2.5.1. Mechanism of Internal / External assessment is transparent and the grievance redressal system is time-bound and efficient.

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Principal
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Mechanism for Internal Examination Grievance Redressal

The college offers a well-functioning grievance procedure for examination-related issues. At the college level, an examination committee is constituted, comprising of Principal, senior Faculty as and other teaching faculty as supporting members for smooth conduction of internal and external examinations. The year-end examination is conducted by university, and the students appear at the jumbling center allotted by the university. Students who have issues regarding exams can address principal, exam incharge and the concerned faculty. The organization conducts internal exams in accordance with university rules. In accordance with university policies and procedures, the entire grievance procedure for exams is time-bound.

There are two types of assessments:

(1) External Examination (EE)

(2) Internal Assessment or examination (IA).

Procedure of conduction of Internal Examination:

- In accordance with the timetables published by JNTU-GV, Vizianagaram, faculty members will enlighten students at the start of the year about the different elements of the evaluation process.
- Three internal examinations are conducted in each year for theory and two for practical courses.
- All faculty members, students will receive schedule of internal exams and displayed on the college notice board.
- The timetables for the internal examination are created in accordance with university policies and are provided to the students plenty of notice.
- Two invigilators are appointed to each hall for the effective administration of internal assessments.
- The faculty members in charge of the course evaluate the scripts, and they are required to submit the scripts not later than three days after the exam date.
- The students receive the scripts from the concerned faculty to check any discrepancy or doubt in checking, and any concerns are promptly addressed and resolved.
- By adopting the criteria as per the guidelines of affiliating university, complete transparency is maintained in internal examinations.
- After preparing the assessments report by faculty it is shown to Principal and a copy is submitted by the concerned faculty to the examination section.

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- The assessment marks of three sessional exams displayed on the notice board, and uploaded in university portal at the end of each year.
- Continuous mode is evaluated for each student, by considering their attendance, teacher - student interaction and academic activities. The Project Review Committee (PRC) evaluates the projects quality in conjunction with the project guides.

Redressal of Internal Examination Grievances (College level):

- The concerned faculty distributes the internal examination scripts to students and collects their grievances if any.
- If any corrections raises that the marks scored are not up to his/her expectations, the student will bring them to the attention of the relevant teaching member.
- The responsible faculty member will reassess the response sheet in accordance with the evaluation scheme. If no discrepancy observed, the student will be informed by means of an explanation of the evaluation method, otherwise if discrepancy observed, the faculty will adjust the marks.
- If any complaints address by the student, In order to address these complaints, principal or HOD would give the relevant documents - such as the question paper, evaluation plan, and answer script - to another faculty for a prompt reevaluation.
- If there is no change in the marks upon revaluation, the student(s) will be informed as such. If there is a discrepancy any in the grades, principal/HOD will notify the relevant faculty to adjust the marks.
- The mid marks are shown on the notice board and are awarded in accordance with predetermined strategies.

Process for Examining Internal Grievances:

The college has a smooth grievance procedure for exam-related issues. If any exam irregularities observed by the college are promptly reported to the university's controller of examinations, who then makes any necessary corrections. Students can also use the web portal and suggestion box. The principal, IQAC, and exam incharge closely monitor each internal assessment procedure and make any necessary corrections. Students will be informed of the grievances' resolution within a predetermined timeframe. The action taken on the grievances will be communicated to students within a stipulated time period.

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Procedure of conduction of External Examination:

The college has a well-functioning grievance procedure for examination-related issues. Any discrepancies with the exams that the college finds are reported right away to the university controller of examinations, and any necessary corrections are only made after receiving directives from the university. It is time-bound and extremely transparent.

External Examination Process:

- The university will select an external examiner from among the other colleges to conduct the end examination for the lab and projects.
- The university will select an observer from among the other colleges to conduct the end year theory exams.
- Based on the timetables, the Examination Cell will create the faculty invigilation chart and the student seating plan with an internal jumbling mechanism.
- Invigilators will announce the guidelines pertaining to in the examination hall.
- Examiners are required to announce in the examination hall the regulations, governing the conduct of the exams.
- It is expected of the invigilators to maintain the peace in the exam room and handle delicate situations with tact.
- If an issue is found, the person in question may notify the Chief Supervisor of the matter, and based on the gravity of the problem, the Controller of the Examinations (CE) may be notified as well.
- Exams are usually scheduled to begin at 10:00 AM for the afternoon session and at 2:00 PM for the morning session.
- The invigilators were advised to arrive at their designated examination halls no later than thirty minutes prior to the start of the exam.
- It is the sole responsibility of the invigilators assigned to a hall to submit the answer booklets to the relevant Examination Cell authorities, and they are all instructed to report back to the Examination Cell upon completion of the examination.
- Invigilators were instructed to notify the Chief Supervisor right away if they discovered or tracked down any unusual incidents while conducting the examinations.

Redressal of External Examination Grievances (University level):

After being sent through the college Examination Cell, questions about results and mark sheet corrections issued by the university are handled at the J.N.T.U-GV Examination Cell.

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Students may request a revaluation, recount, or challenged evaluation by paying the required processing fee to the university if they are unhappy with the grades they received. Students may apply for revaluation, recounting, and challenged evaluation if they are unhappy with the grades they received from the university. To do this, they must pay the required processing fee. The college sends a photocopy of the mark list along with an application to correct errors at the university level for students whose marks are either not entered at all or entered incorrectly. As a result, the college handles any student grievances promptly and with the utmost care.

Principal

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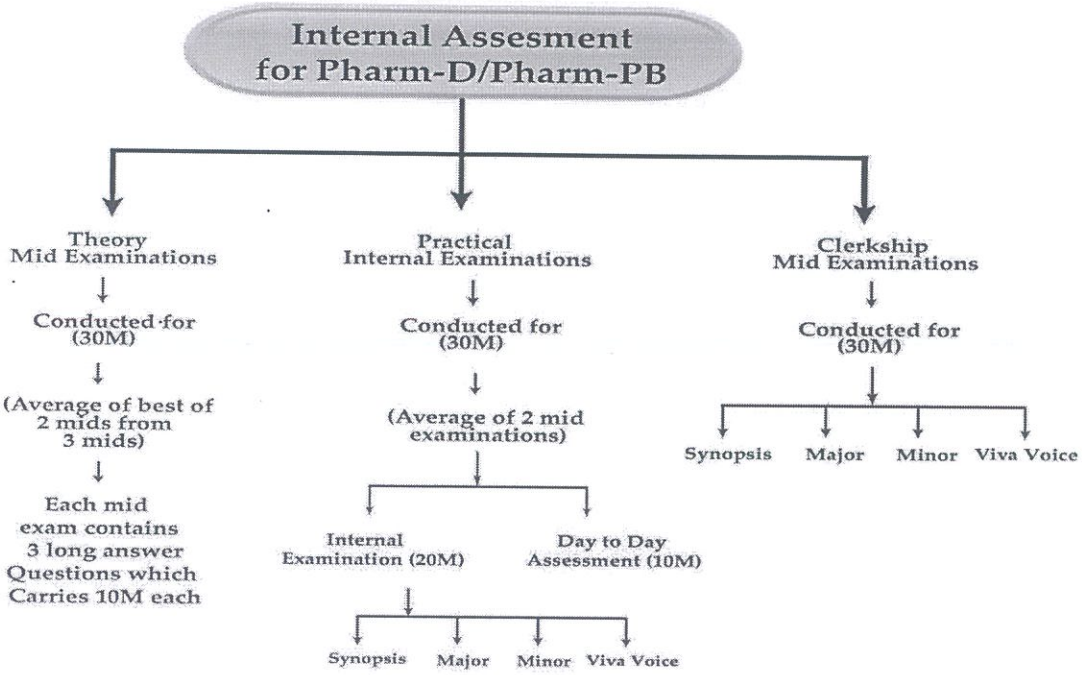
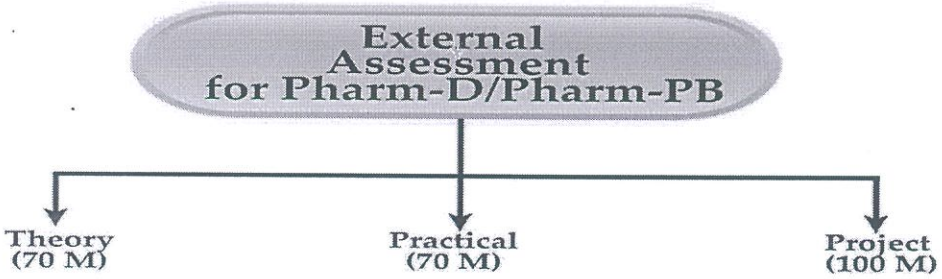
ACADEMIC REGULATIONS AS PER UNIVERSITY AND PCI GUIDELINES

Mechanism of Internal and External Examinations

Avanthi Institute of Pharmaceutical technology follows the academic regulations and guidelines set by the University and PCI, New Delhi.



Internal Assessment for Pharm-D/Pharm-PB



External Assessment for Pharm-D/Pharm-PB

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रजिस्ट्री सं. डीएल (एन)-04/0007/2003--05 REGISTERED No. DL(N)—04/0007/2003—05

सत्यमेव जयते

भारत का राजपत्र
The Gazette of India

साप्ताहिक/WEEKLY

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PUBLISHED BY AUTHORITY

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No. 19] NEW DELHI, SATURDAY, MAY 10—MAY 16, 2008 (VAISAKHA 20, 1930)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।

(Separate paging is given to this Part in order that it may be filed as a separate compilation)

भाग III—खण्ड 4

[PART III—SECTION 4]

[सांविधिक निकायों द्वारा जारी की गई विविध अधिसूचनाएं जिसमें कि आदेश, विज्ञापन और सूचनाएं सम्मिलित हैं]

[Miscellaneous Notifications including Notifications, Orders, Advertisements and Notices issued by Statutory Bodies]

भारतीय रिज़र्व बैंक

मुंबई-400001, दिनांक 9 अप्रैल 2008

सदर्भ : बैंपविवि. सं. आईबीडी.-14241/23.13.048/2007-08--भारतीय रिज़र्व बैंक अधिनियम, 1934 (1934 का 2) की धारा 42 की उप-धारा (6) के खण्ड (ग) के अनुसरण में भारतीय रिज़र्व बैंक इसके द्वारा निदेश देता है कि उक्त अधिनियम की दूसरी अनुसूची में निम्नलिखित परिवर्तन किये जाएं :--

''अरब बांगलादेश बैंक लिमिटेड'' शब्दों के स्थान पर ''एबी बैंक लिमिटेड'' शब्द होंगे।

आनन्द सिन्हा

कार्यपालक निदेशक

[PUBLISHED IN THE GAZETTE OF INDIA, No.19, PART III, SECTION 4]

Ministry of Health and Family Welfare
(Pharmacy Council of India)

New Delhi, 10th May, 2008.

Pharm.D. Regulations 2008

Regulations framed under section 10 of the Pharmacy Act, 1948 (8 of 1948).

(As approved by the Government of India, Ministry of Health vide, letter No.V.13013/1/2007-PMS, dated the 13th March, 2008 and notified by the Pharmacy Council of India).

No.14-126/2007-PCI.— In exercise of the powers conferred by section 10 of the Pharmacy Act, 1948 (8 of 1948), the Pharmacy Council of India, with the approval of the Central Government, hereby makes the following regulations, namely:-

CHAPTER-I

1. Short title and commencement. – (1) These regulations may be called the Pharm.D. Regulations 2008.

   (2) They shall come into force from the date of their publication in the official Gazette.

2. Pharm.D. shall consist of a certificate, having passed the course of study and examination as prescribed in these regulations, for the purpose of registration as a pharmacist to practice the profession under the Pharmacy Act, 1948.

CHAPTER-II

3. Duration of the course. –

a) Pharm.D: The duration of the course shall be six academic years (five years of study and one year of internship or residency) full time with each academic year spread over a period of not less than two hundred working days. The period of six years duration is divided into two phases –

Phase I – consisting of First, Second, Third, Fourth and Fifth academic year.

Phase II – consisting of internship or residency training during sixth year involving posting in speciality units. It is a phase of training wherein a student is exposed to actual pharmacy practice or clinical pharmacy services and acquires skill under supervision so that he or she may become capable of functioning independently.

b) Pharm.D. (Post Baccalaureate): The duration of the course shall be for three academic years (two years of study and one year internship or residency) full time with each academic year spread over a period of not less than two hundred working days. The period of three years duration is divided into two phases –

Phase I – consisting of First and Second academic year.
Phase II – consisting of Internship or residency training during third year involving posting in speciality units. It is a phase of training wherein a student is exposed to actual pharmacy practice or clinical pharmacy services, and acquires skill under supervision so that he or she may become capable of functioning independently.

4. Minimum qualification for admission to. –

a) Pharm.D. Part-I Course – A pass in any of the following examinations -

(1) 10+2 examination with Physics and Chemistry as compulsory subjects along with one of the following subjects:

Mathematics or Biology.

(2) A pass in D.Pharm course from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act.

(3) Any other qualification approved by the Pharmacy Council of India as equivalent to any of the above examinations.

Provided that a student should complete the age of 17 years on or before 31st December of the year of admission to the course.

Provided that there shall be reservation of seats for the students belonging to the Scheduled Castes, Scheduled Tribes and other Backward Classes in accordance with the instructions issued by the Central Government/State Government/Union Territory Administration as the case may be from time to time.

b) Pharm.D. (Post Baccalaureate) Course -

A pass in B.Pharm from an institution approved by the Pharmacy Council of India under section 12 of the Pharmacy Act:

Provided that there shall be reservation of seats for the students belonging to the Scheduled Castes, Scheduled Tribes and other Backward Classes in accordance with the instructions issued by the Central Government/State Government/Union Territory Administration as the case may be from time to time.

5. Number of admissions in the above said programmes shall be as prescribed by the Pharmacy Council of India from time to time and presently be restricted as below –
   i) Pharm.D. Programme – 30 students.
   ii) Pharm.D. (Post Baccalaureate) Programme – 10 students.

6. Institutions running B.Pharm programme approved under section 12 of the Pharmacy Act, will only be permitted to run Pharm.D. programme. Pharm.D. (Post Baccalaureate) programme will be permitted only in those institutions which are permitted to run Pharm.D. programme.

7. Course of study. – The course of study for Pharm.D. shall include the subjects as given in the Tables below. The number of hours in a week, devoted to each subject for its teaching in theory, practical and tutorial shall not be less than that noted against it in columns (3), (4) and (5) below.

T A B L E S

First Year :

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	(2)	(3)	(4)	(5)
1.1	Human Anatomy and Physiology	3	3	1
1.2	Pharmaceutics	2	3	1
1.3	Medicinal Biochemistry	3	3	1
1.4	Pharmaceutical Organic Chemistry	3	3	1
1.5	Pharmaceutical Inorganic Chemistry	2	3	1
1.6	Remedial Mathematics/ Biology	3	3*	1
	Total hours	**16**	**18**	**6 = (40)**

* For Biology

Second Year:

S.No	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	**(2)**	**(3)**	**(4)**	**(5)**
2.1	Pathophysiology	3	-	1
2.2	Pharmaceutical Microbiology	3	3	1
2.3	Pharmacognosy & Phytopharmaceuticals	3	3	1
2.4	Pharmacology-I	3	-	1
2.5	Community Pharmacy	2	-	1
2.6	Pharmacotherapeutics-I	3	3	1
	Total Hours	**17**	**9**	**6 = 32**

Third Year:

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical	No. of hours of Tutorial
(1)	**(2)**	**(3)**	**(4)**	**(5)**
3.1	Pharmacology-II	3	3	1
3.2	Pharmaceutical Analysis	3	3	1
3.3	Pharmacotherapeutics-II	3	3	1
3.4	Pharmaceutical Jurisprudence	2	-	-
3.5	Medicinal Chemistry	3	3	1
3.6	Pharmaceutical Formulations	2	3	1
	Total hours	**16**	**15**	**5 = 36**

Fourth Year:

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Practical/ Hospital Posting	No. of hours of Tutorial
(1)	**(2)**	**(3)**	**(4)**	**(5)**
4.1	Pharmacotherapeutics-III	3	3	1
4.2	Hospital Pharmacy	2	3	1
4.3	Clinical Pharmacy	3	3	1
4.4	Biostatistics & Research Methodology	2	-	1
4.5	Biopharmaceutics & Pharmacokinetics	3	3	1
4.6	Clinical Toxicology	2	-	1
	Total hours	**15**	**12**	**6 = 33**

Fifth Year:

S.No.	Name of Subject	No. of hours of Theory	No. of hours of Hospital posting*	No. of hours of Seminar
(1)	**(2)**	**(3)**	**(4)**	**(5)**
5.1	Clinical Research	3	-	1
5.2	Pharmacoepidemiology and Pharmacoeconomics	3	-	1
5.3	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	2	-	1
5.4	Clerkship *	-	-	1
5.5	Project work (Six Months)	-	20	-
	Total hours	**8**	**20**	**4 = 32**

***** Attending ward rounds on daily basis.

Sixth Year:

Internship or residency training including postings in speciality units. Student should independently provide the clinical pharmacy services to the allotted wards.

(i) Six months in General Medicine department, and
(ii) Two months each in three other speciality departments

8. Syllabus. – The syllabus for each subject of study in the said Tables shall be as specified in Appendix -A to these regulations.

9. Approval of the authority conducting the course of study. – (1) No person, institution, society or university shall start and conduct Pharm.D or Pharm.D. (Post Baccalaureate) programme without the prior approval of the Pharmacy Council of India.

(2) Any person or pharmacy college for the purpose of obtaining permission under sub-section (1) of section 12 of the Pharmacy Act, shall submit a scheme as prescribed by the Pharmacy Council of India.

