



ALTINBAŞ UNIVERSITY
FACULTY of PHARMACY
APPRENTICESHIP NOTEBOOK
PHAR 471 APPRENTICESHIP-II

ISTANBUL -

Photo

ALTINBAŞ UNIVERSITY
SCHOOL of PHARMACY
APPRENTICESHIP NOTEBOOK

Student's:

Name and Surname:

No:

Type of Apprenticeship:

Signature:

APPRENTICESHIP INFORMATION

Hospital;	
Name	
Telephone Number	
Address	
Name and Surname of the Responsible Pharmacist	
Apprenticeship Start Date	
Apprenticeship End Date	
Apprenticeship Period (Total Business Days)	
Apprenticeship Attendance Status	Regularly attended to the apprenticeship ()
Signature of the Responsible Pharmacist ; Stamp and Date	

Course Coordinator : Asst. Prof. Nilay AKSOY

Instructors	: Asst. Prof. Nilay AKSOY Asst. Prof. Gaye HAFEZ
Assistants	: Res. Asst. Serel ULUSOY
Sector Representative	: Pharm. Esra KARACABEY (Hospital Pharmacist) Pharm. Ece SUCULARLI (Hospital Pharmacist)
Goals	: This is an introductory (core) apprenticeship that aims to provide opportunities for students to build on knowledge, skills acquired through didactic education experiences and apply them in direct patient care activities in a hospital setting. The students will participate in pharmacy operation and services including drug distribution and drug control as well as clinical services including medication use evaluation, therapeutic drug monitoring, adverse drug reaction reporting, pain management, pharmaceutical care, nutritional support, chemotherapeutic drug monitoring, and anticoagulation service.
Content	: Four (4) weeks, full time (40 hours/week), hospital pharmacy apprenticeship, total 160 (4x 40) hours.

LEARNING OUTCOMES

By the end of this apprenticeship students;

- Understand drug product procurement and inventory management.
- Classify prescription types.
- Dispense medication according to the prescription.
- Take part in preparing, packaging and labeling medication.
- Monitor medication delivery and usage.
- Evaluate the storage condition requirements for certain medications.

PURPOSE OF THE TRAINING MANUAL

The purpose of this manual is to provide the information required in Hospital Pharmacy Training for Altınbaş University Faculty of Pharmacy students and preceptors.

CURRICULAR PREREQUISITES

PHAR 399 Core Apprenticeship Hospital Training Prerequisites: To be eligible for hospital training, students must complete the third year with success.

SITE SCHEDULING /TIME and DURATION OF PHARMACY TRAINING ROTATION

- In order to schedule a site, students must submit the training form which will be available in the secretary office. This form is distributed at the end of the second semester. The secretary office will announce the date for distributing the forms and the deadline for submitting a form.
- Once the forms are submitted, no changes are acceptable unless the student submits a written formal request explaining the reasons for this change.
- The training site will be the hospital central pharmacy.

Time and Duration of Pharmacy Training

Students are required to complete 20 days of training: 20 days in the central pharmacy. Preceptors will be asked to verify if the students complete this period of training at the end of the rotation.

RULES AND REGULATIONS

Attendance/Leave of Absence

Students are required to inform their preceptors of any absence due to illness or other unforeseen circumstances. Absences should be communicated to preceptor as early as possible, and prior to any scheduled start/on site time. Students who are absent from the site for more than two days due to illness must obtain a written physician's documentation.

E-mail Policy

It is possible to contact to instructors via student university e-mail portal:

nilay.aksoy@altinbas.edu.tr

General Appearance

The student's general appearance and hair must be clean and well groomed. Students are required to wear a clean, pressed short white lab coat and their university badge.

PHARMACY TRAINING PROGRAM –OVERVIEW

During the hospital pharmacy training, students will understand the different functions and services provided by the hospital pharmacist, will use different sources of drug information and will gain knowledge and practical tools for their future professional career.

