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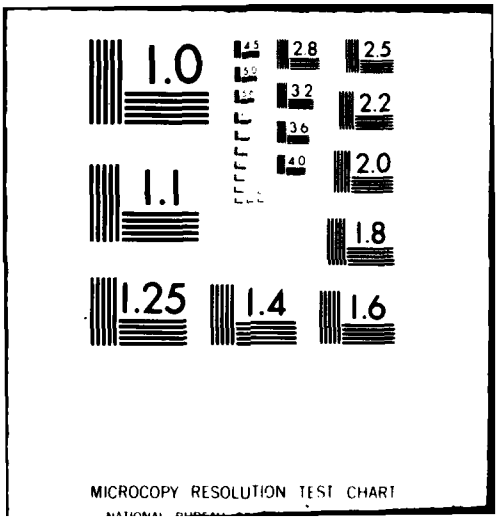
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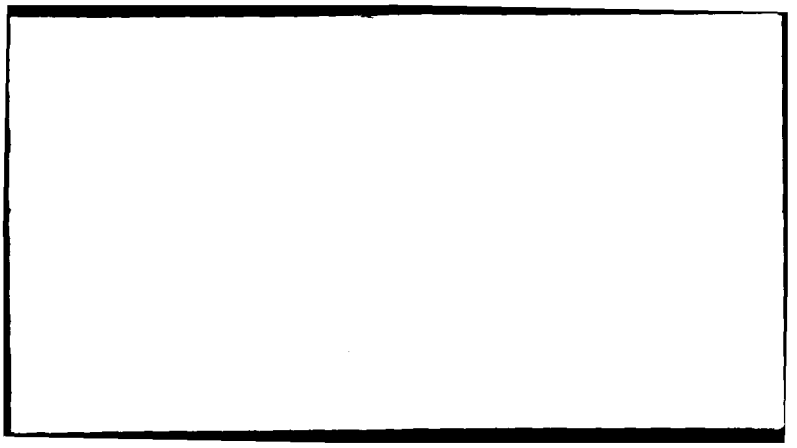

APPENDIX 40.

COMPETENCY CURRICULA FOR PHARMACY ASSISTANT AND PHARMACY TECHNICIAN

APPLICATION OF A SYSTEM APPROACH
U.S. NAVY MEDICAL DEPARTMENT
EDUCATION AND TRAINING PROGRAMS
FINAL REPORT

AUGUST 31, 1974

Prepared under Contract to
OFFICE OF NAVAL RESEARCH
U.S. DEPARTMENT OF THE NAVY

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Program Manager
Education and Training R&D
Bureau of Medicine and Surgery (Code 71G)

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Nurse Training	Task Analysis
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The study objective consisted of a determination of what the health care personnel in the Navy's Medical Department, Bureau of Medicine and Surgery actually do in their occupations; improving the personnel process (education and training); and building a viable career pathway for all health care personnel. Clearly the first task was to develop a system of job analyses applicable to all system wide health care manpower tasks. A means of postulating simplified occupational clusters covering some 50

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JOB

currently designated Navy enlisted occupations, 20 Naval Enlisted Classification Codes (NEC's) were computerized. A set of 16 groupings that cover all designated occupations was developed so as to enhance the effectiveness of professionals and sub-professionals alike.

FOREWORD

The project, "Application of a System Approach to the Navy Medical Department Education and Training Programs," was initiated in May of 1969 as a realistic, comprehensive response to certain objectives set forth in ADO 43-03X, and to memoranda from both the Secretary of Defense and the Assistant Secretary of Defense, Manpower and Reserve Affairs. The Secretary's concern was stated in his memorandum of 29 June 1965, "Innovation in Defense Training and Education." More specific concerns were stated in the Assistant Secretary's memorandum of 14 June 1968, "Application of a System Approach in the Development and Management of Training Courses." In this he called for "vigorous and imaginative effort," and an approach "characterized by an organized training program with precise goals and defined operational interrelation among instructional system components." He also noted, "Job analyses with task descriptions expressed in behavioristic terms are basic and essential to the development of precise training goals and learning objectives."

The Project

System survey and analysis was conducted relative to all factors affecting education and training programs. Subsequently, a job-analysis sub-system was defined and developed incorporating a series of task inventories ". . . expressed in behavioristic terms . . ." These inventories enabled the gathering of job activity data from enlisted job incumbents, and data relating to task sharing and delegation from officers of the Medical, Nurse and Dental Corps. A data management sub-system was devised to process incumbent data, then carry out needed analyses. The development of initial competency curricula based upon job analysis was implemented to a level of methodology determination. These methods and curriculum materials constituted a third (instructional) sub-system.

Thus, as originally proposed, a system capability has been developed in fulfillment of expressed needs. The system, however, remains untested and unevaluated. ADO 43-03X called for feasibility test and cost-effectiveness determination. The project was designed to so comply. Test and evaluation through the process of implementation has not proved feasible in the Navy Medical Department within the duration of the project. As designed and developed the system does have " . . . precise goals and defined operational interrelation among instructional system components." The latter has been achieved in terms of a recommended career structure affording productive, rewarding manpower utilization which bridges manpower training and health care delivery functions.

Data Management Sub-System

Job analysis, involving the application of comprehensive task inventories to thousands of job incumbents, generates many millions of discrete bits of response data. They can be processed and manipulated only by high speed computer capability using rigorously designed specialty programs. In addition to numerical data base handling, there is the problem of rapidly and accurately manipulating a task statement data base exceeding ten thousand carefully phrased behavioral statements. Through the use of special programs, task inventories are prepared, printouts for special purposes are created following a job analysis application, access and retrieval of both data and tasks are efficiently and accurately carried out, and special data analyses conducted. The collective programs, techniques and procedures comprising this sub-system are referred to as the Navy Occupational Data Analysis Language (NODAL).

Job Analysis Sub-System

Some twenty task inventory booklets (and associated) response booklets) were the instruments used to obtain job incumbent response data for more than fifty occupations. An inventory booklet contains instructions, formatted questions concerning respondent information ("bio-data"), response dimension definitions, and a list of tasks which may vary in number from a few hundred to more than a thousand per occupational field.

By applying NODAL and its associated indexing techniques, it is possible to assemble modified or completely different inventories than those used in this research. Present inventories were applied about three years ago. While they have been rendered in operational format, they should not be reapplied until their task content is updated.

Response booklets were designed in OPSCAN mode for ease of recording and processing responses.

Overall job analysis objectives and a plan of administration were established prior to inventory preparation, including the setting of provisional sample target sizes. Since overall data attrition was forecast to approximate twenty percent, final sample and sub-sample sizes were adjusted accordingly. Stratified random sampling techniques were used. Variables selected (such as rating, NEC, environment) determined stratifications, together with sub-population sizes. About fifteen percent of large sub-populations were sought while a majority of all members of small sub-populations were sought.

Administration procedures were established with great care for every step of the data collecting process, and were coordinated with sampling and data analysis plans. Once set, the procedures were formalized as a protocol and followed rigorously.

