birth (DOB)

• Medication record number (MRN)

• Name
The SEA method in action!

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The SEA method in action!

1. Order priority
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4. Patient and drug-specific considerations
3. Medication Review

Review medication to ensure Safe and Effective

- **Drug** name
- **Dose**
- **Route** of administration
- **Frequency** and duration
- **Formulation**
  - IV
    - Concentration
    - Rate of administration
    - Peripheral vs. central IV access
  - Oral
    - Capsule, tablet, suspension
    - Enteral access (swallow, NG tube, dohhoff, etc)
The SEA method in action!

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The SEA method in action!

1. Order priority

2. Identify patient

3. Medication review

4. Patient and drug-specific considerations
3. Patient and Drug-Specific Considerations

- Age
- Sex
- Weight
- Allergies
- Disease State
- Order specific instructions
- Timing
- Drug interactions
- Clinical indication

- Pertinent lab values and vitals
  - Serum creatinine, creatinine clearance
  - Electrolytes
  - LFTs
  - CBC
  - INR, aPTT, anti-Xa
  - Vitals (HR, BP, RR, Temp)
  - Therapeutic drug levels
## Objectives

1.) Describe the importance of pharmacist order verification

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3.) Apply information learned to a patient case
### Objectives

1.) Describe the importance of pharmacist order verification

2.) Breakdown the order verification process

3.) Apply information learned to a patient case
Patient Case

Jane Smith
DOB: 7/12/45

- 75 year old female
- Presented to the ED with shortness of breath (COPD exacerbation)
- Now admitted to your unit
- Retired teacher
- Has five grandchildren
The SEA method in action!

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Example 1 – Timing of doses and appropriateness of administration

Jane Smith
70 yo F; DOB: 7/12/45
The SEA method in action!

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The SEA method in action!

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Example 1 – Timing of doses and appropriateness of administration

Jane Smith
70 yo F; DOB: 7/12/45

lisinopril (PRINivil, ZESTRIL) tab 10 mg

Name
Dose
Formulation
### Example 1 – Timing of doses and appropriateness of administration

<table>
<thead>
<tr>
<th>Name</th>
<th>Dose</th>
<th>Formulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>lisinopril (PRINIVIL, ZESTRIL)</em> tab 10 mg</td>
<td>10 mg</td>
<td>Oral</td>
</tr>
</tbody>
</table>

**Jane Smith**  
70 yo F; DOB: 7/12/45

- **Order Details**: 
  - **Verify Orders**
  - **Order ID**: 1631007
  - **Administered by**: F. Frank Emerald, RPH

- **Dosage Details**:
  - **Frequency**: 1 X DAILY
  - **Route**: Oral
  - **Ordered Date**: 12/19/2014
  - **Administered Date**: 12/19/2014, 1400

- **Dispense Information**:
  - **Dispense from**: UWRX ROBOTAMED CAROUSEL
  - **Dispense Code**: Unit Dose
  - **Dispense Details**: Yes

- **Admin Instructions**: (none)

**Reference links**: 
- Lead Comp
Example 1 – Timing of doses and appropriateness of administration

<table>
<thead>
<tr>
<th>Frequency:</th>
<th>1 X DAILY</th>
</tr>
</thead>
<tbody>
<tr>
<td>For:</td>
<td>Until discontinued</td>
</tr>
<tr>
<td># of doses:</td>
<td></td>
</tr>
<tr>
<td>1st dose:</td>
<td>Today 1400 (Include Now)</td>
</tr>
<tr>
<td>Last dose:</td>
<td></td>
</tr>
<tr>
<td>Scheduled times (adjusted):</td>
<td></td>
</tr>
<tr>
<td>12/19/2014</td>
<td>1400</td>
</tr>
<tr>
<td>12/20/2014</td>
<td>0800</td>
</tr>
</tbody>
</table>
### Example 1 – Timing of doses and appropriateness of administration

#### Outpatient medication list

<table>
<thead>
<tr>
<th>Start Date/Time</th>
<th>Medication Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/28/09 0000</td>
<td>sumatriptan (IMITREX) 100 MG TABS</td>
</tr>
<tr>
<td>12/28/09 0000</td>
<td>albuterol HFA (VENTOLIN HFA) 108 (90 BASE) MCG/ACT AERS</td>
</tr>
<tr>
<td>03/31/09 0000</td>
<td>budesonide AQ (RHINOCORT AQUA) 32 MCG/ACT SUSP</td>
</tr>
<tr>
<td></td>
<td>doxycycline (VIBRAMYCIN) 100 MG CAPS</td>
</tr>
<tr>
<td></td>
<td>lisinopril (PRINIVIL, ZESTRIL) 10 MG tab 1 X DAILY (AM)</td>
</tr>
</tbody>
</table>