EDUCATIONAL OUTCOMES FOR THE HOSPITAL PHARMACY TRAINING

At the end of the Hospital Pharmacy Practice Experience, under the supervision of the preceptor, the student should be able to:

Participate In Accurate Prescription Process

- interpret a medication order that is obtained in oral, electronic or in written form.
- be familiar with pharmacy role in transferring orders into the computerized processing system.
- correctly analyze orders for necessary components (a drug, dose, route and frequency) and be familiar with the order verification process.
- communicate to a patient, pharmacist, preceptor or other health care Professional about accurate and appropriate medical and drug information.
- participate in preparing prescription orders for administration, and be familiar with the hospital drug delivery system.

Suggested Activities In Which Outcome Can Be Taught Or Evaluated:

- receive and interpret prescriptions (order entry).
- assess a prescription for necessary components (drug, dose, route and frequency) and safety (order verification).
- compare medication products versus labels for accuracy (checking).
- determine the appropriate means of communication for the situation.
- distribute prescriptions using the hospital delivery system.

Demonstrate Knowledge Of A Unit Dose System

- identify key elements of a unit dose system.
- identify different services pharmacy provide and the role they play in hospital drug distribution.

- participate in medication storage, pre-packaging and distribution.
- identify relevant laws and standards regarding a unit dose system.

Demonstrate Knowledge of an Intravenous Admixture System

- observe and describe proper procedures for dispensing sterile products.
- observe and describe special handling, preparation and administration procedures for IV drug products (chemotherapy, TPN, etc.)
- discuss technology in IV drug mixing.
- discuss different types of equipment used with IV therapy.

Display Appropriate Professional Behavior and Ethical Work

- maintain professional attire, behavior and attitude.
- be reliable, responsible, rarely late, and finish the work that is started.
- initiate activities and utilize time effectively.
- demonstrate awareness of personal competence and limitations, and seek guidance from preceptors when appropriate.
- display appropriate and open-minded response to feedback.
- discuss the appropriate resolution of conflict in place of work

Demonstrate Cultural and Social Competency

- respect different patient groups and cultural/ethnic/religious traditions.
- display an open-minded attitude to different cultural perspectives.
- demonstrate empathy and caring in interactions with others.

Central Pharmacy Training Exercise Sheet

1. Institutional Site
 - A. Hospital
 - I. Which services does the institution (hospital) provide?
 - II. Describe the general hospital safety procedure, the worker safety, patient safety, environmental safety and drug safety.
 - III. Is your assigned facility a teaching hospital or community hospital? What does it mean to be a teaching hospital? Write briefly in your summary what the strengths and weaknesses of teaching hospitals and non-teaching hospitals are.

B. Pharmacy

- I. What is the organizational structure of the pharmacy? Explain briefly the job description of each position placed in pharmacy team.
- II. Describe the good pharmacy practice. How the pharmacist can achieve it?

Prescription Process

- I. Describe the journey of a medication order from prescriber to patient for each of the following types of medications (selecting the drug, supplying the drug, preparation, labeling, transferring, administration and monitoring).
 - a. Standard oral medication
 - b. IV medication
 - c. Floor stock medication
- II. Describe medication management and quality standards performance process
- III. List the types of informatics and technology used at your site to help facilitate the prescription process.

Medication Storage

I. Define the following medication storage temperatures:

a. Room temperature

b. Refrigerator

c. Freezer

II. List 2 medications that are stored at each of the following temperatures. Give a reason why a particular medication must be stored at a particular temperature.

Temperature	Medication	Reason
Room Temperature		
Room Temperature		
Refrigerator Temperature		
Refrigerator Temperature		
Freezer Temperature		
Freezer Temperature		

III. How long can the temperature be out of range before you have to discard certain drugs? Give examples.

- IV. Find 2 examples of light sensitive medications (medications stored in light sensitive containers) and then explain why each of them can not be exposed to light.

Floor Stock

I. Which medications and supplies are stocked in a crash cart?

II. Who has access to crash carts and floor stock medications ?

Medication Administration

I. Dosing schedules

a. Describe the process of determining the dose schedule.

b. What are the standard medication administration times at your assigned facility?

- c. Observe a nurse administering medications. List 5 different routes of administration, provide an example of a medication administered via this route, and provide rationale on why this is the preferred route.