Instructional Sub-System

Partial "competency curricula" have been composed as an integral sub-system bridging what is required as performance on the job with what is, accordingly, necessary instruction in the training process. Further, curriculum materials were developed to meet essential requirements for implementing the system so that the system could be tested and evaluated for cost effectiveness. However, due to the fact that test and evaluation was not feasible in the Navy Medical Department within the duration of the project, it was not possible to complete the development of the system through the test and evaluation phase. The inability to complete this phase also interrupted the planned process for fully developing the curricula; therefore, instead of completed curricula ready for use in the system, the curricula were partially developed to establish the necessary sub-system methodology. The competency curricula are based on tasks currently performed by job incumbents in 1971. (The currency of a given curriculum depends upon periodic analysis of incumbents' jobs, and its quality control resides in the evaluation of the performance competency of the program's graduates.)

A competency curriculum provides a planned course of instruction or training program made up of sequenced competency units which are, in turn, comprised of sequenced modules. These modules, emphasizing performance objectives, are the foundation of the curriculum.

A complete module would be comprised of seven parts: a cluster of related tasks; a performance objective; a list of knowledges and skills implied by the objective; a list of instructional strategies for presenting the knowledges and skills to the learner; an inventory of training aids for supporting the instructional strategies; a list of examination modes; and a statement of the required training time. In this project, curriculum materials have been developed to various levels of adequacy, and usually comprise only the first three parts; the latter four need to be prepared by the user.

The performance objective, which is the most crucial part of the module, is the basis for determining curriculum content. It is composed of five essential elements: the stimulus which initiates the behavior; the behavior; the conditions under which the behavior takes place; the criteria for evaluating the behavior; and the consequence or results of the behavior. A sixth element, namely next action, is not essential; however, it is intended to provide linkage for the next behavior.

Knowledges and skills listed in the module are those needed by the learner for meeting the requirements of the performance objective.

Instructional strategies, training aids, examination modes and training time have been specified only for the Basic Hospital Corps Curriculum. The strategies, aids and modes were selected on the basis of those considered to be most supportive in presenting the knowledges and skills so as to provide optimum learning effectiveness and training efficiency. The strategies extend from the classroom lecture as traditionally presented by a teacher to the more sophisticated mediated program for self-instruction. The training aids, like strategies, extend from the traditional references and handout material in the form of a student syllabus to mediated programs for self-instruction supported by anatomical models. Examination modes extend from the traditional paper and pencil tests to proficiency evaluation of program graduates on the job, commonly known as feedback. Feedback is essential for determining learning effectiveness and for quality control of a training program. The kind of instructional strategies, training aids and examination modes utilized for training are limited only by such factors as staff capability and training budget.

The training time specified in the Basic Hospital Corps Curriculum is estimated, based upon essential knowledge and skills and program sequence.

The competency curriculum module, when complete, provides all of the requirements for training a learner to perform the tasks set forth in the module. A module may be used independently or related modules may be re-sequenced into modified competency units to provide training for a specific job segment.

Since the curricula are based upon tasks performed by job incumbents in 1971, current analysis of jobs needs to be accomplished using task inventories that have been updated to reflect changes in performed tasks. Subsequent to job analysis, a revision of the curricula should be accomplished to reflect task changes. When the foregoing are accomplished, then faculty and other staff members may be indoctrinated to the competency curricula and to their relationship to the education and training system.

In addition to the primary use for the systematic training of job incumbents, these curricula may be used to plan for new training programs, develop new curricula, and revise existing curricula; develop or modify performance standards; develop or modify proficiency examinations; define billets; credentialize training programs; counsel on careers; select students; and identify and select faculty.

The System

Three sub-systems, as described, comprise the proposed system for Education and Training Programs in the Navy Medical Department. This exploratory and advanced developmental research has established an overall methodology for improved education and training incorporating every possible means of providing bases for demonstrating feasibility and cost effectiveness. There remains only job analysis sub-system up-dating, instructional sub-system completion, and full system test and evaluation.

Acknowledgements

The authors wish to acknowledge the invaluable participation of the several thousands of Naval personnel who served as respondents in inventory application. The many military and civilian personnel who contributed to developmental efforts are cited by name in the Final Report.

The authors also wish to acknowledge former colleagues for singularly important contributions, namely, Elias H. Porter, Ph.D., Carole K. Kauffman, R.N., M.P.H., Mary Kay Munday, B.S.N., R.N., Gail Zarren, M.S.W., and Renee Schick, B.A.

Identity and acknowledgement of the project Advisory Group during the project's final year is recorded in the Final Report.

Lastly, the project could not have been commenced nor carried out without the vision, guidance and outstanding direction of Ouida C. Upchurch, Capt., NC, USN, Project Manager.

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AND

PHARMACY TECHNICIAN

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PHARMACY TECHNICIAN

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PHARMACY ASSISTANT

Competency: PHARMACY ASSISTANT (PHA)

COMPETENCY UNIT I: PREPARATION PROCEDURES FOR COMPOUNDING AND PACKAGING

This unit includes the following modules:

Number	Title	Page
1	Maintenance of Supplies and Equipment	2
2	Filtering Nonsterile Liquids	3
3	Preparation of Water for Topical and Oral Use	4

Competency: PHARMACY ASSISTANT (PHA)

Unit I: Preparation Procedures for Compounding and Packaging

MODULE 1.: MAINTENANCE OF SUPPLIES AND EQUIPMENT

TASKS

a. Assemble/disassemble supplies and equipment used in compounding, preparation and packaging of pharmaceuticals and related items
b. Clean mechanical equipment, glassware and utensils used in compounding, preparing and packaging sterile and nonsterile products

PERFORMANCE OBJECTIVE

(Stimulus) Prior to bulk or extemporaneous compounding, preparation and packaging of pharmaceuticals

(Behavior) The PHA will assemble all equipment, supplies, glassware and utensils required; upon completion of the procedures, the PHA will disassemble and clean all mechanical equipment, glassware, and utensils

(Conditions) With selective supervision according to type of equipment and nature of product to be compounded or packaged; using appropriate cleaning solutions and devices

(Criteria) All equipment, supplies, glassware and utensils kept in ready-to-use condition for compounding/preparation/packaging of sterile and/or nonsterile products; procedures carried out according to standard procedures, specific directions and manufacturer's recommendations (for equipment); appropriate methods applied for cleaning and handling materials used for sterile products

(Consequence) All equipment, supplies, glassware and utensils ready to use

(Next Action) Collect requested equipment/utensils in designated work area

KNOWLEDGES AND SKILLS

Proper cleaning techniques
Proper aseptic technique
Handling procedures for various materials
Procedures for disassembly, cleaning and assembly of various types of equipment
Types of chemicals used, e.g., dichromate
Hazards and safety procedures related to chemicals used

Competency: PHARMACY ASSISTANT (PHA)