(3) The scheme referred to in sub-regulation (2) above, shall be in such form and contain such particulars and be preferred in such manner and be accompanied with such fee as may be prescribed:

Provided that the Pharmacy Council of India shall not approve any institution under these regulations unless it provides adequate arrangements for teaching in regard to building, accommodation, labs., equipments, teaching staff, non-teaching staff, etc., as specified in Appendix-B to these regulations.

10. Examination. – (1) Every year there shall be an examination to examine the students.

(2) Each examination may be held twice every year. The first examination in a year shall be the annual examination and the second examination shall be supplementary examination.

(3) The examinations shall be of written and practical (including oral nature) carrying maximum marks for each part of a subject as indicated in Tables below :

T A B L E S

First Year examination :

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
1.1	Human Anatomy and Physiology	70	30	100	70	30	100
1.2	Pharmaceutics	70	30	100	70	30	100
1.3	Medicinal Biochemistry	70	30	100	70	30	100
1.4	Pharmaceutical Organic Chemistry	70	30	100	70	30	100
1.5	Pharmaceutical Inorganic Chemistry	70	30	100	70	30	100
1.6	Remedial Mathematics/ Biology	70	30	100	70*	30*	100*
				600			600 = 1200

* for Biology.

Second Year examination :

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
2.1	Pathophysiology	70	30	100	-	-	-
2.2	Pharmaceutical Microbiology	70	30	100	70	30	100
2.3	Pharmacognosy & Phytopharmaceuticals	70	30	100	70	30	100
2.4	Pharmacology-I	70	30	100	-	-	-
2.5	Community Pharmacy	70	30	100	-	-	-
2.6	Pharmacotherapeutics-I	70	30	100	70	30	100
				600			300 = 900

Third Year examination :

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
3.1	Pharmacology-II	70	30	100	70	30	100
3.2	Pharmaceutical Analysis	70	30	100	70	30	100
3.3	Pharmacotherapeutics-II	70	30	100	70	30	100
3.4	Pharmaceutical Jurisprudence	70	30	100	-	-	-
3.5	Medicinal Chemistry	70	30	100	70	30	100
3.6	Pharmaceutical Formulations	70	30	100	70	30	100
				600			500 = 1100

Fourth Year examination :

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
4.1	Pharmacotherapeutics-III	70	30	100	70	30	100
4.2	Hospital Pharmacy	70	30	100	70	30	100
4.3	Clinical Pharmacy	70	30	100	70	30	100
4.4	Biostatistics & Research Methodology	70	30	100	-	-	-
4.5	Biopharmaceutics & Pharmacokinetics	70	30	100	70	30	100
4.6	Clinical Toxicology	70	30	100	-	-	-
				600			400 = 1000

Fifth Year examination :

S.No.	Name of Subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
5.1	Clinical Research	70	30	100	-	-	-
5.2	Pharmacoepidemiology and Pharmacoeconomics	70	30	100	-	-	-
5.3	Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring	70	30	100	-	-	-
5.4	Clerkship *	-	-	-	70	30	100
5.5	Project work (Six Months)	-	-	-	100**	-	100
				300			200 = 500

***** Attending ward rounds on daily basis.

****** 30 marks – viva-voce (oral)
70 marks – Thesis work

11. Eligibility for appearing Examination.— Only such students who produce certificate from the Head of the Institution in which he or she has undergone the Pharm.D. or as the case may be, the Pharm.D. (Post Baccalaureate) course, in proof of his or her having regularly and satisfactorily undergone the course of study by attending not less than 80% of the classes held both in theory and in practical separately in each subject shall be eligible for appearing at examination.

12. Mode of examinations.— (1) Theory examination shall be of three hours and practical examination shall be of four hours duration.

    (2) A Student who fails in theory or practical examination of a subject shall re-appear both in theory and practical of the same subject.

    (3) Practical examination shall also consist of a viva –voce (Oral) examination.

    (4) Clerkship examination – Oral examination shall be conducted after the completion of clerkship of students. An external and an internal examiner will evaluate the student. Students may be asked to present the allotted medical cases followed by discussion. Students' capabilities in delivering clinical pharmacy services, pharmaceutical care planning and knowledge of therapeutics shall be assessed.

13. Award of sessional marks and maintenance of records.— (1) A regular record of both theory and practical class work and examinations conducted in an institution imparting training for Pharm.D. or as the case may be, Pharm.D. (Post Baccalaureate) course, shall be maintained for each student in the institution and 30 marks for each theory and 30 marks for each practical subject shall be allotted as sessional.

    (2) There shall be at least two periodic sessional examinations during each academic year and the highest aggregate of any two performances shall form the basis of calculating sessional marks.

    (3) The sessional marks in practicals shall be allotted on the following basis:-

        (i) Actual performance in the sessional examination (20 marks);
        (ii) Day to day assessment in the practical class work, promptness, viva-voce record maintenance, etc. (10 marks).

14. Minimum marks for passing examination.— A student shall not be declared to have passed examination unless he or she secures at least 50% marks in each of the subjects separately in the theory examinations, including sessional marks and at least 50% marks in each of the practical examinations including sessional marks. The students securing 60% marks or above in aggregate in all subjects in a single attempt at the Pharm.D. or as the case may be, Pharm. D. (Post Baccalaureate) course examination shall be declared to have passed in first class. Students securing 75% marks or above in any subject or subjects shall be declared to have passed with distinction in the subject or those subjects provided he or she passes in all the subjects in a single attempt.

15. Eligibility for promotion to next year.— All students who have appeared for all the subjects and passed the first year annual examination are eligible for promotion to the second year and, so on. However, failure in more than two subjects shall debar him or her from promotion to the next year classes.

16. Internship.— (1) Internship is a phase of training wherein a student is expected to conduct actual practice of pharmacy and health care and acquires skills under the supervision so that he or she may become capable of functioning independently.

    (2) Every student has to undergo one year internship as per Appendix-C to these regulations.

17. Approval of examinations.— Examinations mentioned in regulations 10 to12 and 14 shall be held by the examining authority hereinafter referred to as the university, which shall be approved by the Pharmacy Council of India under sub-section (2) of section 12 of the Pharmacy Act, 1948. Such approval shall be granted only if the examining authority concerned fulfills the conditions as specified in Appendix–D to these regulations.

18. Certificate of passing examination.— Every student who has passed the examinations for the Pharm.D. (Doctor of Pharmacy) or Pharm.D. (Post Baccalaureate) (Doctor of Pharmacy) as the case may be, shall be granted a certificate by the examining authority.

CHAPTER-III
Practical training

19. Hospital posting.— Every student shall be posted in constituent hospital for a period of not less than fifty hours to be covered in not less than 200 working days in each of second, third & fourth year course. Each student shall submit report duly certified by the preceptor and duly attested by the Head of the Department or Institution as prescribed. In the fifth year, every student shall spend half a day in the morning hours attending ward rounds on daily basis as a part of clerkship. Theory teaching may be scheduled in the afternoon.

20. Project work.— (1) To allow the student to develop data collection and reporting skills in the area of community, hospital and clinical pharmacy, a project work shall be carried out under the supervision of a teacher. The project topic must be approved by the Head of the Department or Head of the Institution. The same shall be announced to students within one month of commencement of the fifth year classes. Project work shall be presented in a written report and as a seminar at the end of the year. External and the internal examiners shall do the assessment of the project work.

    (2) Project work shall comprise of objectives of the work, methodology, results, discussions and conclusions.

21. Objectives of project work.— The main objectives of the project work is to—

    (i) show the evidence of having made accurate description of published work of others and of having recorded the findings in an impartial manner; and

    (ii) develop the students in data collection, analysis and reporting and interpretation skills.

22. Methodology.— To complete the project work following methodology shall be adopted, namely:—

    (i) students shall work in groups of not less than *two* and not more than *four* under an authorised teacher;

    (ii) project topic shall be approved by the Head of the Department or Head of the Institution;

    (iii) project work chosen shall be related to the pharmacy practice in community, hospital and clinical setup. It shall be patient and treatment (Medicine) oriented, like drug utilisation reviews, pharmacoepidemiology, pharmacovigilance or pharmacoeconomics;

    (iv) project work shall be approved by the institutional ethics committee;

    (v) student shall present at least three seminars, one in the beginning, one at middle and one at the end of the project work; and

    (vi) two-page write-up of the project indicating title, objectives, methodology anticipated benefits and references shall be submitted to the Head of the Department or Head of the Institution.

23. Reporting .— (1) Student working on the project shall submit jointly to the Head of the Department or Head of the Institution a project report of about 40-50 pages. Project report should include a certificate issued by the authorised teacher, Head of the Department as well as by the Head of the Institution

(2) Project report shall be computer typed in double space using Times Roman font on A4 paper. The title shall be in bold with font size 18, sub-tiles in bold with font size 14 and the text with font size 12. The cover page of the project report shall contain details about the name of the student and the name of the authorised teacher with font size 14.

(3) Submission of the project report shall be done at least one month prior to the commencement of annual or supplementary examination.

24. Evaluation.— The following methodology shall be adopted for evaluating the project work—

(i) Project work shall be evaluated by internal and external examiners.

(ii) Students shall be evaluated in groups for four hours (i.e., about half an hour for a group of four students).

(iii) Three seminars presented by students shall be evaluated for twenty marks each and the average of best two shall be forwarded to the university with marks of other subjects.

(iv) Evaluation shall be done on the following items:

	Marks
a) Write up of the seminar	(7.5)
b) Presentation of work	(7.5)
c) Communication skills	(7.5)
d) Question and answer skills	(7.5)
Total	(30 marks)

(v) Final evaluation of project work shall be done on the following items:

	Marks
a) Write up of the seminar	(17.5)
b) Presentation of work	(17.5)
c) Communication skills	(17.5)
d) Question and answer skills	(17.5)
Total	(70 marks)

Explanation.— For the purposes of differentiation in the evaluation in case of topic being the same for the group of students, the same shall be done based on item numbers b, c and d mentioned above.

ACADEMIC CALENDER AS PER UNIVERSITY(JNTU-GV) GUIDELINES

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Directorate of Academic Planning
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY- GURAJADA-VIZIANAGARAM
VIZIANAGARAM – 535 003 Andhra Pradesh (India)
(Established by Andhra Pradesh Act No.22 of 2021)

Date: 24-12-2022

Dr. K. ChandraBhushana Rao M.E, Ph.D

Professor of Electronics and Communication Engineering
Director i/c, Academic and Planning,

To
All the Principals of Affiliated Colleges,
JNTUGV, Vizianagaram

Academic Calendar for I Year PharmaD for the Academic Year 2022-23

Description	From	To	Weeks
Commencement of Class Work	26.12.2022		
Induction Classes	26.12.2022	14.01.2023	3 w
I Unit of Instructions	16.01.2023	08.04.2023	12 w
I Mid Examinations	03.04.2023	08.04.2023	1 w
II Unit of Instructions	10.04.2023	01.07.2023	12 w
II Mid Examinations	26.06.2023	01.07.2023	1 w
III Unit of Instructions	03.07.2023	23.09.2023	12 w
III Mid Examinations	18.09.2023	23.09.2023	1 w
Preparation & Practical's	25.09.2023	30.09.2023	1 w
End Examination	03 .10.2023	14.10.2023	2 w
Commencement of Next Year Class Work	16.10.2023		
Note: Academic Calendar is prepared with 8 hours/day			

DAP i/c, JNTUGV
Prof. K.C.B.Rao
Director, Academic and Planning (DAP)
JNTUGV-VIZIANAGARAM-535003

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Copy to Director of Evaluation, JNTUGV

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Website: www.jntuk.edu.in
Email: dap@jntuk.edu.in

Phone : 7032894555

Directorate of Academics & Planning

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA-533003, Andhra Pradesh, INDIA
(Established by AP Government Act No. 30 of 2008)

Lr. No. JNTUK/DAP/AC/ II,III,IV & V Years/Pharm D/2022 *Date: 28-07-2022*

Dr. KVSG Murali Krishna,
M.E. Ph.D.,
Director, Academics & Planning
JNTUK, Kakinada

To
All the Principals of Affiliated Colleges,
JNTUK, Kakinada.

Academic Calendar of II, III, IV and V Year Pharm D
Academic year 2022-23

Description	From	To	Weeks
Commencement of Class Work	**01.08.2022**		
Community Service Project	01.08.2022	13.08.2022	2W
I Unit of Instruction	15.08.2022	29.10.2022	11W
I Mid Examinations	31.10.2022	05.11.2022	1W
II Unit of Instructions	07.11.2021	21.01.2023	11W
II Mid Examinations	23.01.2023	28.01.2023	1W
III Unit of Instructions	30.01.2023	15.04.2023	11W
III Mid Examinations	17.04.2023	22.04.2023	1W
Preparation & Practical Exams	24.04.2023	29.04.2023	1W
End Examinations	01.05.2023	13.05.2023	2W
Commencement of next Year Class Work	**05.06.2023**		

*** As per the APSCHE Guidelines Out of the Total 180 hours of Community Service Project leading to 4 Credits, two weeks will be offline and remaining project work can be done during the III-I semester weekends and holidays.**
All the B. Tech, B. Pharmacy & Pharm D students admitted from 2020-21 onwards are supposed to do CSP (Community Service Project)

28/7/22
Director Academic Planning

Director
Academic Planning
JNTUK Kakinada

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KAKINADA-533003, Andhra Pradesh, INDIA
(Established by AP Government Act No. 30 of 2008)

Lr. No. JNTUK/DAP/AC/ II,III,IV & V Years/Pharm D/2022 *Date: 28-07-2022*

Dr. KVSG Murali Krishna,
M.E. Ph.D.,
Director, Academics & Planning
JNTUK, Kakinada

To
All the Principals of Affiliated Colleges,
JNTUK, Kakinada.

Academic Calendar of VI Year Pharm D
Academic year 2022-23

Description	Date
Commencement of Class Work for Internship	01.08.2022
Closing of Internship (12 Months)	29.07.2023

28/7/22

Director Academic Planning

Director
Academic Planning
JNTUK Kakinada

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INTERNAL THEORY EXAMINATION ASSESSMENT

ESTD : 2005

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IV Pharm D I MID Examinations R8, November 2022

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 120 min. **Max. Marks: 30** **Date of exam: 2/11/2022**

S. No	Questions	Blooms Taxonomy Level	Course Out Come	Marks
	Answer any three questions			
1.	Define medication error? Explain Types of medication errors in detail.	Apply Understand	CO1	10
2.	Define ADR? Explain Types and management of ADR?	Apply understand	CO1	10
3.	Write a note on introduction & function of drug information center? Explain various drug information resources available.	Remember apply	CO2	10
4.	Write in detail about development & scope of clinical pharmacy.	Apply understand	CO2	10

Signature of the faculty

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IV Pharm D I Mid Examinations PCI (R8), November 2022

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 120 min. **Max. Marks: 30** **Date of exam:2/11/2022**

Scheme of Evaluation

1. Define medication error? Explain Types of medication errors in detail. **(10 M)**

   Medication error definition – 2 M

   Types of medication errors – 8 M

2. Define ADR? Explain Types and management of ADR? **(10 M)**

   ADR Definition – 2 M

   Types of ADR– 4 M

   Management of ADR– 4 M

3. Write a note on introduction & function of drug information center? Explain various drug information resources available. **(10 M)**

   Introduction & Function of Drug Information Center -5 M

   Various Drug Information Resources – 5 M

4. Write in detail about development & scope of clinical pharmacy. **(10 M)**

   Development Of Clinical Pharmacy- 5 M

   Scope of clinical pharmacy – 5 M

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ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No. : 19T51T0014 Date : 2-11-22

Student Name : P. Prasanna Year : 4th Sem : I MID

Branch : B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm

Specialization : Time :

Subject Name : Clinical Pharmacy Total Marks : 26

Marks Secured : Invigilators Signature :

1) Medication error :-

When a wrong drug or wrong dose of drug & wrong route of administration is given wrong time to prevent or treat the disease & disorder then it is known as medication error.

Causes of medication errors :-

→ Doctors - Errors occurs in writing prescription
→ Nurses - Errors occurs during administration of drugs.
→ Pharmacists - Errors occurs during dispensing of drugs and Patient Counselling.

Types of medication errors :

→ Prescription errors
→ Unauthorised drug errors
→ Drug deterioration errors
→ Monitoring errors
→ Compliance errors
→ Wrong dose error
→ Wrong dosage form error
→ Wrong route of administration error
→ Wrong time of administration error

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→ unordered drug use errors
→ Omission of dose errors
→ Extra dose errors.

Prescription errors :-
→ This type of medication errors occurs while writing the prescription.
→ Doctor is responsible for prescription errors.
Ex Writing of doctors is not understandable.
Sometimes doctor may prescribe drugs with drug-food interactions.

unauthorised drug errors :-
→ Some doctors will prescribe drugs that do not have any authorised.
→ Patients may use drugs that are given instant relief but those drugs do not have patents to sale.
→ usage of unauthorised drugs leads to adverse drug events.

Drug deteoration errors :-
→ The drugs that are purchased from pharmacy have defects when expiry date is crossed.
→ When preparation expires it should not be used as it may cause in defect in drug composition and leads to adverse drug reactions.

Monitoring errors :-
→ When drugs are administered Ex psychotropic drugs. we need to monitor the patient as it involves some adverse effects.
→ When typical drugs are administered if monitoring is absent then it may lead to severe complications

Compliance errors:

→ This type of errors occurs due to docts.

→ Doctors are not adhere to their prescribed drugs.

→ Sometimes it may leads to medication errs.

Wrong dose of drug:

→ When wrong dose or inappropriate dose is given then this type of error occurs.

Ex Pediatric dose of paracetamol is 250mg tablet in two divided doses. Where as adult dose is 500mg TID.

→ Dose calculation should be done for pediatrics & gediatrics based on posology. As their metabolic rate is low, dose given is also lower.

Wrong dosage form error:

→ Different dosage forms like tablets, Capsules, injections, Syrups, Creams etc are available.

