



Job Preparation Materials & Instructional Activities
Pharmacy Technician

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Expected Outcomes for the Pharmacy Technician Cohort

The outcomes table contains three sections:

- ✓ Pharmacy Technician Content and Skills with Associated PIVA Core Components
- ✓ Professional Soft Skills for the Pharmacy Technician Cohort
- ✓ College Survival and Ongoing Professional Development

Overarching Goals:

Pass either a state or national Pharmacy Technician Certification Exam.

Effectively demonstrate qualities identified by employers of Pharmacy Technicians.

Pharmacy Technician Outcomes	Associated PluggedInVA Core Components
At the end of the program, PluggedInVA participants will be able to	
<ul style="list-style-type: none"> ✓ Describe various pharmacy settings (e.g., community and hospital pharmacies) 	<ul style="list-style-type: none"> • 21C: critical thinking (comparing settings), research, communication (presentation of information) • DL: research, presentation methods (e.g., PowerPoint, Word documents, online sharing platforms like Google docs)
<ul style="list-style-type: none"> ✓ Describe the roles and responsibilities of pharmacy professionals, including the chain of command. 	<ul style="list-style-type: none"> • 21C: research, critical thinking (organizing information, synthesizing information from various resources) • DL: internet research • GED: summarizing information in writing
<ul style="list-style-type: none"> ✓ Research job opportunities for pharmacy technicians. 	<ul style="list-style-type: none"> • 21C: research • DL: internet research, presentation methods (e.g., PowerPoint, Word documents, online sharing platforms like Google docs) • JR: preparing to apply for a job; learning about job qualifications
<ul style="list-style-type: none"> ✓ Comply with current state and federal regulations with regard to the practice of pharmacy. 	<ul style="list-style-type: none"> • 21C: critical thinking and problem-solving (solving problems with compliance issues) • CRC: reading for information • PSS: following directions, maintaining a level of professionalism in the workplace; maintaining patient confidentiality
<ul style="list-style-type: none"> ✓ Identify environmental safety hazards, prevention methods, and disaster plans. 	<ul style="list-style-type: none"> • 21C: problem-solving, creativity, and critical thinking (identifying problems and developing solutions) • PSS: teamwork (working as a team to solve problems and uphold safety standards), following instructions

✓ Implement precautions and infectious disease control measures.	<ul style="list-style-type: none"> • 21C: problem-solving, creativity, and critical thinking (identifying problems and developing solutions) • PSS: teamwork (working as a team to solve problems and uphold safety standards), following instructions
✓ Identify and demonstrate sterilization and sanitation procedures.	<ul style="list-style-type: none"> • CRC: reading for information; locating information • PSS: following instructions, maintaining safety standards in the workplace
✓ Identify laws concerning infectious and hazardous waste.	<ul style="list-style-type: none"> • 21C: critical thinking • CRC: reading for information, locating information • PSS: maintain safety standards and follow instructions
✓ Receive and screen prescription and medication orders for authenticity and completeness.	<ul style="list-style-type: none"> • PSS: following instructions, handling customer service issues • 21C: problem-solving, critical thinking (identifying problems)
✓ Prepare medications for distribution.	<ul style="list-style-type: none"> • GED and CRC: applied mathematics, understanding units of measurement • PSS: organization, time management, following instructions, maintaining patient confidentiality, maintaining safety standards
✓ Verify measurements, preparation, and packaging of medications produced by other technicians.	<ul style="list-style-type: none"> • GED & CRC: applied mathematics, understanding units of measurement • 21C: problem-solving, critical thinking • PSS: teamwork (working with other technicians to correctly prepare medications for distribution)
✓ Verify and collect payment for billing for pharmacy services or goods.	<ul style="list-style-type: none"> • GED & CRC: applied mathematics, understanding units of measurement • 21C: critical thinking, problem-solving • PSS: customer service, teamwork, following instructions, integrity in the workplace
✓ Control the inventory of medications, equipment, and devices according to established plans and procedures.	<ul style="list-style-type: none"> • PSS: following instructions, organization • 21C: problem-solving (identify inventory needs and developing a plan to refill needed items)
✓ Maintain the pharmacy equipment and facilities.	<ul style="list-style-type: none"> • PSS: cleanliness at the workplace, following instructions, following safety procedures, time management, organization, teamwork
✓ Assist the pharmacist in preparing, distributing, and storing investigational medication products.	<ul style="list-style-type: none"> • PSS: following instructions, teamwork, organization, time management, maintaining safety standards
✓ Assist the pharmacist in monitoring medication therapy.	<ul style="list-style-type: none"> • 21C: critical thinking, problem-solving • PSS: teamwork, following instructions

✓ Complete externship requirements, including a physical exam, TB test, CPR, and basic computer proficiency.	<ul style="list-style-type: none"> • DL: basic computer literacy • PSS: time management, organization, teamwork, proper hygiene and dress, personal health
✓ Complete a PTCB examination practice test	<ul style="list-style-type: none"> • 21C: Test-taking strategies, study skills, identifying learning styles and preferences • PSS: time management, organization
Professional Soft Skills for the Pharmacy Technician Cohort	
✓ Handle patient and customer service challenges.	
✓ Use communication strategies associated with quality customer service.	
✓ Maintain patient, business, and personal confidentiality.	
✓ Explain the role of professional ethics in the pharmacy workplace.	
✓ Use active listening, mirroring, and parameter-setting to effectively participate in difficult situations in the workplace.	
✓ Demonstrate several strategies for managing stress on the job, at school, and at home.	
College Survival and Ongoing Professional Development	
✓ Design a study plan that fits the learner's learning style and learning preferences.	
✓ Demonstrate skills in career and educational goal-setting, organization, test-taking, and note-taking.	
✓ Draft a resume that clearly communicates one's values and relevant experiences to an employer.	
✓ Orally express one's goals, skills, personal qualities, and experiences in a manner that is attractive to employers.	

Adapted from the Virginia Career and Technical Education Resource Center,
<http://www.cteresource.org/verso/>, June 2013.

Boston Reed College Allied Health Training Program, <http://www.djuhsd.org/view/16673.pdf>, June 2013.

Online Resources

Pharmacy Technician Examination Preparation

National Pharmacy Technician Links

- National Certification Information: Pharmacy Technician Certification Board (PTCB) <http://ptcb.org/>
- American Society of Health System Pharmacists (ASHP) <http://www.ashp.org/>
- The American Association of Pharmacy Technicians (AAPT) <http://www.pharmacytechnician.com/>
- National Pharmacy Technician Association (NPTA) <http://www.pharmacytechnician.org/>

Virginia Board of Pharmacy http://www.dhp.virginia.gov/Pharmacy/news_technician.htm

Study Guide:

http://www.dhp.virginia.gov/about/procurement/PHR2013_09/AttachmentBPharmTechExamStudyGuide.pdf

Pharmacy Technician Instructional Resources

Career and Technical Education Resource Center, Virginia

Pharmacy Technician I: <http://cteresource.org/verso/courses/8305/pharmacy-technician-i-tasklist>

Pharmacy Technician II: <http://cteresource.org/verso/courses/8306/pharmacy-technician-ii-tasklist>

Supplemental instructional materials for the Pharmacy Technician PluggedInVA project are available at <https://sites.google.com/site/pluggedinva/curriculummaterials/home>

iii. Job Preparation Materials

Pharmacy technician qualifications sought by employers

PluggedInVA Completers will be able to demonstrate the following qualifications:

- Pharmacy technicians perform a wide range of clerical and technical tasks necessary to the operation of a hospital pharmacy.
- Must be a high school graduate or hold a GED® credential.
- Demands good judgment, accuracy, and constant attention to detail.
- Ability to work in a pharmacy that is neat, clean, and well-organized.
- Required access to and maintaining protected health information (PHI).
- Requires extreme care in handling and storing drugs and chemicals.
- Typing speed of 30 to 40 words per minute.
- Good communication skills.
- Sufficient math ability to perform pharmaceutical calculations
- Familiarity with computer data entry
- Must be able to interpret and carry out instructions.
- Must have ability to work under pressure.
- Must have good interpersonal skills and ability to deal with patients, pharmacists, other hospital staff, nurses, and physicians.
- Physical demands may include moving heavy boxes and delivery carts weighing up to 50 pounds and possible frequent lifting and/or carrying of objects up to 25 pounds.
- Above-average manual dexterity, good eyesight, and normal color vision.

Compiled from Pharmacy Technician job postings online:

<http://www.indeed.com/q-Pharmacy-Technician-jobs.html>,

<http://www.rxcareercenter.com/>,

[http://www.healthcareerweb.com/allied-health/Pharmacy technician jobs](http://www.healthcareerweb.com/allied-health/Pharmacy_technician_jobs) and

<https://corporate.target.com/careers/career-areas/pharmacy-hourly>.

Possible interview questions and tips

Practice your responses for the following interview questions. Read the links below for tips on how to prepare for an interview.

- Why did you leave your last job?
- Tell me about a time when you had a run-in with a patient or a doctor or a pharmacist.
- What are your faults?
- What are your strengths?
- Why do you want to work here?
- Why do you want to work at a pharmacy and not a health care facility?
- How do you deal with aggressive or difficult customers?
- Where do you see yourself in five years?

Job Interview Tips

MyFuture.com: <http://www.myfuture.com/careers/articles-advice/acing-the-interview>

- Tips on target audience, practicing, dressing the part, making a good first impression, how to answer interview questions, and how to follow up

Work Smart! developed by the Employment Development Department of California:

http://www.worksmart.ca.gov/tips_interview.html

- Tips on interview questions, questions to ask the employers, reasons why many people do NOT get hired, how to close an interview, and thank you notes

Fast Company: <http://www.fastcompany.com/1839723/10-job-interview-tips-ceo-headhunter>

- Ten tips for tricky interview questions

Sample resumes for Pharmacy Technician Jobs

I. Pharmacy Technician, No experience

Sophia Clark

77 N Orwell Road, Orwell, VT

(555) 555-5005, Email

CAREER OBJECTIVE

To obtain a Pharmacy Technician position with Pharmacy Plus utilizing extensive knowledge of medicine dispensing and understanding of prescriptions to work at an assistantship position.

EDUCATION AND CERTIFICATION

Monroe College – New York, NY | 2011

Associate in Applied Science (Pharmacy Technician)

National Certification as a Pharmacy Tech – CPHT

KEY STRENGTHS

- Good understanding of counting, packaging and labeling units for inspection
- Functional knowledge of preparing IV mixtures and operating automated systems
- Solid understanding of managing inventory and performing clerical functions
- Excellent comprehension of policies regulating pharmacies and their application

SPECIAL SKILLS

- Excellent knowledge of medical terminology and pharmacy lingo
- Proven ability to work without supervision
- Exceptional organizational skills
- Profound ability to work in a fast paced environment

CAMPUS INVOLVEMENT

- Member of the school medical team
- President of the football team
- President of the school drama club

VOLUNTEER WORK

Worked as a Big Brother in three instances during summers of 2010, 2009 and 2008

Adapted from <http://coverlettersandresume.com/pharmacy/pharmacy-technician-resume-no-experience/>, 2013.

