



# JSS Academy of Higher Education & Research

## JSS Colleges of Pharmacy

### Mysuru and Ooty



# Introductory Pharmacy Practice Experience Manual

					
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# **Introductory Pharmacy Practice Experience Manual 2019-2020**

**Department of Pharmacy Practice  
Colleges of Pharmacy  
Mysuru and Ooty**



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## I. Introduction

Practice experience or experiential courses are a part of Pharm D curriculum and are given from the second year to the sixth year. Two levels of practice experiences are offered to the students. They are (1) Introductory Pharmacy Practice Experience (IPPE), offered to students of second, third, fourth and fifth year of Pharm. D program, and (2) Advanced Pharmacy Practice Experience (APPE) offered to the sixth year students. Experiential courses unlike the regular didactic classes (lectures or laboratory work), motivate the students for self-directed learning. These exercises give frontage to students about the practice concepts. During this phase, a student is exposed to the Hospital, Community and Clinical Pharmacy services in simulated environment and develops skills under the supervision of the tutor. During 6<sup>th</sup> year, the student is expected to be able to provide the services independently. In the self-directed learning environment, students have more control over their learning pace. Objectives of each experiential activity are outlined in this manual and expected competencies for each of the activities are assessed using evaluation criteria. This IPPE manual will guide the student through the introductory practice experiences.

The following is a schedule of introductory practice experiences that a student will be exposed during this program (second to fifth year)

<b>PharmD Year</b>	<b>Introductory Practice Experiences</b>	<b>Course in Curriculum</b>	<b>Practice Setting</b>
II	<ul style="list-style-type: none"><li>• Health Screening Services</li><li>• Patient Counseling</li><li>• ADR Monitoring</li><li>• Dose Division</li></ul>	Community Pharmacy	Simulated under the supervision of an Instructor
III	<ul style="list-style-type: none"><li>• Patient counselling</li><li>• Medication History Interview</li><li>• Treatment Chart Review</li><li>• Medication Reconciliation</li><li>• Drug Information Service</li></ul>	Pharmacotherapeutics	Simulated under the supervision of an Instructor
IV	<ul style="list-style-type: none"><li>• Patient counselling</li><li>• Medication History Interview</li><li>• Treatment Chart Review</li><li>• Drug Dispensing</li><li>• IV Admixtures</li></ul>	Clinical Pharmacy Hospital Pharmacy Pharmacotherapeutics	Simulated under the supervision of an Instructor

## **II. General Instructions**

The following policies have been established to ensure professional conduct of the students.

### ***a) Conduct and Appearance***

Students are expected to maintain professional conduct, and display a positive, self-motivated attitude while completing any pharmacy practice experiences. The student **MUST** be in professional attire, which includes clean apron and name badges, at all times while on-site, on-campus and off-campus pharmacy functions. Fake nails or nail polish must be removed during hospital visits. Regular clipping of nails is recommended to keep them short. The student's hair, personal hygiene and use of fragrances should be appropriate for the professional setting. Cell phone use during a practice activity, especially in patient care areas is prohibited.

### ***b) Communication***

Students are responsible for published information distributed either in print, web, or electronically, including program policies and introductory practice workbooks. Students should regularly check Notice Board and E-mails daily for up-dates. It is a requirement of the experiential program that all students have the Internet access and a current valid e-mail account on file with the department/college office.

### ***c) Patient Confidentiality***

Students are responsible for maintaining confidentiality of patient data during practice experience. Any breach of patient confidentiality is grounds for denial of practice experience and may also result in additional disciplinary action as deemed necessary by the instructor. Discussion regarding the patient information should be limited only to the instructor or any other person authorized by the instructor. Students should familiarize themselves with the Code of Ethics of Pharmacy Council of India and adhere to them. Students should not leave patient profiles or any other documents pertaining to patients in public areas. Patient case sheets should not be taken out from nursing station and photocopying, videotaping, or picture taking, etc. of patient's information is strictly prohibited.