→ Based on age and condition correct dosage form should be prescribed.

Ex for pediatrics Syrups should be given.

In emergency condition injections are more preferred

Wrong route of administration error.

→ It occurs when route of administration is wrong.

Ex Syrups, tablets, Capsules - oral route

Injections can be given in iv or im or SC.

→ In emergency conditions intravenous route of administration is more Preferrable.

→ Oral route is preferrable for younger people. incase of pediatrics mostly syrups in oral route & injections given in im or IV route.

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Wrong time of administration error

→ The time of administration is wrong then this error occurs.

Ex proton pump inhibitors taken on empty Stomach for better action.

→ If enteric coated tablets are taken after alkaline drugs then it shows action in Stomach instead of intestine. It causes gastric irritation.

unordered drug use error:

→ The order of drugs administration should be maintained.

→ Some drugs taken before meals & Some drugs after meals.

→ The change of order of taking drugs result in medication error.

omission of dose error:

→ It is simply skipping of dose.

Ex for chemotherapy skipping of dose should not occur it may affects therapeutic action of drugs.

→ If any dose is skipped then if it is time for next dose, take next dose.

Extra dose error:

→ for some drugs extra dose is given for better therapeutic action but it may leads to toxic effects

Ex Heparin induces bleeding

Streptomycin cause deafness

Barbiturates cause coma.

(2) ADR :- Adverse Drug Reaction

It is undesirable or unintended effect caused by the drug at normal levels (dose) which is used to prevent or diagnostic or treatment of disease or disorder.

TYPES OF ADR's:

→ Augumented
→ Bizzarre
→ Chronic
→ Delayed
→ End of use

Augumented :-

→ Predictable & close dependent.
→ It is reversible process.
→ Common type of ADR.
→ It is due to pharmacological action.

Ex fevers by vaccine.

Bizzarre:

→ unpredictable & close dependent.
→ It is an irreversible process.
→ It is life threatening.

Ex pencillin hypersenstivity

Chronic :

→ It occurs due to chronic use of drugs.

Ex NSAIDS on chronic use cause nephrotoxicity

Delayed:

→ It occurs after months - yr when drug stopped.

Ex Carcinogenicity, teritogenicity

Thalodomide cause phocomelia

End of use :

→ It occurs when drugs are stopped completely.

Ex opoids

TYPE I → Predictable & dose dependent

i) Extra pharmacological effects

ii) Secondary pharmacological effects

iii) Return effect after Stoppage of drug

TYPE II → unpredictable & dose independent

i) Idiosyncoracy

ii) Allergy

iii) Genetic

i) Extra pharmacological effects

→ It Causes toxic effects

Ex Heparin induces bleeding

Barbiturates Cause Coma

Steeptomycin cause deafness

→ Extra close Cause toxic effects

ii) Secondary Pharmacological effects

→ These are Known as Side effects.

→ They occurs but for primary drug action we are prescribing the drugs

Ex Antihistamines Cause Sedation

→ These are commonly predictable.

iii) Return affect or Rebound affect

→ When drugs are stopped then effect is Shown.

Ex. Clonidine given for Hypertension if it is Stopped Suddenly then it may cause hypotension.

• Stoppage of antiepileptic Cause Seizure

• Stoppage of CNS depressant Cause depression, dementia

TYPE II

i) Idiosyncracy

→ These are unpredictable

→ Reason of occuring is unknown.

→ Some drugs shows action in people but few people have adverse effects.

Ex pencillin hypersensitivity - only few people are sensitised to pencillins & some will get the hypersensitivity reactions.

ii) Allergic or Anaphylactic

→ Some drugs cause allergic reactions to few patients.

→ Ex Some people get allergic reactions to antibiotics like Sulphonamides.

→ Sometimes it may leads to anaphylactic Stock which is leaf threatening condition.

iii) Genetics:

→ Some people have genetic defects or mutations it may lead to ADR.

Ex : • Glucose-6-phosphate dehydrogenase deficiency Cause haemolysis with primaquine.

• Patient with genetic defect have decreased rate of metabolism for drugs like procainamide & isoniazid.

MANAGEMENT OF ADR:

1) Asses the nature & Severity of ADR

→ Symptoms caused by ADR are categorised based on Severity Scale like naranjo Scale

2) Review on present Symptoms

→ Present Symptoms should be review by pharmacist

→ It is done by dechallenge - Stoppage of drug shows increases or decreases Symptoms.

→ Rechallenge - Readministering the drugs show increase or decrease of Symptoms.

3) Patient medication history:

→ Patients past medication history & past medical history should be asked.

→ Check for any drug - drug interactions.

4) further investigation

→ Laboratory tests are performed to further investigate the ADR.

5) Therapeutic drug monitoring

→ Drug therapeutic action should be checked.

6) Plasma drug Concentration

→ The drug concentration in plasma should be Checked.

→ If toxic dose causes adr or not

→ Pharmacist should talk with physician & confirm ADR by literature.

→ Check for risk / benefit ratio of drug.

7) Report given to PTC:

→ ADR is reported Pharmacist & therapeutic Committe for fuethers investigation.

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(3) **Drug Information Centre:-** (3)

It is a process of providing information to the health care professionals and public by pharmacists (or other medical professionals).

→ The main aspect of drug information centre is to provide information together from different resources and made it available for people for safe use of drugs

Introduction

→ Drug information centre is recognised by WHO (World health organisation) as national program for safe & rational use of drug.

→ Drug information is provided to public.

→ Drug information services are given.

functions:-

→ It provides complete information about drug to public.

→ It also provide service to healthcare system.

→ It gives information about toxicology.

DI Resources:-

→ These should be accurate & updated.

→ They should be determined by extent of agreement

→ More than two sources should be available.

→ They provide information in different formats.

Main resources :-

→ Primary resources
→ Secondary resources
→ Tertiary resources

Other resources :-

→ Internet
→ Government bodies → Libraries
→ Analyst labs
→ Industries.
→ poison centres.

Advantages:

→ Current news.
→ Government news.
→ updated ones.

Disadvantages

→ They are not serieved or editable before
→ They should need address (URL)
→ They are not accurate.

Primary resources

→ It includes Researches, journals.
→ The researcher and publisher are having the patent
→ It involves new inventory.
→ Widely used.

Advantages:

→ We can know about new drugs
→ we can know about advanced technologies

→ It is better for new drugs.
→ Journals are helpful to pharmacists or healthcare professionals in many ways. They are:
→ To update their knowledge
→ To know about a problem solvation that is done by another clinician pharmacist.
→ Preparation for exams.
→ To interactions with other health care professionals
→ To share views.

Disadvantages
→ It has limitations.
→ Controversial.
→ It includes many complications like acceptance by editor is time consuming & it should have documented evidence.

Secondary resources
→ It includes abstracts.
→ There are three types of abstracts. They are:
  i) Telecommunicate abstracts (only string of words)
  ii) Indicative abstract (Sentences)
  iii) Informative abstract (Summary)

Advantages
→ It is useful for higher gradiliancy.

Disadvantages
→ It does not give complete information
→ It is complicated than primary & tertiary

resources.

→ Complex to patients.

→ It is rarely used.

Tertiary resources

→ It includes text books and internet sources.

→ It is widely used.

Advantages:

→ fast and easy.

→ It gives detail information.

→ Simple to patient.

Disadvantages

→ Two to three books should be used.

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AVANTHI EDUCATIONAL SOCIETY
HYDERABAD
VIZIANAGARAM

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www.avanthipharma.ac.in, principal@avanthipharma.ac.in

IV Pharm D II MID Examinations R8, February 2023

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 120 min. **Max. Marks: 30** **Date of exam:25 /02/2023**

S No	Questions	Blooms Taxonomy Level	Course Out Come	Marks
	Answer any three questions			
1.	Define biomedical literature. Explain the process involved in evaluation of biomedical literature.	Apply Understand	CO2	10
2.	Explain the investigations involved in liver function tests (LFT)&Thyroid function tests.	Apply understand	CO2	10
3.	Write in detail about scope, definition & aims of pharmacovigilance.	Remember apply	CO3	10
4.	Define the term pharmacist. Discuss the role of pharmacist in management of ADR.	Apply understand	CO3	10

Signature of the faculty

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ESTD : 2005

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www.avanthipharma.ac.in, principal@avanthipharma.ac.in

IV Pharm D II Mid Examinations PCI (R8), February 2023

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 120 min. **Max. Marks: 30** **Date of exam: 25/02/2022**

Scheme of Evaluation

1. Define biomedical literature. Explain the process involved in evaluation of biomedical literature. **(10 M)**

   Biomedical literature definition – 2 M

   Process Involved in Evaluation of Biomedical Literature. – 8 M

2. Explain the investigations involved in liver function tests (LFT)&Thyroid function tests. **(10 M)**

   Investigations involved in liver function tests (LFT) – 2 M

   Investigations involved in Thyroid function tests – 2 M

3. Write in detail about scope, definition & aims of pharmacovigilance. **(10 M)**

   Definition of pharmacovigilance-3 M

   Scope of pharmacovigilance- 3 M

   Aims of pharmacovigilance- 4 M

4. Define the term pharmacist. Discuss the role of pharmacist in management of ADR. **(10 M)**

   Pharmacist definition – 2M

   Role of pharmacist in management of ADR-8 M

Signature of the faculty

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ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No. : 19T51T0016 Date : 25/2/2023

Student Name : R. Harshavardhini Year : 4th Year Sem : Mid Exam-II

Branch : B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm

Specialization : Time : 26

Subject Name : Clinical Pharmacy Total Marks :

Marks Secured : Invigilators Signature :

2. Liver Function Test:

These are used to determine the liver's functioning. Bilirubin is used to measure overall liver function, serum albumin and prothrombin time indicates synthesis of protein in liver.

Albumin: It is a protein, synthesized in liver up to 10 to 15g per day, of which 60% is found in ECF and the balance 40% in the serum.

Hypoalbuminaemia can cause edema it may be due to damage in kidneys. Because of short half-life of albumin it cannot confirm the change in liver function.

Bilirubin: It is tested to diagnose jaundice. If its level is above 50 µmol/L it indicates jaundice.

Enzymes:

1. Albumin - 38.5 g/L
2. Bilirubin (Total) - <19 µmol/L.
3. Bilirubin (Conjugated) - <4 µmol/L.

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4. Alananine Transaminase (ALT) - <60 µ/L

5. Aspartate transaminase (AST) - <35 µ/L

6. Alkaline phosphatase - <35 - 130 µ/L

7. γ - Glutamyl transpeptidase - <=70 µ/L

Alkaline phosphatase:

It gives an idea about obstruction in bile flow.

Transaminases:

There are two transaminases AST & ALT.
AST levels are increased in liver diseases, myocardial infraction, surgery and injury.
ALT level is in increased in viral diseases.

γ - Glutamyl transpeptidase:

It indicates the hepato biliary diseases.

Thyroid function tests:

Thyroid hormones are biosynthesized by iodinating the amino acid tyrosine.

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1. T_3 tests:

Serum total T_3 is measured by Radioimmuno Assay.

By in-vitro analysis I^{125} is added to patient's serum. In hypothyroidism, there are less occupied and more unoccupied TBG sites where as opposite is the case with hyperthyroidism.

2. T_4 tests:

T_4 is isolated by ion exchange column chromatography and determined by colorimetric method.

FT_4 is determined by a competitive protein binding method. In hyperthyroid patients will have excess FT_4 and if it is less it indicates hypothyroidism.

3. TSH tests:

Normally TSH is more in hypothyroid patients and less in Hyperthyroid patients. TSH is measured by Radio Immuno Assay.

4. Radio Active Iodine Uptake test:

Patient is given a small amount of Iodine (Radio Active) If excess of Iodine is

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absorbed ~~by~~ by thyroid gland it indicates hyperthyroidism, if less uptake than hypothyroidism.

Normal value

T_3	85-185 ng/dl. by RIA.
T_4	5 - 11 µg/dl by RIA
TSH	0.4-4.8 µU/ml by RIA
RAIU	At 5hr = 5-15%. At 24hr = 10-35%.

3. Pharmacovigilance:

The science and activities relating to detection, assessment, understanding and prevention of adverse effects or any other medicine related problems.

Aims of Pharmacovigilance:

The primary aims of pharmacovigilance are:

1. To improve patient care & safety.
2. To enhance public health.

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3. To encourage monitoring, understanding and training in pharmacovigilance program thereby alerting health care team and general public.

4. To promote safe and rational drug use.

Scope of Pharmacovigilance:

1. Pharmacovigilance and clinical pharmacy practice:

Therapeutic drug Monitoring and Drug therapy review are the important tools in pharmacovigilance program of Clinical practice.

If the information found during the program is relevant it can be shared with other health care providers, pharmacovigilance centers.

2. Pharmacovigilance and Medicine Policy:

In order to frame National drug policy pharmacovigilance progeram

is useful. As it provides information about drugs that are not suitable in community settings and which other drugs can be promoted in national health programs.

3. Pharmacovigilance and drug control:

It makes the work of drug control department easy as the organisation is responsible for gathering information about spurious drugs, sub-standard drugs by its own intelligence and vigilance.

This program also emphasize monitoring of clinical trials, medicines of alternative systems and vaccines.

4. Pharmacovigilance and Public health Programs:

Vaccination, TB, Malaria, leprosy etc. eradication programs and famous family planning programs are run in all primary health care centers.

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1. Evaluation of Bio Medical Literature:

1. Evaluation of Teritiary Literature:

Teritiary Literatures are the collection of information from secondary and primary sources. Hence there is always possibility of errors. with proper evaluation the DIC pharmacist can decide how far the information can be relied on. The following questions to be asked for the evaluation of Teritiary Literature:

1. Who are the authors?
2. What are their credentials?
3. How much recent are the literatures
4. Does the literature have single or multiple Authors?
5. Is it supported by references.
6. Is the cost wort of material?

2. Evaluation of secondary literatures:

Secondary literatures are those in which information is indexed (or) abstracts presented. As it is huge volume of resources they are published in CDs, rather than printed form.

Basic questions that need be asked for evaluation:

1. How many journals are covered for indexing
2. Time between orginal publication and Indexing.
3. What is the cost.
4. whether it covers only drugs.

3. Evaluation of Primary Literatures:

It should be evaluated part by part:

1. Introduction
2. Materials and Methods
3. Results
4. Discussion.

Introduction:

In this the author usually describes the reason for conducting the study and then the aims (or) objectives, he proposes to achieve. Here the reader can determine whether it is a valuable course of Investigation.

Materials & Methods:

Here it states how the research is carried out, The sample, study design and the test method. Factors such as age, sex, severity of disease, physical fitness etc.

Proposed controls, blinding and randomization are three elements to examine study design. Blinding & randomization are used to reduce bias on both investigators and subjects.

Results:

All the data collected is summarized. It should be checked whether the results given of are all of the patients if not reason for drop out or ommission. All the data in the text, table, and graph are agree with each other and subjected to statistical analysis.

Discussion:

Here conclusions are drawn. we have to check whether the conclusions tally with aims & objectives of the study if not the study design must be evaluated again.

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ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No. : 19T51T0004 Date : 25/1/2023

Student Name : Ch. Pragnatha Year : 4th yr Sem : Mid - II

Branch : B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm

Specialization :

Subject Name : clinical Pharmacy Time :

Marks Secured : Total Marks : 20

Invigilators Signature :

(1) Ans

critical Evalution is the ability to judge the scientific value of a literature

* This has to be done in a systemic manner, so that all the information given in the biomedical literature is verified without oversight (or) bias

* A clinical pharmacist has to evaluate biomedical literature about clinical trials (or) review paper describing inventions (or) therapeutic guidelines developed by hospitals & other institutions

(1) selection & evaluation :- lakhs of biomedical literature are published every year which make it impossible to verify each one of them.

(2) Evaluation of tertiary literature :- As described earlier tertiary are a the collection of information from 2° & 1° sources.

(3) certain questions are asked by the reader

① who are the authors (or) editors of the literature?

② what are their credentials?

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③ How much recent are those literature?

④ Does the literatures have single or multiple author?

⑤ It is supported by reference?

③ Evalution of 2° literature :- 2° literature are those in which information is indexed (or) abstract presented. As it represent huge value of resource, they are now-a-days Published as soft copy CDs. rather than Printed form.

* These resources are marked as data base & Periodically updated for which the buyers needs to subscribe annualy.

* though costlier they are worth investing as it makes the job of DIC Pharmacist more easier, Compared to manual search of literature which is both time consuming & tire some.

④ Evalution of 1° literature :- 1° literature has to be evaluted Part by Part (or) Component after Component, only then pharmacist can determine its application in practice settings.

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* Introduction :- Reason & objective of the study.

* material & methods : subject, study design & test methods
* Result : data & its statistical analysis
* Discussion : Conclusion drawn.

*Introduction:- In this part of biomedical literature, the author mearly describes the reason for rational for conducting the study & their aims or objectives

*Material & Methods:- It is more important part of literature in that it describes how the research was carried out.

*Result:- In this section all the data collected during the study is summarized
*they are then statistically analysed.
*finally the entire process of statistical analysis & the result interepreted from it has to be fully investigated

*Discussion:- the last section literature is the discussion section. Conclusion drawn

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(2) TFT :- Thyroid function test.

Ans :-

* thyroid Harmone are Biosyrtheized by iodinating the amino acid Tyrosine.

* Tyerosine is iodinated either 1 (or) 2 sites & is named as monoido thyrosine (MIT) (or) diiodothyrosine (DIT).

* 1 MIT & 1 DIT coupled to form to biod-thyrone & 2 molecules of DIT coupled to form T_4 later known as thyroxin.

* T_3 & T_4 are Embedded in a glycoprotein called thyroglobulin in tyroid cells.

* the formulation of T_3 & T_4 in blood stream by action of Protease.