II. Some experience

ALLEN SMITH

24, Example 3rd Ave ♦ Washington, DC 21147 ♦ (200) 000-1111 ♦ Email Address

OBJECTIVE

A Pharmacy Technician position with Providence Hospital utilizing pertinent knowledge and skills to maximize efficiency.

KEY QUALIFICATIONS

- Two years' experience working in pharmacy settings
- State of DC certification as Pharmacy Technician
- Registered with the Washington State Board of Pharmacy
- Computer: MS Windows, TAO and HEB Intranet

PHARMACY SKILLS

- Demonstrated ability to compound and dispense medications and pharmaceutical supplies
 - In-depth knowledge of reading prescriptions accurately
 - Hands-on experience in dealing efficiently with customers, complaints and queries
 - Comprehensive understanding of chemicals used in different concoctions and their adverse effects
 - Experienced in the practical application of assisting pharmacists with clerical jobs including managing cash flow, stocking shelves and flow of supplies
-

PROFESSIONAL EXPERIENCE

The Diagnostics – Washington, DC

Dec 2010 – Present

Pharmacy Technician

- Assist pharmacists with medications dispensing, reconciling and filling of medications
- Manage customers complaints
- File out prescriptions according to written instructions
- Answer telephone calls
- Verify information on prescriptions

Lakepointe Pharmacy – Rockwall, TX

Jan 2010 – Dec 2010

Pharmacy Assistant

- Cashed out customers that purchased their prescriptions
 - Assisted in dropping off prescriptions
 - Faxed requests to the doctors
 - Answered customer queries
 - Performed other duties as assigned
-

EDUCATION

St. Peter's High School, Washington, DC
High School Diploma – 2009

ADDITIONAL

- Sound knowledge of basic medicines and prescription
- Exceptional communication skills
- Strong customer service background
- Multilingual: English, Spanish and French
- Great attention to detail

Adapted from <http://coverlettersandresume.com/technician/pharmacy-technician-resume-sample-template/>, 2013.



Integrated Pharmacy Technician Activities Aligned to the PIVA Curriculum

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1. Job Opportunities for Pharmacy Technicians

Overall Objective: Research job opportunities for pharmacy technicians.

Overview: Interview a pharmacy technician and report on your findings. Sample questions will be provided.

Skills practiced	Language (reading, writing)	x
	Professional soft skills	x
Materials needed	Instructor Guidance Document: Sample Interview questions Pharmacy locations to conduct interviews	
Time needed (hours or number of classes)	1-2 hours interview and creating presentation, 20 minutes per group presentation	
Background knowledge/skills needed	Be aware of different pharmacy environments such as community, hospital, long-term care, compounding, hospice, home infusion, mail-order, etc.	
Warm-up (activation of prior knowledge)	Review sample interview questions and brainstorm additional questions that may be asked. Add these to the list.	
Guided practice (if needed) & Activity instructions	<ul style="list-style-type: none"> • Review the sample interview questions to ask the pharmacy technician. • Planning for the Interview: Form groups of 3-4 people. Using the internet, research locations and contact information of local pharmacies. Call ahead to set an appointment for the best interview time. You may need to call several pharmacies to secure an interview time with a technician. . Tell the technician exactly how much time your interview should take (e.g., 20 or 30 minutes). Plan ahead to make sure your group is dressed appropriately, has an assigned note-taker, and is prepared with enough background information to understand all of the responses to the questions your group is going to ask. • Preparing for the Interview: Practice interviewing each other and providing possible answers before you go to your interview. Make sure every team member 	

	<p>has a role to play, either note-taking or having each member ask one or two of the questions.</p> <ul style="list-style-type: none"> • The Interview: Visit the pharmacy you have been assigned and interview a technician. Make sure you address the technician professionally and thank him or her for giving time to answer questions. • After you have interviewed the pharmacy technician, prepare a presentation of the interesting and important information you discovered in a 10 to 15 minute presentation. Use your creativity to develop the format. For example, you could perform a role-play of the interview, or you could do a PowerPoint highlighting the important points. Each group will have the opportunity to present to the whole class.
Extension or follow-up activity	Debrief as a group. What did you learn? Did anything surprise you? How did you feel talking to the technician? What would you do differently next time?

Instructor Guidance document

Sample Interview Questions

Type of Pharmacy: _____

As a pharmacy technician,

- 1) What are your main responsibilities?
- 2) How many technicians and pharmacist do you work with?
- 3) What additional training did you receive, if any?
- 4) Describe a typical day.
- 5) What is your patient population based on age and medical conditions?
- 6) What recommendations do you have for someone looking for a technician position in this field?
- 7) What do you like most about this position?
- 8) What do you like least about this position?
- 9) How do you process prescriptions in your pharmacy?
- 10) How do you process claims in your pharmacy?
- 11) What types of prescriptions do you fill in your pharmacy?
- 12) What additional tasks are you responsible for at your pharmacy?
- 13) Do you have any automated machines? Which type and what are you responsible for?
- 14) Outside the prescription filling process, what other responsibilities do you have? (managing inventory, complex insurance claims, managing pharmacy personnel, etc.)
- 15) Does your pharmacy have any unique services and what role do you have with these services?
- 16) What other health care professionals do you interact with regularly?

References: Sample job descriptions The Pharmacy Technician Workbook and Certification Review 5th Ed p 10

2. Laws and Regulations for Pharmacists and Pharmacy Technicians

Overall Objective: Identify the governing bodies that regulate pharmacy and the professional standards of pharmacists and technicians

Overview: List the federal and state associations or organizations that play a role in pharmacies. List the roles and any laws or acts developed from that organization including the FDA, DEA, ISMP, BOP, OBRA, OSHA, CMS, JCAHO, USP, APhA, ASHP, TJC, HIPAA

Skills practiced	Language (reading, writing)	x
	Professional soft skills	x
Materials needed	Instructor Guidance Documents: Abbreviations Table, Regulations Handout Pharmacy Technician Text Book & Internet	
Time needed (hours or number of classes)	1-2 hours	
Background knowledge/skills needed	Basic research skills using the internet and text books, definitions of the above abbreviations (provided)	
Guided Practice & Activity Steps	<p>Matching Activity.</p> <p>In small groups, match the abbreviations to their definitions. For every correct match, describe the function of the organizations and regulations.</p> <p>If done in groups, break up into groups of 2-4 and research both websites and using your textbook. Record the information on the Regulations handout provided.</p> <p>Once each group is complete, as a whole, allow each group to orally present the one of the organizations.</p> <p>Allow feedback from other groups to add to the discussion and fill in missing information.</p>	

Instructor Guidance documents

Abbreviations Table

Warm-up Activity: Use this table to cut out the abbreviations and their matching definitions.

1906/1927	FDA	The Food and Drug Administration
1975	ISMP	Institutes of Safe Medication Practices
1973	DEA	Drug Enforcement Agency
1951/1987	JCAHO	Joint Commission on Accreditation of Healthcare
1904	BOP	Board of Pharmacy
1970	OSHA	Occupational Safety and Health Administration
1965	CMS	Centers for Medicaid & Medicare Services
1820	USP	United States Pharmacopeia
1852	APhA	The American Pharmacists Association
1936	ASHP	The American Society of Health-System Pharmacists
1951	TJC	The Joint Commission
1993	OBRA	Omnibus Budget Reconciliation Act
1996	HIPPA	The Health Insurance Portability and Accountability Act

<p>Regulations Handout</p> <p>_____</p> <p>_____</p>	<p>Name:</p> <p>Date:</p>
<p>The Food and Drug Administration:</p> <p>History:</p> <p>Purpose:</p> <p>Related Laws:</p>	
<p>Institutes of Safe Medication Practices</p> <p>History:</p> <p>Purpose:</p> <p>Related Laws:</p>	
<p>Drug Enforcement Agency</p> <p>History:</p> <p>Purpose:</p> <p>Related Laws:</p>	
<p>Joint Commission on Accreditation of Healthcare</p> <p>History:</p> <p>Purpose:</p> <p>Related Laws:</p>	
<p>Board of Pharmacy</p> <p>History:</p> <p>Purpose:</p> <p>Related Laws:</p>	
<p>Occupational Safety and Health Administration</p> <p>History:</p> <p>Purpose:</p> <p>Related Laws:</p>	

Centers for Medicaid & Medicare Services History: Purpose: Related Laws:
United States Pharmacopeia History: Purpose: Related Laws:
The American Pharmacists Association History: Purpose: Related Laws:
The American Society of Health-System Pharmacists History: Purpose: Related Laws:
The Joint Commission History: Purpose: Related Laws:
Omnibus Budget Reconciliation Act History: Purpose: Related Laws:
The Health Insurance Portability and Accountability Act History: Purpose: Related Laws:



3. Top 200 Dispensed Medications

Overall Objective: Apply knowledge of the top 200 most commonly dispensed medications (e.g., Brand/generic names, strengths, dosage forms, physical appearance, routes of administration, and common dosages and indications, and duration of drug therapy and schedule II-VI)

Overview

Complete the Top Drug chart to include Brand, generic, Class, schedule, indication, common directions, route, cautions, and adverse drug reactions, and contraindications

Skills practiced	Language (reading, writing)	x
	Professional soft skills (personal characteristics, customer service)	x
Materials needed	Instructor Guidance Document: Top Drug Chart Template Medline Plus and National Library of Medicine website; or Pharmacy Technician textbook Pharmacy Times: informational article with clickable pdf tables with drug information: http://www.pharmacytimes.com/publications/issue/2011/May2011/Top-200-Drugs-of-2010 Pacific University Common Knowledge: Pictorial Chart of 200 Drugs: http://commons.pacificu.edu/cgi/viewcontent.cgi?article=1000&context=coofac	
Time needed (hours or number of classes)	1-2 hours per section	
Background knowledge/skills needed	Review of Drug names and Classes, Classification schemes, Research skills	

