Appendix M

HEALTH SCIENCE YOUTH APPRENTICESHIP

THERAPEUTIC SERVICES PATHWAY PHARMACY TECHNICIAN (UNIT 5)

Competency

1. Maintain pharmacy business documents

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Route written, electronic, and oral requests for information, purchase orders, checks, and other business documents to appropriate parties

Sort and distribute correspondence accurately

Update documents manually and/or electronically as required

Verify authorizations and/or other required prior to filing/storage

Follow up to obtain missing information

Use filing and indexing guidelines to add and retrieve information to the client record Store information (client records/reports/forms) promptly and accurately

File manual client records

Store, retain, and/or destroy manual records as directed

Adhere to the legal storage, retention, and destruction requirements for client records Collect and enter data for special programs such as staff credentialing, utilization management, risk management, and/or infection control programs

Learning Objectives

Compare indexing and filing methods used for filing in health care organizations

Explain how client records are cross referenced manually and electronically

Explain the reasons for cross referencing and cross indexing

Outline the procedures for finding specific client records/information manually and electronically

List the legal guidelines governing storage and retention of documents

Compare retention requirements for manual and electronic documentation

List the legal guidelines for record destruction

Summarize attributes of proper information storage (accessibility, quality, security, flexibility, connectivity, efficiency, etc.)

Identify storage options (imaging, CDs, portable devices, etc)

Compare and contrast the different methods of mailing: certified, registered, inter-office, first class

Explain the requirements for mailing medications

Discuss accounts receivable and accounts payable processes (order invoices, shipping, receiving) as they apply to your department/facility for products and services

Competency

2. Create and/or maintain the client record

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Obtain/update client information

Verify data/information

Ensure client identification appears on each record or form used

Enter/update required information in the client record

Confirm accuracy of entered/updated information

Use only approved abbreviations

Client record is accurate and complete

Learning Objectives

Explain the legal purposes and ownership of the client record

Describe the content within a typical client record

Compare and contrast the different types and functions of the client record

Define the electronic medical record (EMR)

Compare and contrast electronic and manual client record systems in your facility

Discuss the impact of the EMR on healthcare consumers and professionals

Describe how to convert time to military time AND why military time is used

Outline the procedure used in a typical health service facility for creating the client record

Explain how manual documents are linked to electronic records

Explain how to handle duplicate client records

Competency

3. Obtain/update client information

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Identify client

Ensure client privacy

Use good communication techniques to obtain basic client information

Verify client information in easy to understand language

Report/record the required information

Record data/information in the appropriate place

Correct any incorrect information in the client record

Copy or scan insurance cards or other documents as required

Use only abbreviations on the department/facility's approved list

Learning Objectives

List the ways in which identification of clients is confirmed

Explain the use of bar codes for identification in health care settings

Describe good communication techniques for eliciting accurate client information

Detail the common medical history components of the client record

Describe general documentation requirements for recording objective information and client observations

Explain the role of observations in client care

List some of the most critical client care observations to be made

Competency

4. Verify client and/or insurance information

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Follow guidelines to verify and/or reconcile insurance information, authorizations, medical, and/or client information

Review claim(s) for incomplete or inaccurate insurance information or authorizations Locate and/or request appropriate information required to complete the insurance claim, authorizations, or client record

Verify revised information with worksite professional

Update and revise information in the client record

Verify claim information with worksite professional

Learning Objectives

Define terms used in insurance plans such as third-party payer, deductible, co-payment, HMOs, PPOs

Illustrate the insurance reimbursement cycle

Compare and contrast major types of insurance plans

Compare non-government payers (commercial insurance, managed care) to government payers Medicare, Medicaid)

Identify advantages and disadvantages of participating and non-participating insurance companies for health care professionals and health care facilities

Explain the purpose of Worker's Compensation and why it is considered a health insurance plan

Discuss issues and trends in insurance plans and health care financing

List the categories of information common to most insurance claims

Describe the information on a typical explanation of benefits (EOB) form

Competency

5. Accept orders

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Use in-person and/or electronic communication systems to receive prescription/medication orders and/or refills

Screen the prescription/medication order for legal requirements and completeness

Verify proper information for refill prescriptions

Highlight any special requests on the prescription

Enter/update prescription order in the client profile for processing

Verify insurance coverage for prescription/medication order

Assist client to choose best payment options if multiple plans are available

Refer all new prescriptions or changes to prescriptions to the pharmacist

Learning Objectives

List the common medication categories

Discuss the differences between over-the-counter (OTC) and prescription medications Explain the role of medication and non-medication therapy (herbal, lifestyle changes, smoking cessation)

