Introduction

Understanding how to read medication orders and drug labels is an important part of providing care to others. It will also help you understand orders and instructions for any medications you or your family takes.

This self-study will review information you will need for:

- Medical orders, prescriptions;
- Labels on prescription medications;
- Over-the-counter (OTC) medications;
- Nutritional supplements;
- Vitamins and supplements; and
- Herbal remedies.

A lot has changed in the last 10 years. It is now common to see medical orders and prescriptions written electronically. Electronic orders and prescriptions may look different from traditional prescription pads. However, they still require the same basic information.

The most important action you can take is to assure you have fully read the labels and you know what the information means. You must transcribe the medication order onto a Medication Administration Record (MAR).

Medications (drugs) refer to:

- Prescription medications; and
- Over-the-counter including alternative medications such as supplements and home remedies to maintain health, treat disease or illness, or prevent or treat a symptom.

Symptoms treated by medications include but are not limited to aches unrelated to disease (e.g., headaches or sprains, allergies or difficulty sleeping).
Sample prescription for scheduled medication

- Resident’s address — this isn’t always required unless the Rx is for a narcotic.
- Name of the medication or type of treatment
- The reason for the medication or treatment e.g., acetaminophen for a headache
- Signature of the prescribing practitioner (the prescribing practitioner’s name will be typed out in electronic orders).

How much of the medication (dose) to give; how often to give the medication or how often the resident is to have a treatment

If needed, any special instructions. E.g., if a resident is prescribed insulin, there should be special instructions of when to hold (not give) insulin if the insulin in the resident’s capillary blood glucose (CPG) blood sugar test is too low.

Medical orders may look different than the sample shown here. Even if a medical order looks different or is an electronic medical order, it must have the following information:

- Name of resident;
- Name of medication;
- Strength. If the dose is not the same as the strength the dose needs to be specified. For example you may have an order that directs you to give multiple tablets for a specific dose, e.g., 0.25 mg take 0.5 mg (2 tablets). 0.25 mg in this example is the actual strength of the tablet and 0.5 mg is the dose (amount) you need to give.
- Frequency (how often the resident must take the medication);
- Any special instructions, e.g., take with meals;
- How long to take the medication if short-term, e.g., an antibiotic;
- Reason for the medication (diagnosis or condition);
- How much was supplied (ongoing medications are generally dispensed as 30-day, 60-day or 90-day supplies);
- Number of refills allowed;
- The prescriber’s signature.
Sample prescription for an as-needed (PRN) medication

Prescribers typically do not fill in the address of the resident.

Prescription and over-the-counter drugs must note the reason the medication is to be given. Orders for pain medication must note the specific pain being treated.

PRN medications may not be refillable and are intended for short-term use.

The same information is required for as-needed (PRN) orders as the scheduled medication example. However, if a PRN order is for a narcotic pain medication, the pharmacy must fill out the resident’s address.

PRN, as well as scheduled, orders for pain medication must list the type of pain being treated. The order cannot just list “for pain.” It should say, e.g., “acetaminophen for headache, fever and muscle soreness or for surgical pain.”

It is not acceptable to have an order that lists ranges for either frequency or amount of medication; e.g., “10 mg–20 mg Oxycodone every 4–6 hours as needed.” If an order has ranges, you will need the prescriber’s written clarification right away.
Sample electronic (E-order) for treatment

Supplemental orders from 06-03-13 to 06-03-13

Patient ID: Not required  Name: Required – first and last name of resident

To: AFH provider  From: Name of prescribing practitioner or organization such as hospice

Per order, a change to treatments and/or medications has occurred requiring your signature.

Treatments

06-03-13 SN

CLARIFICATION OF TREATMENT AND MEDICATION ORDER:
1. OK for pt. to refuse O2. It is for comfort only.

Medications

No change

Physician signature electronically signed by  Typed first & last name of prescribing practitioner with licensure information, i.e., MD or NP

(Date: 06-03-2013)

(Printed: 06-03-13 at 06:00:00)

Sample electronic (E-order) for scheduled medication

Supplemental orders from 06-03-13 to 06-03-13

Patient ID: Not required  Name: Required – first and last name of resident

To: Name of the provider order being sent  From: Required: Name of prescribing practitioner or organization such as hospice

Per order, a change to treatments and or medications has occurred requiring your signature.

Medications

No change

06-03-13 SN

MEDICATION ORDER: Lorazepem 0.5 mg PO every 6 hrs scheduled for mild-moderate anxiety.
Quantity #224 Dispense in 56 tablet partial fills.