* the functions of thyroids hormone is to proute protein synthesis in all body tissue & ↑ O_2 Consuption in liver, kidney, Heart

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Test for thyroid function

* The test for thyroid gland function are
  1. T_3
  2. T_4
  3. TSH
  4. RAIU

* **T_3 Test:-** T_3 test is usually done to diagnose Hyperthyroidism.
* Elevated T_3 levels are Mostly seen in Pregant lady ladies & in females who are using contraceptives
* T_3 elevated levels are also seen in Grave's disease

2. **T_4 test:-** T_4 is Circulating in blood either bounded or unbounded form or free Molecule

* Both these form of T_4 are measured in serum total T_4, whereas as T_4 is Measured as free T_4

③ TSH Test:- This test measure the amount of TSH present in blood.

* TSH is more when less amount of Thyroxin secreted as in Hypothyroidism

* TSH is less / will when excess of thyroxin secreted as in Hyperthyroidism

④ Radio Active Iodine:- It is non-blood test in which Pt is given a small amount of radio active iodine & its uptake by thyroid gland is determined.

Condition	T3	T4	TSH	RAIU
Hypo	↑	↑	↓	↑
Hypo	↓	↓	↑	↑
Normal value	85-185 ng/dl	5-11 mg/dl	0.4-4.8 m/l/ml	5 hrs → 5-15% 24 hrs → 10-35%

* LFT :- Liver function test.

Concentration of enzyme & other compounts in serum can be measured in liverfunction Test.

* specific function of the liver Cant be quantified by these tests.

* these enzyme are useful in diagnosis & watching the progress of liver disease

* Bilirubin is an enzyme measuring the overall liver function

* Serum albumin levels & prothrombin time indicate synthesis of protein in liver

* Alkaline phosphate estimation give an idea

* Transminase level indicates liver injury or cell Death.

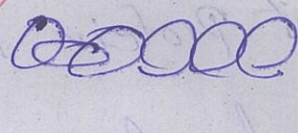
① Albumine :- Albumin is protein synthesized in liver upto 10-15 gm/day of which 60% found in ECF & 40% found in

se Grm

* If there is low levels of albumin in serum edma may occur
* If its not estimated quickly, kidneys damage toxic effects may occur

② Bilirubin :- It is tested to diagnosis jaundice
* above 50 micro M/L indicates jaundice

③ Alkaline phosphate :- Reference < 17 u/L
* Mostly seen in cell Membrane of Hepatocytes.



Hepatocyte

* In liver cells damage, ALP comes out into serum
* seen in cirrhosis, fibrosis & Hepatitis

④ Transaminases :-
→ Ast / SGOT
→ ALT / SPGT

* Ref Range
Ast & ALT 5 - 16 u/L

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* ⑤ δ-Glutamyl transpeptidase.

* Normal range is < 70 u/l

* Indicates Hepatobiliary disease & more amount, is present in liver, kidney & Pancreas.

③ Pharmacovigilance:-

* Pharmacovigilance also known as drug safety which is a pharmacological science relating to the collection, detection assessment, monitory & prevention of adverse effects with pharmaceutical Products

* Pharmakon means drug & vigilare is keep watch

* Scope:- Has been widened to

* Herbal, traditional & Complimentary medications,

* Blod Products, Biological Medicinal devices

* Medication error & irrational use of Medicines

* Substandard medicine & Counterfeit medicine.

* The scope of PCV also extends from Individual /pt to Govt to Entire society.

* ① Pharmacovigilance & CP practices:-
TDM:- Therapeutic drug monitoring & Drug therapy

* The information gathered during the program, if relevants has to be conveyed to all health care providers other PCV centres.

* ② PCV & Medicines:- In order to frame a rational drug policy, PCV Program is much need to authorities as it provides

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* Aims :- To improve Pt Care & safty

* To Enhance Public Health

* To Evaluate drugs benefit, risk, effectiveness & thereby to provide safe & rational use of drug

IV Pharm D III MID Examinations R8, April 2023

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 120 min. **Max. Marks: 30** **Date of exam: 20/04/2023**

S. No	Questions	Blooms Taxonomy Level	Course Out Come	Marks
	Answer any three questions			
1.	What is patient data analysis? Write in detail about its structure in patient care history.	Apply Understand	CO3	10
2.	Write in brief about quality assurance of clinical pharmacy services.	Apply understand	CO3	10
3.	Define drug utilization evaluation. Write in detail about steps involved in drug utilization evaluation.	Remember apply	CO4	10
4.	Write a note on a) drug therapy monitoring b) ward round participation c) medication history d) patient counselling.	Apply understand	CO4	10

Signature of the faculty

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IV Pharm D III Mid Examinations PCI (R8), April 2023

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 120 min. **Max. Marks: 30** **Date of exam: 20/04/2023**

Scheme of Evaluation

1. What is patient data analysis? Write in detail about its structure in patient care history. **(10 M)**

   patient data analysis definition – 2 M

   Structure Involved in patient care history – 8 M

2. Write in brief about quality assurance of clinical pharmacy services. **(10 M)**

   quality assurance of clinical pharmacy services- 10 M

3. Define drug utilization evaluation. Write in detail about steps involved in drug utilization evaluation. **(10 M)**

   Definition of drug utilization evaluation -3 M

   steps involved in drug utilization evaluation – 7M

4. Write a note on a) drug therapy monitoring b) ward round participation c) medication history d) patient counselling. **(10 M)**

   Drug Therapy Monitoring – 2M

   ward round participation -3 M

   Medication History- 2M

   patient counselling – 3M

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ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No. : 19T51T0014 Date : 20/04/2023

Student Name : P. Prasanna Year : 4th Sem : Mid-III

Branch : B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm

Specialization : Time : 26

Subject Name : Clinical pharmacy Total Marks :

Marks Secured : Invigilators Signature :

Sig. Boys

(1) Patient data analysis :-

The information that is collected from laboratory tests of patient is analysed for the diagnosis of disease, treatment of disease and prevention of disease. This complete process is known as patient data analysis.

Structure of patient data analysis :-

9

- Personal data
- Chief complaints
- Past medication history
- Past medical history
- Past surgical history
- Family history
- Present illness

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Registration number :-

→ It is used to identify patient.

→ for maintaing records.

→ used to Know department.

Name of patient :

→ It is used to Know patient.

→ It is helpful for giving medications regularly.

→ used to maintain records.

→ used for billing purposes.

Age of Patient :

→ It is used to determine accurate dose for Pediatrics and gediatics.

→ Low dose should given for children & elder patients.

Gender of Patient :-

→ It will determine the occurence of disease.

→ Males will have high chances to get malignancy, colon cancer, liver cancer etc.

→ Females are more prone to get menstrual problems, urinary tract infection.

Marital Status :

→ Married people have more occurence of diseases like Acute Immunodeficiency Syndrome, urticaria etc.

→ It will helpful for knowing the etiology of disease.

Occupation:-

→ People working in coal mines will have more chances to get respiratory problems.

→ It will be used to determine the occurence of a particular disease.

Past medication history:-

→ It is used to predict any chance drug interaction between drugs used for present illness and drugs used for past medical illness.

→ It will able to know the person ability of response to given drugs.

Past Surgical history:-

→ It is used to know occurence of any infections that have caused due to lack of antibiotic regimen used for prophylaxis of infections.

→ People with Surgies are having complications & risk for many diseases.

→ Allergic reactions can also be predicted.

family history:

→ If Parents made Consaginous marriage then there will be more occurence of diseases from grandparents by hereditary.

→ Many Syndromes and diseases are genetic. So it is used to know whether it is autosomal recessive & autosomal dominant.

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Diagnostic tests performed for patient data analysis

→ Complete blood count in case of blood disorders.

→ Serum electrolytes - Na^+, K^+, Mg^{+2}

→ Liver function tests - Bilirubin, Alkaline Phosphate, SGOT, SGPT.

→ Renal function tests - urea, uric acid, creatinine

→ Electrocardiogram (ECG)

→ Electroencephalogram (EEG)

→ X-ray

→ Computerised tomography (CT) Scan

→ Magnetic Resonance Ionisation (MRI) Scan.

→ ultrasonography.

→ Thyroid function tests - T_3, T_4, TSH, TRH.

By seeing all the laboratory reports, Past medical history, Past surgical history, family history, Present illness the patient is diagnosed with disease and then treatment is given.

* Patient data analysis is important step in diagnosing and treating a disease or disorder.

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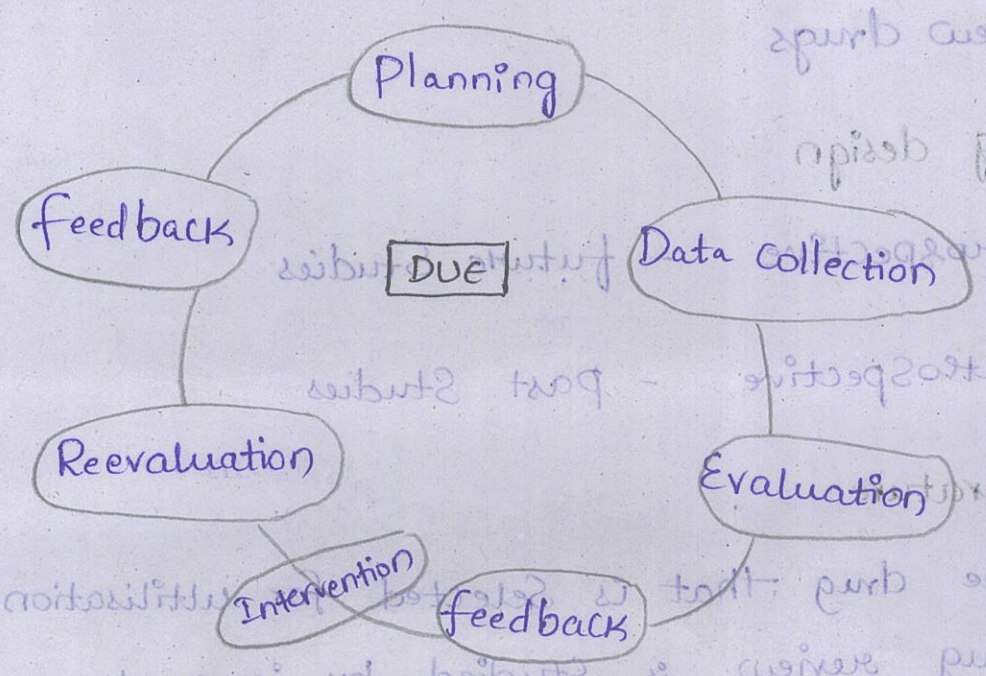
(3) Drug utilisation Evaluation: (DUE)

It is the process of monitoring, distribution and usage of drug evaluation is done. Review is done for utilisation of used drug. (1)



Steps involved in drug utilisation evaluation:-

1) Identify the drug
2) Drug design
3) Literature
4) Data Collection form
5) Data Collection
6) Evaluation
7) feedback
8) Intervention
9) Re-evaluation

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10) Reaccess and Revise

11) Overall feedback

Identify the drugs

→ OTC drugs

→ Generic drugs

→ Branded drugs

→ New drugs

Drug design

→ Prospective - future Studies

→ RetroSpective - Past Studies

Literature

→ The drug that is Selected for ultilisation of drug review is Studied by journals or from Standard books.

→ It will provide you some information fd review of drug.

Data Collection form:

→ The data is collected as below

- patient details.
- Past medical history.
- Past medication history.
- family history
- Laboratory investigation

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- Present illness.
- Severity of disease.
- Dose of drug.
- Drug interactions.
- Contraindications.

Data Collection:

The data is collected in order and data is documented.

Evaluation of results:

→ The results are evaluated.

→ The data should be in form of tables, graphs for better comparison.

Provide feedback

→ The data should not have errors in documentation.

→ Feedback is given for evaluated data.

Intervention

→ It may be; i) educational
ii) occupational

Re-evaluation

→ The data collected is again re-evaluated after 3-12 months of intervention is done.

Reaccess and Reviews:

→ Again the documented data should be checked for any errors

→ Revise the drug review

→ It is important Step.

Feedback

→ Overall data is followed up and feedback is given.

Advantages of drug utilisation Evaluation

→ Improves patient safety.

→ Enhance rational use of drug.

→ To increase the efficiency of drug in patient.

→ To Know about drug usage in different People or Patients.

→ Review is done for used drugs.

Ex: Rifampacin, Isoniazid, Pyrazinamide, Ethambutol } drugs used tuberculosis

→ Drug utilisation evaluation and review is done drug therapeutic Committee

19T51T0014

(2) Quality assurance:

It is the process that tells about the quality of drug product that are used by patients.

Clinical pharmacy services

These are the services that are done by clinical pharmacist.

Ex Patient Counselling
- Route of administration
- Dose of drug
- Contraindications
- Drug interactions
- Time of administration
- frequency of drug administration.

Significance of quality assurance:

→ To improve confidence about the actions that are done efficiently regarding the quality of clinical pharmacy services

→ To enhance the profession of clinical pharmacist regarding their services.

(3)

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Goals of quality assurance

→ To improve the employment in Clinical Pharmacy.

→ The enhances the areas of management.

→ To encourage the clinical pharmacist to involve in this.

→ To tell about the procedure & maintenance of quality assurance to clinical pharmacist

Components:

→ Establishment of quality assurance program.

→ Development of clear objectives

→ Management of clear & Current Standards.

→ Supporting plan to achieve objectives.

→ To encourage defictive employment

METHODS

→ Accurate medical history

→ Assessment of medication therapy management

→ Clinical review

→ Provision of medicinal information to Patients

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Documentation:

→ It is the duty of clinical pharmacist to do the documentation.

→ Documentation should be maintained.

→ Quality assurance of clinical pharmacy services in a hospital should be recorded.

→ Every clinical pharmacist should do their profession according to the rules and regulations

Conclusion:

→ Quality assurance is integral part of clinical pharmacy services.

→ Quality assurance is done to improve the health care.

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ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No.	:	19T51T0018	**Date**	: 20/4/23
Student Name	:	K. Rama Krishna	**Year :** IV yr	**Sem** : VIII
Branch	: B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm			
Specialization	:		**Time**	:
Subject Name	:	Clinical pharmacy	**Total Marks**	: 24
Marks Secured	:		**Invigilators Signature**	:

5

Q patient data analysis :-

It is defined as patient care history, its structure & its and evaluation drug therapy. and understanding common medical abbreviations and terminologies uses in medical practice

Patient Care History

It is defined as the planned conversion of the patient communication his/her symptoms, feelings/fear as well as the history of the patient to know the clinicians

Structure of patient care history

- Chief complaint
- personal history
- past medical history
- past surgical history
- family history, social history
- Complaint of present illness

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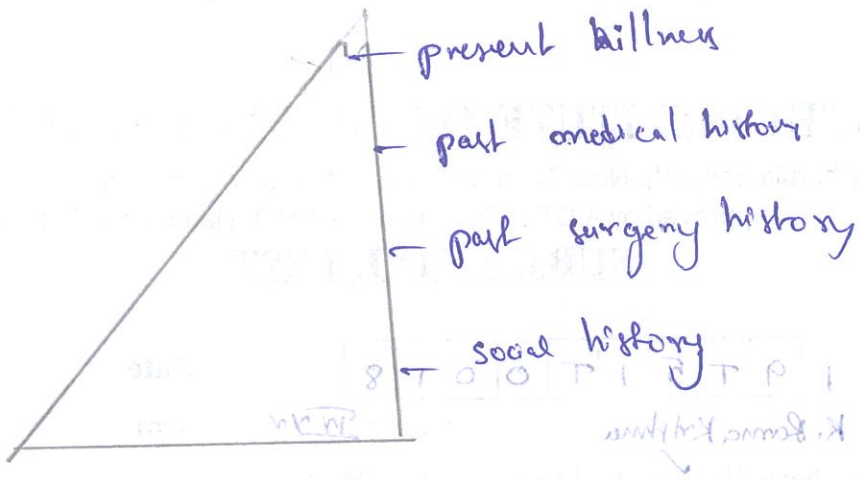

1) patient registration number ←	For easy check of medical record. ← To identify the patient for there relatives
2) Age	- Based on the age to start the treatment procedure - To know the behaviour of the patient - Helps to know the type of the disease
3) Date	- To know admission time of the patient - To check the course of the treatment
4) sex.	- To identify the relatable ocurs disease

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	- In females. - from deficiency of Immune — UTI disorders are the common
Marital Status —	It is helpful to know the consanguinous marriage in the large families. - To know the genetic Immune Disorders
past medical History	— To know the past history of the disease eg:. Diabetes mellitus, TB. Asthma. heart diseases

Blood transfusion :- To get details of past blood transfusion. where he done and how many units are done. and how many times done.

— To know the any changes of occurance of communicable (or) Infection diseases

past surgical history :- To get details of past surgical in any part of the body to what a new surgery

Family History	- To get the information details of genetic / immune deficiency disorders from family
Social History / personal History	- Diet - increase carbohydrates in body causing dental disorders eg enamel profylaxis - Allergy - having any allergic reactions in the body for Environmental effect
Occupation	- Some diseases causes as per working areas - Hepatic viral diseases in doctors.

2B: **Quality Assurance of clinical pharmacy services**

Quality Assurance :-

It is defined as procedures, use to set, promote, management and monitor the desired standards for services and products

Components :-

- Drug monitoring
- Case review
- ADR reporting

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IPTS 1T005B

20.