List some common physical and chemical incompatibilities

Identify the required components of a legal prescription order including required pharmacological information

List pharmacological information required for transcribing medication/infusion orders, autostop orders, and restricted medication orders

Explain how different medication dosage schedules are transcribed, i.e., scheduled, as needed, continuous infusion

List the information required for a refill prescription

List the documentation requirements for prescriptions of controlled substances and investigational medications

Describe how a prescription/medication order is screened for authenticity and errors

Explain how to verify a prescriber's Drug Enforcement Agency (DEA) number

List ways to detect forgery and alteration of prescriptions

Describe reasons why only a pharmacist is allowed to give information to clients about medications

List the situations in which a referral to the pharmacist is required

Describe the use and handling of a CPOE (Computerized Physician Order Entry)

Detail the importance of verification of the medication order, proper client identification, and proper product labeling--the "6 Rights" (Right Client, Drug, Dose, Time, Route, Documentation)

Competency

6. Use aseptic technique

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Wear the appropriate Personal Protective Equipment (PPE) as required

Disinfect surfaces before and after use as required

Gather all materials prior to beginning procedure

Prevent unwanted air current flow from doors and windows

Sterilize or use sterilized equipment, reagents and/or supplies

Hold caps or tops when removing them

Hold open plates, tubes, lids, etc. at an angle in a manner to prevent unwanted exposure to uncontrolled environment

Keep lids on as much as possible

Avoid talking, sneezing, coughing when working with exposed materials

Discard contaminated materials properly

Learning Objectives

Define asepsis

Compare sterilization to disinfecting

Compare different sterilization procedures for equipment, reagents and supplies

Compare disinfecting products

Compare equipment or lab lay-out, such as laminar flow hoods and clean rooms, used in maintaining asepsis

Describe basic aseptic techniques in the pharmaceutical laboratory

Explain the purpose of reducing air currents and holding open items at an angle

Demonstrate proper removal and holding of lids when removed

Competency

7. Clean and prepare supplies and/or instruments

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Rinse items thoroughly, as required, with the appropriate solvent

Soak glassware and other items in warm aqueous solution of detergent

Clean items to remove all residual matter

Consults worksite professional for more aggressive cleaning protocols if required
 After cleaning, rinse thoroughly with water

Dry items in required manner

Place cleaned and dried items in sterilization pouches or wraps if required

- o Perform following steps as applicable to lab setting
- Label and seals items properly
- o Place items in sterilization equipment
- o Ensure items remain apart during the sterilization cycle
- o Place empty canisters upside-down in order to prevent accumulation of water
- Does not overload sterilizer trays
- Allow a distance between trays to permit steam circulation

Document cleaning procedure if required

Return clean supplies, glassware and instruments to their proper storage locations

Learning Objectives

Identify common glassware, instruments, and reusable testing supplies used in the laboratory

Describe the use of common lab glassware and instruments

Explain the sensitivity and care of glassware

Describe proper dish washing technique for chemical glassware

Describe other aggressive cleaning procedures to be used with residual materials

Describe clean-up procedures used for flammable, corrosive and organic materials

List the glassware and items requiring sterilization

Describe the sterilization procedures required for glassware, instruments, or testing supplies

Competency

8. Process orders

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Confirm order for the medication OR need to re-supply stock supplies required by the pharmacist

Review checklist for preparation of the medication

Research information on the medication: trade/generic name, therapeutic equivalents, strengths/dose, dosage form, appearance, interactions, potential negative results, allergies, storage requirements

Outline the regulations governing the specific medication(s)

Identify the conditions/symptoms and the duration of medication therapy for which the medication is used

Select the appropriate products(s), equipment, and supplies from inventory using the "Three Checks"

Perform calculation(s)

Verify calculation(s) with worksite professional

Assist to prepare medication

Perform all required QC, calibration, and accuracy checks while processing the medication

Package the medication as required

Generate medication labels

Affix appropriate medication labels and/or bar codes to the containers

Assemble client information materials

Submit processed medication for final check by pharmacist or worksite professional

Document preparation and packaging of medication

Store and/or deliver processed medication

Clean preparation area

Learning Objectives

Describe the legal (FDA, DEA, state, JCAHO) requirements for preparing and packaging medications

Outline the steps ("Three Checks") for assuring identity of the correct medication during processing (at storage removal, at container removal, at storage return)

Outline the steps to process and handle investigational medications and controlled substances

