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

- Full name of the resident
- Name of the medication or type of treatment
- Resident’s address — this isn’t always required unless the Rx is for a narcotic.
- 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.

<table>
<thead>
<tr>
<th>PHYSICIAN</th>
<th>ADDRESS</th>
<th>CITY</th>
<th>STATE</th>
<th>ZIPCODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Patient ID: Not required</th>
<th>Name: Required – first and last name of resident</th>
<th>Sex:</th>
<th>DOB:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To: AFH provider</td>
<td>From: Name of prescribing practitioner or organization such as hospice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 16:00:00)

Sample electronic (E-order) for scheduled medication

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

<table>
<thead>
<tr>
<th>Patient ID: Not required</th>
<th>Name: Required – first and last name of resident</th>
<th>Sex:</th>
<th>DOB:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To: Name of the provider order being sent</td>
<td>From: Required: Name of prescribing practitioner or organization such as hospice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Medications**

No change

06-03-13 SN

MEDICATION ORDER: Lorazepam 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 16:00:00)
YOU SHOULD AVOID PROLONGED OR EXCESSIVE EXPOSURE TO DIRECT AND/OR ARTIFICIAL SUNLIGHT WHILE TAKING THIS MEDICATION.

This medicine is an yellow scored oval-shaped tablet imprinted with APO on one side and 7660 on the other side.

ADD INFO: BICONVEX

CHECK WITH YOUR PHYSICIAN OR PHARMACIST BEFORE USING SALT SUBSTITUTES.

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:

Hometown Pharmacy
1234 Main Street
Anywhere USA 11111  (800) 888-8888

NO 0060012-134 Best Doctor MD
Best Client
DATE 01/01/2015
Take one tablet by mouth every 6 hours
as needed for left leg pain.
Hydroco/Acetam 5-300 MG tablet

Brand: VICODON, NORCO TAB ABBOT

QTY: 30 NDC: 00074-3041
REFILLS: none USE BEFORE: 12/2012

THIS MEDICINE IS A WHITE SCORED OVAL/ELLIPTICAL SHAPE TABLET
IMPRINTED WITH VICODIN ON ONE SIDE AND 5 300 ON THE OTHER SIDE.

WARNING THIS PRODUCT CONTAINS ACETAMINPHEN. AN OVERDOSE CAN DO DAMAGE TO YOUR LIVER OR CAUSE DEATH. TALK TO YOUR DOCTOR BEFORE USING ANY OVER-THE-COUNTER DRUGS.

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.

**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:
  - use with caution.

**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

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

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.
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.
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.

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

Understanding over-the-counter medicines
www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/understandingover-the-countermedicines/default.htm

DHS’s Safe Medication Administration: https://tinyurl.com/ODHSSafeMeds

DHS’s Ensuring Quality Care tools and resources: www.tinyurl.com/APD-EQCTools-Resources
Sources for this module’s information

ConsumerMedSafety.org

www.FDA.gov

Training credit

You will need to take and pass a test to receive training credit (a certificate) for this course. You can find the link to the test here:


You will be able to print your certificate once you successfully complete the test.

To receive a certificate for training hours you will need to take a test. 100 percent accuracy is required to receive a training certificate. Tests are open book. Tests cannot be taken with assistance. Tests results will be sent via email from afhtraining.spd@dhsoha.state.or.us.

All tests are graded in the order received. Processing tests can take up to 8 weeks.

Ordering tests

Fill out the test order form and submit payment to SOQ-Self-study Program, PO Box 14530, Salem OR 97309. Test order form is found at: www.tinyurl.com/DHS-AFHTraining. The test order form contains all self-study courses available.

Tests are valid for 30 days from the date of purchase. Once a self-study test is ordered it is not transferable to another individual. No refunds will be given.

Questions or inquires?

Send questions or inquiries to: afhtraining.spd@dhsoha.state.or.us