- Dose calculation.
- medical reviews
- Intervations in therapies

Drug Interactions

- Drug management
- patient records

Tissue:

- Approve from professionals
- Audits
- Feed backs

Audit: clinical audit & professional audit

Audit cycle

Clinical audit - suitable for the new discovers and dispensing

Aspects of Audits

① Structure:- staff & books, equipments other resources

theor. knowledge books. log drugs and

Policycle preparation :-

preparation of disease protocals

Outcomes

- Changes in BP. and outcomes, serum biochemistry

tissues :-

Investigations in the biochemical results of the tissues

Data collected

Review of feedback ← Data report

↑ ↓

Reevaluations ← Data analyses

↓

Evaluation

↓

Intervention ← feed back

Developing programmes in quality assurance of Clinical pharmacy

- conferences are important to developing the quality assurance in Clinical pharmacy

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19T51T0011

20:

— To develops new intervention is usefuge of drug & new marketing products in the marketing

— To develop & therapeutical guidelines and new outcomes in therapies.. to make a proper instructions in the programm of quality assurances in the clinical pharmacy

At conclusion

— Quality assurance is use to increase proper health & use use of medicines in the patient

— It is the integral part of clinical pharmacy

— It is give a knowledge about the treatment and pharmacy development in Health care system.

Drug utilization evaluation

It is qualitative of drug use process membrane full pathway to determine appropriate intervention.

Steps involved in drug utilization evaluation

1) Identifying drug :- The drug evaluation is used to develop a new drugs for diseases. these drugs improve the patient health

2) Design of study
The drug evaluation helpful to design a study to creat a new formulation of drug therapies

3) Define criteria :-
This makes a proper clinical use of the drugs to patients in pharmacy field

4) Design the data collection form :- from collection of data we make a proper document -ation to report a evaluation form

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30.

5) Data collection :-

The collection of data from the new a experimental studies useful to report the data.

6) Evaluation

- we can evaluate the documentation review for the data collection to submit the response

7) Provide feed back

to check a proper evaluation, then we need to send feed back from evaluation studies. we give a proper feed back for the evaluation studies

8) Interventions :-

. Any interventions occur in the evaluation results to check the provided feed back to report the interventions clearly follow the submit the document

9) Revise feed back :-

After Intervention we again the Subject review feedback to give a best results from the Students

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ESTD : 2005

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Cherukupally (Village), Chittivalasa (SO), Bhogapuram (Mandal), Vizianagaram (Dist.) -531162.
www.avanthipharma.ac.in, principal@avanthipharma.ac.in

Consolidated Internal Marks Statement

Branch : IV Year Pharm D (Academic Year 2022-2023)
Subject : Clinical Pharmacy
Subject Code : T4103
Faculty : Dr. Randeep Raj

S No	Roll No	Mid-1	Mid-2	Mid-3	Best of two mids average	Lab internal-1	Lab internal-2	Average of lab internals
1	19T51T0001	28	27	29	29	24	25	25
2	19T51T0002	21	24	26	25	23	24	24
3	19T51T0004	26	0	27	27	23	23	23
4	19T51T0005	28	27	28	28	24	24	24
5	19T51T0006	26	25	28	27	25	25	25
6	19T51T0007	27	27	28	28	26	26	26
7	19T51T0008	0	22	27	25	23	23	23
8	19T51T0009	28	25	27	28	26	26	26
9	19T51T0010	27	27	29	28	25	24	25
10	19T51T0011	28	26	28	28	23	24	24
11	19T51T0012	27	27	29	28	24	26	26
12	19T51T0013	29	28	27	29	0	25	13
13	19T51T0014	28	27	29	29	26	26	26
14	19T51T0015	26	0	28	27	26	24	25
15	19T51T0016	25	26	29	28	26	26	26
16	19T51T0017	26	0	28	27	0	23	12
17	19T51T0018	23	27	27	27	24	24	24
18	19T51T0019	27	29	25	28	24	24	24
19	19T51T0020	25	28	28	28	25	24	25
20	19T51T0021	26	27	28	28	26	25	26
21	19T51T0022	28	28	29	29	23	23	23
22	19T51T0023	27	27	29	28	26	26	26
23	19T51T0024	28	28	29	29	26	26	26
24	19T51T0027	27	29	28	29	24	24	24
25	18T51T0001	26	24	20	25	23	23	23
26	17T51T0012	28	24	29	29	28	29	29
27	22T51T0101	0	25	27	26	24	24	24

Staff Sign **Exam in-charge Sign** **Principal Sign**

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ESTD : 2005

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Display of Internal Marks during Academic Year 2022-2023
Branch: IV Pharm D

S No	Roll No	*Pharmaco Therapeutics - III (T4101)	*Hospital Pharmacy (T4102)	*Clinical Pharmacy (T4103)	*Biostatistics Research Methodology (T4104)	*Biopharmaceutics Pharmacokinetics (T4105)	*Clinical Toxicology (T4106)	*Pharmacotherapeutics-III Lab (T4107)	*Hospital Pharmacy Lab (T4108)	*Clinical Pharmacy Lab (T4109)	*Biopharmaceutics Pharmacokinetics Lab (T4110)
1	19T51T0001	29	28	26	29	28	29	28	28	26	28
2	19T51T0002	25	26	25	25	26	28	26	27	25	27
3	19T51T0004	27	26	24	25	27	29	29	27	24	27
4	19T51T0005	28	27	25	28	27	29	29	28	25	27
5	19T51T0006	27	28	25	28	27	29	29	27	26	27
6	19T51T0007	28	28	26	27	27	29	29	28	27	28
7	19T51T0008	25	26	24	27	21	29	28	28	24	28
8	19T51T0009	28	28	26	28	27	28	29	28	26	28
9	19T51T0010	28	28	26	29	27	29	29	28	26	27
10	19T51T0011	28	27	25	29	26	29	29	26	26	27
11	19T51T0012	28	26	25	29	29	29	29	27	26	26
12	19T51T0013	29	26	26	27	27	29	29	27	26	27
13	19T51T0014	29	27	26	28	27	29	29	28	26	28
14	19T51T0015	27	28	25	28	27	29	28	29	27	28
15	19T51T0016	28	29	26	25	27	29	29	29	27	27
16	19T51T0017	27	26	24	26	27	29	29	27	26	27
17	19T51T0018	27	27	24	25	22	28	27	27	24	27
18	19T51T0019	28	26	24	20	27	28	26	26	26	27
19	19T51T0020	28	26	25	28	28	28	28	27	25	27
20	19T51T0021	28	26	26	27	27	28	29	27	26	27
21	19T51T0022	29	27	25	28	23	28	29	27	25	27
22	19T51T0023	28	27	25	26	27	28	29	27	26	26
23	19T51T0024	29	27	26	28	26	28	29	27	27	27

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24	19T51T0027	29	28	25	28	23	28	29	28	24	28
25	18T51T0001	25	26	25	29	21	28	26	27	25	26
26	17T51T0012	29	29	29	29	29	28	28	29	29	29

* *best of average marks of two internal examinations with lab internals*

V. Thulasi Sankar

B. Teja Sree

P. Sandeep

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Exam in-charge Sign

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Display of Internal Marks during Academic Year 2022-2023
Branch: IV Pharm D (PB)

S No	Roll No	*Pharmaco Therapeutics - III (T4101)	*Hospital Pharmacy (T4102)	*Clinical Pharmacy (T4103)	*Biostatistics Research Methodology (T4104)	*Biopharmaceutics Pharmacokinetics (T4105)	*Clinical Toxicology (T4106)	*Pharmacotherapeutics -III Lab (T4107)	*Hospital Pharmacy Lab (T4108)	*Clinical Pharmacy Lab (T4109)	*Biopharmaceutics Pharmacokinetics Lab (T4110)	*Pharmacotherapeutics I & II (T4111)	*Pharmacotherapeutic I & II Lab (T4112)
1.	22T51T0101	26	26	26	28	27	28	28	26	25	27	29	28

* *best of average marks of two internal examinations with lab internals*

P. Sandeep
B. Teja Sree
V. Uma Sankar

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Exam in-charge Sign

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ASSIGNMENT

ASSIGNMENT

Subject :- BIOSTATISTICS AND RESEARCH METHODOLOGY

Topic :- CLINICAL STUDY DESIGNS

Submitted By :—

R. HARSHA VARDHINI

4th Pharm - D

19TS1TD016

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CLINICAL STUDY DESIGN

Introduction:

A study design is a scientific method that a researcher follows to assess the association between an exposure and an outcome. It depends on the subjects that are selected, observed, followed and studied. In clinical research, there are two broad categories of study designs, mainly Observational & experimental.

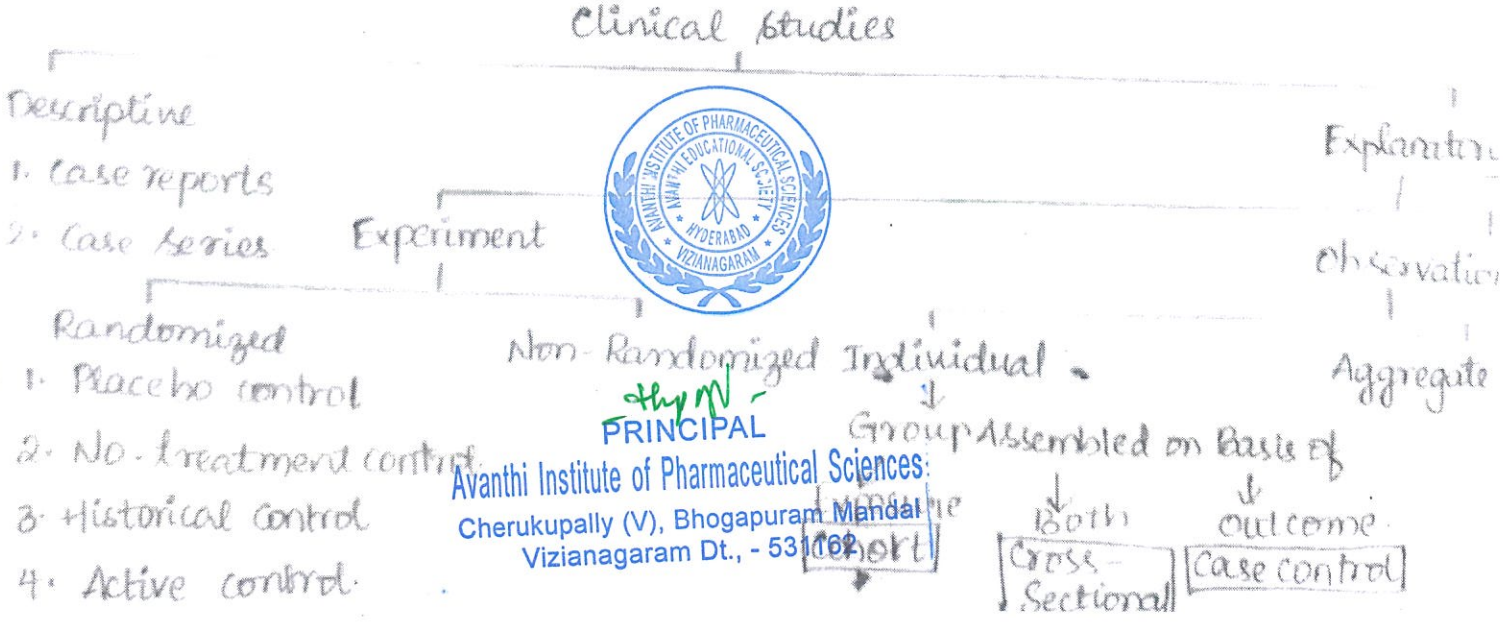
Clinical Study designs:

Clinical study design is the formulation of trials and experiments, as well as observational studies in medical, clinical and other types of research involving human beings.

→ The goal of clinical study is to assess the safety, efficacy, and/or the mechanism of action of an investigational medicinal product or procedure, or new drug or device that is in development, but potentially not yet approved by a health authority.

→ It can also be to investigate a drug, device or procedure that has already been approved but is still in need of further investigation typically with respect to long term effects or cost-effectiveness.

Types of clinical study Designs:



Descriptive Studies:

The researcher simply records the observations and co-relates the events observed with possible reason. These maybe presented as case reports where by certain individual patients with distinguished clinical characteristics are included in study. The patient is observed and evaluated for possible outcome. The results are exposed as success or failure of treatment.

Case Reports:

→ These are published after clinician notice a problem with exposure drug.
→ A case report can be strengthened by ADR related to drug concentration in body.

These are useful for raising hypothesis of drug effects in a case report one cannot know if patient reported adverse outcome due to drug or disease.

Advantages:

1. They serve as mechanism for clinicians, investigators & others regarding drugs products effects.
2. It prompts clinicians to be aware of potential problems & to report other such occurances.

Disadvantages: Case reports are weakest form of evidence for causation

Case Series: Case series are group or cluster of case reports that may be generated by single clinician, group of clinicians, hospitals, pharmacentical company. When series are reported, case can be compared to note the similarities between them so that syndrome is present or not is identified.

Advantages - They are useful for quantifying the incidence of an adverse reaction.

Disadvantages - In the absence of a control group, one cannot be certain which features in description of patients are unique to exposure or outcome.

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Population study: Population study is a study group of individuals taken from population who share a common characteristics such as age, sex or health condition.

EXPLANATORY STUDIES:

Experiment → Randomized
→ Non-Randomised

Experimental studies are of two types:

1. Randomized controlled trail
2. Non-Randomized [Non-Experimental trials]

Methods:

Simple Randomisation:

→ With 2 treatment groups – Control vs treatment
where, head – control.
trail – treatment.

→ The side of the coin determined the assignment.

Block randomisation:

→ Ensure the number of participates equally distributed in each group.

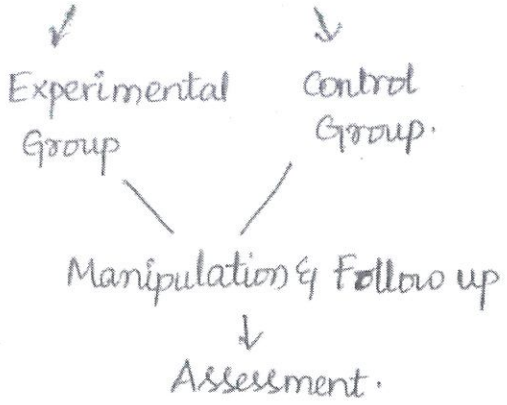
Stratified Randomisation:

100 participants → 50 men → 25 men get drug
25 men get Placebo.
50 women → 25 women get drug
25 women get placebo.

Randomize separately within each stratum.

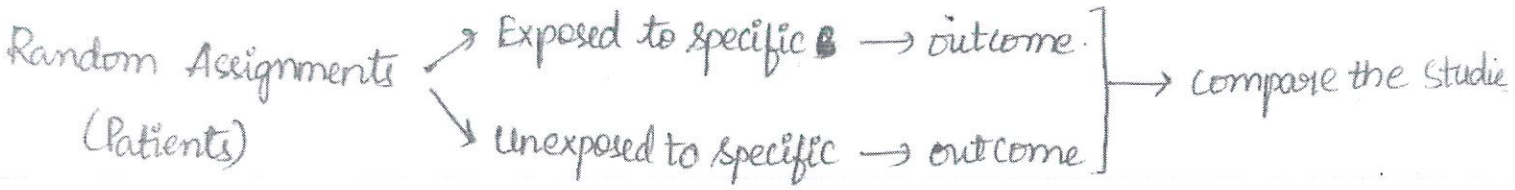
Minimized Randomisation:

Select suitable population → select suitable sample → make necessary Exclusi
↓ not eligible ↓ who don with to give cons
↓ Randomize

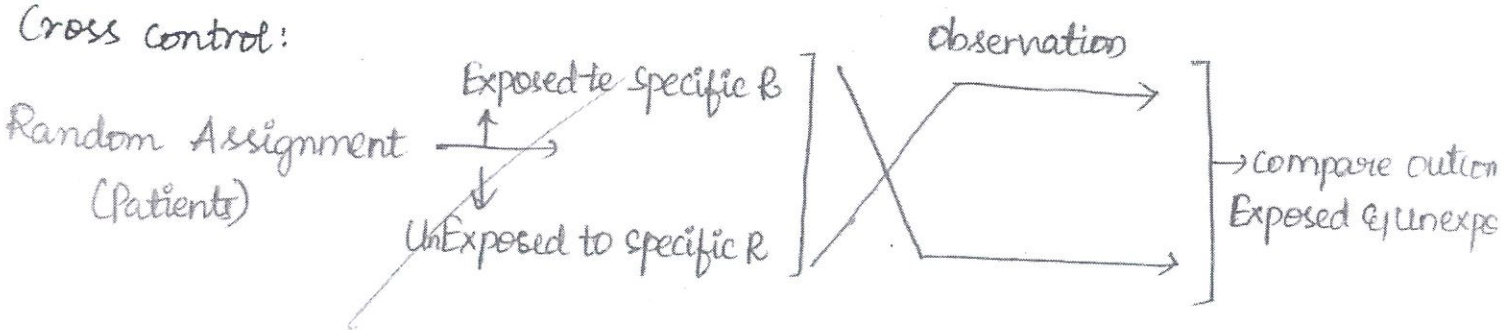


Designs used in Experimental Studies:

Parellel Design:



Cross control:



Advantages of Experimental Studies:

1. Exposure is under control of investigator
2. Randomization
3. Blinding elimination Bias.
4. Control on time span.
5. Confounding factors can be controlled.
6. Best method to study casual Relationship.

Selected Concepts:

1. Control group
2. Randomization
3. Admissibility Categon criteria.
4. Outcome ascertainment.
5. Ethics.

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Non-Randomized trials:

Clinical trail – we apply therapeutic interventions to sick individuals (Chemotherapy trails)

Field trails – we apply prevention interventions to healthy individual (Vaccine trails)

Community trails – we apply interventions to aggregate units.

Uses:

1. When Randomised Controlled trails is not possible on ethical administ-ration grounds.
2. When diseases frequency is low and natural history is long
3. When cost and logistic is limited

Types:

1. Uncontrolled trails
2. Natural Experiments
3. Before & After comparison studies.

OBSERVATIONAL:

In observational study the subject to be observed chooses whether to include in study or not. Errors occur biased upon the differences in profile of subject, different age, family history of disease, cause & severity - may not be defined.