#### ***d) Absences***

The instructor prepares the schedule of the student's activities. In case of any absence to the assigned practice experience, the decision of the instructor is final.

#### ***e) Computer, E-mail & Internet Use Policy***

Students are expected to use internet facility judiciously and productively. Access to the internet in the college or in the department is limited only to send or receive e-mails, for academic work, such as accessing medical and pharmacy databases, and to retrieve medicine related information.

### **III. Community Pharmacy Experience**

**Scope:** With the changing scenario of community pharmacy practice in India, the graduating pharmacists are expected to offer various patient care services such as medication counseling, health screening and suitably responding to minor ailments along with professional dispensing while entering into practice in community settings. Students should be adequately trained to improve their skills in dispensing of drugs, patient counseling, and health screening services etc., Goal of this practice experience is to expose the student to some activities that pharmacists perform routinely in the community practice environment. In addition to the didactic lectures, the student is expected to spend at least 16 hours in community practice learning experience.

#### **Health Screening Services:**

Health screening services are the services provided by the health care professionals to screen the health status of individuals with or without positive sign and symptoms. Health screening services enable health care professionals in detecting any illness in its early stage.

#### ***Learning Objectives:***

- To identify the candidate for health screening
- To know the calibration of health screening instruments
- To be able to record/measure blood pressure, capillary blood glucose and lung function
- To interpret the findings and referring the patients to consultant

Students are expected to learn to perform the following health screening procedures during the course of study.

- 1) Blood pressure measurement
- 2) Blood glucose measurement
- 3) Body mass index calculation
- 4) Lung function assessment

### **Patient Counseling:**

In a simulated environment, students learn the technique and develop the skills required for patient medication counseling through role plays. In a role play, one student act like a patient and another student play role of the pharmacist, thereby the actual patient counseling process is mimicked. In this Students learn to counsel a patient about disease, basic drug-related information (name of drug, indication, directions, length of use, side effects, storage, and missed dose) and lifestyle modifications as required showing ability to use various communication skills effectively.

### ***Learning objectives:***

- To understand the need for patient medication counseling
- To know the process of patient information gathering
- To interpret the gathered patient-specific medical information
- To provide patient medication counseling

Students are expected to document and complete evaluation forms after each experiential activity (Refer simulation manual)

## **IV. Hospital Pharmacy Experience**

**Scope:** Hospital Pharmacy Practice includes procurement, safe storage and dispensing of medicines to the patients across the hospital. Students are expected to learn and demonstrate such skills for improved patient care. The goal of this practice experience is to expose the students to some of the activities that pharmacists perform routinely in the hospital practice environment. The student is expected to spend at least 12 hours in hospital pharmacy learning experience during the fourth year and 240 hours in the fifth year. During this learning



experience at a practice site, the student will work with the pharmacists, technicians, other health care practitioners, and patients.

### **Drug dispensing in hospital pharmacy:**

This learning experience of drug dispensing happens in the fourth year of program. In this practice environment, students are allowed to dispense medicines at the outpatient dispensing unit of the hospital under supervision of instructor and/or the pharmacy technician. During this experience, students also learn the medicines storage methods in the pharmacy appreciate generic and brand prescribing, and computerized billing of medicines.

#### ***Learning Objectives:***

- To assess the correctness of a prescription.
- To locate the right drug to be dispensed
- To assess the correctness of dispensed medicines against prescription
- To understand the storage requirements of medicines and billing procedures

Students are expected to document and complete evaluation forms after each drug dispensing activity. (Refer simulation manual)

### **Drug distribution system in the hospital:**

This practice experience takes place in the fourth and fifth years of the program. In the fourth year, students visit the hospital pharmacy during the practical hours of Hospital Pharmacy subject. Students are allowed to observe the working procedure of the pharmacy and the drug distribution systems used, record their observations and the same is submitted to the instructor in the form of an assignment. In the fifth year, students are posted to the hospital pharmacy as part of clerkship rotations. During their clerkship rotation, students learn all aspects of hospital drug distribution system including policies, procedures, and regulations, drug storage, inventory control, indent and purchase orders, billing of medicines, and maintenance of records. Students' learning is governed by preceptor and pharmacy technician supervision.