<p>Guided practice (if needed) & Activity instructions</p>	<p>Provide the Top Drug chart for students to complete each section including brand, generic names, class, schedule, indication, common directions, route, cautions, and adverse drug reactions and contraindications.</p> <p>The following questions should be answered:</p> <ul style="list-style-type: none"> • What is the generic name? • What is the class of medication, the overall category? • What is the schedule of the medication, II-VI? • What is the indication, the specific reason for use? • What are the most common directions for use? • What is the most common route of administration? • What are cautions to be aware of with this medication? • What are common adverse reactions to be aware of with this medication? • What are common contraindications, reasons why a person should not take this medication? • What is the common duration, timeframe, this medication is prescribed? <p><i>* It is recommended to break these down over several weeks by drug category. More or less drugs can be included depending on your schedule or timing.</i></p>
<p>Integrated Activity Steps</p>	<p>After reviewing your text for the appropriate chapter, complete the drug information chart for the list of drugs by category. Use your text book and top drug references online such as Medline Plus and National Library or Medicine website.</p> <p>Activity should be completed individually for the best retention. Students can then make drug cards or can use electronic flashcards using Quizlet.com</p> <p>Completed drug charts should be written and turned in individually. Groups can then be created to make sets of drug cards to memorize the information.</p>
<p>Extension or follow-up activity</p>	<p>As sections are completed, students can practice interpreting mock prescriptions with the appropriate SIG abbreviations</p>

Instructor Guidance document

Top Drug Chart Template and example drugs from each category based on the Top 200 drugs

Brand	Generic	Class	Schedule	Indication	SIG	Route	Cautions	ADE	Duration
Levaquin Amoxil Zithromycin Cephalexin Cipro Bactrim Penicillin Cefdnir Zosyn		Anti-infectives		Antibiotics					

Lipitor Crestor Zocor Pravachol Tricor Microzide Zestril Diovan Norvasc Lopressor Tenormin Lasix Plavix Coumadin		Cardiovascular Agent		Antihyperlipidemics Antihypertensives Thrombolytics/Anticoag ulants					
Lantus Novolog Humalog Glucophage Diabeta Glucotrol Actos		Anti-diabetic Agents		Insulin Anti-diabetics					
Synthorid Levoxyl Cytomel Amor Thyroid Methimazole Thyrolar		Thyroid Agents		Abnormal Thyroid Conditions					

Celebrex Flexeril Boniva		Musculoskeletal Agents		Arthritis Osteoarthritis Muscle Relaxant Bone Health					
Celebrex Lortab Percocet Oxycodone Tramadol		Analgesics		Pain					
Neurontoin Adderall Concerta Desyrel		Neurological Agents		Seizure Disorders Nerve Pain					
Xanax Klonopin Valium Cymbalta Lexapro Seroquel Zoloft Prozac Effexor Abilify		Psychotropic Agents		Anti-anxiety Behavioral Depression Etc.					

Singulair ProAir Proventil Ventolin HFA Spiriva Advair Allegra Medrol Nasonex		Respiratory Agents		Asthma Allergies COPD					
Nexium Prilosec Zantac Reglan Zofran Miralax		Gastrointestinal Agents		Acid Reflux Anti-Nausea Bowel Regimen					
Cialis Viagra Detrol Flomax Diflucan		Urogenital Agents		BPH Erectile Dysfunction Yeast Infection					
Premarin Prempro LoestrinFe NuvaRing Yaz		Hormones		Hormone Replacement Oral Contraception					

Xalatan Omniaris Ciprodex Floxacin Restasis		Ophthalmic & Otic Agents		Glaucoma Infections Dry Eyes					
Kenalog Westcort Lidex Temovate Bacitracin Cortaid Cleocin Differin		Dermatologic Agents		Skin irritations, itching and rash Acne					
Neulastar Aranesp Epogen Procrit Revlimia Remiclude Rituxan Avastin		Antineoplastics		Cancer Treatment					

Multi Vitamin Calcium Vitamin D Iron (Ferrous Sulfate/Gluconate) Vitamin B-12 St. John's Wort Black Cohosh Garlic Valerian Root		Herbal		Supplements Variety					
Aspirin Motrin Tylenol Neosporin Ducolax Benadryl Colase Sudafed Prilosec		Over-the-counter (OTC)		Variety					

References:

Medication Workbook for Pharmacy Technicians: A Pharmacology Primer By David R. Bright & Mary F. Powers

The Pharmacy Technician Workbook & Certification Review 5th Ed



4. Process for Certification and Licensure

Overall Objective: Explain the process of obtaining and maintaining pharmacy technician certification and licensure (Registration, Fees, CE requirements and record keeping) & Complete a PTCB examination practice test

Overview: Review the different options for pharmacy technician certification and compare and contrast the differences between the 3 options.

Skills practiced	Language (reading, writing)	x
	Professional soft skills	x
Materials needed	Instructor Guidance Documents: Technician Certification Options in Virginia; Step-by-Step Guide Internet access to PTCB, VA BOP, ExCPT websites	
Time needed (hours or number of classes)	30-45 min.	
Background knowledge/skills needed	Know the 2 options for certification	
Guided practice & Activity instructions	Review the different options (PTCE, Virginia PTCE, EXCPT) for pharmacy technician certification and compare and contrast the differences between the 3 options by charting the options.	
Integrated Activity Steps	Provide each student with the blank chart for certification options (attached). Have each student begin to complete the charts on their own and then partner up to fill in missing information. Once the charts are complete, review as a whole group and discuss the differences between the knowledge base and skills required for each type of certification. Students can access the practice questions and study guides to review the types of topics and questions that may be asked.	

Extension or follow-up activity	Review the process to renew and maintain certification and registration, the fees due, and CE requirements and record keeping required for each type of certification.
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Instructor Guidance document

Technician Certification Options in Virginia			
TEST	PTCE	Virginia Pharmacy Technician Certification Examination	ExCPT
Sponsored by	Pharmacy Technician Certification Board (PTCB)	Virginia Board of Pharmacy	Institute for Certified Pharmacy Technicians
Administered by	Pearson Professional Testing Centers	Schroeder Measurement Technologies	Lasergrade
Eligibility	<ol style="list-style-type: none"> 1) High School Diploma or GED 2) No Felony Convictions 3) No drug related convictions of any type. 	<ol style="list-style-type: none"> 1. Approved training program (this course) 	<ol style="list-style-type: none"> 1. Approved training program (this course) 2. High School Diploma or GED 3. No Felony Convictions 4. 18 years or older
Application Fee	\$129.00	\$70.25	\$105
Contact Information & Study Guides	Information & to sign up www.PTCB.org Phone 1-800-363-8012	Information: www.dhp.state.va.us/pharmacy To sign up: www.smttest.com/vapt phone: 1-800-556-0484	Information: www.nationaltechexam.org To sign up: www.lasergrade.com phone: 1-800-211-2754
Test Format	90 Questions (80 count) Computerized Multiple choice 2 hours	50 Questions (45 count) Computerized Multiple choice 1 hour	110 Questions (100 count) Computerized Multiple choice 2 hours
Unique features	Nationally Recognized Some employers require Math focus	Shortest, cheapest test Less CE required Law focus	Nationally Recognized (but not all states) Balanced focus

Required CE	20 hrs every 2 yrs (1 hr MUST be law)	5 hrs every yr.	20 hrs every 2 yrs (1 hr MUST be law)
Re-testing	60 days, 3 attempts	2 weeks, unlimited attempts	1 month, unlimited attempts
Practice Tests	http://www.pharmacy-tech-study.com/practicetest.html	http://www.dhp.virginia.gov/forms/pharmacy/Techs/SelfAssessQuestions.pdf	

Step-by-Step Guide for becoming and maintaining pharmacy technician certification and registration in Virginia

1. Prepare (study/take course) for a Certification Exam (select 1 of 3 possible options)
2. Submit application for one of the 3 certification exams accepted in Virginia.
3. Receive “authorization to test” from the certifying sponsor (PTCB, VA Board of Pharmacy, or ExCPT).
4. Contact testing center where standardized test will be offered to schedule a date to take the test.
5. Take certification test (don’t forget to bring a photo ID)
6. Register as a pharmacy technician with the Virginia Board of Pharmacy, or state board of pharmacy, online at <https://www.license.dhp.virginia.gov/apply/> . Must send proof of certification along with application. This registration must be renewed annually with a \$25 fee.
7. Present your registration information to your place of work.
8. Maintain your records of Continuing Education online via CPE Monitor Service <http://www.nabp.net/programs/cpe-monitor/cpe-monitor-service/> * *This is a requirement to obtain CE credits for renewal. It is recommended to print and record your CE records in your personal files as well.*

5. Roles and Responsibilities of Pharmacy Technicians

Overall Objective: Describe the roles and responsibilities of pharmacy professionals, including the chain of command.		
Overview: Compare and contrast the scope of practice limited to a pharmacist versus that of a pharmacy technician in the scenarios presented		
Skills practiced	Language (reading, writing)	x
	Professional soft skills (personal characteristics, customer service)	x
Materials needed	Instructor Guidance Document: Responsibilities Scenarios, Scenarios Responses, and Acts Restricted to Pharmacists	
Time needed (hours or number of classes)	30-45 min.	
Background knowledge/skills needed	Pharmacy technician scope of practice and pharmacy law	
Guided practice (if needed) & Activity instructions	Read each scenario and describe/list the tasks the technician can perform and those tasks restricted to a pharmacist using the Think/Pair/Share model. Brainstorm on each scenario individually, then pair up with partner, and finally share with the large group.	
Integrated Activity Steps	Read each scenario and describe/list the tasks the technician can perform and those tasks restricted to a pharmacist using the Think/Pair/Share model.	

Instructor Guidance document

Responsibilities Scenarios

Limitations to acts within the pharmacy: Review the following scenarios and determine what you can and cannot do as a technician and how each situation should be handled.

Scenario A.

Jeff Walker arrives at the pharmacy at 5:30pm with a prescription for Xanax 2 mg. He is new to your pharmacy and claims he does not have insurance and would like to pay cash for brand. The prescription is signed but is not on tamper resistant paper. You are unfamiliar with the prescriber. What should you do?

Scenario B.

Dr. Smart phones your pharmacy, and the technician answers. He would like to phone in a prescription for Mark Powers. What should you do?

Scenario C.

Mary Smith comes to the pharmacy and would like to refill her birth control. You discover she is out of refills but the patient needs to start her new pack in the morning. What can you do?

Scenario D.

While entering a new prescription for ciprofloxacin 500 mg twice a day for 10 days, an alter flashes DDI (Drug-Drug-Interaction) with warfarin 2 mg. What should you do?

Scenario E.

Dr. Kaul sees you on the floor and knows that you are a technician who has worked at the hospital for several years. He asks you if have seen orders for Zosyn to treat MRSA and at what dose. What can you do?

Scenario F.

Mrs. Katz, your neighbor, seeks you out at your pharmacy and asks for help choosing a cough medication for her little girl. What can you do?

Scenario G.

Sally Michael's Symbicort is not covered by her insurance plan. She cannot afford to pay for it out of pocket and asks you how you are going to help her get her medication. What can you do?

Scenario H.

