

- 1) **Jessie Jones is a new patient at Save A Lot Drugs – he brings in a prescription for Amoxicillin 400mg/5ml and Tylenol with Codeine liquid. The dentist has written this prescription for liquid because Jessie doesn't like to swallow tablets.**

The prescription for Amoxicillin reads 1 tsp po bid for 10 days. There are 3 package sizes on the shelf to choose from. 50ml, 75ml, and 100ml.

The prescription for Tylenol with Codeine liquid reads 6ml po q6h prn mild to moderate pain q.s. for 5 days.

- a) How should the directions for Amoxicillin appear on Jessie's prescription label?

Take 5ml (1 teaspoonful) by mouth twice daily for 10 days

- b) How should the directions for Tylenol with Codeine appear on Jessie's prescription label?

Take 6ml by mouth every 6 hours as needed for mild to moderate pain

- c) What quantity of Amoxicillin should be dispensed for Jessie's prescription? Which package size of Amoxicillin should be selected to dispense?

$5\text{ml/dose} \times 2\text{ doses/day} = 10\text{ml/day} \times 10\text{days} = 100\text{ml}$ choose the 100ml package size but if the 100ml bottle was not in stock it would be acceptable to dispense 2 packages of the 50ml

- d) What quantity of Tylenol with Codeine liquid should be dispensed for Jessie?

$6\text{ml/dose} \times 4\text{ doses/day} = 24\text{ ml/day} \times 5\text{ days} = 120\text{ml}$

- e) There is a 2 ounce, 4 ounce, 6 ounce, and 12 ounce bottle on the shelf to pour up the Tylenol codeine – Which bottle should be selected?
30 ml in 1 ounce thus $120\text{ml}/x = 30\text{ml}/\text{ounce}$ solve for $x = 4$ ounces

- f) Which of the prescriptions that Jessie is receiving is a controlled substance?

Tylenol with codeine is a controlled substance

- g) Jessie requests that he doesn't need the Amoxicillin prescription filled, and only wants the Tylenol with Codeine liquid. Does this seem reasonable?

Typically, it is best to dispense both prescriptions together. There can be the perception of abuse/misuse in dispensing only the controlled substance to Jessie

- 2) For Jessie's prescriptions to be filled -- you pull the drugs off the shelf and place the drugs and prescriptions in a bucket for prescription processing. The Pharmacist asks if you have put the patient's demographic information into the system.**

You tell the Pharmacist that you have not put his info in the system... The Pharmacist states to obtain the following: First Name, Last Name, DOB, street address, City and State, Zip Code, telephone number, drug allergies, drivers license and/or state ID, insurance information

- a) Why is it important to obtain the patient's drivers license and/or state ID?

Please view Prescription Drug Monitoring Program: <http://alabamapublichealth.gov/pdmp/>

Answer: It's important to obtain identification to ensure narcotics and/or controlled substances are dispensed to the correct patient. Asking for ID helps to discourage abuse and misuse of controlled substances. Obtaining state identification numbers can then be placed in the demographic profile of the patient and then is tracked in the prescription drug monitoring program. This system is new and important in ensuring narcotics are not abused and misused.

- b) Insurance: Understand the concepts of "Processing Information"

Review of Insurance Cards: <https://youtu.be/oSHuo6fxybY>

BIN Number/Group Number/PCN/ID

What is a Pharmacy Benefit Manager?

Pharmacy Benefit Managers build formularies and manage prescription benefits. This is important because prescription medications make up some of the largest costs in the healthcare system. One way to control costs is to build formularies. For example...Tier 1, Tier 2, Tier 3 drugs and non-formulary drugs.

Please review page 526 and 527 and be able to identify the keys components of a Pharmacy Benefits Card

- c) Why is it important to obtain street address, City, State, Zip Code, Telephone number

For much of the same reasons as it is important to get identification. The telephone number is always great to have to be able to contact the patient if you have questions, concerns, or updates for the patient after leaving the pharmacy.

- d) Why is it important to obtain drug allergies? While obtaining this information you find out that Jessie states that he has an allergy to Hydrocodone.

Drug allergies are essential to the patient profile to prevent dispensing medications to the patient that they may be allergic to. Hydrocodone is a narcotic like Codeine. The chemical structures of hydrocodone and codeine are similar, thus

- i) Is Hydrocodone a controlled substance

Yes, classified as a Schedule II narcotic

- ii) What is codeine and Hydrocodone used for

Analgesia, pain

- iii) What questions do you expect the Pharmacist to ask, now that Jessie states that he is allergic to Hydrocodone

Expect the pharmacists to ask questions like what happened during this allergic event? Did you have hives, rash, shortness of breath, wheezing?