#### Inpatient medication list

<table>
<thead>
<tr>
<th>Medication Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetaMINOPHEN (TYLENOL) tab 650 mg</td>
</tr>
<tr>
<td>aspirin chew tab 81 mg</td>
</tr>
<tr>
<td>lidocaine (LMX) 4% topical dressing kit</td>
</tr>
<tr>
<td>lidocaine 1 % vial</td>
</tr>
<tr>
<td>magnesium hydroxide (MILK OF MAGNESIA) susp 30 mL</td>
</tr>
<tr>
<td>potassium chloride 20 mEq/ 100 mL bag CENTRAL LINE ONLY</td>
</tr>
<tr>
<td>sodium chloride (bacteriostatic) 0.9 % injection 0.05-0.1 mL</td>
</tr>
<tr>
<td>sumatriptan (IMITREX) tab 50 mg</td>
</tr>
</tbody>
</table>
The SEA method in action!

1. Order priority
2. Identify patient
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4. Patient and drug-specific considerations
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Example 1 – Timing of doses and appropriateness of administration

### BASIC CHEM 1
- SODIUM (OUTSIDE): 145
- POTASSIUM (OUTSIDE)
- CHLORIDE (OUTSIDE)
- CARBON DIOXIDE (OUTSIDE)
- BUN (OUTSIDE): 25
- CREATININE (OUTSIDE): 1.2
- GLUCOSE (OUTSIDE): 112

<table>
<thead>
<tr>
<th>Temp Source</th>
<th>Pulse</th>
<th>Pulse Source</th>
<th>HR</th>
<th>*63</th>
<th>*65</th>
<th>*65</th>
<th>*66</th>
<th>*65</th>
<th>*66</th>
<th>*67</th>
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<tbody>
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<td>% O2 Device</td>
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<td>Continuous ETCO2 (Non-RT)</td>
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<tr>
<td>BP</td>
<td>105/60</td>
<td>110/65</td>
<td>111/65</td>
<td>115/68</td>
<td>120/70</td>
<td>120/71</td>
<td>120/73</td>
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<td>BP Non-Invasive Source</td>
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<td>BP Non-Invasive Location</td>
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<td>BP Non-Invasive Cuff Size</td>
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<tr>
<td>BP Patient Position</td>
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<tr>
<td>MAP Non-Invasive (Calculated)</td>
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<td>MAP Invasive</td>
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</table>
**Example 2 – Dosing Routes and Medication Administration**

**White Sox, James**  
7/4/1960 / 54 year old / Male  
MRN: 2402811  
Admit: 12/14/2014  
Ht: None  
Wt: 81.6 kg  
CrCl: 81.2 mL/min  
BSA: 0 m²  
BMI: 24.41 kg/m²  
Isolation: None

### Pantoprazole (PROTONIX) EC tab 40 mg

<table>
<thead>
<tr>
<th>Order dose</th>
<th>40 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin dose</td>
<td>40 mg</td>
</tr>
</tbody>
</table>

**Route:** Oral  
**Frequency:** 1 X DAILY  
**For:** Until discontinued  
**# of doses:**
1st dose: Tomorrow 0800 (As Scheduled)  
Last dose:  
Scheduled times (adjusted):
12/20/2014 0800  
12/21/2014 0800

**Admin instructions:**
Please crush and give via NG tube.

**Products to dispense**

<table>
<thead>
<tr>
<th>Product</th>
<th>Order dose</th>
<th>Admin dose</th>
<th>Dispense</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 PANTOPRAZOLE SODIUM 40 MG PO TBEC</td>
<td>40 mg</td>
<td>40 mg</td>
<td>1 tab</td>
<td>90 EA Bottle</td>
</tr>
</tbody>
</table>

**Reference links:**  
Lexi-Comp
Example 2 – Dosing Routes and Medication Administration

**pantoprazole (PROTONIX) EC tab 40 mg**

- **Order dose:** 40 mg
- **Admin dose:** 40 mg
- **Route:** Oral
- **Frequency:** 1 X DAILY
- **For:** Until discontinued
- **# of doses:**
  - 1st dose: Tomorrow 0800 (As Scheduled)
- **Last dose:**
  - Scheduled times (adjusted):
    - 12/20/2014 0800
    - 12/21/2014 0800

**Admin instructions:**

*Please crush and give via NG tube.*

**Products to dispense**
- **Order dose:** 40 mg
- **Admin dose:** 40 mg
- **Dispense:** 1 tab
- **Package:** 90 EA Bottle
Example 2 – Dosing Routes and Medication Administration
Example 3 – Order Clarification and IV Administration
Inpatient Order Verification

Ed Portillo, PharmD
PGY1/2 Pharmacy Administration Resident
William S. Middleton VA Hospital