#### ***Learning objectives:***

- To understand various methods and process of drug distribution systems prevailing in the hospital pharmacy.

- To demonstrate evidence of understanding of policies and procedures relating to drug distribution systems and pharmacy administration.
- To understand the principles, advantages and disadvantages of the drug distribution systems used in hospital pharmacy setting.
- To understand the role of pharmacist and pharmacy technicians in the hospital pharmacy.
- Learn how to work efficiently and accurately in a team within a hospital pharmacy setting.

## **Intravenous (IV) Drug Admixtures**

### **Introduction**

According to Joint Commission on Accreditation of Healthcare Organizations (**JCAHO**) Intravenous (IV) admixture is the preparation of pharmaceutical product that requires the measured additive of a medication to a 50 ml or larger bag or bottle of sterile fluid that is intended for intravenous, intramuscular, intrathecal, subcutaneous routes. In a hospital set-up, such admixtures are prepared in the pharmacy that holds a license to manufacture small volume parenteral solutions. The activity is performed by a registered pharmacist under aseptic conditions and the hospital has written protocols and standard operating procedure for the activity.

### **Objectives**

- To understand the various components of an intravenous administration set.
- To understand and learn the handling, preparation and administration procedures for IV drug products in an aseptic environment.
- To know the information that has to be provided on labels for IV admixtures and to prepare them.
- To know and perform calculations for estimating intravenous rates of infusion.

Students are expected to document activities performed in the IV admixtures Simulation Documentation Form after each such activity. (Refer simulation manual)

## V. Clinical Pharmacy Experience

**Scope:** In the patient care, right selection of medicine(s) is equally important along with the correct diagnosis. Pharmacists by virtue of their expertise in therapeutics can take lead in rationalizing drug therapy for effective therapeutic outcomes. Their skills in drug therapy monitoring will add value to the effective patient care.

During this experiential learning, the student is expected to gather medication related information from the patient and assess the patients' understanding about their medication, analyze the appropriateness of the therapy through treatment chart review and educate the patients about the safe use of their medicines through patient counseling activity. The concept of these activities is taught to the students in clinical pharmacy theory. The student is exposed to this experiential learning across third and fourth years of the program. The learnt skill should be demonstrated in simulated activity and the same is evaluated by the instructor. Medication history interview, treatment chart review, answering drug information queries, and laboratory data interpretation are activities performed in this experience.

### **Medication History Interview:**

Medication history interview is an activity carried out by the clinical pharmacist to gather the medication related information from the patient to assess the appropriateness of drug therapy and also commence preliminary counseling on medication use to patients. Students will perform this activity during hospital visits scheduled for pharmacotherapeutics – II practical during third year and as clinical pharmacy practical in the fourth year. Student is expected to spend at least 12 hours in the third year and 18 hours in the fourth year for this activity.

### ***Learning Objectives:***

- To gather information from patients about their prescribed medication
- To assess the need for medication counseling and medication aids
- To provide vital information to clinician/other healthcare professionals that may influence the drug therapy
- To conduct preliminary medication counseling and plan the ongoing patient management/pharmaceutical care.

Students are expected to perform this activity under supervision by the instructor/preceptor and document the same. (Refer simulation manual). The schedule of activity is decided by the respective instructor/preceptor.

**Treatment Chart Review:**

This activity is concerned with assessment and interpretation of patient clinical information. Drawing upon the knowledge of therapeutics, clinical pharmacokinetics and drug related problems, the student is expected to provide a sound clinical reasoning and judgement regarding the therapy. Students are expected to spend 12 hours in the fourth year of the program in this activity.