Unit I: Preparation Procedures for Compounding and Packaging

MODULE 2: FILTERING NONSTERILE LIQUIDS

TASKS a. Filter nonsterile liquid preparation

PERFORMANCE OBJECTIVE

(Stimulus)	Upon completing the compounding of a nonsterile liquid preparation requiring filtration or in preparation for prepackaging
(Behavior)	The PHA will filter a nonsterile liquid preparation
(Conditions)	With supervision; using the appropriate filtering devices, e.g., suction funnel, suction/vacuum pump, microfiltration system, Alsop filter pump
(Criteria)	Producing a pharmaceutically acceptable preparation; selecting the proper filtering device according to quantity, viscosity, chemical composition and degree of purity required
(Consequence)	The desired pharmaceutical preparation is produced
(Next Action)	Package, label, dispense and/or store the preparation

KNOWLEDGES AND SKILLS

Technique to pleat a filter paper
Degree of filtration required
Assembly and use of filtering devices and materials, e.g., suction funnel, suction/vacuum pump, filters, glass ribbed funnel, microfiltration system, Alsop filter pump, millipore

Competency: PHARMACY ASSISTANT (PHA)

Unit I: Preparation Procedures for Compounding and Packaging

MODULE 3: PREPARATION OF WATER FOR TOPICAL AND ORAL USE

TASKS a. Demineralize water

PERFORMANCE OBJECTIVE

(Stimulus)	When directed to prepare water suitable for compounding for oral and topical use only
(Behavior)	The PHA will demineralize water
(Conditions)	With indirect supervision; using demineralization apparatus
(Criteria)	Producing demineralized water that meets USP or NF standards; utilizing proper preparation techniques, e.g., proper on-off time sequences and maintenance of equipment
(Consequence)	Water that is suitable for use in compounding for oral and topical applications
(Next Action)	Use in preparation of pharmaceuticals

KNOWLEDGES AND SKILLS

Procedures to clean appliances
Procedures to change cartridge in demineralizer
Proper operation and maintenance of demineralizer

Competency: PHARMACY ASSISTANT (PHA)

COMPETENCY UNIT II: COMPOUNDING PROCEDURES

This unit includes the following modules:

Number	Title	Page
1	Compounding and Preparation of Solutions . .	6
2	Compounding and Preparation of Emulsions, Lotions and Suspensions	7
3	Compounding and Preparation of Ointments and Pastes	8
4	Compounding and Preparation of Powders . . .	9

Competency: PHARMACY ASSISTANT (PHA)

Unit II: Compounding Procedures

MODULE 1: COMPOUNDING AND PREPARATION OF SOLUTIONS

TASKS a. Compound and prepare solutions

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request from supervisor
(Behavior)	The PHA will compound the type of solution requested
(Conditions)	With supervision; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, glassware, mixing utensils
(Criteria)	A solution produced according to proper technique, which meets official standards, i.e., USP or NF
(Consequence)	Preparation of tha requested pharmaceutically acceptable solution

KNOWLEDGES AND SKILLS

Function and use of various pharmaceutical appliances
Procedures and techniques for compounding syrups, collodion, waters, spirits, liniments
Use and maintenance of automatic liquid prepacker

Competency: PHARMACY ASSISTANT (PHA)

Unit II: Compounding Procedures

MODULE 2: COMPOUNDING AND PREPARATION OF EMULSIONS, LOTIONS AND SUSPENSIONS

TASKS
a. Compound and prepare emulsions
b. Compound and prepare lotions
c. Compound and prepare suspensions

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request from supervisor
(Behavior)	The PHA will compound the type of emulsion, lotion or suspension requested
(Conditions)	With supervision; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, mortar and pestle, blender, glassware, mixing utensils
(Criteria)	An emulsion, lotion or suspension produced according to proper technique, which meets the official standards, i.e., USP, NF
(Consequence)	Preparation of the requested pharmaceutically acceptable emulsion, lotion or suspension
(Next Action)	Package, dispense or store

KNOWLEDGES AND SKILLS

Techniques and procedures for compounding emulsions, magmas, lotions and other types of suspensions

Competency: PHARMACY ASSISTANT (PHA)

Unit II: Compounding Procedures

MODULE 3: COMPOUNDING AND PREPARATION OF OINTMENTS AND PASTES

TASKS
a. Compound/prepare ointments
b. Compound/prepare pastes

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request from supervisor
(Behavior)	The PHA will compound the type and amount of ointment or paste requested
(Conditions)	With direct supervision; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, ointment mill, mortar and pestle, glassware, mixing utensils
(Criteria)	An ointment or paste prepared according to proper techniques, which meets official standards, i.e., USP, NF
(Consequence)	Preparation of the requested pharmaceutically acceptable ointment or paste
(Next Action)	Package, dispense or store ointment or paste

KNOWLEDGES AND SKILLS

Techniques and procedures for compounding ointments and pastes
Use, maintenance and calibration of appropriate equipment, e.g., hand-operated ointment filler
Safety procedures in use of equipment

Competency: PHARMACY ASSISTANT (PHA)

Unit II: Compounding Procedures

MODULE 4: COMPOUNDING AND PREPARATION OF POWDERS

TASKS a. Compound and prepare powders

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request from supervisor
(Behavior)	The PHA will compound the kind and amount of powder requested
(Conditions)	With supervision; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, glassware, mixing utensils
(Criteria)	A powder prepared according to proper techniques, which complies with the official standards, i.e., USP, NF.
(Consequence)	Preparation of the requested pharmaceutically acceptable powder
(Next Action)	Package, dispense or store powders

KNOWLEDGES AND SKILLS

Function and use of associated equipment
Use of fillers
Techniques and procedures to compound powders
Folding of powder papers for dispensing

Competency: PHARMACY ASSISTANT (PHA)

COMPETENCY UNIT III: PACKAGING, PREPACKAGING AND LABELING

This unit includes the following modules:

Number	Title	Page
1	Packaging, Prepackaging and Labeling Nonsterile Products	11
2	Packaging, Prepackaging and Labeling Sterile Products	12
3	Emergency and Special Medical Treatment Kits	13

Competency: PHARMACY ASSISTANT (PHA)

Unit III: Packaging, Prepackaging and Labeling

MODULE 1: PACKAGING, PREPACKAGING AND LABELING NONSTERILE PRODUCTS

TASKS

a. Prepackage pharmaceuticals (tablets, capsules, liquids, ointments) manually
b. Prepackage pharmaceuticals using equipment
c. Package unit-dose products
d. Label finished product
e. Package for drug requisitions/ward/clinic/department

PERFORMANCE OBJECTIVE

(Stimulus) Upon receipt of a request for packaging or prepackaging, after completion of nonsterile compounding or when a specific quantity of a pharmaceutical compounded in bulk or received in bulk is required

(Behavior) The PHA will package and/or prepackage and label the nonsterile product as required and maintain packaging records

(Conditions) With selective supervision; using the appropriate packaging apparatus, correct size container and labels prepared on labeling machines