Your Uncle Joe comes to pick up his monthly diabetes medications including Lantus insulin. You see that the pharmacist has checked 2 of the 3 medications but is on the phone with a provider. You are familiar with all of these, and he is in a rush. What can you do?

Scenario I.

Kelly Joe is a third year pharmacy student interning at your pharmacy. The staff pharmacist, skipped breakfast and did not bring her lunch. She wants to run out and grab some lunch next door. She has worked with Kelly Joe for several years and feels comfortable stepping out for a few minutes. Would this be allowed?

Scenario J.

Clara Pierce is taking more than 5 monthly medications including prescriptions for diabetes, high blood pressure and COPD. You notice she has not been refilling her medications on time and the last time you spoke with her, she did not sound very well. You alter the pharmacist of your concerns for her health. The pharmacist asks you to schedule a Medication Therapy Management (MTM) Visit with her to conduct a complete medication review. How can you assist the pharmacist with this process?

Instructor Guidance Document

Scenarios responses

A: If a technician feels there is something out of the ordinary about a prescription related to the appropriateness, possible abuse or potential forgery, they should alert the pharmacist immediately. Technicians are excellent for paying close attention to details and can help screen prescriptions that need additional attention. Prescription drug abuse is very common at smaller pharmacies after most providers' offices are closed. The pharmacist will have access to the Prescription Monitoring Program database to help identify potential abusers.

One of the technician's roles is to assist the pharmacist with prescription preparation. It is the role of the pharmacist to complete a final review of each prescription for its completeness, validity, safety, and drug-therapy appropriateness, including, but not limited to, interactions, contraindications, adverse effects, incorrect dosage or duration of treatment, clinical misuse or abuse, and noncompliance and duplication of therapy.

Pharmacy Technician Responsibility: The final review of a prescription, for its completeness, validity, safety, and drug-therapy appropriateness, including, but not limited to, interactions, contraindications, adverse effects, incorrect dosage or duration of treatment, clinical misuse or abuse, and noncompliance and duplication of therapy

B. If it is a new prescription, the prescriber must speak directly to the pharmacist or leave a voice message for the pharmacist to receive the prescription.

If it is a renewal prescription, the prescriber can authorize additional refills to the existing prescription with the technician for non-Schedule II prescriptions. Record the First and Last name of the provider, DEA # for Schedule III-V prescriptions, contact phone

number, today's date and then initial the renewal. **TIP:** *Repeat back the entire order to ensure accurate communication.*

If it is a renewal prescription with changes, the prescriber must speak directly to the pharmacist or leave a voice message for the pharmacist to receive the prescription.

C. Technicians can communicate the refill request with the provider in several ways.

Phone: Best for an immediate response but should not be first line unless an urgent need. Most offices request 24-48 hours to respond to refills but may make exceptions when patient is waiting and prescription is due.

E-Request: Physicians who have e-prescribing capabilities can receive refill requests electronically. Keep in mind, these will be received at your pharmacy directly to the pharmacy computer and will need to be frequently checked. Also, providers can respond to refill requests in a different format than how the prescription was originally requested.

Fax Request: This is the best way to communicate refill requests to physician's offices in advance. This will give the provider enough time to review the patient's chart and authorize or deny refills if patients need an appointment or if a renewal is inappropriate.

→ In this situation, explain that the prescription is out of refills and that you will call the physician's office to obtain a refill. Always keep the patient informed on the status of the call. If you have to leave a message for a nurse, tell the patient this and that it may not be ready today. You will contact the patient once you hear back from the office.

TIP: Be sure to get the BEST contact phone number to reach the patient. Suggest that the patient call 5-7 days before she is out of medication to avoid missing any doses.

Pharmacy Technician Responsibility: The receipt of a new oral prescription from a practitioner or his authorized agent

D. For any drug related interactions found during data entry, the pharmacist should be alerted. The pharmacist will determine the clinical relevance and take the necessary precautions. Depending on your pharmacy dispensing software, this step may be bypassed by the technician or only shown to the pharmacist.

TIP: Drug Utilization Reviews (DUR) occur during each fill based on the patient's profile including other prescriptions on file, medical conditions, and allergies. You can assist the pharmacists by ensuring each patient's profile is up to date and to encourage your customers to fill all medications at one pharmacy.

Pharmacy Technician Responsibility: The conduct of a prospective drug review and counseling prior to the dispensing or refilling of any prescription

E. Dr. Kaul is asking a drug information question. Although you may have prepared IV's for Zosyn, you should tell Dr. Kaul that you will have a pharmacist answer his question. You will have a basic knowledge of different medications and typical doses but not sufficient knowledge on specific diseases and doses. This information must be answered by the pharmacist after obtaining all the pertinent information relating to the question.

F. You can tell her where the children's cough medications are located over the counter. Any questions relating to less expensive generic cough syrups, review of symptoms, dosing or additional treatments must be handled by the pharmacist. Over the counter medications are labeled to where the general public can read the directions to safely self-treat, however, it is always recommended for a pharmacist to review the patients' symptoms and counsel on the best self-treatment available. This can help avoid over-treating symptoms, under-treating symptoms, and medication related adverse effects. This can also help us to know when to seek medical attention.

Pharmacy Technician Responsibility: The provision of information to the public or to a practitioner concerning the therapeutic value and use of drugs in the treatment and prevention of disease

G. Explain the insurance rejection to Sally and ask if it is ok to contact the provider for an insurance override, if possible, or an alternative medication. Communicate the situation to the pharmacist, note the prescription and contact the provider. As a technician, you can alert the provider with the necessary information regarding the rejection. Any oral modification of a prescription or of any drug therapy, resolution of any drug therapy problem, or the substitution of any drug prescribed must be taken by the pharmacist. The provider can alternatively fax or e-scribe a change to the prescription directly to the pharmacy.

Pharmacy Technician Responsibility: The communication with the prescriber, or the prescriber's agent, involving any modification other than refill authorization of a prescription or of any drug therapy, resolution of any drug therapy problem, or the substitution of any drug prescribed

H. The 2 medications that were checked can be rung up for Uncle Joe. Because the third medication has not been processed through the final pharmacist check, it cannot be dispensed to the patient. The pharmacist must complete the verification process of each prescription to ensure the accuracy of completed prescriptions before dispensing the prescription.

TIP: Check all completed refrigerated prescriptions with the pharmacist prior to dispensing at pick-up if not bagged separately in the will call section of the refrigerator.

I. All pharmacy technicians and interns must be under the direct supervision of a pharmacist at all times while in the pharmacy. Under no non-urgent circumstances, should the sole pharmacist leave the pharmacy with her staff remaining in the pharmacy. If

there is an emergency where the pharmacist must leave, all pharmacy staff must leave and lock the pharmacy department. In addition, there shall be no more than 4 technicians per 1 pharmacist on duty.

Pharmacy Technician Responsibility: The supervision of pharmacy interns and pharmacy technicians

J. Technicians should be helping identify patients who need additional care with their medications. Whether they are taking more than 5 medications, seeing multiple providers, late on refills or recently discharged from the hospital, these are all excellent opportunities for the pharmacist to intervene. Be familiar with MTM and what information the pharmacist will need to completely review the patients' conditions and medications. Technicians can schedule appointments, gather patients profile information including medications, last refill dates, providers, disease states and allergies on file. Technicians can also play a role in post appointment documentation, billing and follow up calls.

Pharmacy Technician Responsibility: Any other activity required by regulation to be performed by a pharmacist.

Instructor Guidance Document

Acts Restricted to Pharmacists

Within the pharmacy, the following acts can ONLY be performed by pharmacists:

1. The final review of a prescription, for its completeness, validity, safety, and drug-therapy appropriateness, including, but not limited to, interactions, contraindications, adverse effects, incorrect dosage or duration of treatment, clinical misuse or abuse, and noncompliance and duplication of therapy
2. The receipt of a new oral prescription from a practitioner or his authorized agent
3. The conduct of a prospective drug review and counseling prior to the dispensing or refilling of any prescription
4. The provision of information to the public or to a practitioner concerning the therapeutic value and use of drugs in the treatment and prevention of disease
5. The communication with the prescriber, or the prescriber's agent, involving any modification other than refill authorization of a prescription or of any drug therapy, resolution of any drug therapy problem, or the substitution of any drug prescribed
6. The verification of the accuracy of a completed prescription prior to dispensing the prescription

- 7. The supervision of pharmacy interns and pharmacy technicians
- 8. Any other activity required by regulation to be performed by a pharmacist.



6. Laws of Scheduled Medications

Overall Objective: Comply with all laws and requirements regarding controlled substance transfers and documentation for receiving, ordering, prescriptions, returning, loss/theft, destruction (DEA)

Overview: Given different situations or prescriptions, apply the laws of scheduled medications.

Skills practiced	Language (reading, writing)	x
	Professional soft skills (personal characteristics, customer service)	x
Materials needed	Scenarios on the following Instructor Guidance Document	
Time needed (hours or number of classes)	30-45 min.	
Background knowledge/skills needed	Pharmacy laws governing controlled substances transfer, documentation for receiving, ordering, prescriptions, returning, loss/theft, destruction (DEA), prescribing, scheduled drugs from the top drug list, the different categories of drugs including exempt narcotics, behind the counter and controlled substances. Understand basic translation of SIG codes	

Warm-up (activation of prior knowledge)	<p>Review the DEA and the role this agency has in regulating pharmacy practice.</p> <p>Review the formula for validating DEA numbers:</p> <p><i>Add first, third, fifth digits = SUM₁.</i></p> <p><i>Add second, fourth and sixth digits then multiply by 2 = SUM₂.</i></p> <p><i>Add SUM₁ and SUM₂= SUM₃.</i></p> <p><i>The last digit in SUM₃ should match the seventh digit of the DEA.</i></p> <p><i>For example, this DEA would be valid AB1234563, because 1+3+5= 9 then 2(2+4+6)=24 then 24+9=33.</i></p>
Guided practice (if needed) & Activity instructions	<p>Read each scenario in Part I of the Instructor Guidance Document, and answer the questions using your knowledge of pharmacy law. Use the law statements in Part III and Part IV of the Instructor Guidance Document to guide your responses.</p> <p>Use the Think/Pair/Share model. Work these out in a think on your own, pair up with partner and then share with the large group.</p>
Integrated Activity Steps	<p>Read each mock prescription in Part II of the Instructor Guidance Document, and answer the questions using the knowledge of pharmacy law. Using Parts III and IV of the Instructor Guidance Document, list the associated law statement that guided your answer.</p> <p>Answer these on your own, then pair up with partner and then share with the large group to check for correctness.</p>
Extension or follow-up activity	<p>Allow students to complete a DEA 222 form to transfer CII from one pharmacy to another. Describe the steps involved at each location and where the triplicates are filed.</p> <p><i>Sample DEA 222 form downloaded from the University of Michigan, 2014:</i></p> <p>https://wiki.umms.med.umich.edu/download/attachments/124160869/Example+DEA+Form+222.pdf?version=1&modificationDate=1333053382000</p>

Instructor Guidance Document

Part I: Scenarios

Scenario #1

A 45 year-old male comes into the pharmacy with a bad cough. He complains that he has been 'hacking up a lung' for the last couple of days. He heard that he could buy Robitussin AC here without a prescription. What do you do?