Route of Administration	Example Medication	Rationale

2. Describe how pharmacist manage blood products and purple prescription
3. Describe the narcotic medication management, differences between red and green prescription

Chemotherapy Preparation and Administration

1. Describe the chemotherapy preparation system in your hospital (manual, semi-automatic, Automatic) with details.
2. Describe some of the important consideration that must be taken while preparing chemotherapy with example for some drugs that need special requirments.

Parenteral and Enteral Nutrition

1. Please describe the differences between the Parenteral and Enteral Nutrition regarding their use and content
2. Describe Parenteral and Enteral Nutrition preparation in your hospital



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Evaluation of Worksheet For Hospital Pharmacy Training

To assist the preceptor and the student to monitor progress as they work together to meet the hospital pharmacy training outcomes

How to fill the worksheet?

Mark each outcome with either ✓ if done or X if not done or **NA** if Not Applicable to that area

Note: This checklist is for academic preceptor in order to follow-up student activities

- **Student ID Number:** _____
- **Training Site:** _____
- **Training Dates:** _____

	Outcome 1. Participate in Accurate Prescription Processing
	Receive and interpret prescriptions (order entry).
	Assess a prescription for necessary components (drug, dose, route, frequency and safety)
	Follow an order through all phases of the medication use process
	Compare medication products against labels for accuracy (checking).
	Actively listen to patients, peers, and other health care professionals.
	Determine the appropriate means of communication for the situation.
	Distribute prescriptions using automation, robotics, a tube system, or direct unit delivery.
	Comments:
	Outcome 2. Demonstrate Knowledge of a Unit Dose System
	Provide various technician services, with a technician.
	Perform prepackaging procedures.

	Retrieve and label products.
	Check an emergency cart or drug kit for contents and expiration date.
	Restock the hospital distribution system.
	Discuss relevant laws and standards regarding a unit dose system.
	Comments:
	Outcome 3. Demonstrate Knowledge of an Intravenous Admixture System
	Participation in reviewing IV admixture orders for compatibility and stability
	Observe preparation, storage, and dispensing of parenteral products using aseptic techniques.
	Observe techniques for chemotherapy and TPN orders.
	Prepare and/or update compatibility charts
	Comments:
	Outcome 4. Demonstrate Knowledge of Current Standards of Institutional Pharmacy Practice
	Discuss the role and scope of the hospital quality assurance program.
	Discuss the role of pharmaceutical representatives in the hospital setting
	Discuss patient safety issues with the preceptor and other health care professionals
	Comments:
	Outcome 5. Display Appropriate Professional Behavior and Ethical Work
	Student observation of pharmacist role model.
	Establish professional rapport with patients and healthcare professionals.
	Prioritize workload appropriately.
	One on one interaction with preceptor and/or other health care professional.
	Comments:

Preceptor Evaluation For The Student

	Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
Exhibit the highest standards of professional and ethical behavior in pharmacy practice (e.g. honesty, integrity, tolerance, confidentiality, care and compassion, respect for others, responsibility)			
Make and defend rational, ethical decisions within the context of professional and personal values			
Demonstrate caring, ethical, and professional behavior when interacting with peers, professionals, patients, and caregivers			
Respect and protect patient privacy			
Develop and maintain professional relationships with patients			
Comments:			
Maintain professional competency and professional stewardship			
Self-identifies deficiencies in one's own performance and self-motivates to improve performance; incorporates provided feedback into work and performance			
Comments:			
Communicate effectively using multiple strategies to improve health outcomes			
Provide accurate and succinct verbal or written information that is appropriate for the target audience (e.g. patient, caregiver, or other health care professionals)			
Display verbal and non-verbal mannerism that promote empathetic, respectful, and compassionate communication			
Utilize effective communication strategies to optimize health care interactions between patients and/or members of the care team			
Demonstrate sensitivity and responsiveness to aspects of diversity and identity (culture, race, socioeconomic status, health literacy, etc) that influence effective communication when interacting with patients, caregivers, and other health professionals			
Comments:			

Note:

- This Notebook must be sent to the school at the end of the hospital apprenticeship.
- The date of the exam is the first week of fall semester so you must be at the school at that time.
- **NO LATE SUBMISSION WILL BE ALLOWED!**