(Criteria) Containers filled with the required quantity of the correct pharmaceutical and properly labeled according to standard procedures, i.e., ASHP standards, GMP regulations and institutional policy, i.e., containing internal control number, name of drug, strength, amount and expiration date if required

(Consequence) A correctly filled, packaged and labeled product

(Next Action) Dispense and/or store

KNOWLEDGES AND SKILLS

Procedures to set up and maintain packaging and prepackaging records
Various packing materials and their use
Safety procedures for handling volatile, corrosive and anesthetic materials
Label requirements, i.e., ASHP guidelines, GMP (Good Manufacturing Practice) regulations, institutional policy
Use of associated equipment, e.g., labeling machine

Competency: PHARMACY ASSISTANT (PHA)

Unit III: Packaging, Prepackaging and Labeling

MODULE 2: PACKAGING, PREPACKAGING AND LABELING STERILE PRODUCTS

TASKS

a. Package sterile pharmaceuticals, e.g., bulk containers, ampuls, vials, I.V. solutions
b. Package sterile pharmaceuticals in single unit-of-use packages, e.g., syringes, ophthalmic solutions, ear drops
c. Label finished product

PERFORMANCE OBJECTIVE

(Stimulus) Upon request, after completion of sterile compounding or when a specified quantity of a pharmaceutical compounded in bulk or received in bulk is required

(Behavior) The PHA will package and/or prepackage and label as required, and maintain packaging records

(Conditions) With selective supervision; in a sterile environment; using the appropriate apparatus, correct size container and labels

(Criteria) Containers filled with the required quantity of the correct sterile pharmaceutical and properly labeled according to standard procedures, i.e., ASHP guidelines, GMP regulations, and institutional policy (i.e., containing internal control number, name of the drug, strength, amount and expiration date if required); finished product should be sterile and free from particulate matter

(Consequence) A correctly filled, packaged and labeled sterile product

(Next Action) Dispense and/or store

KNOWLEDGES AND SKILLS

Principles and procedures to set up and maintain packaging and prepackaging records
Basic aseptic techniques and filling procedures
Use of equipment and various methodologies of sterile technique, i.e., millipore units, salas filters, etc.
Types of labels, i.e., permagrip or come-clean labels
Use of various packaging materials and containers
Auxiliary label requirements, i.e., ASHP/GMC/ institutional standards

Competency: PHARMACY ASSISTANT (PHA)

Unit III: Packaging, Prepackaging and Labeling

MODULE 3: EMERGENCY AND SPECIAL MEDICAL TREATMENT KITS

TASKS

a. Prepare, replace and/or restock emergency and special medical treatment kits
b. Prepare inventory cards

PERFORMANCE OBJECTIVE

(Stimulus)	When directed or when preparation, replacement or restocking of kits is necessary
(Behavior)	The PHA will prepare emergency and special medical treatment kits and record control numbers and expiration date on an inventory card for periodic review
(Conditions)	With selective supervision; using appropriate drugs
(Criteria)	Prompt and accurate replacement or stocking of kits, e.g., emergency drug kits should be restocked immediately upon return, following BuMed instructions or the standards established by the Pharmacy and Therapeutics Committee and utilizing drugs with longest expiration date
(Consequence)	Adequate stock of up-to-date emergency and special medical treatment kits

KNOWLEDGES AND SKILLS

Preparation of inventory cards
Familiarity with packaging and protecting materials
Expiration dating procedures
Medications and supplies for emergency and special medical treatment kits, e.g., immunization, mass casualty, emergency drug supply (kit, box, drawer) and poison antidote tray
Appropriate containers

Competency: PHARMACY ASSISTANT (PHA)

COMPETENCY UNIT IV: DISPENSING

This unit includes the following modules:

Number	Title	Page
1	Ward/Clinic Requisitions	15
2	Unit-Dose	16
3	Outpatient Prescriptions	17

Competency: PHARMACY ASSISTANT (PHA)

Unit IV: Dispensing

MODULE 1: WARD/CLINIC REQUISITIONS

TASKS a. Dispense to wards and clinics

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a requisition for drugs or supplies for ward or clinic use
(Behavior)	The PHA will fill the requisition with drugs and supplies and dispense to ward or clinic
(Conditions)	With supervision; using appropriate drugs and supplies
(Criteria)	Order correctly filled in regard to item and quantity specified and with product which has suitable shelf life for period to be used, is properly labeled and in condition suitable for use
(Consequence)	A correctly filled requisition

KNOWLEDGES AND SKILLS

Familiarity with drug nomenclature, expiration dating, proper labeling, and esthetic appearance of products
Recognition of authorized order
Procedures for dispensing to wards/clinics

Competency: PHARMACY ASSISTANT (PHA)

Unit IV: Dispensing

MODULE 2: UNIT-DOSE

TASKS

a. Place unit-dose packages in unit-dose carts
b. Chart unit-dose activities in pharmacy records

PERFORMANCE OBJECTIVE

(Stimulus) Routinely, upon physician's orders for specific drugs to be administered at time specified by standing procedures

(Behavior) The PHA will fill unit-dose carts with the drugs ordered and record action taken

(Conditions) With supervision; using appropriate unit-dose packages and necessary records/forms

(Criteria) According to physician's orders and standard procedures, unit-dose cart correctly filled with unit-dose packages which are properly labeled, not expired or degraded and otherwise ready for use; records properly completed according to established procedures

(Consequence) Unit-dose cart correctly filled at time specified and records maintained

(Next Action) Administration of drugs to patients by designated professional

KNOWLEDGES AND SKILLS

Familiarity with drug nomenclature, expiration dating, proper labeling of unit-dose packages and general appearance of drugs at time of dispensing
Recognition of authorized order
Procedures for charting and completing records
Different types of orders, e.g., routine, stat, prn
Procedures for filling unit-dose carts

Competency: PHARMACY ASSISTANT (PHA)

Unit IV: Dispensing

MODULE 3: OUTPATIENT PRESCRIPTIONS

TASKS

a. Determine identity of trademarked names and nonproprietary names
b. Obtain required pharmaceuticals from stock
c. Count or measure and package pharmaceuticals
d. Check size of packaged or prepackaged quantity
e. Place bulk container on prescription for review and dispensing

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of reviewed prescription from the supervisor
(Behavior)	The PHA will identify and locate the bulk, prepackaged or packaged pharmaceuticals requested; count or measure and package those pharmaceuticals not already packaged or prepackaged and leave the bulk container on the prescription to be checked by supervisor
(Conditions)	With supervision; using appropriate pharmaceuticals, packaging materials
(Criteria)	An accurately counted or measured quantity of a pharmaceutical or related item, identified and ready for checking and review
(Consequence)	Properly filled prescription
(Next Action)	Pharmacist verifies accuracy of prescription and dispenses it

KNOWLEDGES AND SKILLS

Familiarity with drug nomenclature including pharmaceutical names, i.e., trademarked and nonproprietary
Container specifications
Permagrip, prepackaged and auxiliary label requirements
Label size requirements
Use of dispensing equipment, e.g., counting trays, graduates and automatic dispensing machines