Scenario #1 Answer:

Refer to company policy. Legally, the pharmacist can dispense a 48-hour supply. Must record (product name, qty, purchaser name, address, sale date, signature of pharmacist and purchaser, ID verified). Must be over 18 years old. Schedule v. medication.

Scenario #2

A 30 year-old male comes into the pharmacy with a prescription for Lorazepam 1mg (Sig: it bid prn anxiety). It was written on June 1st, 2012. He would like to wait for the prescription while you fill it for him. What do you do?

Scenario #2 Answer: No, this is a schedule IV medication, and the prescription is only good for 6 months from the date written. You cannot dispense this prescription to him. Remember only schedule VI medications are good for 1 year and CII's are good for 6 months, but NO refills!

Scenario #3

A 82 year-old female comes into the pharmacy with a prescription for #30 Celebrex (Sig: it qd) that she picked up yesterday. She would like to return the prescription to the pharmacy and get refunded for the rest since they are not working for her. What do you do?

Scenario #3 Answer: No, we cannot account for the integrity of the product once it has left the confines of the pharmacy. In the hospital if it is not removed from packaging and was stored on the floors, it is still good until the written expiration date.

Scenario #4

A 25 year-old male comes into the pharmacy looking to purchase pseudoephedrine for his stuffy nose that he has had for the last few days. He says nothing has helped. He wants to know how many boxes he can buy? What do you do?

Scenario #4: He can purchase 3.6 grams per day with a maximum of 7.5 grams per month. Verify that he has not made other purchases within the month and make sure to document (product name, quantity, purchaser name, address, sale date, time, signature). Keep record for 2 years.

Part II: Prescription Examples

1. What schedule drug is this?
2. Is the DEA valid? Is it required?
3. Can this prescription be e-scripted to the pharmacy?
4. How many refills are allowed?
5. What do the directions state?
6. When will this prescription expire?
7. If this was filled on 10/10/2013, what is the earliest date it can be refilled?
8. What is the generic name of this drug?

Dr. Charles Duncan
12345 Mainly Street
Richmond, VA 23221
804-338-3587
DEA AD 3333894
NPI: 1289790790

NAME: PETROF, COLLEEN DATE: 9/14/13
Rx: Valium 10 mg
SIG: itab po qhs prn anxiety #15

REFILLS: 6

C. M. DUNCAN
PRESCRIBER SIGNATURE

Answers: Valium is schedule IV, a DEA is required and it is valid. This can be phoned, faxed or brought to the pharmacy only. A max of 5 refills is allowed. Directions state take 1 tablet by mouth at bedtime as needed for anxiety. This will expire 6 months from date written on 3/13/14. It can be refilled a few days before the 15 day supply used up ~in 13 days. Valium is diazepam.

1. What schedule drug is this?
2. Is the DEA valid? Is it required?
3. How must this prescription be delivered to the pharmacy?
4. How many refills are allowed?
5. What do the directions state?
6. When will this prescription expire?
7. What is the generic name of this drug?
8. What additional information should the patient be warned of by the pharmacist consultation or auxiliary label placement?

Dr. Jane Doebrowski
12345 Mainly Street
Richmond, VA 23221
804-338-3587
DEA AD 3343894
NPI: 1289794590

NAME: Olander Nelson DATE: 6/14/13
Rx: Percocet 10/325 mg
SIG: i-ii tabs po q4-6h prn pain #25
REFILLS: 1
J. Doebrowski
PRESCRIBER SIGNATURE

Answers: Percocet is schedule II, a DEA is required and it is not valid, the last digit should be 5. This may be a forged prescription. This can only be brought to the pharmacy except for a few circumstances. No refills are allowed. Directions state take 1 to 2 tablets by mouth every 4-6 hours as needed for pain. This will expire 6 months from date written on 12/14/13. Percocet is oxycodone and acetaminophen. Patient should be alerted this contains tylenol and to not take any additional tylenol while taking this prescription, may cause drowsiness, avoid alcohol, may cause constipation and colase is recommended to be started with course of therapy.

1. What schedule drug is this?
2. Is the DEA required? Why or why not?
3. Can this prescription be e-scripted to the pharmacy?
4. How many refills are allowed?
5. When will this prescription expire?
6. What do the directions state?
7. If this was filled on 10/10/2013, what is the earliest date it can be refilled?
8. What is the generic name of this drug?

Dr. Peter Brooks
12345 Mainly Street
Richmond, VA 23221
804-338-3587
NPI: 1297945908

DATE: 1/2/13
NAME: Michael Fuergeson
Rx: Norvasc 5mg
SIG: itabs po daily for
HTN
#30
REFILLS: 11
JP. Brooks
PRESCRIBER SIGNATURE

Answers: Norvasc is schedule VI, no DEA is required because DEA are only required for schedule II-V drugs. This can be e-scripted, phoned, faxed or brought to the pharmacy or transferred from another pharmacy. This can be refilled for up to the number of refills allow until the prescription expires 1 year from the date written 1/1/2014. Directions state take 1 tablet by mouth daily for hypertension. It can be refilled monthly a few days before the 30 day supply used up. Norvasc is amlodipine.

1. What settings can physician orders be used?
2. Is the DEA required? Why or why not?
3. What schedule does each prescription belong to?
4. How many doses of each should be filled?
5. When will this prescription expire?
6. What do the directions state?
7. What are the generic names of these drugs?

Dr. Michael Wiley NPI: 1297945908 DEA#: BW6384680	12345 Mainly Street Richmond, VA 2322 804-338-3587
Physician Orders	
NAME: <u>Michael Fuergeson</u>	Prilosec 20mg po QAM
DATE: <u>10/01/2013</u>	AsA 81 mg EC po QAM
	Robitussin AC 2 tsp po q4h prn cough
	Tylenol #3 it po q6h prn pain
M. Wiley	

Answers: Physician orders are for institutional settings only. Multiple orders can be prescribed on one sheet and must be signed and dated to know the most current orders. The DEA is required as the order contains schedule III and V drugs. Prilosec and Aspirin are schedule 6, Robitussin AC is a schedule 5 and Tylenol #3 is a schedule 3. Based on the institutions procedures up to 24 hours to a 2-day supply may be sent to the floor. These orders will be discontinued at discharge or when the physician makes a change in the patient chart.

Prilosec 20 mg (omeprazole) take 1 capsule by mouth every morning

Aspirin 81mg EC (aspirin) take 1 tablet by mouth every morning

Robitussin AC (Guaifenesin with codeine) take 2 teaspoonful (10ml) by mouth every 4 hours as needed for cough

Tylenol #3 (Acetaminophen with codeine) take 1 tablet by mouth every 6 hours as needed for pain

Part III: Schedules

Statements can be used as flash cards for other activities (e.g., “Schedule II” on one side; “Hard copy prescriptions kept in chronological order (G)” on the other side of the flash card)

Schedule II contains A-J; Schedule II-V contains A-F; Schedule VI contains A- G

Schedule II

Schedule IIs: Hard copy prescriptions kept in chronological order (G)

Schedule IIs: Hard copy prescriptions must be kept for 2 years from the date of last refill (NOTE: Medicare Part D- 10 year * applies to more than one (B)

Schedule IIs: Hard copy prescriptions must be kept separate from other hard copies (F)

Schedule IIs: May be faxed ONLY if Long Term Care facility patients in remote areas. Home infusion pharmacies for injectables from remote locations. Hospice patients needing narcotics. (D)

Schedule IIs: prescriptions expire within 6 months of the date written* applies to more than one (E)

Schedule IIs: prescriptions may not be called in EXCEPT in Emergency situations: Written Rx delivered within 7 days (pharmacy must notify State board & DEA if not) • "Authorization for Emergency dispensing" must be on the Rx • Record date of the oral order (H)

Schedule IIs: prescriptions must be filled for full amount OR if partial amount is filled due to inventory, must fill rest within 72 hours (I)

Schedule IIs: prescriptions require a new hardcopy for each fill (A)

Schedule IIs: REQUIRE a DEA Form 222 to transfer to any location (pharmacy, MD office, etc.) (C)

Schedule IIs: REQUIRE photo identification for pickup of prescriptions. (J)

Schedules III, IV, V

Schedule III, IV, V: Hard copy prescriptions must be kept for 2 years from the date of last refill (NOTE: Medicare Part D- 10 year * applies to more than one (B)

Schedule III, IV, V: new prescriptions can be called in by prescriber or his/her agent without restrictions * applies to more than one (A)

Schedule III, IV, V: new prescriptions can be faxed directly from prescriber office* applies to more than one (C)

Schedule III, IV, V: prescriptions can be transferred from pharmacy to pharmacy but must be communicated pharmacist to pharmacist * applies to more than one (D)

Schedule III, IV, V: prescriptions cannot be refilled more than a total 5 times (F)

Schedule III, IV, V: prescriptions expire after 6 months from date written* applies to more than one (E)

Schedule VI

Schedule VI: new electronic prescriptions (E-prescribing) can be directly sent from prescriber's computer into pharmacy dispensing software. Soon to be approved for other schedules (F)

Schedule VI: new prescriptions can be called in by prescriber or his/her agent without restrictions * applies to more than one (A)

Schedule VI: new prescriptions can be faxed directly from prescriber office* applies to more than one (C)

Schedule VI: prescription hardcopies must be kept for 2 years from the date of last refill (NOTE: Medicare Part D- 10 year) * applies to more than one (B)

Schedule VI: prescriptions can be transferred from pharmacy to pharmacy but must be communicated pharmacist to pharmacist * applies to more than one (D)

Schedule VI: prescriptions can have refills that are good for up to one year (G)

Schedule VI: prescriptions expire after 1 year from written date (E)

Part IV: How prescriptions come to the pharmacy

1. Walk-in (hard copies-schedules II, III, IV, V, and VI)- can be received by any pharmacy staff member
2. Telephone prescriptions (schedules III, IV, V, and VI)
 - Called in by prescriber or his/her agent
 - NEW telephoned Rxs: Must be received by pharmacist or pharmacy student
 - REFILLS: Can be called in to technicians IF no changes
3. Faxed Prescriptions (facsimile)
 - Schedule II: hospice, long term care, nursing home or home infusion
 - NEW Faxed CIII-CVI: if patient consents & sent directly from prescriber office