**Learning Objectives:**

- To collect and accurately interpret patient-specific information
- To assess therapeutic goals and appropriateness of drug therapy to achieve therapeutic goals
- To identify and suggest remedies to drug related problems, if any
- To optimize the patients drug therapy
- To prevent or minimize drug related problems

Students are expected to perform this activity under the supervision an instructor and document the same. (Refer simulation manual). Respective instructor will decide the activity schedule.

**Drug Information:**

Students are given a simulated drug information query pertaining to theoretical aspects that they are exposed to in the professional year. They are expected to answer the query within a stipulated time depending upon the nature of the query. This exercise happens in the practical hours of Clinical Pharmacy subject in the fourth year of the program under the supervision of the instructor. Students learn to assess the completeness of background information, look-up appropriate references, develop search patterns for common types of questions, assimilate and integrate gathered information, and summarize the same in a succinct but befitting manner. Using computerized databases by combining search terms and applying Boolean operators, and using web search engines are other skills that students polish upon. The query, the process including the sources referred and the answer are recorded in the practical record book. The student is evaluated by the instructor during the process as well as by weekly viva voce.

***Learning Objectives:***

- To determine and categorize the question
- Identify appropriate resources to refer
- To evaluate and analyze gathered information
- To formulate a response using the most appropriate information.

Students are expected to perform this activity under the supervision an instructor and document the same. (Refer simulation manual). Respective instructor will decide the activity schedule.

**Interpretation of Laboratory Data:**

This simulated experience is provided to the students in the fourth year of the program in the practical classes of Clinical Pharmacy subject. Using a case-based approach, this exercise is developed to help the student refine his/her skills in analyzing results of laboratory tests. Students are provided with any four case studies that may include myocardial infarction, iron deficiency anemia, megaloblastic anemia, hypo and hyperthyroidism and cirrhosis. Students are expected to evaluate the laboratory parameters according to specific disease, identify abnormalities in laboratory values and appreciate their value in the diagnosis of disease as well as their impact on disease progression. Students are expected to spend 12 hours on this exercise. The case study details, laboratory results, students' inferences and justifications are recorded in the practical record book that is evaluated by the instructor on a weekly basis along with viva voce.

***Learning Objectives:***

- To understand lab values and their diagnostic indications
- To understand normal and panic values for select diagnostic laboratory tests
- To integrate clinical and laboratory data
- Appreciate the limitations of laboratory data in making a diagnosis

Students are expected to perform this activity under the supervision an instructor and document the same. (Refer simulation manual). Respective instructor will decide the activity schedule.

## **VI. Ward Visits**

**Scope:** Clinical teaching is concerned with the acquisition of the multitude of skills and competencies to enable effective practice in the health care professions. Bedside teaching is patient-based and patient-orientated teaching and learning; taking place in natural health related environments.

### **Objectives:**

1. To develop familiarity with health care services and facilities
2. To understand facts of diseases and their management.
3. To collect and interpret the clinical, therapeutic and patient related information.
4. To suggest suitable solutions to potential drug related problems
5. To develop appropriate attitudes towards patients and the other health care professionals.

Ward visits are a part of practical component of Pharmacotherapeutics – I, II & III during second, third and fourth years respectively. To complement classroom lectures students are taken to the identified patient bedside to reaffirm what is already learnt and bring out the contradictions between theory and practice. Students may be asked to perform any of the introductory practice experience activities detailed above. The schedule and the type of activity is decided by the concerned instructor. Students are expected to appropriately document the gathered patient information (Refer simulation manual) as well as any other activity as directed by the instructor and file them.