Competency: PHARMACY ASSISTANT (PHA)

COMPETENCY UNIT V: INVENTORY PROCEDURES

This unit includes the following modules:

Number	Title	Page
1	Inventory of Drugs Other Than Controlled Substances	19
2	Inventory of Drugs With Expiration Dates . .	20
3	Maintenance of Poison and Antidote Lockers	21

Competency: PHARMACY ASSISTANT (PHA)

Unit V: Inventory Procedures

MODULE 1: INVENTORY OF DRUGS OTHER THAN CONTROLLED SUBSTANCES

TASKS a. Inventory drugs other than controlled substances

PERFORMANCE OBJECTIVE

(Stimulus)	Routinely, on established inventory date
(Behavior)	The PHA will count and record each drug product on hand
(Conditions)	With indirect supervision; using appropriate recording materials
(Criteria)	According to established institutional procedures; an immediate random audit by supervisor verifies the accuracy of the inventory
(Consequence)	An accurate count and record are obtained of drugs other than controlled substances in stock
(Next Action)	Adjust stock to proper levels, if necessary

KNOWLEDGES AND SKILLS

Location of various drugs
Appropriate inventory methods
Appropriate inventory forms

Competency: PHARMACY ASSISTANT (PHA)

Unit V: Inventory Procedures

MODULE 2: INVENTORY OF DRUGS WITH EXPIRATION DATES

TASKS a. Monitor expiration dates of pharmaceuticals

PERFORMANCE OBJECTIVE

(Stimulus)	Routinely, on established check dates
(Behavior)	The PHA will check the expiration dates on all necessary pharmaceuticals and maintain proper records
(Conditions)	With supervision; using appropriate recording materials
(Criteria)	Accurately; minimal amount of drugs has to be returned or destroyed
(Consequence)	Prevention of the use of expired pharmaceuticals, maintenance of appropriate inventory levels of expiration-dated drugs and maintenance of proper records
(Next Action)	Destroy expired pharmaceuticals or return to manufacturer as indicated by supervisor and/or standard procedures

KNOWLEDGES AND SKILLS

Location and awareness of the receipt of extension of potency date notices
Awareness of which drugs have expiration dates
Use of appropriate forms for record keeping

Competency: PHARMACY ASSISTANT (PHA)

Unit V: Inventory Procedures

MODULE 3: MAINTENANCE OF POISON AND ANTIDOTE LOCKER

TASKS
a. Prepare and maintain antidote section/locker
b. Safeguard poisons

PERFORMANCE OBJECTIVE

(Stimulus) Routinely, when assigned by supervisor
(Behavior) The PHA will maintain the antidote locker or section, properly store poisons and insure that an accurate inventory is kept on the outside of the locker
(Conditions) Without supervision; using appropriate containers and specified drugs
(Criteria) In accordance with supervisor's instructions and local policies
(Consequence) These actions will assure a stock of readily available antidotes and safeguard poisons

KNOWLEDGES AND SKILLS

Supervisor's instructions and local policies regarding antidote/poison storage
Maintenance of list of drugs and poisons in locker
Rotation of drugs and poisons according to expiration date

Competency: PHARMACY ASSISTANT (PHA)

COMPETENCY UNIT VI: SUPPLY PROCEDURES

This unit includes the following modules:

Number	Title	Page
1	Receiving and Issuing	23
2	Ordering	24
3	Packaging/Preparing Pharmaceuticals for Shipment	25

Competency: PHARMACY ASSISTANT (PHA)

Unit VI: Supply Procedures

MODULE 1: RECEIVING AND ISSUING

TASKS

a. Check requisitions against drug issues
b. Verify/sign off drugs that are delivered to the pharmacy
c. Check ordered medication against list of recalled (unsafe) drugs
d. Dispose of/repack unclaimed medications/drugs
e. Log local purchase information
f. Order supplies/equipment through federal supply system
g. Log loss of supplies and notify inventory control of loss

PERFORMANCE OBJECTIVE

(Stimulus) Routinely and upon receiving or issuing drugs or materials

(Behavior) The PHA will order needed drugs through federal supply system, return unclaimed drugs to stock or destroy, as ordered, and record receipt or loss of drugs or materials

(Conditions) With supervision; using the appropriate federal supply catalog, correct forms

(Criteria) According to pharmacist's instructions; accurate record of all drugs or materials issued, received or lost kept on appropriate supply control forms; drugs and materials ordered as directed and in accordance with usage rate; unclaimed drugs disposed of according to expiration date and lot number

(Consequence) A pharmacy well stocked with federal supply materials and an accurate record of receipts, expenditures and losses

KNOWLEDGES AND SKILLS

Procedures for ordering drugs through the federal supply system
Recording requirements
Procedures for disposal of unclaimed/expired drugs
Uniform unit of issue

Competency: PHARMACY ASSISTANT (PHA)

Unit VI: Supply Procedures

MODULE 2: ORDERING

TASKS a. Check stock of drugs to determine supply needs

PERFORMANCE OBJECTIVE

(Stimulus)	When submitting routine orders to replenish stock
(Behavior)	The PHA will inventory drug stock to determine needs
(Conditions)	Using stock control cards
(Criteria)	Timely submission of supply requests, according to local supply procedures, to maintain adequate stock levels
(Consequence)	Adequately stocked pharmacy

KNOWLEDGES AND SKILLS

Local supply procedures
Stock control

Competency: PHARMACY ASSISTANT (PHA)

Unit VI: Supply Procedures

MODULE 3: PACKAGING/PREPARING PHARMACEUTICALS FOR SHIPMENT

TASKS a. Package/prepare pharmaceuticals for shipment

PERFORMANCE OBJECTIVE

(Stimulus)	When directed and/or as the need arises
(Behavior)	The PHA will package and prepare specified drugs for shipment, e.g., preparing a packing slip, labeling clearly and correctly and including a return address
(Conditions)	Using packing materials
(Criteria)	Using suitable materials to prevent deterioration/ damage to drugs, taking appropriate measures to ensure safe delivery, following postal regulations and fulfilling all requirements for outpatient dispensing when filling a mail-order prescription; all pharmaceuticals for shipment must be approved by the pharmacist prior to packing
(Consequence)	Drugs so prepared for shipment as to prevent damage and insure safe delivery
(Next Action)	Send to shipping department

KNOWLEDGES AND SKILLS

Postal regulations regarding drugs
Federal guidelines for drug packaging
Storage requirements for drugs shipped
Regulations for outpatient compounding and dispensing (mail-order prescriptions only)
Methods for packing drugs effectively to reduce or eliminate breakage and deterioration
When packaging/preparing for shipment is required, e.g., mail-order prescription, to return to manufacturer or to send out for analysis

PHARMACY TECHNICIAN

Competency: PHARMACY TECHNICIAN (PHT)

COMPETENCY UNIT I: PREPARATION FOR COMPOUNDING AND PACKAGING

This unit includes the following modules:

Number	Title	Page
1	Instrument Calibration and Maintenance . . .	27
2	Weighing and Measuring Raw Materials	28
3	Heating	29

Competency: PHARMACY TECHNICIAN (PHT)

Unit I: Preparation for Compounding and Packaging

MODULE 1: INSTRUMENT CALIBRATION AND MAINTENANCE

TASKS

a. Calibrate instruments
b. Prepare paperwork for instrument repair/ maintenance
c. Supervise routine instrument maintenance for section/unit

PERFORMANCE OBJECTIVE

(Stimulus)	According to established schedule or when directed
(Behavior)	The PHT will calibrate the instruments, prepare requests for instrument repair and directly supervise personnel in performing first and second echelon maintenance
(Conditions)	Without supervision; using equipment manuals, proper tools
(Criteria)	Routine maintenance and repair performed according to information supplied by the personnel working with the instruments and manufacturer's instructions/manuals; correct forms properly completed for requesting maintenance
(Consequence)	Instruments maintained in efficient, functional condition for maximum life

KNOWLEDGES AND SKILLS

Maintenance procedures for compounding/packaging instruments including analytical and pharmaceutical balances, spectrophotometer, pH meter, hydrometer, polarimeter
Adjustment/calibration of instruments
Manual dexterity for adjusting instruments
Maintenance/repair request forms
Supervisory techniques

Competency: PHARMACY TECHNICIAN (PHT)

Unit I: Preparation for Compounding and Packaging

MODULE 2: WEIGHING AND MEASURING RAW MATERIALS

TASKS

a. Interpret formula/directions for compounding pharmaceuticals
b. Weigh/measure chemicals
c. Make entries into bulk compounding log

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receiving a prescription or other order to compound
(Behavior)	The PHT will interpret the formula, weigh and measure the required chemicals, convert bulk supplies into manageable units and record actions in compounding log
(Conditions)	With the direction of a pharmacist; using the appropriate equipment and materials, e.g., balances, glassware, label printer
(Criteria)	Performed according to master formula card; chemicals correctly weighed, measured and logged, each with its lot number and amount, in the compounding record
(Consequence)	Correctly measured ingredients ready for compounding; appropriate entries regarding each ingredient made in compounding record
(Next Action)	Package or dispense

KNOWLEDGES AND SKILLS

Pharmaceutical calculations, e.g., decimals, fractions, proportions, equivalents, conversions in the avoirdupois, apothecary and metric systems
Pharmaceutical terminology and abbreviations used in prescriptions and formulae
Selection, operation and maintenance of balances and the differences between them, e.g., direct read-out balance (e.g., Mettler), analytical balance, pharmaceutical balances (classes A and B), trip balance
Interpretation of prescriptions
Use of labeling machine
Typing skills

Competency: PHARMACY TECHNICIAN (PHT)

Unit I: Preparation for Compounding and Packaging

MODULE 3: HEATING

TASKS a. Heat compounding substances

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receiving an order to compound a preparation requiring heat or controlled heat
(Behavior)	The PHT will select the appropriate heating appliance and apply adequate heat
(Conditions)	With supervision by the pharmacist; using the appropriate heating devices, e.g., water baths, thermometers, gas burners, and safety devices
(Criteria)	Heat applied in the amount and type required according to the compounding formula and the melting point or solubility factor of the ingredient to be heated; desired physical and chemical properties of the heated substance are retained; all safety precautions are observed
(Consequence)	Properly heated substance ready for compounding
(Next Action)	Compound preparation requiring heat

KNOWLEDGES AND SKILLS

Melting points
Boiling points
Flash points
Adjustment of heat at the source
Technique to read a thermometer
Temperature conversion from Celsius, Fahrenheit
Safety precautions and procedures
Use, operation and maintenance of heating devices, e.g., water bath with thermostat, glass bead water bath, sand bath, immersion heater, laboratory stirrer, hot plate, gas burners (e.g., bunsen), laboratory thermometer
Type of fuel or energy required

Competency: PHARMACY TECHNICIAN (PHT)

COMPETENCY UNIT II: COMPOUNDING PROCEDURES

This unit includes the following modules:

Number	Title	Page
1	Solutions, Elixirs and Syrups	31
2	Emulsions, Lotions and Suspensions	32
3	Ointments and Suppositories	33
4	Powders	34
5	Capsules and Tablets	35
6	Ophthalmic and Otic Solutions	36
7	Parenteral Fluids	37

Competency: PHARMACY TECHNICIAN (PHT)

Unit II: Compounding Procedures

MODULE 1: SOLUTIONS, ELIXIRS AND SYRUPS

TASKS a. Compound and prepare solutions

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request
(Behavior)	The PHT will compound the type of solution requested
(Conditions)	With supervision by a pharmacist; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, glassware, mixing utensils
(Criteria)	Solution prepared according to proper techniques and meeting official standards, i.e., USP or NF
(Consequence)	Preparation of the requested pharmaceutically acceptable solution
(Next Action)	Package, dispense or store the solution

KNOWLEDGES AND SKILLS

Function and use of various pharmaceutical appliances
Chemical and physical incompatibilities of substances used in compounding
Procedures and techniques for compounding syrups, collodion, waters, spirits, mucilages, liniments, glycerites, elixirs
Use and maintenance of automatic liquid prepacker

Competency: PHARMACY TECHNICIAN (PHT)

Unit II: Compounding Procedures

MODULE 2: EMULSIONS, LOTIONS AND SUSPENSIONS

TASKS a. Compound and prepare emulsions/lotions/suspensions

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request
(Behavior)	The PHT will compound the type of emulsion, lotion or suspension requested
(Conditions)	With supervision by a pharmacist; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, mortar and pestle, blender, glassware, mixing utensils
(Criteria)	Emulsion, lotion or suspension prepared according to proper techniques and complying with the official standards, i.e., USP, NF
(Consequence)	Preparation of the requested pharmaceutically acceptable suspension/emulsion/lotion
(Next Action)	Package, dispense or store the preparation

KNOWLEDGES AND SKILLS

Techniques and procedures for compounding emulsions, magmas, lotions and suspensions

Competency: PHARMACY TECHNICIAN (PHT)

Unit II: Compounding Procedures

MODULE 3: OINTMENTS AND SUPPOSITORIES

TASKS
a. Compound/prepare ointments
b. Compound/prepare suppositories

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request
(Behavior)	The PHT will compound the type and amount of ointment or suppository requested
(Conditions)	With supervision by the pharmacist; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, ointment mill, slab and mueller, mortar and pestle, glassware, mixing utensils, packaging equipment
(Criteria)	Ointment or suppositories prepared according to proper techniques and complying with official standards, i.e., USP, NF
(Next Action)	Package, dispense or store ointment/suppositories

KNOWLEDGES AND SKILLS

Techniques and procedures for compounding ointments, pastes and suppositories
Use, maintenance and calibration of appropriate equipment, e.g., hand-operated ointment filler, suppository mold
Safety procedures in use of equipment

Competency: PHARMACY TECHNICIAN (PHT)