Explain the routes of administration for medications

Identify general categories of pharmaceuticals

Give examples of "look-alike, sound-alike" medications

Explain therapeutic equivalence

Compare and contrast generic and trade (brand) names for a therapeutic agent Discuss dosage forms of medications

Define the purpose of the National Drug Code (NDC) number

Explain the quality improvements methods of medication processing such as NDC number match, double-counting controlled substances

Recognize some of the measures that are used during the preparation stages for avoiding medication errors

Indicate packaging and storage requirements for therapeutic/diagnostic common agents Indicate the importance of expiration dates on therapeutic/diagnostic agents Demonstrate the use of the pharmaceutical references

Competency

9. Generate medication labels

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Obtain/update client information

Enter required information on labels

Print out applicable labels

Confirm accuracy of information

Apply labels onto medication containers, client records, materials, and forms as applicable

Medication Labels are accurate and complete

Learning Objectives

Describe the legal (FDA, DEA, state, JCAHO) requirements for labeling medications Explain the use of bar codes used in client identification

List the ways in which identification of clients and client documents is confirmed Explain reasoning for cross referencing and cross indexing of medical records List the required information for primary and auxiliary prescription labels

Competency

10. Perform calculations for medication orders

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Review the appropriate chart or reference materials to make calculations or conversions Identify given values

Identify unknown values

Determine the calculations or conversions and formulas that need to be performed Perform calculations or conversions as required

EXAMPLES

- o Calculate quantity and days supply of finished dosage forms for dispensing
- Calculate solutions/mixtures to correct strength
- Calculate for chemotherapeutic medications
- Calculate compounded IV admixtures
- Calculate compounded medications for dispensing
- o Calculate for radiopharmaceutical medications

Calculations are accurate

Calculations show appropriate measurement unit labels

Verify calculations or conversions with worksite professional

Record calculations or conversions as required

Learning Objectives

List frequently used metric/apothecary/household measurement equivalents

Identify the system of measurement used for therapeutic/diagnostic agents

Explain how measurement and calculation errors are prevented during the preparation of therapeutic/diagnostic agents

Contrast the terms "toxic dose" and "therapeutic dose"

Convert between U.S. Standard and metric measurements

Convert between Fahrenheit and Celsius temperatures

Determine millimoles, milliequivalents, and specific gravity

Calculate ratios, percents, and proportions

Calculate appropriate dilutions and solution strength

Calculate IV drip rates, infusion rates, and admixture calculations

Calculate anticipated medication usages for prescribed periods

Competency

11. Weigh and measure accurately

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Review the protocol for accurately using the measuring equipment including safety precautions

Ensure equipment is usable and current for calibration

MASS

SOLIDS

- o Add pan or weighing paper
- o Tare scale
- o Add solid to be weighed
- Note reading

LIQUIDS

- Add container to scale
- o Tare scale
- Add liquid to be weighed
- Note reading

VOLUME

LIQUIDS- Cylinder

- Choose smallest container available to hold desired volume
- Position at eye level to the device markings
- o Pour liquid into measuring device until it reaches the mark or measurement you need
- o Add liquid drop by drop until bottom of curved surface matches desired line

LIQUIDS- Pipets

- Choose appropriate sized pipet for sample required
- Attach pump to pipet if needed
- o Set pipet volume OR pull up required amount of liquid
- o Drain/dispense liquid to desired amount in container

TEMPERATURE

- Verify thermometer probe is operational OR that thermometer has no gaps in the liquid
- Place thermometer or probe in middle area of material or space
- o Allow thermometer or probe time to reach equilibrium
- Note reading

Record measurements in appropriate units and amount of significant figures as required Clean up equipment

Learning Objectives

Explain how to properly carry and pour solid and liquid chemicals
List common units used in pharmacy labs for mass, volume, and temperature

Explain how to zero and use scales
Identify the proper containers to deliver and contain specific volumes
Demonstrate reading volume in different containers
Explain how to pipette and micropipette different volumes of liquid correctly
Correspond the correct number of significant figures in given values to the measuring device

Competency

12. Assist to prepare topical and/or oral finished dose medications

Performance Standard Condition

Competence will be demonstrated

at the worksite while assisting a worksite professional

Performance Standard Criteria

Performance will be successful when learners:

Process the prescription/medication order

Measure OR count quantity of finished dose forms of the medication

Assist worksite professional to prepare topical and/or oral finished dose medications

