

# 0731B: How to Read Medication Orders and Drug Labels

## 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 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).



Always read the label even on refills. Critical information may have changed.

# Sample prescription for scheduled medication

The image shows a sample prescription form with several callout boxes pointing to specific fields:

- Resident's address – this isn't always required unless the Rx is for a narcotic.** Points to the PHYSICIAN ADDRESS field.
- Full name of the resident** Points to the PATIENT NAME field.
- Name of the medication or type of treatment** Points to the medication name and strength.
- The reason for the medication or treatment e.g., acetaminophen for a headache** Points to the indication for the medication.
- Signature of the prescribing practitioner (the prescribing practitioner's name will be typed out in electronic orders).** Points to the SIGNATURE field.
- How much of the medication (dose) to give; how often to give the medication or how often the resident is to have a treatment** Points to the dosage and frequency.
- 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.** Points to the special instructions.

The prescription form itself contains the following information:

PHYSICIAN  
ADDRESS CITY STATE ZIPCODE  
PHONE

SECURITY FEATURES LISTED ON BACK.

PATIENT NAME Resident DATE 01/01/2019  
ADDRESS Somewhere in Salem

**R** Glucophage 1,000 mg tablet po BID with AM meal and PM meal.  
For hyperglycemia.

QUANTITY 90 DO NOT REFILL [ ]  
REFILLS 1 2 3 4 5

SIGNATURE Prescriber's Signature

THE ORIGINAL DOCUMENT HAS A REFLECTIVE WATERMARK ON BACK, HOLD AT AN ANGLE TO VIEW.

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.

PHYSICIAN  
ADDRESS CITY STATE ZIPCODE  
PHONE

SECURITY FEATURES LISTED ON BACK.

PATIENT NAME Resident DATE 01/01/2019  
ADDRESS Somewhere in Salem

**Rx** Hydroco/Acetam 5-500 mg Tab. Take 1 tablet PO q 4 hours as needed for jaw pain. May take 1 more tablet in 2 hours if no relief after first dose. Maximum of 8 tablets per 24 hours.

QUANTITY 30

SIGNATURE Prescribing Practitioner

DO NOT REFILL  
REFILLS 1 2 3 4 5

THE ORIGINAL DOCUMENT HAS A REFLECTIVE WATERMARK ON BACK. HOLD AT AN ANGLE TO VIEW.

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  Page 1

Patient ID: **Not required** Name: **Required – first and last name of resident** Sex: DOB:  
Ins ID.

To: **AFH provider** From: **Name of prescribing practitioner or organization such as hospice** Prov ID: **Not required**

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)

The prescribing practitioner's typed name can be anywhere on the document.

# Sample electronic (E-order) for scheduled medication

Supplemental orders from 06-03-13 to 06-03-13  Page 1

Patient ID: **Not required** Name: **Required – first and last name of resident** Sex: DOB:  
Ins ID.

To: **Name of the provider order being sent** From: **Required: Name of prescribing practitioner or organization such as hospice** Prov ID: **Not required**

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


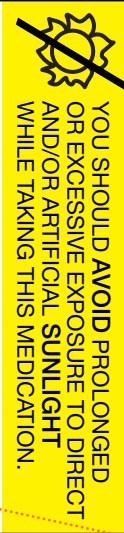

**Medications**

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)

The prescribing practitioner's typed name can be anywhere on the document.

# Sample prescription label for scheduled medication

Pharmacy prescription number	Pharmacy's contact information	Date: The day the medication was filled by the pharmacy.	Prescriber's name
Client's name	 Hometown Pharmacy 1234 Main Street Anywhere USA 11111 (800) 888-8888		
Dose, how to take (route) and how often (frequency)	NO 0060013-134 Best Doctor MD Best Client DATE 01/01/2015 Take one tablet by mouth every day TRIAM/HCTZ 75-50 MG TABLET GENERIC FOR: MAXZIDE 75-50 TAB MYLA QTY: 90 NDC: 60505 5-2657-05	 05504500555000	
Drug name, strength and form (tablet, capsule, etc.)	REFILLS: 2 until 11/10/2014	Use before: 11/2015	THIS MEDICINE IS A(N) YELLOW SCORED OVAL-SHAPED TABLET IMPRINTED WITH APO ON ONE SIDE AND 7660 ON THE OTHER SIDE. ADD INFO: BICONVEX <b>Rx</b> CHECK WITH YOUR PHYSICIAN OR PHARMACIST BEFORE USING SALT SUBSTITUTES

Additional drug name(s): drugs with a brand name are listed first. One or more generic names for the same drug will be listed underneath. If the drug is generic the brand name and possibly additional common generic names will be listed underneath.

Quantity dispensed: This is the total amount of pills, capsules, liquid/solution dispensed. E.g., if a pill/capsules needs to be given twice a day and it is a 90-day supply, the pharmacy would dispense 180 pills/capsules.