Unit II: Compounding Procedures

MODULE 4: POWDERS

TASKS a. Compound and prepare powder

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request
(Behavior)	The PHT will compound the kind and amount of powder requested
(Conditions)	With supervision by the pharmacist; using correct ingredients and appropriate pharmaceutical appliances, e.g., balance, glassware, mixing utensils
(Criteria)	Powder prepared according to proper techniques and complying with the official standards, i.e., USP, NF
(Consequence)	Preparation of the requested pharmaceutically acceptable powder
(Next Action)	Package, dispense or store powders

KNOWLEDGES AND SKILLS

Function and use of slab and mueller, ball mill
Use of fillers
Techniques and procedures to compound powders
Folding of powder papers for dispensing

Competency: PHARMACY TECHNICIAN (PHT)

Unit II: Compounding Procedures

MODULE 5: CAPSULES AND TABLETS

TASKS
a. Compound and prepare tablets
b. Compound and prepare capsules

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of a prescription, formula or preparation request
(Behavior)	The PHT will compound the type of tablet or capsule requested
(Conditions)	With pharmacist's supervision; using correct ingredients and appropriate pharmaceutical appliances and packaging equipment
(Criteria)	Capsule or tablet prepared according to proper techniques and complying with official standards, i.e., USP, NF
(Consequence)	Preparation of the requested pharmaceutically acceptable tablet or capsule
(Next Action)	Package, dispense or store tablets/capsules

KNOWLEDGES AND SKILLS

Techniques and procedures to compound capsules and tablets
Use and maintenace of associated pharmaceutical equipment, e.g., hand-operated capsule filler, tablet press, automatic prepacking machine for tablets and capsules
Setting up packaging equipment
Capsule/tablet size required

Competency: PHARMACY TECHNICIAN (PHT)

Unit II: Compounding Procedures

MODULE 6: OPHTHALMIC AND OTIC SOLUTIONS

TASKS
a. Prepare ophthalmic solutions
b. Prepare otic solutions

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receiving a written order/prescription
(Behavior)	The PHT will compound the type of ophthalmic or buffer solution requested
(Conditions)	Without supervision; using sterile filtration equipment and pH indicator
(Criteria)	Using sterile technique and either triple filtration or microfiltration techniques
(Consequence)	Preparation of the requested isotonic particulate-free ophthalmic solution
(Next Action)	Dispense the solution

KNOWLEDGES AND SKILLS

Basic compounding techniques for ophthalmic and otic solutions
Adjustment of pH of solution
Use of sterile filtration system
Filtering technique
Chemical and physical incompatabilities of substances
Associated pharmaceutical mathematics

Competency: PHARMACY TECHNICIAN (PHT)

Unit II: Compounding Procedures

MODULE 7: PARENTERAL FLUIDS

TASKS

a. Prepare isotonic solutions
b. Prepare and bottle I.V. solutions, e.g., Ringer's lactate
c. Mix bladder irrigation solution
d. Add medication to and label I.V. solutions
e. Depyrogenate/sterilize chemical compounds

PERFORMANCE OBJECTIVE

(Stimulus)	Upon request for a specific parenteral fluid
(Behavior)	The PHT will prepare the requested parenteral fluid
(Conditions)	Using a laminar flow hood, sterile syringes and needles, microfiltration system and special labels
(Criteria)	Adhering strictly to sterile procedure; accurately calculating ingredients; correctly labeling fluids; producing a parenteral fluid free from particulate matter
(Consequence)	A properly labeled solution suitable for parenteral infusion
(Next Action)	Dispense the parenteral fluid

KNOWLEDGES AND SKILLS

Inorganic and organic chemistry
Calculation of milliequivalents, millimoles
Calculation of molar, molal and isotonic solutions
Conversion from g/ml to MEQ
Acid-base balances
Incompatabilities of chemical compounds
Use and maintenance of laminar flow hood
Sterile procedures
Use of sterile filtration system
Interpretation of lab exams
Normal human values of electrolytes, etc.
Techniques to inspect solutions for particulate matter
Mixing and filtering solutions

Competency: PHARMACY TECHNICIAN (PHT)

COMPETENCY UNIT III: PACKAGING, PREPACKAGING AND LABELING

This unit includes the following module:

Number	Title	Page
1	Supervision of Packaging, Prepackaging and Labeling	39

Competency: PHARMACY TECHNICIAN (PHT)

Unit III: Packaging, Prepackaging and Labeling

MODULE 1: SUPERVISION OF PACKAGING, PREPACKAGING AND LABELING

TASKS

a. Select packaging and labeling materials
b. Supervise pharmacy assistant in packaging, prepackaging and labeling sterile and nonsterile products
c. Check accuracy of packaging and labeling
d. Check accuracy of record keeping

PERFORMANCE OBJECTIVE

(Stimulus)	Upon request for packaging or prepackaging or upon completion of compounding procedure
(Behavior)	The PHT will select products, packaging material, equipment and supplies to be used; supervise the various steps in the packaging, prepackaging and labeling procedures; countersign records and verify that work is complete and correct
(Conditions)	With selective supervision by the pharmacist
(Criteria)	Packaging and labeling completed as ordered; final records properly authenticated
(Consequence)	Finished product packaged and labeled correctly
(Next Action)	Store or dispense

KNOWLEDGES AND SKILLS

Types of packaging materials and their specific uses
Drug nomenclature
Various types of labels and labeling procedures
Macroscopic recognition of drugs and drug decomposition
Use of packaging equipment for sterile and nonsterile products
Safety procedures for handling volatile, corrosive and anesthetic materials
Sterile techniques and packaging procedures

Competency: PHARMACY TECHNICIAN (PHT)

COMPETENCY UNIT IV: QUALITY CONTROL AND PRODUCT DEVELOPMENT

This unit includes the following modules:

Number	Title	Page
1	Quality Measurement	41
2	Formula and Procedures Development	42

Competency: PHARMACY TECHNICIAN (PHT)

Unit IV: Quality Control and Product Development

MODULE 1: QUALITY MEASUREMENT

TASKS

a. Identify and analyze preparation
b. Determine concentration
c. Determine specific gravity
d. Determine pH
e. Adjust pH

PERFORMANCE OBJECTIVE

(Stimulus)	When directed to compound a preparation within specific qualitative and quantitative limitations or to identify or adjust the concentration, pH or specific gravity of a preparation
(Behavior)	The PHT will identify and analyze the preparation, determine and/or adjust its concentration, pH and specific gravity
(Conditions)	With supervision; using appropriate appliances, e.g., spectrophotometer, pH meter, hydrometer
(Criteria)	A preparation with individual components and finished product meeting all criteria specified in official compendiums, e.g., USP, NF
(Consequence)	A preparation adhering to established official limitations
(Next Action)	Dispense and/or use