- Finished dose forms of the medication
- o Topical, otic, ophthalmic, rectal, and/or vaginal medications
- Liquid dosage medications as required for dispensing into bottles
- Solid dosage medications for dispensing into bottles
- Solid dosage medications for dispensing into unit dose packaging
- Re-package finished dosage forms for dispensing

Record preparation and/or ingredients of the medications on the applicable labels and documents

Learning Objectives

Explain the unit dose system and how therapeutic/diagnostic agents are prepared using this system

Explain your facility's procedures for preparing ready-to-dispense multi-dose packages

Explain your facility's procedures for reconstituting non-injectable medications

Explain your facility's procedures to prepare oral dose forms in unit dose or non-unit dose packaging

List the legal requirements for re-packaging finished dose forms of medications

Discuss the storage and documentation required for finished dosage forms prepared in anticipation of prescriptions and orders

Explain how to process and handle finished dose chemotherapy medications such as Efudex and mercaptopurine

Classify oral and topical medications according to action, preparation, and form

Verbalize the procedure for administering medications into the eye and the ear

Competency

13. Assist to prepare compounded, diagnostic, and/or parenteral medications

Performance Standard Condition

Competence will be demonstrated

at the worksite OR in the classroom in a simulated setting. Simulation should ONLY be used IF there is no possibility of skill performance at the worksite while assisting a worksite professional

Performance Standard Criteria

Performance will be successful when learners:

Process the prescription/medication order

Assist worksite professional with adding measured pharmaceuticals, additives, or nutrients to medications or solutions according to prescription and/or department/facility guidelines

Assist worksite professional with adding measured medications or nutrients to sterile intravenous solutions using sterile technique

Record preparation and/or ingredients of the medications on the applicable labels and documents according to department/facility guidelines

Learning Objectives

Discuss the differences between pharmaceutical compounding and pharmaceutical manufacturing

Explain the sterile techniques used to mix/compound medications

Describe how to open a sterile package

Explain for compounding sterile non-injectable products such as eye drops

Explain procedures for compounding non-sterile products such as ointments, liquids, and emulsions

Describe procedures for preparing chemotherapy medications

List common diagnostic agents frequently used in performing diagnostic tests

Explain common procedures for preparing diagnostic agents

Explain the common procedure for preparing radiopharmaceuticals

Describe the required Nuclear Regulatory Commission (NRC) checks for radiopharmaceuticals

Differentiate between the routes of parenteral administration

Classify parenteral drugs according to action, preparation, and form

Verbalize the procedure for preparing and administering parenteral medicationssubcutaneous, intradermal, intramuscular (IM), intravenous (IV), total parenteral nutrition (TPN)

Describe sterile techniques used to mix and package parenteral medications

Explain common procedures for reconstituting injectable medications

Competency

14. Provide medication to client

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Ensure privacy and confidentiality of client

Compute charges for medication and equipment to be dispensed to clients

Provide supplemental medication information materials with filled prescription

Deliver/ship medications and/or pharmaceutical supplies to clients, health care units, or surgery

Refer client to pharmacist for instruction for use of medication and warnings

Observe the worksite professional instructing client/client family in the use of the medication

Assist pharmacist in bedside administration of medication or collections for pharmaceutical studies

Follow up to confirm medication administration in in-patient settings

Record distribution of the medication in the appropriate records

Learning Objectives

Describe the legal (FDA, DEA, state, JCAHO) requirements and techniques for providing, dispensing, administering, and distributing medications

Discuss the requirements for dispensing controlled substances and investigational medications

List the legal requirements for pharmacist counseling of a client

Explain why providing complete and understandable instruction to the client when therapeutic agents have been prescribed is important

Outline the steps ("Six Rights") for assuring accuracy in administering medications (Right Drug, Dose, Client, Route, Time, Documentation)

Recognize some of the measures that are used during the dispensing stages for avoiding medication errors

Explain the requirements for packaging and package inserts

Discuss the medication distribution and control system requirements for the use of medications in various settings such as automated dispensing systems, bar coding, nursing stations, and crash carts

Describe systems for distributing medications such as pneumatic tubes and robotics Explain other hospital based functions of pharmacists, such as immunization clinics and pharmaceutical study specimen sampling and processing

Explain techniques used to assess client compliance with medications

Discuss typical guidelines for action in the event of missed doses

Competency

15. Order and receive supplies and/or equipment

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Follow procedures for procuring supplies, equipment, and/or medications when items are not in stock, outdated, in need, and/or as scheduled