3) Slim Hendricks brings in a prescription for a compounded cream for eczema (use example from page 185 of text). The prescription reads as follows:

Hydrocortisone ointment 10% apply qid to affected area prn itch
Dispense 90 grams for a 15 day supply

In your stock, you have bulk 20% Hydrocortisone ointment and 5% Hydrocortisone ointment. How would 10% Hydrocortisone ointment be compounded?

- a) How should Slim's prescription label read
- b) Show your calculations for obtaining 10% Hydrocortisone Ointment, use the chart below..

Strength of Lower concentration (L) 5%		20-10 = 10 parts needed of (L)
	Desired Strength of product 10% (P)	
Strength of Higher concentration (H) 20%		10-5 = 5 parts needed of (H)

Step 1: To solve for total parts:
 $10 + 5 = 15$ total parts P

Step 2: To solve for grams of 5% hydrocortisone
 $10/15$ Lower concentration * 90 grams = 60 grams of 5% hydrocortisone

Step 3: To solve for grams of 20% hydrocortisone
 $5/15$ Higher concentration * 90 grams = 30 grams 20% hydrocortisone

Answer: When 60 grams of 5% hydrocortisone are mixed with 30 grams of 20% hydrocortisone, the resulting product is 90 grams of 10% hydrocortisone

- 4) Flo Davis brings in a prescription for her daughter Laci. The prescription is for Clindamycin 75mg/5ml. Her daughter is 8 years old, and weighs 66 pounds. The child has no drug allergies.

The prescription reads as follows:

Clindamycin 75mg/5ml

Sig: give the child 10mg/kg/dose TID for 14 days

q.s. 14 days

- a) What is the child's weight in kg

$$2.2\text{lbs} = 1\text{kg} \text{ thus } 66\text{lbs}/2.2\text{lbs} = 30\text{kg}$$

- b) What is the child's dose in mg

$$10\text{mg/kg/dose} \times 30\text{kg} = 300\text{mg/dose}$$

- c) What is the child's dose in ml

$$\begin{aligned} \text{There are } 75\text{mg}/5\text{ml} &= 300\text{mg}/x \text{ ml and solve for } x \\ X &= 20\text{ml} \end{aligned}$$

- d) If the Clindamycin comes in 100ml size bottles, how many bottles should be dispensed for a 14 day supply

$$20\text{ml/dose} \times 3 \text{ doses/day} \times 14 \text{ days} = 840\text{ml} \text{ thus you must dispense 9 bottles}$$

- e) How should Laci's prescription bottle read

Give Laci 20ml (4 teaspoonfuls) by mouth three times daily for 14 days

- f) The prescription is now ready to dispense to the patient, the Pharmacist asks that you measure 75ml of water to reconstitute each bottle of Clindamycin.

- i) What is reconstitution

Reconstitution is adding water to dry powder.

- ii) Let's watch the following video to understand reconstitution better:

<https://youtu.be/sit0oHbZ4Cg>

5) Johnny Wheezy brings in prescriptions written for Ventolin HFA and Flovent 110. He has no known drug allergies.

The prescription for Ventolin HFA reads as follows:

2 puffs q6h prn SOB or wheeze – use 2 to 4 puffs prior to exercise
dispense 200 puff canister

The prescription for Flovent 110 reads as follows:

2 puffs q12h
dispense 120 puff canister

a) Calculate the day's supply for the Ventolin
 $2 \text{ puffs/dose} \times 4 \text{ doses/day} = 8 \text{ puffs/day}$
 $200 \text{ puffs} / 8 \text{ puffs/day} = 25 \text{ days}$

b) Calculate the day's supply for Flovent 110
 $2 \text{ puffs/dose} \times 2 \text{ doses/day} = 4 \text{ puffs/day}$
 $120 \text{ puffs} / 4 \text{ puffs/day} = 30 \text{ days}$

c) Why is Johnny using the Ventolin and why is Johnny using the Flovent
Ventolin is a “rescue” inhaler that is used for instant relief of asthma symptoms
Flovent is the “controller” inhaler used for the long term maintenance/chronic management of asthma symptoms.

Ventolin is the brand name of Albuterol and Flovent is the brand name of Fluticasone

Fill in the Blank (review page 66 of Workbook)

6) By mouth _____po

Three times daily _____tid

Four times daily _____qid

Every Other Day _____qod

N.G. Tube _____nasogastric tube

G Tube _____gastrostomy tube

ou _____ both eyes

os _____ left eye

od _____ right eye

au _____ both ears

as _____ left ear

ad _____ right ear

q12h _____ every 12 hours

q6h _____ every 6 hours

prn _____ as needed

n/v _____ nausea and vomiting

7) Express an appropriate Community Pharmacy Workflow in the diagram below using the terms drop off, order entry, filling, pickup, and verification?