- REFILLS: Allowed for all except CII
- 4. Electronic Prescriptions (E-prescribing)
 - CVI: Directly from prescriber computer into pharmacy dispensing software
 - CII-CV: Must have DEA approved application to dispense prescription: New law and few pharmacies and physicians have implemented
- 5. Transfer Prescriptions: Must be communicated pharmacist to pharmacist.
 - From hard copy: VOID
 - To hard copy: TRANSFER

References: DEA <http://www.deadiversion.usdoj.gov/pubs/manuals/pharm2/>



7. Error Prevention and Safety Strategies

Overall Objective: Implement error prevention and safety strategies to improve safety and accuracy of prescription preparation and delivery (e.g., tall man lettering, separating inventory, leading and trailing zeros, limit use of error prone abbreviations)

Overview: Complete an ISMP pharmacy survey by interviewing a pharmacy staff member

<http://www.ismp.org/survey/newmssacap/index.asp>

Skills practiced	Language (reading, writing)	x
	Professional soft skills (personal characteristics, customer service)	x
Materials needed	ISMP Survey online: http://www.ismp.org/survey/newmssacap/index.asp	
Time needed (hours or number of classes)	1-2 hours	
Background knowledge/skills needed	Communication skills, critical thinking skills,	
Warm-up (activation of prior knowledge)	Review ISMP and the purpose of the organization. Discuss the list of commonly confused drug names found on ISMP.org Medication Safety Tools and Resources http://www.ismp.org/Tools/default.asp	
Guided practice (if needed) & Activity instructions	To access the survey go to http://www.ismp.org/survey/newmssacap/index.asp This is a public survey that can help identify areas of concern for a pharmacy	

Integrated Activity Steps	<p>Complete the warm-up activity of reviewing the purpose of ISMP.</p> <p>Access the survey online at http://www.ismp.org/survey/newmssacap/index.asp</p> <p>Print the survey and assign students to a type of pharmacy based on their career preferences. Using the survey, have the students visit a pharmacy and interview a staff member. Have the students arrange a time when this pharmacy is the least busy and call ahead to see if it is possible to conduct the survey. This can also be done in groups of 2 to 4 people. Information can be collected in a written report format.</p>
Extension or follow-up activity	<p>Based on the questions answered, have each group identify at least one area of potential need and offer a suggestion on how to improve the safety of that pharmacy. Use the tools found on Medication Safety Tools and Resources http://www.ismp.org/Tools/default.asp</p> <p>Present the suggestions to the class.</p>

Instructor Guidance document

To access the survey go to <http://www.ismp.org/survey/newmssacap/index.asp>

Medication Safety Tools and Resources <http://www.ismp.org/Tools/default.asp>



8. Medication Therapy Management (MTM)

Overall Objective: Assist with Medication Therapy Management (MTM) including increasing awareness of pharmacy services, communication with patient for scheduling, cost reduction via therapeutic equivalence, and medication safety via drug interactions

Overview: Review the process for a complete Medication Review during a Medication Therapy Management appointment. Identify roles a pharmacy technician can assist the pharmacist with this visit.

Skills practiced	Language (reading, writing)	x
	Professional soft skills (personal characteristics, customer service)	x
Materials needed	Internet, scenario and questions below.	
Time needed (hours or number of classes)	30-45 min.	
Background knowledge/skills needed	Core elements of MTM, pharmacy technician scope of practice, Top drug indications and interactions.	
Warm-up (activation of prior knowledge)	Read through the guidance documents found on APhA MTM Central http://www.pharmacist.com/mtm-central-resource-library To understand the need to expand pharmacy services to include MTM.	

Guided practice (if needed) & Activity instructions	<p>Review the process for a Complete Medication Review (CMR) during and Medication Therapy Management (MTM) appointment. Identify roles a pharmacy technician can assist the pharmacist with the visit, before, during and after.</p> <ol style="list-style-type: none"> 1) Have students prepare for the lab by reviewing the documents on Medication Therapy Management on APhA MTM Central http://www.pharmacist.com/mtm-central-resource-library especially MTM Building Blocks and Documentation Systems 2) Using the think, pair, share method, have each student come to the lab prepared with their own responses to the set of questions given. 3) Team students up together to share responses and expand upon their ideas. 4) Form groups to informally present their case to the group
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Instructor Guidance document

Pharmacy technicians will need to assist the pharmacist with Medication Therapy Management in all pharmacy environments. Technician can increase patient awareness of pharmacy services, communication with patients for scheduling, identifying cost reduction via therapeutic equivalence, monitoring medication safety via drug interactions, and screening patient profiles for adherence.

Technicians should review the process for a Complete Medication Review (CMR) during a Medication Therapy Management (MTM) appointment. During this activity, technicians need to identify roles they can assist the pharmacist with the visit, before, during and after. This activity will increase their awareness of MTM and the importance of all health care providers playing an active role in medication management.

Questions:

How can pharmacy technicians:

- 1) Identify patients that may benefit from MTM services?
- 2) Target patients with MTM Insurance coverage that meet the eligibility requirements?
- 3) Increase awareness of MTM services available to patients?
- 4) Schedule CMR and follow up appointments?
- 5) Assist the pharmacist in preparation of the MTM visit?

- 6) Assist the pharmacist during a MTM visit?
- 7) Assist the pharmacist in processing the claim for MTM visit
- 8) Document and complete necessary paperwork for patient chart including PMR and MAP?
- 9) Increase awareness of MTM services in community and physicians' offices?

Example Case to use to guide thinking

67 year-old, female patient gets medications filled at the pharmacy for over 5 years. She has Medicare Part D coverage. Her prescription profile shows medications for HTN, high cholesterol, DM, Afib, depression, difficulty sleeping, multivitamin and aspirin and moderate pain medications PRN from 3 different physicians. She is allergic most antibiotics. She does not have any medical conditions on file but you can tell she has many different conditions from her medications.

She lives in retirement community nearby and comes to the pharmacy 1-2 times a month. She is often late getting her refills or making appointments to see her physician when she is due in the office. Most of the time you see her at the pharmacy, she seems to be doing well although more recently, she seem frail and getting worse. She never asks to speak to the pharmacist when picking up her medications.

Example answers:

Pharmacy technicians can:

1. Identify patients that may benefit from MTM services that take multiple medications, have several providers, are at an older age, live on their own without support or a caregiver, have multiple medical conditions, take both RX and OTC medications that may have drug-drug or drug- food interactions, late on refills, late getting to MD appointments, have potentially under treated or over treated medical conditions, low health literacy, etc. MTM helps increase medication safety and improve patients' understanding of their medications but also identifies unmet needs. MTM services are designed to keep patient out of the hospital and at home longer.

2. Target patients with MTM Insurance coverage with Medicare Part D coverage that will allow for an annual CMR visit covered under their plan. MTM is available to all patients in need, but certain requirements must be met for MPD to cover. Many are now stating this on each Rx claim processed.
3. Increase awareness of MTM services available to patients at each encounter they have with a patient. Customers often do not know what services are available unless they are told. Technicians should always ask if they have a minute to go over the medications with the pharmacist at pick up and that they may be eligible for MTM services via insurance or for a fee. Explain the importance of properly taking medications and getting the most out of medications.
4. Schedule CMR and follow up appointments once patients are identified as high risk. Calling to re-explain the offered services and to set a date for a 1-on-1 meeting with the pharmacist to completely review each medication and to evaluate its need and effects to improve patient outcomes and medication safety and education. Many visits will require a 2 week follow up that may be completed by a technician or started by a technician.
5. Assist the pharmacist in preparation of the MTM visit by preparing a medication list with relevant information such as drug names and directions, physician name and contact information, refill history, vaccine history, allergies on file.
6. Assist the pharmacist during a MTM visit by being the scribe or creating the patient take away document. Each patient must have a Medication Action Plan (MAP) and Personal Medication Record (PMR) called a Patient Take Away documenting their current medications and the issues identified during the visit with the plan of how to address each problem.
7. Assist the pharmacist in processing the claim for MTM visit by typing notes into charts, submitting the claim using electronic means, scheduling follow up appointments, sending physician communications to address problems, etc.
8. Document and complete necessary paperwork for patient chart including PMR and MAP, type these documents and send to patient if unavailable directly after visit, file for future visits.
9. Increase awareness of MTM services in community and physicians' offices by being the community s at community centers and retirement centers and marketing to physician groups. Using target marketing tools to identify local physicians in your area to alert them of the need for MTM and the availability at your pharmacy.

References:

CMS <http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/MTM-Program-Standardized-Format-English-and-Spanish-Instructions-Samples-.pdf>

APhA MTM Central <http://www.pharmacist.com/mtm-central-resource-library>

MTM Core Elements: [http://www.pharmacist.com/sites/default/files/files/core elements of an mtm practice.pdf](http://www.pharmacist.com/sites/default/files/files/core%20elements%20of%20an%20mtm%20practice.pdf)

Get Outcomes MTM <http://www.getoutcomes.com/userdocs/o83oPHARMTECHGUIDE.pdf>



9. Non-Sterile Compounding Example

Overall Objective: Prepare medications for distribution following the appropriate fill process and labeling requirements, packaging requirements, applying the regulation of USP Chapters 795 non-sterile compounding

Pharmacy Technician skills / knowledge

Students will compound simple non-sterile compounds guided by a formulation record and standard operating procedures to complete the compounding record log and produce a sample compound.

Skills practiced	Language (reading, writing)	x
	Math	X
Materials needed	Compounding Equipment for non-sterile examples: graduated cylinder, beaker, mortar and pestle, ointment slab, prescription balance or scale, weigh papers, 2 oz ointment jar, 4 oz (120 mL) prescription bottle, spatula, inert powders (lactose, corn starch), glycerin, simple syrup, inert cream (vanicream)	
Time needed (hours or number of classes)	1.5 hours	
Background knowledge/skills needed	Compounding regulations, quality and safety issues with compounding See USP/NF Chapters <795> and <797>; Compounding Regulations; Compounding Considerations; Stability & Beyond-Use Dates.	
Warm-up (activation of prior knowledge)	Review compounding procedures for non-sterile compounds, including weighing, measuring and mixing techniques and packaging requirements.	
Guided practice (if needed) & Activity instructions	Depending on supplies, form groups as necessary. Each student should complete their own forms and compound	

Integrated Activity Steps	<ol style="list-style-type: none">1) Review techniques for weighing with prescription balance or scale, graduated cylinder, reducing particle size with mortar and pestle and levigation on ointment slabs and geometric dilution.2) Read Formulation records completely and answer ask questions if any.3) Gather materials and equipment required for your compound (see handouts).4) Following the formulation record, complete compounded product and record required information on compounding log. Repeat for compound #2.5) Turn final product and compound log in for review.
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Instructor Guidance document

Formulation Record #1

Name: Example Solution

Strength: 0.5%

Dosage Form: Solution

Route of Administration: Oral

Date of Last Review: 10/1/2013

Technician/Pharmacist Completing Review: JLH

Formula: Example Solution 0.5% 120 mL

Lactose (inert) powder	3 grams
Glycerin Solution	To wet
Simple Syrup	QS 120 mL

Calculations: $0.5\% = 0.5 \text{ gram} / 100\text{mL}$

To make 120 mL, will need 600 milligrams

$$0.5\text{g}/100\text{mL} = x / 120\text{mL}$$

$$X = (0.5\text{g} \times 120\text{mL}) / 100\text{mL} = 0.6\text{g} = 600\text{mg}$$

Equipment Required:

10. Balance or scale
11. Weigh papers
12. Glass mortar and pestal
13. Rubber Spatula
14. 100 mL Graduated Cylinder
15. 4 oz prescription bottle

COMPOUNDING PROCEDURE

MAKE PASTE:

5. Weigh 600 milligrams Lactose Powder using weigh paper and prescription balance or electronic scale.
6. Record amount weighed on Compound Log
7. Transfer to glass mortar and add a drop of glycerin to wet.
8. Triturate to make a smooth paste. Add drops of glycerin as needed.