Obtains appropriate supervisory approvals to place orders

Refer to the preferred provider literature to locate supplies for purchase

Order supplies, equipment, and/or medications

Verify the receipt of a shipment with the order against the packing slip and/or original purchase order after the order arrives

Identify supply items and/or medications requiring special handling or storage

Store and stock items appropriately

Report any items received that are expired and/or damaged immediately to worksite professional

Update inventory record

File or route warranty and service agreements for equipment to the worksite professional File or route the Packing Slip and/or any Material Safety Data Sheets (MSDS) received to the appropriate places

Learning Objectives

Compare and contrast ordering procedures for routine and for emergency orders

Explain any special procedures required to order equipment

Discuss the issue of cost containment in health care and how that impacts ordering

List items in your department/facility that require any special handling and/or storage

Explain how to store items received so as to prevent loss and damage

Compare and contrast ordering paperwork: Original Order (Manual or Electronic), Purchase Order, Packing Slip

Describe the purpose of tracking Purchase Orders for goods and services

Discuss the product regulations for obtaining pharmaceuticals and pharmaceutical supplies (FDA, DEA, USP-NF, Controlled Substances)

List stability factors for common medications

Competency

16. Perform inventory of supplies, equipment, and/or medications

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Follow procedure for inventory of supplies, equipment, and/or medications

Adhere to schedule for completing inventory check

Check and record quantity of items available in each category on the inventory

Report expired, discontinued, damaged, recalled, and/or missing supplies and medications immediately to worksite professional

Communicate changes in availability to worksite professional

Assist with removal and disposal of expired, damaged, and/or recalled items as required Straighten and clean shelves

Verify inventory record with worksite professional

File/store verified documents

Learning Objectives

Describe the purpose of an inventory of supplies and equipment

Explain the purpose of lot numbers and expiration dates

Name common supplies, pieces of equipment and/or medications used in your department/facility on a routine basis

Indicate the type of damage to supplies, equipment, and medications that most frequently occurs

List the types of agents included in the category of "controlled substances"

Outline some of the regulations for prescription drugs included in the Controlled Substance Act

Explain the variation in procedures when controlled substances are part of the inventory process

Describe the importance of immediate action when medications are found to be missing List the FDAs classification of recalls

Explain the regulatory requirements for handling recalled products

Competency

17. Manage cash drawer

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Verify insurance coverage, deductibles, and co-payments using electronic systems or other means

Document disbursements or deposits to the cash drawer in the appropriate record

Process client cash or credit payment and insurance coverage

Operate cash register if applicable

Make accurate change

Cash Drawer balances with the day's receipts and disbursements

Learning Objectives

Explain the process of handling cash from a cash register

Define deductible and co-payment as they pertain to health care services

List the requirements for client identification when presenting a check or credit card

Indicate the importance of client verification procedures when accepting check or credit card payments

Describe components of an acceptable check

Competency

18. Merchandise retail items

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Prices home health and other retail items in pharmacy

Process and record returns of medications, supplies, devices

Set up retail displays as needed

Rotate stock on shelves back to front

Remove expired and/or damaged merchandise

Document and dispose of expired merchandise

Learning Objectives

Describe the purpose of rotating stock on retail shelves

Explain how retail displays are used in marketing retail items

Review guidelines for pricing and marking retail items for sale

Describe regulatory requirements for refunded products

Explain the use of monitoring and screening equipment such as blood pressure cuffs and glucose monitors

Explain the use of medical and surgical devices such as orthopedic devices, pumps, and ostomies

Competency

19. Participate in quality assurance practices

Performance Standard Condition

Competence will be demonstrated

at the worksite

Performance Standard Criteria

Performance will be successful when learners:

Collect productivity information such as number of prescriptions filled, fill times, payments collected, etc.

Participate in performance reviews

Participate in staff education and continuing education opportunities

Participate in quality assurance activities such as internal audits, error prevention, customer surveys, etc.

Assist worksite professional to generate quality assurance reports

Assist worksite professional with quality assurance data analysis and action plan development

Contribute to implementation and monitoring of policies and procedures

Learning Objectives

List common pharmacy quality improvement standards and guidelines
Describe common productivity, efficiency, and customer satisfaction measures
Describe information sources used to obtain data for quality improvement such as client chart, client profile, computerized information, medication administration records
Describe common error management strategies for problem follow up and resolution
Explain procedures to document occurrences such as medication errors, adverse effects, and product integrity (FDA Med Watch)

Explain training, performance evaluation, and performance feedback techniques Discuss risk management opportunities such as safety requirements and engineering controls