Drop off _____ → order entry _____ → filling _____ →
verification _____ → pickup _____

Please watch the following video: <https://youtu.be/SCWIIbrRVLg>

Drop off of prescriptions occur when the customer (patient) brings the prescription to the pharmacy to be filled. The Pharmacy Technician and/or Pharmacist enter into the computer pharmacy software the appropriate demographic information. The pharmacist and/or technician then enters the prescription into the computer. A leaflet is printed out. The drug is pulled and the medication is bottled up and filled and container labeled appropriately. Then the medication is verified by the Pharmacist and bagged. The Technician then checks out the customer. The Pharmacist asks the customer if they have any questions or concerns this is known as an offer of counseling.

8)

<p>Sig Nature, MD 1515 6th Ave S Eutaw, AL 35289 205-333-4545 NPI: 1010101010</p> <p>Name: Johnnie Walker Date 04/17/2018 Address: 1546 2nd Ave S Dolomite, AL</p> <p>Rx: Fentanyl 25mcg Patch Sig: 1 patch q72h Qty: 10 patches</p> <p>Refills: 0 DEA # FJ1234567</p>	<p>Sig Nature, MD Product Selection Permitted</p>
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a) How should the patient take this medication

The medication should be applied topically as a patch
Apply 1 patch every 72 hours. The patient needs to be counseled to remove the old patch once a new patch is added.

b) What is the brand name of this medication

Duragesic

c) What is the days supply for this medication

$1 \text{ patch}/3 \text{ days} = 10 \text{ patches}/x$ and solve for x
 $x = 30 \text{ days}$

d) What is the strength
25 mcg

e) What is the dosage form

Patch

f) What is the route of administration

Topical applied to the skin

g) How many Refills are there

0 because this a Schedule II narcotic

h) Is this prescription legal? Hint DEA number (pg. 24 of the Workbook for formula)

FJ1234567

Add the 1st, 3rd, and 5th numbers (1+3+5 = 9)

Add the 2nd, 4th, and 6th numbers and multiply x 2 (2+4+6 = 12x2 = 24)

The sum of 1st, 3rd, 5th + 2nd, 4th, 6th in our example (9+24 = 33) the rightmost digit is the check digit in our example is 3.

Thus, the DEA number in our example is invalid. And thus the prescription is invalid.

i) Prior to filling this prescription what demographic questions should be asked?
Name, Address, DOB, telephone number, drug allergies, insurance information, state identification

Sig Jature, MD
1515 6th Ave S
Chattahoochie, AL 37857
205-555-6898
NPI: 1010101012

Name: Missy Ellie Date 04/17/2018
Address: 2800 Tennessee Ave

Rx: Zofran 4mg
Sig: 1 tab po q 4 to 6 hrs prn n/v
Qty: 30 tablets

Refills: 5Z
DEA # FJ1234567

Sig Jature, MD
Dispense As Written

Product Selection Permitted

9)

a) what is the generic name of the drug
Answer: ondansetron

b) What is the strength

Answer: 4mg

c) What is the dosage form

Answer: Tablet

d) What is the route of administration

Answer: By mouth

e) How many refills are there

Answer: 5 refills are a brief phone clarification with the prescriber

f) Can there be a generic substitution

Answer: No, the prescriber signed dispense as written and after consultation with the prescriber he reiterated that brand name should be dispensed

g) What is this drug used for

Answer: Nausea and vomiting

Sig Jature, MD
1515 6th Ave S
Chattahoochie, AL 37857
205-555-6898
NPI: 1010101012

Name: Betty Smith Date 04/17/2018
DOB 02/12/2017
Allergies: NKA Weight: 11lbs
Address: 2800 Tennessee Ave

Rx: Azithromycin 100mg/5ml
Sig: 10mg/kg day 1 then 5mg/kg days 2-5
Dispense: Qs

Refills: 0
DEA # FJ1234567

Dispense As Written

Sig Jature, MD
Product Selection Permitted

a) What is the concentration

Answer: 100mg/5ml

b) What is the brand name of this drug

Answer: Zithromax

c) Can we dispense a generic product

Answer: Yes, product selection permitted was signed

d) How many refills are on the prescription

Answer: 0

e) What is the dose for day 1 in mg and ml

$10\text{mg/kg/dose} \times 5\text{kg} = 50\text{mg}$

Answer: dose is 2.5ml for day 1

f) What is the dose for day 2-5 in mg and ml

$5\text{mg/kg/dose} \times 5\text{kg} = 25\text{mg}$

Answer: dose is 1.25 ml per dose days 2-5

g) You have package sizes of 15ml and 30ml on the shelf – What quantity should be pulled off the shelf by the Technician?

Answer: 10ml to dispense total, thus select the 15 ml package size

h) How should the prescription label look – so that the parent administers the correct dose to the child

Answer: Day 1 please take 2.5ml and on days 2-5 please take 1.25ml

11) PLEASE REVIEW CHAPTER 7 IN THE PHARMACY TECHNICIAN WORKBOOK AND CERTIFICATION REVIEW