**Appendix IA**  
**JSS Academy of Higher Education & Research**  
**JSS College of Pharmacy, Mysore**  
**Sri Shivarathreshwara Nagar, Mysore – 570 015**

**Health Screening Service**  
**(Simulated Settings)**

Name of the student:

Class:

Roll No:

Date:

**Blood Pressure Recording**

**Blood Pressure Readings:** \_\_\_\_\_

Students to list out what is learnt (THREE important points) from this exercise

- 1.
- 2.
- 3.

**Preceptor Evaluation:**

Activity	Remarks	
	Satisfactory Yes/No	Needs Improvement
Instructions to patients		
Wrapped the cuff around the arm		
Inflation of the cuff		
Reading the systolic blood pressure		
Reading the diastolic blood pressure		

Name of the Preceptor:

Signature & Date:

**Appendix IB**  
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**Sri Shivarathreshwara Nagar, Mysore – 570 015**

**Health Screening Service**  
**(Simulated Settings)**

Name of the student:

Class:

Roll No:

Date:

**Capillary Blood Glucose (CBG) Recording**

**CBG Reported:** \_\_\_\_\_

Students to list out what is learnt (THREE important points) from this exercise

- 1.
- 2.
- 3.

**Preceptor Evaluation:**

Activity	Remarks	
	Satisfactory Yes/No	Needs Improvement
Calibrating glucometer		
Sterilizing the finger		
Inserting the glucometer strip in to machine		
Pricking the tip of the sterilized finger		
Reading the capillary blood glucose		

Name of the Preceptor

Signature & Date



**Appendix II**  
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**Sri Shivarathreshwara Nagar, Mysore – 570 015**

**Patient Counseling Activity**  
**(Simulated Settings)**

Name of the Student:

Class:

Roll No:

Date:

Case No:

Case Details:

**Part A: Information Gathering**

1. Diagnosis of the patient:
2. Duration of the problem, the patient is currently suffering from:
3. Any history of allergy to medications:
4. Social history information:
5. Any other alternative system of medicines the patient is using:
6. Information about the current medication

<b>Brand Name</b>	<b>Generic Name</b>	<b>Directions</b>	<b>Duration</b>	<b>Remarks</b>

**Part B: Compiling Medication Information**

After collecting the information from the patient, record the information to be provided

Medications	Recommendation

**Part C: Discussion with the patient**

Details counseled	Information Provided	Remarks
Name of the Medicine		
Indication of the medicine		
Dosing regimen		
Precautions to be taken		
Required dietary changes		
Required life style modifications		
Any other relevant information		

Students to list out what is learnt (THREE important points) from this exercise

- 1.
- 2.
- 3.

**Preceptor's Comments:**

**Rating of the Student Activity**

<b>Good</b> <input type="checkbox"/>	<b>Satisfactory</b> <input type="checkbox"/>	<b>Need Improvement</b> <input type="checkbox"/>
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Name of the Preceptor:

Signature & Date:

**Appendix III**  
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**Drug Dispensing in Hospital Pharmacy**

Name of the student:

Class:

Roll No:

Date:

Students to list out what is learnt (THREE important points) from this exercise

- 1.
- 2.
- 3.

**Preceptor/Subject Teacher Evaluation:**

Activity	Remarks	
	Satisfactory Yes/No	Needs Improvement
Receiving the prescription		
Checking the prescription for correctness		
Time taken to fill the prescription		
Verifying the correctness of medicines against prescription		
Dispensing the medicines		

Name of the Preceptor/Subject Teacher:

Signature & Date:

**Appendix IV**  
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**JSS College of Pharmacy, Mysore**  
**Sri Shivarathreshwara Nagar, Mysore – 570 015**

**Medication History Interview Activity**

Name of the student:

Class:

Roll No:

Date:

**Part A: Information Gathering**

1. Subject initials:

2. Age:

Gender:

3. Diagnosis:

4. Medications Prescribed:

Brand Name	Generic Name	Dosage Regimen	Duration	Student Remarks

**Opportunity for preliminary counseling:**

Students to list out what is learnt (THREE important points) from this exercise

1.