Number of refills and prescription expiration: Most prescriptions expire after 12 months.

Drug expiration date: The drug expiration date is not the same as the prescription expiration date.

Drug NDC #  
Warning labels and drug physical description

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 lable 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.

<b>Drug Facts</b>	
<b>Active ingredient (in each tablet)</b> Chlorpheniramine maleate 2 mg	<b>Purpose</b> Antihistamine
<b>Uses</b> temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: <ul style="list-style-type: none"> <li>■ sneezing   ■ runny nose   ■ itchy, watery eyes   ■ itchy throat</li> </ul>	
<b>Warnings</b> <b>Ask a doctor before use if you have</b> <ul style="list-style-type: none"> <li>■ glaucoma   ■ a breathing problem such as emphysema or chronic bronchitis</li> <li>■ trouble urinating due to an enlarged prostate gland</li> </ul> <b>Ask a doctor or pharmacist before use if you are taking tranquilizers or sedatives</b>	
<b>When using this product</b> <ul style="list-style-type: none"> <li>■ You may get drowsy   ■ avoid alcoholic drinks</li> <li>■ alcohol, sedatives, and tranquilizers may increase drowsiness</li> <li>■ be careful when driving a motor vehicle or operating machinery</li> <li>■ excitability may occur, especially in children</li> </ul> <b>If pregnant or breast-feeding, ask a health professional before use.</b> <b>Keep out of reach of children.</b> In case of overdose, get medical help or contact a Poison Control Center right away.	
<b>Directions</b>	
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
<b>Other information</b> store at 20-25° C (68-77° F)   ■ protect from excessive moisture	
<b>Inactive ingredients</b> 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.

# 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.

<b>Nutrition Facts</b>			
Serving Size 2/3 cup (55g)			
Servings Per Container About 8			
<b>Amount Per Serving</b>			
<b>Calories</b> 230	Calories from Fat 40		
		<b>% Daily Value*</b>	
<b>Total Fat</b> 8g			<b>12%</b>
Saturated Fat 1g			<b>5%</b>
<i>Trans</i> Fat 0g			
<b>Cholesterol</b> 0mg			<b>0%</b>
<b>Sodium</b> 160mg			<b>7%</b>
<b>Total Carbohydrate</b> 37g			<b>12%</b>
Dietary Fiber 4g			<b>16%</b>
Sugars 1g			
<b>Protein</b> 3g			
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.			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g



# 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.

<b>Supplement Facts</b>		
Serving Size 1 Capsule		
Amount Per Capsule		% Daily Value
Calories 20		
Calories from Fat 20		
Total Fat	2 g	3%*
Saturated Fat	0.5 g	3%*
Polyunsaturated Fat	1 g	†
Monounsaturated Fat	0.5 g	†
Vitamin A	4250 IU	85%
Vitamin D	425 IU	106%
Omega-3 fatty acids 0.5 g †		
* 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.

## Supplement Facts

Serving Size: 1 tea bag (2g)

Makes: 8 fl. oz.

Amount Per Serving	% Daily Value
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Chamomile ( <i>Matricaria recutita</i> ) (flowers) 550mg	*
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Licorice ( <i>Glycyrrhiza glabra</i> ) (root) 260mg	*
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Ginger ( <i>Zingiber officinale</i> ) (root) 140mg	*
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Tilia estrella ( <i>Ternstroemia pringlei</i> ) (flowers) 105mg	*
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Slippery Elm ( <i>Ulmus rubra</i> ) (bark) 35mg	*
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\* Percent Daily Values have not been established.

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](http://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](http://www.consumermedsafety.org/the-basics/learning-about-generic-and-brand-names)

FDA.gov:

How to understand and use the nutrition facts label

<https://www.fda.gov/food/new-nutrition-facts-label/how-understand-and-use-nutrition-facts-label>

Understanding over-the-counter medicines

[www.fda.gov/drugs/resourcesforyou/consumers/buyingusingmedicinesafely/understandingover-the-countermedicines/default.htm](http://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](http://www.tinyurl.com/APD-EQCTools-Resources)

## Sources for this module's information

[ConsumerMedSafety.org](http://ConsumerMedSafety.org)

[www.FDA.gov](http://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:

[www.oregon.gov/DHS/SENIORS-DISABILITIES/PROVIDERS-PARTNERS/Pages/afh-training.aspx](http://www.oregon.gov/DHS/SENIORS-DISABILITIES/PROVIDERS-PARTNERS/Pages/afh-training.aspx).

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@dhsosha.state.or.us](mailto:afhtraining.spd@dhsosha.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](http://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@dhsosha.state.or.us](mailto:afhtraining.spd@dhsosha.state.or.us)

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



You can get this document in large print, braille or a format you prefer. Contact the Safety, Oversight and Quality Unit at 1-800-282-9092.

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