KNOWLEDGES AND SKILLS

Use and interpretation of normal value tables
Use and maintenance of appliances, e.g., spectrophotometer, pH meter, hydrometer
Understanding pH and its application to stability of preparations, effects on skin, mucous membranes, etc.
Ability to distinguish between colors
Procedures and techniques to measure concentration, pH, specific gravity
Procedures to adjust pH
Procedures and techniques to analyze/identify preparations

Competency: PHARMACY TECHNICIAN (PHT)

Unit IV: Quality Control and Product Development

MODULE 2: FORMULA AND PROCEDURES DEVELOPMENT

TASKS
a. Test shelf life for new formula
b. Recommend changes in technical procedures

PERFORMANCE OBJECTIVE

(Stimulus)	When necessary to improve performance, enhance a product or establish an expiration date
(Behavior)	The PHT will make changes in the technical procedure used
(Conditions)	With supervision
(Criteria)	In accordance with the suggestions and recommendations of knowledgeable personnel and evaluation of past formulae, past procedures and newly developed techniques
(Consequence)	Improved preparations and procedures, and revised expiration dates
(Next Action)	Approval of changes and revision of permanent record

KNOWLEDGES AND SKILLS

Recognition of areas requiring improvement
Shelf life of formula being evaluated

Competency: PHARMACY TECHNICIAN (PHT)

COMPETENCY UNIT V: DISPENSING

This unit includes the following modules:

Number	Title	Page
1	Filling Prescriptions	44
2	Outpatient Prescriptions for Controlled Drugs	45

Competency: PHARMACY TECHNICIAN (PHT)

Unit V: Dispensing

MODULE 1: FILLING PRESCRIPTIONS

TASKS

a. Transcribe physician's orders
b. Check prescribed medications for incompatibilities of administration or mixing
c. Check prescriptions for overdosage
d. Check prescriptions for accuracy of calculations
e. Check prescriptions for completeness, e.g., drug, dose, form, sig, prescriber identification
f. Check prescriptions for incompatibility with concurrently prescribed medications
g. Number prescriptions with machine
h. Fill prescription

PERFORMANCE OBJECTIVE

(Stimulus)	Upon receipt of prescription
(Behavior)	The PHT will evaluate and fill each prescription
(Conditions)	With supervision and with the assistance of the PHA; using appropriate medications and containers
(Criteria)	Prescription accurately filled and labeled according to established procedures and correctly numbered in sequence
(Consequence)	Correctly filled prescription
(Next Action)	File prescription request; have pharmacist dispense prescription

KNOWLEDGES AND SKILLS

Interpretation of prescriptions
Drug actions
Toxicology of drugs involved
Drug-drug interactions
Drug-food interactions
Effect of drugs on lab tests
Generic and trade names of drugs
Reference material required
Associated pharmaceutical mathematics, i.e., to check accuracy of calculations
Recognition of excessive prescribed dose
Compounding procedures
Typing
Recognition of physician's writing

Competency: PHARMACY TECHNICIAN (PHT)

Unit V: Dispensing

MODULE 2: OUTPATIENT PRESCRIPTIONS FOR CONTROLLED DRUGS

TASKS

a. Fill controlled drugs/alcohol prescription
b. Record issue of narcotics/controlled drugs/ alcohol on perpetual inventory

PERFORMANCE OBJECTIVE

(Stimulus)	Upon presentation of prescription for controlled drugs/alcohol by outpatient
(Behavior)	The PHT will check prescription for completeness, fill the prescription and give patient any special instructions regarding use of medication, e.g., driving, operating machines
(Conditions)	With supervision by the pharmacist and aid from PHA when needed
(Criteria)	Filled according to established procedures and BuMed instructions, checking prescription for completeness and accuracy, accurately typed label and correct numbering
(Consequence)	Correctly filled prescription for controlled drug
(Next Action)	Record issues; have pharmacist dispense

KNOWLEDGES AND SKILLS

Procedures to fill a prescription
BuMed instructions
Cautions when taking specific drugs, i.e., driving, operating machines

Competency: PHARMACY TECHNICIAN (PHT)

COMPETENCY UNIT VI: NARCOTICS AND CONTROLLED PHARMACEUTICALS

This unit includes the following module:

Number	Title	Page
1	Accountability for Controlled Drugs and Narcotics	47

Competency: PHARMACY TECHNICIAN (PHT)

Unit VI: Narcotics and Controlled Pharmaceuticals

MODULE 1: ACCOUNTABILITY FOR CONTROLLED DRUGS AND NARCOTICS

TASKS

a. Check/count narcotics/controlled drugs
b. Distribute narcotics printout
c. Transpose narcotic/controlled drug prescription onto IBM cards
d. Do preinventory count of narcotics (safe and vault)
e. Search for unaccountable ward/clinic narcotics/controlled drugs
f. Maintain/account for bulk alcohol

PERFORMANCE OBJECTIVE

(Stimulus) When assigned by the Narcotics Inventory Board

(Behavior) The PHT will maintain accountability and security for narcotics and controlled drugs, i.e., periodically inventory controlled drugs and submit reports, perform informal investigation of missing controlled drugs, check inventories and accountability records for accuracy

(Conditions) Using appropriate accountability and inventory forms for controlled drugs

(Criteria) According to BuMed requirements regarding security, accountability and inventory; all errors must be brought to the attention of the proper authorities to determine if there is any culpable responsibility

(Consequence) Adequate accountability and security for all controlled drugs to prevent illegal use

KNOWLEDGES AND SKILLS

BuMed and local instructions and procedures, e.g., regarding inventory and accountability
Acquaintance with all members of Narcotics Inventory Board
Liaison and rapport with wards and clinics
Recognition of controlled drug or narcotic

Competency: PHARMACY TECHNICIAN (PHT)

COMPETENCY UNIT VII: DRUG INFORMATION

This unit includes the following module:

Number	Title	Page
1	Drug Information	49

Competency: PHARMACY TECHNICIAN (PHT)

Unit VII: Drug Information

MODULE 1: DRUG INFORMATION

TASKS

a. Answer personnel inquiries regarding mixing/administering drugs
b. Coordinate physician's requests for drug travel kits
c. Answer inquiries regarding drug reaction
d. Complete report forms on adverse drug reaction
e. Provide information on symptoms/treatment of drug toxicity
f. Look up normal values for laboratory tests from reference table/book
g. Research material for projects, e.g., compile statistics/gather data from different sources

PERFORMANCE OBJECTIVE

(Stimulus) When requested and upon recognizing the need for drug information

(Behavior) The PHT will determine whether inquiries should be referred to physician/pharmacist and refer or disseminate information concerning dosage, symptoms, treatment of toxic reactions, overdosage, physiological action and interactions of specific drugs, as appropriate

(Conditions) With supervision; using appropriate reference materials

(Criteria) Answer questions about drugs according to established protocol, accurately discriminating and referring to physician and/or pharmacist questions requiring further clarification

(Next Action) Maintain record of activities and advise pharmacist of actions

KNOWLEDGES AND SKILLS

Background information on drug action, toxicity, etc.
Familiarity with forms and instructions concerning the reporting of drug reactions
Use of drug reference materials

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