2.

**Preceptor's Comments:**

**Rating of the Student Activity**

Good <input type="checkbox"/>	Satisfactory <input type="checkbox"/>	Need Improvement <input type="checkbox"/>
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Name of the Preceptor:

Signature and Date:

## Appendix V

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Sri Shivarathreshwara Nagar, Mysore – 570 015

### Treatment Chart Review

Name of the student:

Class:

Roll No:

Date:

#### Part A: Patient Information

Patient ID:

Age:

Gender:

Patient Complaints:

Diagnosis:

Medications Prescribed

Brand Name	Generic Name	Dosage Regimen	Duration	Student Remarks

Treatment Chart Annotations (If any):

Drug Related Problems (DRP): Yes/No:

**If Yes, list out DRPs in the order of priority:**

- 1)
- 2)
- 3)

### Strategies to manage DRPs

- 1.
- 2.
- 3.

Students to list out what is learnt (THREE Important points) from this exercise

- 1.
- 2.
- 3.

### Preceptor's Comments

### Rating of the Student Activity

Good <input type="checkbox"/>	Satisfactory <input type="checkbox"/>	Need Improvement <input type="checkbox"/>
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Name of the Preceptor:

Signature and Date:

**Appendix VI**  
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**JSS College of Pharmacy, Mysore**  
**Sri Shivarathreeshwara Nagar, Mysore-570015**  
**IV admixtures and Sterile Compounding Simulation Documentation Form**

**Date:**

**Course:** IV PharmD

**Batch:**

**Name of the student:**

**Session:**

**Details of Simulation activity:**

**Quality Checklist:**

<b>Criteria</b>	<b>Satisfactory</b>	<b>Average</b>	<b>Need Improvement</b>
Appropriate garb before entering in to aseptic area			
Aware of laminar air flow operations			
Knows how to handle glassware, needles, syringes etc.			
Demonstrate aseptic condition throughout the process			
Accurately follow given instructions for the respective task			
Disposes waste materials appropriately			

**Comments:**

**Name of the faculty & Signature:**

**Appendix VII**  
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**Sri Shivarathreshwara Nagar, Mysore – 570 015**

**PATIENT PROFILE FORM**

<b>PATIENT NAME:</b> I.P. No:                      UNIT: AGE:                              WEIGHT: SEX:                                DOD: DOA:                              DOD:		<b>REASONS FOR ADMISSION:</b>  PMHx:					
Pulse:		ALLERGIES :					
B P :		DIAGNOSIS:					
<b>LABORATORY DATA</b>							
<b>HEMATOLOGY</b>		<b>BIOCHEMISTRY</b>				Electrolytes:	
Hb: WBC: DLC : N E B L M PLT : ESR :		RBS: FBS: PPBS Urea: Secr: CKMB: AST: ALT: ALP: LDH: Bilirubin: T: D:				Lipid profile:	
							Microbiology:
						Urine analysis :	
<b>Current Drugs</b>		<b>DOSE</b>	<b>R</b>	<b>F</b>	<b>DA</b>	<b>DS</b>	<b>Comments</b>
<b>NOTES:</b>							

**Fluid Intake & Output Chart:**

<b>Days →</b>		1	2	3	4	5	6	7	8	9	10
<b>Fluid</b>	<b>Input (ml)</b>										



	<b>Output (ml)</b>										
--	------------------------	--	--	--	--	--	--	--	--	--	--

**Current Medication:**

Sl. No.	Name of the Medication	Dose	R	F	DA	DS	OD	Comments
1								
2								
3								
4								
5								
6								
7								
8								

**Clinical Notes:**

Day 1:	Day 4:
Day 2:	Day 5:
Day 3:	Day 7:

**Clinical Pharmacy Services Provided:**

Sl. No.	Activity	Number	Ref. Code
1			
2			
3			

Student Name:	Preceptor Name :
Signature :	Signature :

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