Observational
- Aggregate observational Studies
- Individual observational studies

Aggregate Observational Studies: Pandemic and epidemic studies on communicable diseases & their treatments are generally carried out as aggregate observational studies.
Ex: Occurance & effective treatment of Malaria & relapse in particular geographical area

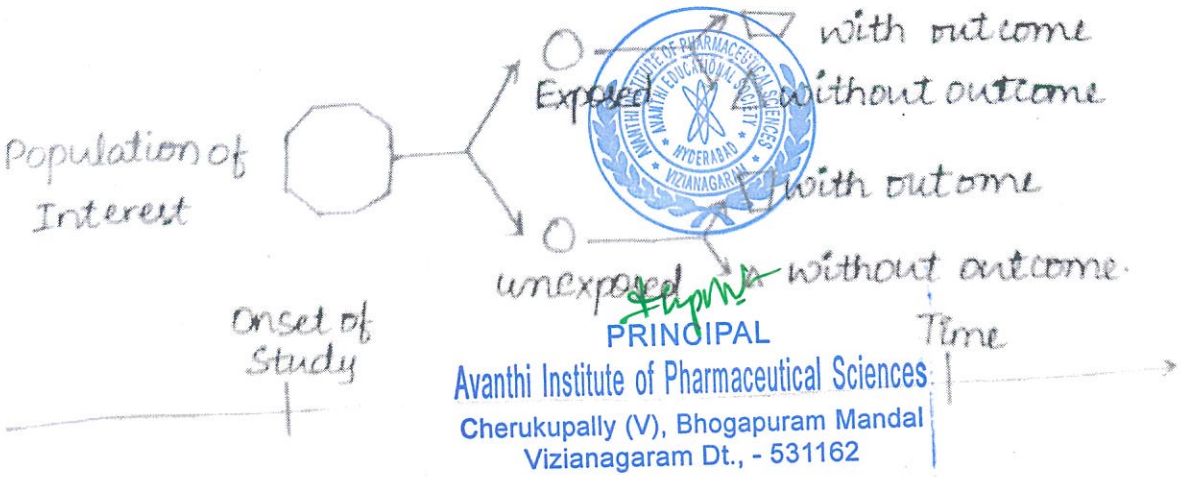
Individual observational studies: In this patients / subjects are individually observed and they as assemble in groups on basis of outcome or exposure or Both.

These are classified as – Case control
Cohort
Cross - sectional

(i) Cohort: A study design that identifies & selects two groups of patients out of a population of interest.

→ These two groups of patients are placed as one cohort who are exposed to an intervention & another cohort who are not exposed to an intervention.
→ They are followed then over a time to see development outcomes.
→ Cohort studies provide highest level of evidence, that can be obtained from observational studies regarding exposure and outcome relationship
→ In this sample is based on exposure of interest and evaluation is done.

COHORT STUDY DIAGRAM



Stages of Cohort Study:

A cohort study starts with selection of group of participants from same population - is known as Cohort.

→ The participants must be identical, have common characteristics except for their exposure status.

→ Participants divided into 1st group-Exposure group, 2nd group free of Exposure.

Types of cohort Studies:

- **Prospective** – The two groups of cohort are followed over a time to track development of new disease.

  Ex: In prospective cohort study researchers compared four different groups of women to investigate which group were more likely to develop PTSD ~~symptom~~ symptoms after a birthing event.

- **Retrospective** – Information or data is collected from past clinical records and the outcome of interest is investigated.

  Ex: In this researchers used previously collected data to investigate whether there was association between birth experience & subsequent maternal care - giving attitudes and behaviour over a 12 month period.

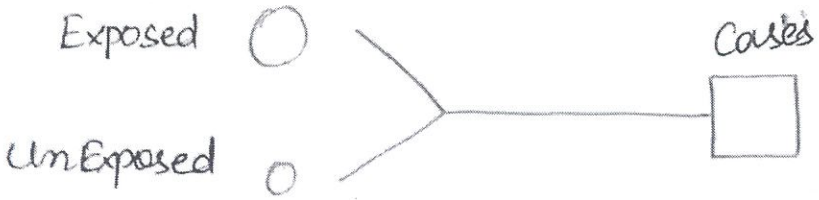
Advantages:

1. Can more clearly show time of exposure of & development of outcome because the subjects are without the disease at baseline.
2. Allow evaluation of more than one outcome.
3. Allow for calculation of incidence.

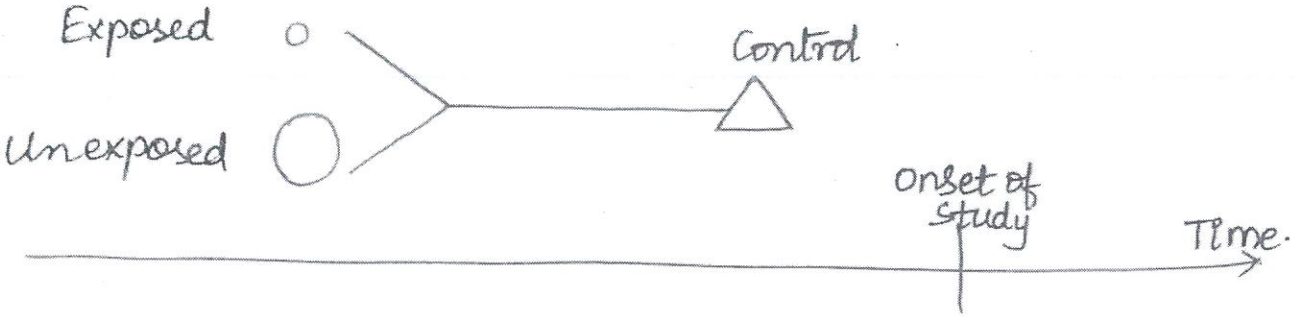
Disadvantages:

1. Can be expensive and time consuming because of large number of people.
2. May not be good for rare diseases.

(ii) Case-Control Study: A study design - the investigator identifies & selects patients who have outcome of interest and also patients with outcome of interest and also to identify exposures. Case-control studies are retrospective.



CASE - CONTROL STUDY



- Subjects with outcome ~~are~~ of interest are cases
- Subjects without outcome of interest are controls.

→ After finding cases & controls, they had exposure of interest or not is determined.

→ Case control studies donot answer whether an exposure is associated with an outcome.

→ These studies only determine whether subject with outcome of interest was more or less likely to have exposure of interest compared to controls, which makes level of evidence from this study design lower than cohort studies.

Advantages:

1. Less expensive
2. Easier to do and take less time compared to most prospective studies.
3. Can be useful to obtaining data which is difficult to obtain due to nature of Population being studied.

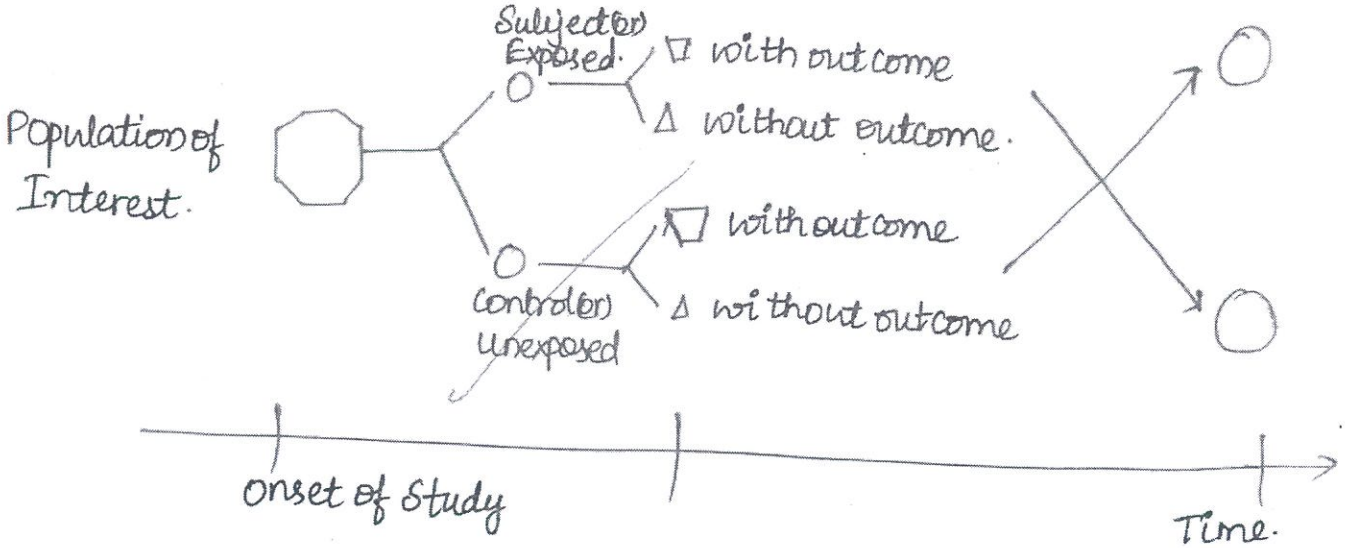
Disadvantages:

1. Potential recall bias.
2. Subject to selection bias.
3. Generally donot allow investigators to calculate an incidence or absolute risk.

(iii) Cross-Over Study: A study design where all patients from population of interest are two groups. One group who gets exposed to intervention, second group who doesnot get to exposed.

→ After a period of time, an evaluation of outcome is done patient from both groups undergo a period of washout so that effect from initial group intervention has been removed.

→ Once this is done, subject will cross-over to other group process starts.



Advantages:

1. Reduced influence as patients serve as their own controls.
2. Reduced variability in outcome being measured.
3. Smaller sample sizes required.
4. Having opportunity to receive both treatments.

Disadvantages:

1. Cannot be done when subjects can only recieve one treatment
2. May take longer than randomized clinical trial since patients have

INTERNAL LAB EXAMINATION

ASSESSMENT

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IV Pharm D Lab internal – I Examinations PCI (R8), November 2022

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 180 min **Max.Marks: 40 M** **Date of exam: 09/11/2022**

I. Synopsis (10 M)

1. What are Medication Errors and list out the types of medication errors? **5 M**
2. List out various Liver function tests. **5 M**

II. Major Experiment (15 M)

Patient Medication Counselling (10M)

Perform patient medication counselling according to given prescription to Angina Pectoris.

Observations:

Age: 65 years

Gender: Female

On physical examination patient is conscious and coherent.

Body Weight: 55 kg

BP: 150/90 mmHg

Prescribed Medications:

1. Cap. Rs 20 H/S- (Aspirin 75mg, Clopidogrel 75mg, Rosuvastatin 20mg)
2. Tab. Rt H/S (7 Days)- (Rabeprazole 10mg + Dicyclomine 10mg)
3. Tab. Telma B OD (15 Days)- (Telmisartan 40mg + Metoprolol 50mg)
4. Tab. Angiplat 6.5mg BD (20 Days)- (Nitro-glycerine 6.5mg)

Questions:

1. What is Angina Pectoris? **(2 M)**
2. Pharmacist must provide all information regarding medication like how to use, when to use, ADR, Contraindications and missed dose **(3M).**

III. Minor Experiment (10 M)

To obtain Medication History interview:

1. How to start a medication history interview and significance of it?
2. What suggestions would be given when patient is taking a vaccine?

IV. Viva – voce (5 M)

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Signature of the faculty

IV Pharm D Lab internal examinations PCI (R08)

Scheme of valuation

S. No	Evaluation Process	Marks
1	Internal laboratory exam	20 M
2	Day to day assessment in laboratory	10 M
3	Total	30 M

Signature of the faculty

Principal

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(Approved by AICTE, PCi & Govt.of A.P. Affiliated to JNTUK, Kakinada)

ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No. : 19T51T0024 Date : 9-11-22

Student Name : PILLA. SAI SUSHMITHA Year : IV Sem : INTERNAL-1

Branch : B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm

Specialization : Pharm D Time : 2-4 PM

Subject Name : CLINICAL PHARMACY Total Marks : 17+10=27/30

Marks Secured : Invigilators Signature :

I. SYNOPSIS : (5m) Student Signature : P. Sai Sushmitha

1. Types of Medication Error ?

2. List out various liver function tests ?

II. MAJOR EXPERIMENT :

Patient Medication Counselling (10m)

perform Patient Medication Counselling According to given prescription to Agina Pectoris.

Observations : Age - 65yrs
Gender - Female

On physical Examination - Pt is conscious & coherent.

Body wgt : 55kgs

BP : 150/90 mmHg

Prescribed Medications :

1st - Capsule. RS 20 H/S
[combination ~~Aspirin-75mg~~, Copidogril - 75mg, Rasorastatin - 20mg]

2nd - Tab. RT HS (11days)
combination [Rabiprazol 10mg + dicycloramide 10mg]

3rd - Tab. TelmaB(OD) - 15days
[Talmesartin (40mg) + metaprolol (50mg)]

4th - Tab. ~~Ag~~ Angiplat (6.5mg) BD - 20days

5th - Nitroglycerin (6.5mg)

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1. What is Angina ? (2m)

2. Pharmacist must provide all information regarding the medicatn like how to use & When to use, ADR's, contraindications, And Mixed dose ?

III. MINOR EXPERIMENT: (3m)

1. TO Obtain medication history interview.

1. How to start medication history Interview ? And Significance Of Medicatn history Interview (1 1/2m)

2. What suggestions to be given when a pt is taking Vaccine. (1 1/2 m)

IV. Viva Voice & Record (2m) 2

II. MAJOR :-

1. ANGINA :

→ It is also known as Ischaemic chest Pain.

→ It is a Stable Angina and a type of chest pain caused by reduced blood flow to the heart.

2. They are 4 types : 1). Stable Angina
2). Unstable Angina
3). Microvascular Angina
4). Variant Angina.

2. Capsule RS 20mg.

How to Use :- Taken Orally

When to Use :-

Time of Administration - Nighttime (HS)

ADRs :-

Stomach pain, Irritation, belching.

CI :- dehydration, Used kidney Infections.

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2). Tab. RT :- [Rabiprazol (10mg) + (dicycloamide(10mg)]

How TO use :- ROA - Taken Orally for 7days.

Given in Empty stomach.

When to use :- Daytime.

ADR's :- Constipation, Dry mouth, Abdominal distension, Sleepiness, tremors, Dizziness.

CI :- Pregnancy, breastFeeding, Allergy.

3). Tab. Telma :-

Talmesartin (40mg) + metaprolol (50mg)

How to use :- ROA - Oral for 15 days (OD)

When to use :- After meals

ADR'S : Sinus infection, Back pain, Respiratory trait infection.

CI : Obstruction of blockade in bile duct, kidney Failure.

4). Tab. Angiplat :-

How to use : Oral for 20 days (BD)

When to use : Time of Admt^{n} : After meals.

ADR's : Blurred vision, Headache.

CI : Anemia, Heart diseases, Glucoma.

Missed Dose :-

III). MINOR :-

1. To start medication history interview

Do you have any diseases, Other

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→ Are you using any medication for disease.

Significance of medication History Interview :-

preventing prescription Error & Consequent risks to patients.

→ And preventing accurate medication histories useful in detecting drug-related pathology in Clinical Signs & in result of drug therapy.

2. → Emphasize care for the Health.

→ Drink more liquids.

→ Don't eat Non-veg items much.

→ Use an ice pack or cool, damp cloth.

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P. Sai Suhmitha
19T51T0024

I. Synopsis :-

1. Types of Medication Errors :-

- Prescription Errors
- Omission Errors
- disoriented Errors
- Improper drugs
- Wrong Time
- Wrong dose
- Wrong drug preparation
- Wrong Administration
- Monitor Errors
- Compliance Errors
- Unauthorized Error.

* Prescription Errors :-

In this type of Error the Error may occur due to the drugs that are prescribed by pharmacist was wrong to patient.

* Omission Error :-

In this type of Error the wanted drugs are omitted or by misleading of the drugs.

* disoriented Error :- In this type of Error the patient may take the unprescribed drugs and leads to the misusage of drugs.

* Improper drug :-

Improper drugs are the one in which the proper medicated are aroided the Improper drugs are prescribed which leads

Error.

* Wrong Time :-

Administrating the drug in the wrong time which causes misleading of the drug. & causes Adverse Effect in the body.

* Wrong dose :-

Administrating the higher or low doses causes some Effects to the patients & not act on our body.

* Wrong drug preparation :-

preparing the wrong drug means that the drugs are prepared in Unwanted form.

* Monitor :-

the monitoring was to be done for some drugs. that causes Effects.

* Unauthorized Error :-

the Error that are not under the Gorernment Consideration.

2. Liver Function Tests :-

Consideration of the Conc of Enzymes and Other Compounds in Serum to measure the liver Function tests.

Serum Albumin :-

the protein synthesized, in liver upto 10 to 15 g/day

→ 60% in ECF & 40% in Serum.

→ Fewer Albumin causes edema.

→ Hypoalbumia occurs in diver damage, kidney damage, skin damage, ↑se of catabolism in diver.

→ Hyperalbuminia occurs when the ↑se of dehydration, & in shock cases.

Bilirubin :—

→ The test is performed to measure in jaundice.

→ Above the 50 µ/mol/L the bilirubin levels causes chronic diver diseases.

→ ↑ses production & ↓ses Excretion.

Alkaline phosphate :—

→ To measure the obstruction of the bile flow.

AST & ALT :—

→ The AST & ALT was found in the hepatocytes, muscle cells, and other tissue compounds.

→ AST increases in diver diseases, Myocardial infraction, injury & surgery.

→ ALT increases in Viral and Non-Viral diseases.

γ- Glutamyl Transpeptidase :—

→ Found in diver, kidney, pancreas.

→ Includes the hepatobilary diseases like the hepatocytes, hepatitis, cirrhosis, chronic

Liver diseases, Congestive Heart Failure.