MAKE SOLUTION:

9. Measure 100 mL of simple syrup with graduated cylinder.
10. Pour about 5 mL to mortar and mix with pestle.
11. Continue to add 5mL at a time mixing completely until paste is well mixed in solution.
12. Pour solution into 4 oz (120mL) prescription bottle.
13. Wash mortar and pestle with 20 mL of remaining simple syrup, scraping sides of mortar with spatula and transfer to prescription bottle. Repeat with 20 mL of simple syrup until clean.
14. Pour remaining 100 mL of simple syrup to prescription bottle.
15. Bring to final volume of 120 mL with simple syrup and shake well.
16. Label with prescription label and assigned Beyond Use Date and auxiliary labels: Shake Well

NOTE: Shake well before using

NOTE: Store at Room Temperature

NOTE: Beyond use date after compounding is estimated to be 30 days

Formulation Record #2

Name: Example Cream

Strength: 2.5%

Dosage Form: Cream

Route of Administration: Topical

Date of Last Review: 10/1/2013

Technician/Pharmacist Completing Review: JLH

Formula: Example Cream 2.5% 60 grams

Lactose (inert) powder 1.5 grams

Vanicream Qs 60 g ~58.5 grams

Calculations: $2.5\% = 2.5 \text{ gram} / 100\text{g}$

To make 60 g will need 1.5 grams lactose

$2.5\text{g}/100\text{g} = x / 60\text{g}$

$X = (2.5\text{g} \times 60\text{g}) / 100\text{g} = 1.5 \text{ grams lactose}$

60 g total - 1.5 g lactose = 58.5 g vanicream

Equipment Required:

1. Balance or scale
2. Weigh papers
3. Rubber Spatula
4. Metal spatula
5. 2 oz ointment jar

COMPOUNDING PROCEDURE

MAKE PASTE:

7. Weigh 1.5 grams Lactose Powder using weigh paper and prescription balance or electronic scale.
8. Record amount weighed on Compound Log and set aside
9. Weigh 58.5 g vanicream and Record amount weighed on Compound Log
10. Use geometric dilution techniques to add a small amount of weighed vanicream equal to lactose powder to make a smooth paste
11. Levigate to completely mix paste with vanicream. Continue to mix in geometrically until all vanicream is mixed into a uniform mixture.
17. Transfer all of cream into a tared 2oz ointment jar, careful to scrape ointment slab to reduce loss.
18. Close jar and tap on counter to remove air bubbles, then smooth out top of cream with spatula.
19. Label with prescription label and assigned Beyond Use Date and auxiliary label: TOPICAL USE ONLY

NOTE: Store at Room Temperature

NOTE: Beyond use date after compounding is estimated to be 90 days

COMPOUND LOG

Name/Strength: _____ Rx #: _____

Pharmacist: _____ Lot #: _____

Technician: _____

Beyond-Use Date: _____

Storage: _____

INGREDIENT & STRENGTH		QTY.	LOT #	Expiration Date	Manufacturer
Equipment Used					
Compounding Calculations/Notes					

Total Quantity Compounded: _____

Source of Formulation Record: _____

Quality Control Procedures:	
Sterile	Non-Sterile
6. No visible particulates or foreign matter	Cream
7. Container-closure integrity	•Color, uniformity, viscosity
8. No turbidity or cloudiness	•Smoothness, grittiness
	Capsule/powders
	<input type="checkbox"/> Color, uniformity

Pharmacist Quality Check: _____

Pharmacist Final Check: _____



10. Sterile Compounding Example

Overall Objective: Prepare medications for distribution following the appropriate fill process and Labeling requirements, Packaging requirements applying the regulation of USP Chapters 797 sterile compounding.

Pharmacy Technician skills / knowledge:

Students will practice sterile compound techniques and demonstrate proficient calculation knowledge to complete a simple sterile compound compounding record log guided by a formulation record and standard operating procedures.

Skills practiced	Language (reading, writing)	x
	Math	X
Materials needed	Compounding Equipment for sterile examples: see instructions in Instructor Guidance Document	
Time needed (hours or number of classes)	2 hours	
Background knowledge/skills needed	<p>Compounding regulations for Sterile Formulations/Special Precautions, USP/NF Chapters <795> and <797>; Compounding Regulations; Compounding Considerations; Stability & Beyond-Use Dates.</p> <p>Regulatory Requirements for Parenterals; Laminar Flow Hoods; Biological Safety Cabinets; Clean Rooms; Aseptic Techniques; Preventing Coring; Parenterals Incompatibilities; and Quality Assurance & Infection Control</p>	
Warm-up (activation of prior knowledge)	Practice basic aseptic techniques including hand washing and cleaning a hood. Complete check list to master skills. If a laminar hood is not available, use a table and mark with tape 6 inches from the edge of the table.	

Guided practice (if needed) & Activity instructions	Depending on supplies, form groups as necessary. Each student should complete their own forms and compound. Then complete TPN calculations. Groups can alternate depending on supplies.
Integrated Activity Steps	<ol style="list-style-type: none"> 1) Pair students up to practice aseptic techniques and to supervise each other during each demonstration. 2) Each pair should each perform all of the steps on each checklist and review as a class before moving to next activity. 3) Pairs of student should then gather supplies for second group of sterile skills 4) Students will follow the formulation record to complete each compounded product and record required information on compounding log. Two demonstration products will be made including compounding with two solutions and reconstitution and transfer to vials using proper technique. 5) Pairs will use checklists to assess sterile compounding technique 6) Each pair should each perform all of the steps on each checklist and review as a class 7) Turn final products, checklists and compound log in for review
Extension or follow-up activity	If supplies are available, make the TPN formulation calculated.
References	<p><i>The Pharmacy Technician Workbook and Certification Review 5th Edition APhA p 96-97</i></p> <p><i>The Pharmacy Technician 5th Edition APhA p148</i></p>

COMPOUNDING PROCEDURE

20. Using aseptic technique, prepare yourself and the hood.
21. Collect supplies and position within hood 6 inches from the front
22. Sterilize all puncture surfaces with alcohol swabs
23. Assemble 1mL syringe with needle and draw 1 mL of air
24. Inject air into vial of furosemide 10mg/mL, turn vial upside down and withdraw 1 mL of fluid
25. Transfer to empty 10 mL vial
26. Assemble 10 mL syringe with needle and draw 9 mL of air
27. Inject air into vial of sterile water, turn vial upside down and withdraw 9 mL of water
28. Transfer to 10 mL vial containing 1 mL of furosemide
29. Re pressurize vial by withdraw 10 mL mL of air before withdrawing syringe
30. Label with prescription label and assigned Beyond Use Date and auxiliary labels

NOTE: Shake well before using

NOTE: Store Refrigerated

NOTE: Beyond use date after compounding is estimated to be 3 days

Sterile Formulation Record #2

Name: Example Sterile Antibiotic for Injection

Strength: 750 mg in NaCl 0.9% 50 mL

Dosage Form: Sterile Reconstitution

Route of Administration: Parental

Date of Last Review: 10/1/2013

Technician/Pharmacist Completing Review: JLH

Formula: Example Sterile Antibiotic for Injection: 750 mg in NaCl 0.9% 50 mL

Antibiotic 1 g powder vial	3.75 mL
Sterile water	4.5 mL
NaCl 0.9 %	50mL IV bag

Calculations:

Reconstituted vial = 1 g/5mL per manufacture.

Need 750 mg drug

$1000\text{mg} / 5 \text{ mL} = 750\text{mg} / X$ so $X = 3.75 \text{ mL}$

6. Equipment Required:

7. Hood or simulator

8. Alcohol swaps

9. 1 vial of 1 g antibiotic powder vial

10. 1 vial sterile water for injection

11. 50 mL NaCl 0.9% 50 mL IV bag

12. 2 18G needles

13. 2 5 mL syringe

COMPOUNDING PROCEDURE

12. Using aseptic technique, prepare yourself and the hood.
 13. Collect supplies and position within hood 6 inches from the front
 14. Sterilize all puncture surfaces with alcohol swabs
 15. Assemble 5 mL syringe with needle and draw 4.5 mL of air
 16. Inject air into vial of sterile water, turn vial upside down and withdraw 4.5 mL of fluid
 17. Transfer to powder vial and remove ~4.5 of air and withdraw syringe
 18. Swirl vial until dissolved
 19. Assemble new 5 mL syringe with needle and draw 3.75 mL of air
 20. Inject air into vial of reconstituted antibiotic, turn vial upside down and withdraw 3.75 mL of fluid
 21. Transfer to 50mL NaCl 0.9% IV bag
 22. Label with prescription label and assigned Beyond Use Date/Time
- NOTE: Beyond use date after compounding is estimated to be 24 hours

COMPOUND LOG

Name/Strength: _____ Rx #: _____

Pharmacist: _____ Lot #: _____

Technician: _____

Beyond-Use Date: _____

Storage: _____

INGREDIENT & STRENGTH	QTY.	LOT #	Expiration Date	Manufacturer
Equipment Used				
Compounding Calculations/Notes				

Total Quantity Compounded: _____

Source of Formulation Record: _____

Quality Control Procedures:

Sterile	Non-Sterile
9. No visible particulates or foreign matter 10. Container-closure integrity 11. No turbidity or cloudiness	Cream •Color, uniformity, viscosity •Smoothness, grittiness
	Capsule/powders <input type="checkbox"/> Color, uniformity

Pharmacist Quality Check: _____

Pharmacist Final Check: _____

Aseptic Technique Check List: Hand Washing

Based on Technician Skills Checklist p 96-97 The Pharmacy Technician Workbook and Certification Review 5th Edition