Physician signature electronically signed by  Typed first & last name of prescribing practitioner with licensure information, i.e., MD or NP

(Date: 06-19-2013)

(Printed: 06-03-13 at 06:00:00)
The colorful labels attached to the side of the bottle have critical information on how to give a medication. You must read all the attached labels and the product insert and the medication summary information provided with all prescription medications. You must save product inserts or medication summary sheets with the resident’s MAR for reference. They must be replaced for each refill. There can be important changes to information about the medication being taken. It is your responsibility to read the product inserts or medication summary sheets each time a medication is filled or refilled.
Sample PRN prescription label:

Plain text:

Physical description of the drug: Some pharmacies will print the information directly on the label and others attach to the bottle using an alert flag.

Use before: PRN medications not used frequently are at greater risk of expiring before they are used. Always keep an eye on the “Use before” or “Drug expiration” date listed on the prescription label.

Hydroco/Acetam 5-300 MG tablet is a compound drug. It does not mean to give 5 tablets. The “5” is the strength of the Hydrocodone and the “300” is the strength of the Acetaminophen. This applies to all compound drugs including the example given for the “Sample prescription label for scheduled drugs” TRIAM/HCTZ 75-50 MG TABLET.
Sample OTC label:

**Active ingredient/purpose** tells you what ingredient makes the medication work (therapeutic).

**Uses** tells you the type of problems or conditions the medication will treat.

**Warnings** tells you in what conditions the medication should not be taken; what type of other medications can cause unwanted interactions; when to stop the medication; activities that should be avoided while taking the medication or any other warning specific to the medication.

**Directions** tells you how to safely take the medication; medication dosage and frequency.

**Other information** tells you how to safely store the medication.

**Inactive ingredients** tells you what besides active ingredients are in the medication. Inactive ingredients do not treat any condition. They help form a pill, add flavor or color, or help the medicine last longer.

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**Drug Facts**

<table>
<thead>
<tr>
<th>Active ingredient (in each tablet)</th>
<th>Chlorpheniramine maleate 2 mg</th>
<th>Purpose: Antihistamine</th>
</tr>
</thead>
</table>

**Uses**  
- temporarily relieves these symptoms due to hay fever or other upper respiratory allergies:  
  - sneezing  
  - runny nose  
  - itchy, watery eyes  
  - itchy throat

**Warnings**  
- Ask a doctor before use if you have  
  - glaucoma  
  - a breathing problem such as emphysema or chronic bronchitis  
  - trouble urinating due to an enlarged prostate gland

- Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives

**When using this product**  
- You may get drowsy  
- avoid alcoholic drinks  
- alcohol, sedatives, and tranquilizers may increase drowsiness  
- be careful when driving a motor vehicle or operating machinery  
- excitability may occur, especially in children

**If pregnant or breast-feeding, ask a health professional before use.**
**Keep out of reach of children.** In case of overdose, get medical help or contact a Poison Control Center right away.

**Directions**

- adults and children 12 years and over: take 2 tablets every 4 to 6 hours; not more than 12 tablets in 24 hours
- children 6 years to under 12 years: take 1 tablet every 4 to 6 hours; not more than 6 tablets in 24 hours
- children under 6 years: ask a doctor

**Other information**  
- store at 20-25°C (68-77°F)  
- protect from excessive moisture

**Inactive ingredients**  
- D&C yellow no. 10, lactose, magnesium stearate, microcrystalline cellulose, pregelatinized starch

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Over-the-counter (OTC) medications do not require a prescription. However, you must have written approval from the resident’s primary practitioner even if the resident requests the medication. The same information required for a prescription is required for OTC medications.

You must read labels on all OTC medications and all product inserts or the box itself. If the product information is printed on the box only, the box must be saved with the resident’s MAR for reference. You must dispose of the old information and save the new product insert or box with the key information each time an OTC medication is replaced.

Before the caregiver administers the medication, a prescriber or registered nurse must clarify any prescription or OTC medications order with dosage and/or frequency ranges.
Sample nutritional supplement and label

Any nutritional supplement:

- Can have side effects or interact with other prescriptions or OTC medications;
- Unlike food, contain highly concentrated amounts of nutrients that an individual may not be able to eat in the normal course of a day;
- May have specific ingredients that contain risks for specific conditions, e.g., for individuals on a restricted protein diet.

You will need to take the ingredients and nutrients into account when planning diets:

- Residents on low-sodium diet: If a resident has an order that limits sodium intake, you must count any sodium found in nutritional supplements.
- Residents taking a medication that cannot be taken within two hours of calcium: You must consider if there is any calcium contained in the nutritional supplement.
- Diabetic residents: Account for all carbohydrates.

Other considerations: If the individual has written approval for a nutritional drink and is diabetic or on a reduced sodium diet, you need to account for the sodium or carbohydrates when planning the person’s meals.