Albumin	38.5 g/L
Bilirubin (Total)	< 19 µmol/L
(conjugated)	< 4 µmol/L
AST (SGPT)	< 35 U/L 60 U/L < 35 U/L
ALT (SGOT)	< 35 - 135 U/L
Alkaline phosphate	< 60 U/L
	60
	< 35 - 130 U/L
γ-Glutamyl transpeptidase	< 70 U/L

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SUBJECTIVE TEST

ESTD : 2005

JNTUK Reg. No. : 19T51T0022 Date : 9-11-22

Student Name : V. Sandhya Rani Year : IV th Sem : Internal-01

Branch : B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm

Specialization : Time :

Subject Name : CLINICAL PHARMACY Total Marks : 15/20

Marks Secured : Invigilators Signature :

15 + 10 = 25 / 30

Student Signature : Sandhya

I SYNOPSIS :- (5m)

① Types Listout types of medication errors

② Listout various Liver function tests

II MAJOR EXPERIMENT

PAITENT MEDICATION COUNSELING (10M)

Perform paitent medication counseling according to given prescription to Angina pectoris.

Observations :-

Age :- 65yrs

Gender :- female

On physical examination :- paitent is consiouncs and coherent

Body wt :- 55kg

Blood pressure :- 150/90 mmHg

Prescribe medications :- 1) Cap. Rs 20 (given - Night)

[Aspirin - 75mg, Clopidegrel - 75 mg, Rosovastatin - 20mg]

2) Tab. RT (HS - 7days)

[Ramiprosole (10mg) + diclofenamine 10mg]

3) Tab. TelmaB (OD) - 15days

[Telmisartan (40mg) + metaprolol (50mg)]

4) Tab. Angiplat - (BD - 20days

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questions:-

1) what is Angina (2m)

2) pharmacist must provide all information regarding the medication by how to use and when to use, ADR, contraindications & missed dose (8m)

MINOR EXPERIMENT - (3m)

To obtain medication history Interview

1) how to start a medication history Interview and significance

2) what suggestions would be given when patient is taking Vaccination.

VIVA VOICE + RECORD (2m)

MAJOR:-

Angina Pectoris:-

→ it is also known as Ischemic Chest pain

→ Characterized by discomfort (or) dysponea in the Chest due to obstruction (or) reduced blood flow to the heart by an blood clot (or) thrombous formation.

Types → 1) Stable Angina
2) unstable Angina
3) Variant Angina

(2) 1) Cap. Rs 20mg:-

how to use:- By-oral (ROA)

When to use:- time of administration - during night time

ADR:- diarrhoea, Stomach pain, dryness of mouth, headache, flu like Symptoms, constipation

CI:- dehydration, decreased kidney functions.

missed dose:-

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2) Tab RT :-

how touse :- (ROA) :- oral for 7days (given on Empty stomach)

when to use :- Time of administration - (day time)

ADR :- Allergy, abodminal pain, Diarrhoea, Nausea

CI :- pregnacy and breast-feeding women.

missed dose :-

3) Tab Telma B :- [Telmisartan (40mg) + metaprolol (50mg)]

Route of adminstration :- oral for 15 days -(OD)

Time of Adminstration :- After meal

ADR :- Respiratory tract infection, Sinus infection. Back pain

CI :- Obstruction of blockage in the bile duct; liver failure, kidney failure

missed dose :-

4) Tab Angiplat :-

Route of Adminstration :- oral for 20days (BD)

Time of Adminstration :- After meal.

ADR :- blurred vision, headache, light headedness

CI :- Anemia, glucoma, heart diseases.

missed dose :-

III

MINOR :-

1) Do you any disease other than present there.

2) Are you using any medications for the disease

3) what are medication using

Significance :-

→ preventing prescription error & consequence risk.

→ to paitents.

→ preventing accurate medication history useful in detailing drug released pathology in Clinical Studies

(2) → Emphasize the care for the health

→ drink more liquids

→ Do not take heavy meal foods. like non-veg items

→ use of cool ice packs (or) cool, damp clothes.

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1 SYNOPSIS:-

2 LIVER FUNCTION TEST (LFT):-

→ LFT is carried out by an detection of abnormal liver functions, whether the liver functioning is good(or) not, many Enzymes and concentrations abnormality indicates the liver is in critical condition

Bilirubin → how the liver functioning

Serum albumin & prothrombin time → protein synthesis in liver.

Alkaline phosphate → obstruction of bile flow

Transamine levels → liver injury(or) cell death

Normal Range:-

Albumin - 38.5 g/l

direct bilirubin - >19 u/l

bilirubin conjugated - >4 u/l

Alanine transaminase - >60 umol/l.

Asparatate transaminase - >35 umol/l

γ-Glutamyl transpeptidase - 70 u/l

Alaknine phosphate - 35-135 u/l.

Albumin:- it is protein, 10-15 g/day Synthesized in liver, mostly 60% found in ECF and 40% in serum.

→ increased levels of Albumin called hyperalbunemia. Seen in shock patients

→ decreased levels of Albumin called hypoalbunemia mostly seen in Skinburns, increased catabolism.

Bilirubin:-

→ Bilirubin is used to diagnose the Jaundice

→ if 50 umol/l exceeds in serum leads to Jaundice

→ Increased bilirubin levels due to increased production (or) decreased excretion

Alkaline phosphate:-

→ if abnormal levels of Alp can cause the obstruction of bile flow due to the bile duct obstruction

→ mostly seen in patients with Cholelithiasis

Transaminase levels:-

→ 2 types 1) Alanine Transaminase (or) SGPT

2) Aspartate Transaminase (or) SGOT

→ ALT increased levels seen in Viral & non-viral infections

→ AST increased levels seen in MI, Liver cirrhosis

γ-Gultamyl transpeptidase:-

→ mostly found in liver, pancreas, kidney

→ Increased levels seen in hepatobilary diseases

→ Chronic usage of phenytoin, phenobarbitone, rifapmcin also increases the level of γ-Gultamyl transpeptidase.

---

① ns

medication errors:-

Types:-

1) errors in wrong time

2) errors in wrong dose

3) errose in wrong administration

4) errors in wrong drug preparation

5) presoription errors

6) omission errors

7) unauthorized errors

8) detoritated errors

9) Improper errors

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10) monitor error

12) Compliance error.

① Errors in wrong dose;-

→ The required dose of drug should not administered but, the high (or) low dose administered by the patient due to insufficiency information about disease.

② Errors in wrong time;-

→ Errors may seen, when the drug is to be administered by patient in night but the patient may administered in day due to lack of information (or) misuse

Eg:- barbiturates can given at night time if, they administer at day cause sleepiness

③ errors in wrong drug administration;-

→ by the wrong drug (ROA) may causes the many serious effects

→ tablets can perscribe in oral form

④ prescription error:-

→ by the wrong dose, time written in prescription the errors may arise.

⑤ omission error:-

→ By the patient lack of medication adherence, the patient may omit the drug due to lack of interest

⑥ deteriated drug;-

→ if the drug degrade (or) instability may cause medication errors.

⑦ Compliance error:-

→ Due to the over thinking, the perscription of Substitue drug may cause the compliance error.

ESTD : 2005

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www.avanthipharma.ac.in, principal@avanthipharma.ac.in

IV Pharm D Lab internal – II Examinations PCI (R8), April 2023

Subject: Clinical pharmacy **Branch: Pharm D**

Time: 180 min **Max.Marks: 40 M** **Date of exam: 27/04/2023**

I. Synopsis (10 M)

1. Discuss types of medication errors? **5 M**
2. Discuss the process involved in critical evaluation of biomedical literature. **5 M**

II. Major Experiment (15 M)

1. Write the detailed drug query on any FDA approved 2022 anti-neoplastic drug

III. Minor Experiment (10 M)

1. Provide a detailed patient counselling on inhaler techniques in adults

IV. Viva – voce & record (5 M)

Signature of the faculty

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ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No.	: 19T51T0012	**Date**	: 21-4-2023
Student Name	: K. Usha Sri **Year** : 4th Yr	**Sem**	: lab internal - II
Branch	: B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm		
Specialization	: Pharm D	**Time**	:
Subject Name	: Clinical Pharmacy	**Total Marks**	: 17
Marks Secured	:	**Invigilators Signature**	:

I SYNOPSIS :- 5M

1. Types of medication errors.
2. Process involved in critical evaluation of biomedical literature

II MAJOR EXPERIMENT :- 10M

1. Write the detailed drug query on any FDA approved - 2022 anti-neoplastic drug.

III MINOR EXPERIMENT :- 3M

1. Provide a detailed patient counselling on inhaler techniques in adults.

IV VIVA-VOICE & RECORD - 2M

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II MAJOR EXPERIMENT

Query on Newly approved FDA antineoplastic drug 2022.

- Demographics :-

  Department - Oncology

  Reason - To update knowledge

  Requestor - Asst. Professor.

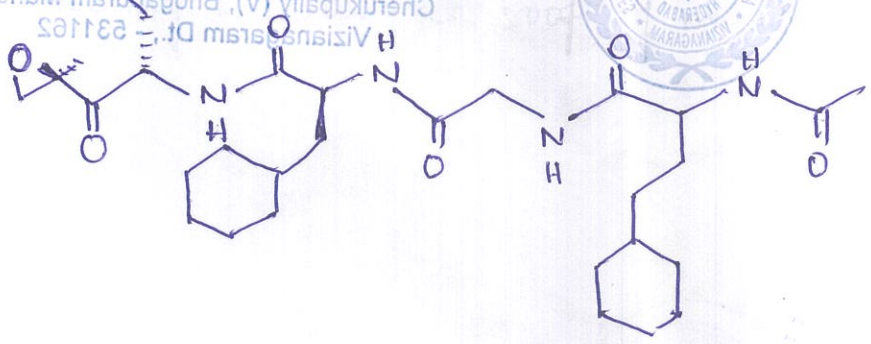
- Given query was obtained & categorized.
- Given query was determined & Categorized.
- Search strategy include secondary resources

- Response was evaluated, analyzed & synthesized.
- Response formulation

Teclistamab CqYV :-

The drug is known as the first bispecific B-cell maturation antigen-directed CD_3-T-cell engages, for adult patients with relapsed or refractory multiple myeloma who have received at least 4 prior lines of therapy, including a proteosome inhibitor, an immunomodulatory agent and an anti-CD38 monoclocal antibody

Chemical structure



Mechanism of action :-

Target CD_3 receptor, ε is expressed on surface of T-cells & BCMA is expressed on malignant cells.

Due to Dual binding sites, it is able to draw CD_3+T cells in close proximity to BCMA$^+$ cells, resulting in T-cell activation & T-cell mediated toxicity. Ultimately teclistamab promotes lysis & death of BCMA$^+$ cells

Pharmacokinetics :-

- Absorption through subcutaneous route
- Bioavailability ranges from 69% to 72%
- Volume of distribution - 5.63L, it increase with increasing body weigh
- $t_{1/2}$ = 3.8 days
- Clearance ~~exhi~~ by both time-dependent & time-independent

Dose :-

0.06 mg/kg Via S.c injection on Day-1
1.03 mg/kg on Day-4 & 1.5 mg/kg on Day 7, followed by 1.5 mg/kg once weekly until disease progression

Adverse effects :-

Pyrexia, CRS, musculoskeletal pain, allergies, fatigue, Upper respiratory tract infection, nausea, headache, pneumonia & diarrhoea. ↓ Hb, WBC, RBC, platelets & neutrophils

- Given Query was followed up & documented.

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III MINOR EXPERIMENT

Patient Counselling on inhaler techniques in adults :-

- Hold the inhaler & shake
- Remove Cap.
- Hold the inhaler upright
- Breath out gently
- Put inhaler mouth peice between lips and teeth
- Trigger the inhaler while breathing in deeply & slowly
- Continue to inhale until the lungs are full
- Hold breaths as long as you can tolerate
- Remove inhaler & breathe out slowly

Don't :-

- ~~slouching~~
- Using an empty inhaler
- Not shaking the inhaler
- Use of MDI inhaler without spacer
- Spraying several puffs of inhaler into spacer
- Holding head too far forward or backward
- Mouth not tight enough around spacer.
- Inhaling medicine too fast.
- Directing inhaler at roof of mouth.
- ~~Avo~~

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HYDERABAD
VIZIANAGARAM

19TS1T0012

I SYNOPSIS :

1. Medication errors :-

It is defined as any preventable event that may cause or lead to inappropiate use of medication while the prescription is hands of health care professional or patient..

Types :- Prescription error

Dispensing error

Administration error

Transcription error

Indent error

Preparation error - includes wrong drug prep^{n} etc.

Prescription error :- occurs due to illegable handwriting, ~~not~~ drug allergies not found & use of out of list abbreviations

Dispensing error :- It is the discrepancy between the pharmacy & medicine that delivers to the patient & distributes to the ward on the basis of prescription without identifying allergies / drug interactions.

Administration error :-

It is the discrepancy between drug administered by the patient & prescription intended by prescriber. It involves wrong drug, dose, time, ROA etc..

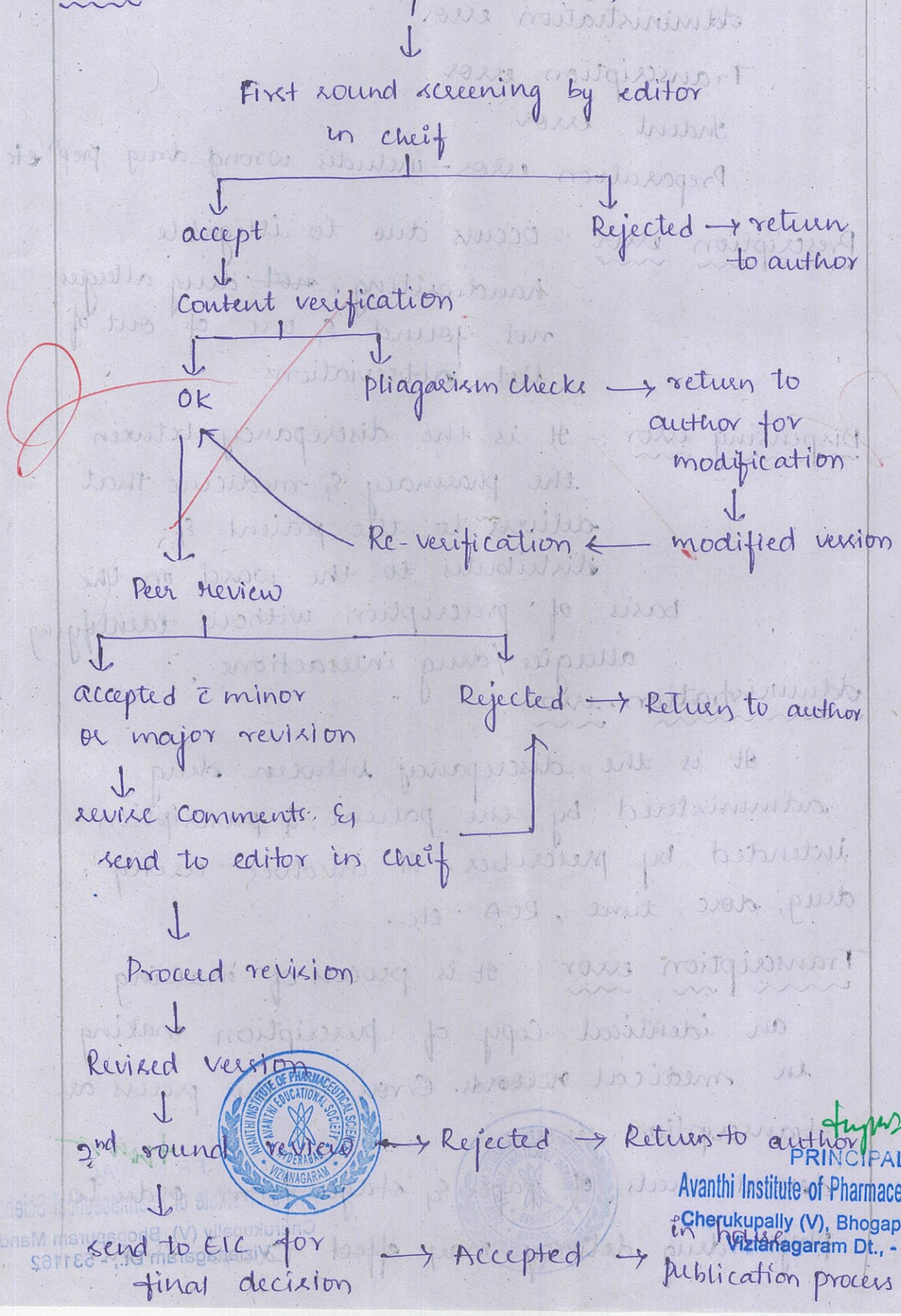
Transcription error :- It is process of making an identical copy of prescription making in medical records. Errors in this process are transcription errors from several sheets of paper & stages from order to physis drug delivery may effect

Indent error:- Error occurs during process of indenting

2. Critical evaluation of Biomedical literature :-

Critical evaluation is the ability to judge the scientific value of literature & evaluation should be done under strict conditions without bias.

Process :-



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ESTD : 2005

SUBJECTIVE TEST

JNTUK Reg. No. : 19T51T0019 Date : 27/4/23

Student Name : SVSRI ALEKHYA Year : 4th yr Sem : Internal-2

Branch : B. Pharm / Pharm D. / Pharm D. (P.B) / M. Pharm

Specialization : pharmD Time :

Subject Name : CLINICAL PHARMACY Total Marks : 15

Marks Secured : Invigilators Signature :

I SYNOPSIS - 5M

1. types of medication errors
2. process involved in critical evaluation of biomedical literature

II Major Experiment : 10M

1. Write detailed drug query on any FDA approved 2022 anti-neoplastic drug

III Minor Experiment : 3M

1. Provide a detailed pt counselling on inhaler techniques in adults

IV VIVA-VOICE & RECORD (2M) :

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II MAJOR EXPERIMENT

Query on newly approved FDA Antineoplastic drug 2022.