Skill	Needs to Improve	Meets/Exceeds
Remove all jewelry and scrub hands and arms to the elbows with suitable antibacterial agent		
Stands far enough away from sink so clothing does not come in contact with sink		
Turns on water, wets hands and forearms thoroughly, keeps hands pointed downwards		
Scrubs hands vigorously with antibacterial soap		
Works soap under fingernails by rubbing them against the palm of the other hand		
Interlaces fingers and scrubs the spaces between the fingers		
Washes wrists and arms up to the elbows		
Thoroughly rinses soap from the hands and arms		
Dries hands and forearms thoroughly using a non-shedding paper towel		
Uses a dry paper towel to turn off water		

Aseptic Technique Check List: Preparing Laminar Flow Hood

Based on Technician Skills Checklist p 96-97 The Pharmacy Technician Workbook and Certification Review 5th Edition

Skill	Needs to Improve	Meets/Exceeds
Turns on and lets run for at least 30 minutes prior to use		
Does not allow jewelry, long sleeves, or other non- sterile materials within the hood		
Uses clean gauze/sponge to clean hood with 70% isopropyl alcohol		
Uses the long side to side motions to the back surface of the hood and works from the top to the bottom to clean hood		
Uses back to front motions, working form the top to the bottom of each side to clean the sides of the hood		
Uses back to front motions to clean the surface of the hood		
Takes care so that cleaned surfaces to not become contaminated during cleaning		
Takes care when placing items in the hood so that airflow is not blocked		
Takes care that when preparing admixtures, that airflow is not blocked by hands or other objects		
Takes care so that hands remain under the hood during admixture preparation, and does not leave the hood during admixture preparation		
Does not utilized the outer 6 inches of the hood opening or work to closely to sides and back of hood during drug preparation and manipulations		
Does not contaminate hood by coughing, sneezing, chewing gum or excessive talking		

TPN Order 1000mL- Worksheet

Based on practice TPN calculation p148 The pharmacy Technician 5th Edition

Step	Order	Stock	How much do you need?
A	Aminosyn 3.25%	Aminosyn 8.5% 1000mL	
B	Dextrose 20%	Dextrose 70% 1000mL	
C	K Cl 18mEq	K Cl 2 mEq/mL 10mL	
D	MVI 10 mL	MVI 10 mL	
E	NaCl 26 mEq	NaCl 4.4 mEq/mL 20 mL	
F	Sterile Water	1000 mL	

TPN Order 1000mL- Answer Sheet

Step	Order	Stock	How much do you need?
A	Aminosyn 3.25%	Aminosyn 8.5% 1000mL	$1000\text{mL}/8.5\% = x \text{ mL}/3.25\%$ $X = (3.25 \times 1000\text{mL})/8.5$ $X = 382 \text{ mL Aminosyn } 8.5\%$
B	Dextrose 20%	Dextrose 70% 1000mL	$1000\text{mL}/70\% = x \text{ mL}/20\%$ $X = (20 \times 1000\text{mL})/70$ $X = 286 \text{ mL Dextrose } 70\%$
C	K Cl 18mEq	K Cl 2 mEq/mL 10mL	$1\text{mL}/2\text{mEq} = x \text{ mL}/18\text{mEq}$ $X = (18 \times 1 \text{ mL})/2$ $X = 9 \text{ mL K Cl}$
D	MVI 10 mL	MVI 10 mL	10 mL

E	NaCl 26 mEq	NaCl 4.4 mEq/mL 20 mL	$1\text{mL}/4.4\text{mEq} = x\text{ mL}/26\text{mEq}$ $X = (26 \times 1\text{ mL})/4.4$ $X = 5.91\text{ mL NaCl}$
F	Sterile Water	1000 mL	1000mL - total mL other ingredients = 1000 mL - 692.91 = 307.09 mL sterile water



11. Errors & Omissions Activity Examples

Overall Objective: Prepare medications for distribution following the appropriate fill process and to verify measurements, preparation, and packaging of medications produced by other technicians.

Pharmacy Technician skills / knowledge:

Practice finding the errors and omissions on each example prescription, including dispensing, label and documentation errors.

Skills practiced	Language (reading, writing)	x
	Math	x
	Professional soft skills (personal characteristics, customer service)	x
Materials needed	Prescription examples (E&O) and level definition handout	
Time needed (hours or number of classes)	1/2-1.5 hours	
Background knowledge/skills needed	Pharmacy technician scope of practice and basics of prescription data entry	
Warm-up (activation of prior knowledge)	Review how to interpret SIGS and medical terminology	
Guided practice (if needed) & Activity instructions	Read each prescription and review the RX label and or final product to discover errors and omissions. Each example is labeled level 1-3. See the level definition to determine what type of errors to look for. Use the Think/Pair/Share model. Turn in your final group E&O.	

Integrated Activity Steps	<p>In order for pharmacy technicians to take full ownership of their work and to be able to check the work of others, technicians should double check their work for accuracy and completeness.</p> <p>In this activity, students will receive several examples from each level of E&O.</p> <p>Use the Think/Pair/Share model to read each prescription and review the RX label and or final product to discover errors and omissions, then share with a group of 4-6.</p> <p>Groups should discuss their findings and then record the final answers on each E&O sheet and turn in.</p> <p>Each example is labeled level 1-3. See the level definition to determine what type of errors to look for.</p>
Extension or follow-up activity	<p>More practice activities can be found at http://pskills.pharm.ku.edu/Displab.html</p>

References: <http://pskills.pharm.ku.edu/Displab.html>

This site contains a virtual pharmacy with several practice activities including mock phone calls, data prescription entry and fill processing.

Instructor Guidance document

Each example falls within the following levels of difficulty and the file is named as such.

Level definitions are as follows

Level 1

Dispensing Error

- wrong drug
- wrong strength
- wrong dosage form
- improper generic substitution

Label Errors

- wrong patient name
- wrong doctor name
- wrong drug name/strength/dosage form
- wrong SIG
- wrong quantity
- wrong refills
- wrong manufacturer

Documentation Errors

- wrong/omitted date of dispensing
- wrong/omitted prescription number
- wrong/omitted pharmacist initials
- wrong/omitted manufacturer

Level 2 (includes errors in level 1)

Dispensing Error

- misinterpretation of prescriber's instructions leading to dispensing or calculation errors
- failure to follow all Controlled Substance Act (CSA) limitations

Label Errors

- misinterpretation of prescriber's instructions leading to labeling errors

Documentation Errors

Controlled Substance Documentation

- wrong/omitted patient address
- wrong/omitted doctor address
- wrong/omitted doctor DEA number
- omitted red "C" for schedule 3, 4 and 5 drugs
- omitted canceling prescription for schedule 2 drugs

Level 3 (includes errors in levels 1 & 2)

Dispensing Error

- failure to dispense required "Medication Guide"

[FDA Medications Homepage](#)

Label Errors

- wrong/omitted auxiliary label
- inappropriate or omitted counseling information in the patient instructions (SIG) on the Label to insure proper medication use



12. Customer Service

Overall Objective: Handle patient and customer service challenges in different areas of pharmacy

Pharmacy Technician skills / knowledge:

Develop methods and techniques to handle different types of customer service situations through role play, critical thinking and problem solving

Skills practiced	Language (reading, writing)	x
	Professional soft skills (personal characteristics, customer service)	x
Materials needed	General scenarios to act out, paper or computer access	
Time needed (hours or number of classes)	1 hour to prepare and 1 hour for groups to present (5-10 minutes per group presentation)	
Background knowledge/skills needed	General pharmacy data entry and information required to process prescriptions and potential complications that may arise throughout the fill process in different areas of pharmacy	
Warm-up (activation of prior knowledge)	Review general pharmacy technician roles in several different areas of pharmacy including community, hospital, mail order, long term care, home infusion, and other specialty pharmacies.	
Guided practice & Activity instructions	Groups will be assigned a scenario specific to a type of pharmacy environment. All pharmacies have patients in which technicians will be interacting and will need to learn how to handle various customer service problems. Basic information about each patient will be needed to process the prescriptions These examples will contain a basic situation regarding a prescription and a patient. Students should elaborate and fill in the blanks as necessary to role play and resolve the situation.	

Integrated Activity Steps	<ol style="list-style-type: none"> 1) Divide students into groups 4 groups and assign a scenario specific to a type of pharmacy environment. Groups may be created based on their interests. 2) Read the basic situation regarding a prescription and a patient. 3) The group will role play the situation from the patient and the pharmacy perspectives 4) Each group will explain the situation, develop the process of gathering information needed, communicate with the patient paying special attention to their needs as a customer, describe a possible solution and develop a protocol/ procedure for handling that type of situation. 5) The solution and protocol/ procedure should be typed and turned in as a group assignment.
Extension or follow-up activity	Additional similar scenarios can be developed for a larger group of students.

Instructor Guidance document

Community

A mother presents a prescription for a brand name antibiotic to the community pharmacy for her 5-year old daughter. The mother is a regular patient but the child has never had a prescription filled. She wants to get it as soon as possible but will wait in her car with her sick child.

1. What patient specific information will you need to have to process the prescription? Develop a draft new patient information sheet
2. What potential complications may occur? Think about copay costs, insurance coverage and pharmacy inventory
3. How should each potential complication be resolved to maximum customer service?

Hospital

A new nurse calls the pharmacy to question medications sent to her floor for her patient. She is complaining the several medications do not match the patient's home medication list and he is due to get his medications now. Your hospital has a strict formulary and allows for therapeutic interchange.

4. What patient specific information will you need to have to resolve the nurses concerns? Develop a process for medication reconciliation for new admissions and describe therapeutic interchanges in a hospital
5. What potential complications may occur?
6. How can each potential complication be prevented and improve communication among the healthcare team?

Mail Order

A patient calls the help desk at his mail order pharmacy regarding a new maintenance prescription and a short term antibiotic he needs filled. He also states he will be out of all his medications in a few days and is concerned he will run out.

7. What patient specific information will you need to have to help this patient?

8. What is the process for the two new prescriptions?
9. What potential complications may occur? Think about deliveries, access to community pharmacy, comprehension of the process
10. How should each potential complication be resolved to maximum customer service?

Long Term Care (LTC)

Your pharmacy remotely services a LTC facility which has a medication cart for each unit. A nurse calls the pharmacy 10 minutes to closing to say stock is low on a medication that 3 new admitted patients take at bedtime. The prescriptions are being faxed to the pharmacy now, and your pharmacist on call will stay late to complete the orders.

11. What patient specific information will you need to have to process the prescription? Develop a draft new patient information sheet
12. What are potential reasons this issue may have occurred?
13. What procedures should be put into place or reevaluated to prevent future incidences?