### Nutrition Facts

**Serving Size**: 2/3 cup (55g)

**Servings Per Container**: About 8

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Calories</th>
<th>Calories from Fat</th>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>230</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Fat</th>
<th>8g</th>
<th>12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturated Fat</td>
<td>1g</td>
<td>5%</td>
</tr>
<tr>
<td>Trans Fat</td>
<td>0g</td>
<td></td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium</td>
<td>160mg</td>
<td>7%</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>37g</td>
<td>12%</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>4g</td>
<td>16%</td>
</tr>
<tr>
<td>Sugars</td>
<td>1g</td>
<td></td>
</tr>
<tr>
<td>Protein</td>
<td>3g</td>
<td></td>
</tr>
</tbody>
</table>

**Vitamin A**: 10%

**Vitamin C**: 8%

**Calcium**: 20%

**Iron**: 45%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.

<table>
<thead>
<tr>
<th></th>
<th>Calories: 2,000</th>
<th>Calories: 2,500</th>
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</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>Less than 65g</td>
<td>Less than 80g</td>
</tr>
<tr>
<td>Sat Fat</td>
<td>Less than 20g</td>
<td>Less than 25g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Less than 300mg</td>
<td>Less than 300mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>Less than 2,400mg</td>
<td>Less than 2,400mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>Less than 300g</td>
<td>Less than 375g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>Less than 25g</td>
<td>Less than 30g</td>
</tr>
</tbody>
</table>
Sample vitamin/supplement label

**Serving size:** The actual serving size on the label may differ from the front label. This may lead you to believe that one tablet or capsule the total amount needed. However, many products’ actual serving size is two tablets or capsules.

**Ingredients:** This section identifies major ingredients (in this example, cod liver oil) and sometimes also other ingredients (gelatin, water and glycerin in this case). Other ingredients usually bind the ingredients together, flavoring, food coloring, etc. If someone has a gluten sensitivity or allergy to food colors or other substances check this for all ingredients.

<table>
<thead>
<tr>
<th>Supplement Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Serving Size 1 Capsule</strong></td>
</tr>
<tr>
<td><strong>Amount Per Capsule</strong></td>
</tr>
<tr>
<td>Calories</td>
</tr>
<tr>
<td>Calories from Fat</td>
</tr>
<tr>
<td>Total Fat</td>
</tr>
<tr>
<td>Saturated Fat</td>
</tr>
<tr>
<td>Polyunsaturated Fat</td>
</tr>
<tr>
<td>Monounsaturated Fat</td>
</tr>
<tr>
<td>Vitamin A</td>
</tr>
<tr>
<td>Vitamin D</td>
</tr>
<tr>
<td>Omega-3 fatty acids</td>
</tr>
</tbody>
</table>

* Percent Daily Values are based on a 2,000 calorie diet.
† Daily Value not established.

**Ingredients:** Cod liver oil, gelatin, water, and glycerin.

Some supplement products have a serving size of two capsules as well as possible multiple servings per day. You must read all the information about the product. If there isn’t a product insert sheet, save the box if key information is not on the bottle.
Sample herbal tea remedy

- Chamomile isn’t recommended for individuals with allergies to ragweed and may negatively interact with estrogen products, Tamoxifen (a drug that treats some forms of cancer) and Coumadin.
- Licorice has a major interaction with Coumadin and can also negatively interact with Digoxin, estrogen products and Lasix.
- Ginger can increase the risk of bleeding and should not be used when someone is also taking aspirin, Plavix, Coumadin or other drugs that are used to prevent blood clots.
- Tilia Estrella may interact with medications containing lithium.
- Slippery elm can reduce the body’s absorption of medication, making the medication less effective.

Herbal teas and other herbal remedies used to treat disease, symptoms or conditions can have serious side effects and interactions with other prescription or OTC medications.

Some of these side effects can result in serious harm. The resident’s primary practitioner must approve in writing all herbal teas intended to treat disease, symptoms or conditions and any home remedy.

Herbal teas intended to treat any ailments including aid in sleeping or calming a resident are considered alternative medications.
Summary

It is your responsibility to read all labels and all product information or pharmacy summary sheets for each medication that the resident’s primary practitioner has ordered or approved in writing for the resident.

Medication orders contain critical information on how much of a medication to give, how often to give it and other important information. You must know and understand all instructions and medication information such as side effects and critical warnings before giving any medications.

If the medical order is unclear or doesn’t make sense, it is your responsibility to immediately seek clarification from the prescriber or the resident’s primary practitioner before administering the medication in question.

Resources

ConsumerMedSafety.org:

Learn to read the “Drug Facts” label on OTC medicines
www.consumermedsafety.org/the-basics/learning-to-read-the-drug-facts-label-on-otc-medicine

Learn about generic and brand names
www.consumermedsafety.org/the-basics/learning-about-generic-and-brand-names

FDA.gov:

How to understand and use the nutrition facts label
www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm274593.htm

Understanding over-the-counter medicines
www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/understandingover-the-countermedicines/default.htm
Sources for this module’s information

ConsumerMedSafety.org

www.FDA.gov

Training credit

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Course Development: Deborah Cateora B.S.N., R.N.