Demographics:

department: Oncology

Reason : to update knowledge

Requestor : Asst. professor

Given query was obtained and categorised

Given query was determined and categorised

Search strategy include secondary resources

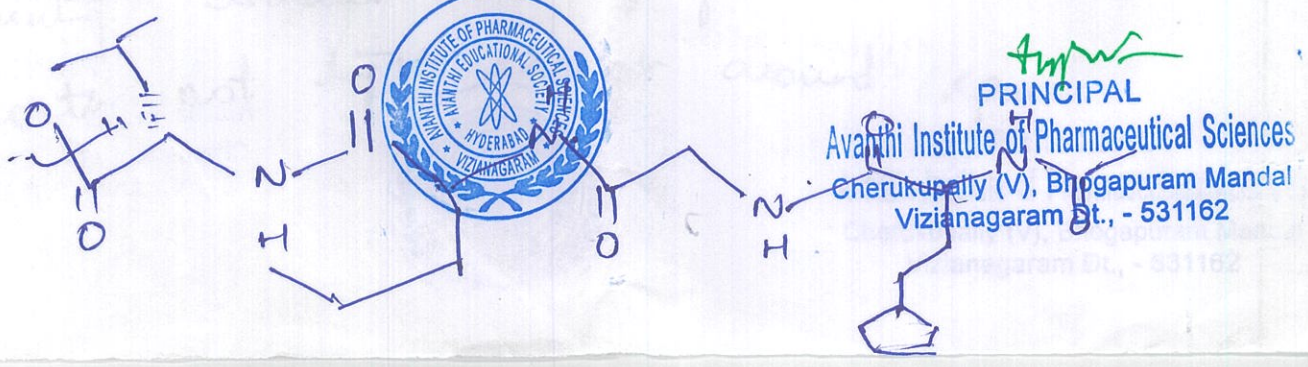
Response was evaluated, analysed and synthesized.

Response formulation

Teclistimab CqVV:

drug is known as the first bispecific B-cell maturation antigen-directed CD3-T-cell engager for adult pt's with relapsed (or) refractory multiple myeloma who have received at least 4 prior lines of therapy, including a proteosome inhibitor, an immunomodulatory agent and an anti-CD.3 monoclonal antibody.

chemical structure:-



MOA:-

targets CD_3 receptor, $\subseteq$ is expressed on surface of T-cells and BCMA $\subseteq$ is expressed on malignant cells.

DOSE:

0.06 mg/kg SC injection/Day 1

1.03 mg/kg Day-4 / 1.5 mg/kg on Day-7 followed by 1.5 mg/kg once weekly until disease progression.

ADR's:

CRS

Pyrexia

musculoskeletal pain

Allergies

fatigue

URI infections

Nausea

headache

Pneumonia

diarrhoea

↓ Hb

WBC↓, RBC↓, platelets & Neutrophils

Given query was followed and documented

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III MINOR EXPERIMENT.

Patient counselling on inhaler techniques in adults:-

- hold the inhaler and shake
- Remove cap
- hold the inhaler upright
- Breathe out gently
- Put inhaler mouth piece between lips and teeth
- trigger the inhaler while breathing in deeply and slowly.
- Continue to inhale until the lungs are full.
- hold breathe as long as you can tolerate
- Remove the inhaler and breathe out slowly.

Don'ts:

- Slouching
- Using an empty inhaler
- Not shaking the inhaler
- Use of MDI inhaler without spacer.
- spraying several puffs of inhaler into spacer
- Inhaling medicine too fast
- During inhaler at roof of mouth.
- Mouth not tight enough around spacer

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19T51T0019

I. SYNOPSIS:

1. Medication errors:-

It is defined as any preventable events that may cause (or) lead to inappropiate use of medication while the prescription is hands of health care professional (or) patient.

types:- Prescription error
dispensing error
administration error
transcription error
indent error.
preparation error. include wrong drug preparation etc.

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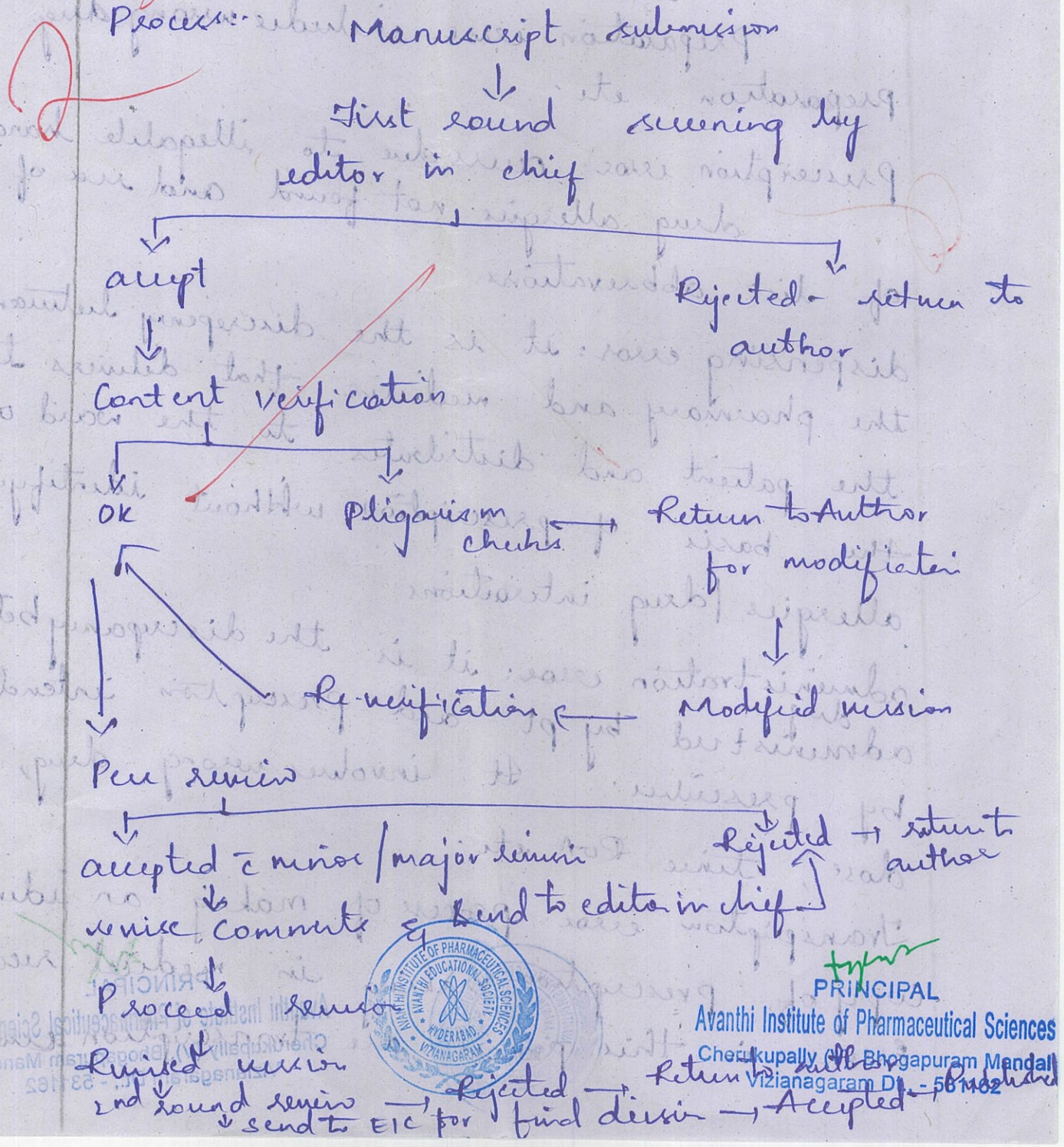

IV Pharm D Lab internal examinations PCI (R08)

Scheme of valuation

S. No	Evaluation Process	Marks
1	Internal laboratory exam	20 M
2	Day to day assessment in laboratory	10 M
3	Total	30 M

Signature of the faculty

Principal

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A.P. State Council of Higher Education)
Cherukupally (Vi), Chittivalasa (SO), Vizianagaram (Dt.) Pin - 531 162
Phone : 08933-226262, 9705169740

CERTIFICATE

Certified that this is a bonafied record of Practical work done by Mr./Miss K. Usha Sri *a student of B. Pharmacy, Pharm D.M. Pharmacy, with Regd. No.* 19T51T0012 *in the* Clinical Pharmacy *Laboratory of Department of Pharmaceutical Sciences during the year* 2022 - 2023

No. of Experiments 15

Avanthi Institute of Pharmaceutical Sciences Dt. Cherukupally

Avanthi Institute of Pharmaceutical Sciences CHERUKUPALLY (V) CHITTIVALASA S.O Bhogapuram (M), Vizianagaram Dist.

Signature Faculty Incharge

Signature of Head of Dept.

Submitted for Practical Examination held on : 25/05/2023

Examiner

Examiner - 2

INDEX

Serial No.	Date:	Name of the Experiment	Page No	Marks Awarded	Remarks
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2.	7-9-22	Query on insomnia	3-4		
3	28-09-22	Query on DM-II in early menopause	5		
4	12-10-22	Advanced role of SGLT	6-7	10	
5		Inhibitors in type-II DM			
		Patient Counselling	8		
5	19-10-22	Patient Counselling-01	9-11	10	
6	16-11-22	Patient Counselling-02	12-15		
7	7-12-22	Patient Counselling-03	16-18		
8	14-12-22	Patient Counselling-04	19-22		
		Medication history Interview	23		
9	4-1-23	Medication history interview-1	24-26	10	
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13	1-3-23	Case presentation-2	39-41		
14	15-3-23	Case presentation-3	42-44		
15	5-4-23	Case presentation-4	45-47		

Date 17-8-22

Expt. No. _____ Page No. 1

QUERY - 1

1. Demographics :-
   Department - General medicine
   Reason - To update knowledge
   Requestor - Physician
2. Given query was obtained and categorised.
3. Given query was determined and categorised.
4. Search strategy include secondary resources.
   www.medplus.com
   www.ncbi.nlm.gov
5. Response was evaluated, analysed & synthesized.
6. Drug information :-
   Drug name : PARACETAMOL
   Therapeutic category - Antipyretic & analgesic

PARACETAMOL :- also known as acetaminophen, is a medicine used to treat pain & fever. It is typically used for mild to moderate pain relief. It is typically used by mouth or rectally & is also available intravenously. Effects last between 2-4 hrs.

Recommended maximum daily dose = 3-4g
Paracetamol is generally safe at recommended dose higher dose may lead to toxicity including liver failure.

Signature: _____

Suryodaya

Date _____

Expt. No. _____ Page No. 2

Mechanism of action :-

Paracetamol selectively inhibits COX (cyclo oxygenase enzyme) activities in the brain & which may contribute to its ability to treat fever & pain. This activity does not appear to be direct inhibition by blocking an active site, but rather by reducing COX, which must be oxidised in order to function.

Adverse effects :-

Healthy adult taking regular dose upto 4000mg/day may show little evidence of toxicity.

- Liver damage
- Skin reaction & asthma.

- Untreated paracetamol overdose results in a lengthy & painless illness. Paracetamol overdose result in hepatotoxicity
- Intoxicity of paracetamol is believed to be like to its quinine metabolites
- Kidney failure is also a possible side effect paracetamol which may cause congenital malformation & is associated with increased risk of childhood asthma

Contraindications :-

- Colonic undernutrition
- shock.
- Acute liver failure

7. Given queasy was followed up and documented.

Signature: _____

Suryodaya

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Cherukupally (V), Chittivalasa (S), Vizianagaram (Dist.) Pin - 531 162
Phone: 08933-226262, 9705169740.

Certificate

Certified that this is a bonafide record of Practical work done by

Mr./Miss KOSURU. CHANDINI a student

of Pharm - D with Regd. No. 19TS1T0010

in the CLINICAL PHARMACY Laboratory of Department of

Pharmaceutical Sciences during the year 2022 - 2023

No. of Experiments 15

Institute of Pharmaceutical Sciences Dt. Cherukupally Avanthi

Signature Faculty In-charge

Signature Head of the Dept.

Submitted for practical examination held on: 25/05/2023

Examiner - 1

Examiner - 2

Index

Sl.No.	Date	Name of the Experiment	Page No.	Marks Awarded	Remarks
		Queries			
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8.	14/12/22	Patient Counselling - 04	20-23		
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11	8/2/23	Medication history interview - 3	30-32		
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15	5/4/23	Case presentation - 4	44-46		

Date 17/3/22

Expt. No. 1 Page No. 01

QUERY - 1

⇒ Demographics:

Department : General medicine

Reason : To update knowledge

Requestor : physician.

⇒ Given query was obtained & categorised.

⇒ Given query was determined & categorised.

⇒ Search strategy includes Secondary resources

www.medplus.com

www.ncbi.nlm.gov

⇒ Response was Evaluated, analysed and Synthesized.

⇒ Drug Informations:

Drug name : PARACETMOL

Therapeutic category : Antipyretic & Analgesic.

PARACETMOL, also known as acetaminophen, is a medicine used to treat pain & fevers. It is typically used for mild to moderate pain relief. It is typically used either by mouth & rectally, and is also available intravenously, effect last between 2 to 4 hrs

Recommended maximum daily dose 3 to 4 gms. Paracetamol is generally safe at recommended dose higher doses may lead to toxicity including lives failures

Mechanism of Action:

Paracetamol selectively inhibits Cox, Cyclooxygenase Enzyme activities in the brain & colon may contribute to its ability

Signature : _____

to treat fever & pain. This activity does not appear to be direct Inhibition by blocking an active site, but rather by reducing Cox, which must be oxidised in order to function

Adverse Effects:- Healthy adult taking regular does upto 4,000mg per day may show little Evidence of toxicity.

⇒ liver damage
⇒ Skin reaction
⇒ Asthma.

untreated paracetamol overdose results in a lengthy & painless illness.

⇒ paracetamol overdose results in hepatotoxicity.
⇒ Intoxicity of paracetamol is believed to be like to its quinone metabolite.
⇒ kidney failure is also a possible side effect paracetamol which may cause Congential malformation & is associated with a increase risk of childhood Asthma.

Contraindications:

⇒ Caloric undernutrition
⇒ Acute liver failure
⇒ Shock

Given query was followed up & documented.

29/10/22

Signature :

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by P.C.I.S.A.I.C.T.E. Affiliated to J.N.T.U. Kakinada & Recognised by A.P. State Council of Higher Education)
Cherukupally (Vi), Chittivalasa (SO), Vizianagaram (Dt.) Pin - 531 162
Phone : 08933-226262, 9705169740

CERTIFICATE

Certified that this is a bonafied record of Practical work done by Mr./Miss K. Lavanya Krishna *a student of B. Pharmacy, Pharm D.M. Pharmacy, with Regd. No.* 19T55T0018 *in the* clinical pharmacy *Laboratory of Department of Pharmaceutical Sciences during the year* 2022-2023

No. of Experiments 5

Avanthi Institute of Pharmaceutical Sciences Dt. Cherukupally

Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA P.O.

Signature Faculty Incharge ***Signature of Head of Dept.***

Submitted for Practical Examination held on : 25/05/2023

Examiner ***Examiner - 2***

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Serial No.	Date:	Name of the Experiment	Page No	Marks Awarded	Remarks
		QUERIES			
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Date 17/8/22

Expt. No. 01 Page No. 01

QUERY - 1

1. Demographics :-
   Department - General Medicine
   Reason - To update knowledge
   Requestor - Physician
2. Given query was obtained and categorised
3. Given query was determined and categorised
4. Search strategy included Secondary resources
   www.medplus.com
5. Response was evaluated, analysed and synthesized
6) Drug Information
   Drug Name - PARACETAMOL
   Therapeutic category - Antipyritic and analgesic

PARACETAMOL - also known as acetaminophen, is a medicine used to treat pain and fever. It is typically used for mild to moderate pain relief
It is typically used for mouth (or) rectally and it is also available i.v. effects. lasts between 3-4 hours
Recommended maximum daily dose is 3-4g paracetamol is generally safe at recommended dose higher dose may lead to toxicity including liver failure.

Mechanism of Action
Paracetamol selectively inhibits cox (cyclooxygenase enzyme) activity in brain and which may contribute in its activity to treat fever and pain. this activity

Signature: _____

Suryodaya

Date _____

Expt. No. _____ Page No. 02

doesn't appear to be direct inhibition by blocking an active site, but rather by reducing cox which must be oxidised in order to function

∴ Healthy adult taking regular doses upto 4000mg per day may show little evidence of toxicity
- Liver damage
- skin reaction
- Asthma

untreated paracetamol overdose results in a lengthy and painful illness

- paracetamol overdose results in hepatotoxicity
- Toxicity of paracetamol is believed to be due to its quinone metabolite
- Kidney failure is also a possible side effect paracetamol which may cause congenital malformation and is associated with a increased risk of childhood asthma

Contraindications

use of paracetamol is contraindicated in case of
- caloric under nutrition
- Acute liver failure
- Shock

Given query was followed up and documented

29/10/22

Signature: _____

Suryodaya

CLERKSHIP

ASSESSMENT

Guidelines for Pharm D Clerkship

1. In the Fifth year of academic program, each student will be posted to at least four different specialties during the clerkship period (06 months) on roaster basis.
2. Out of the total clerkship duration of 06 months, 2 months training in General Medicine, 2 months training each in Paediatrics and O&G shall be made compulsory and evaluation of the training should be done through maintenance of a log book.
3. During clerkship each intern is expected to provide the following services in the ward independently.
   - Ward round participation
   - Treatment chart review
   - Medication history review
   - Drugs and poison information
   - Detection and management of Adverse drug reactions
   - Patient counselling
   - Therapeutic interventions
4. The clerkship student work log book should be signed by a preceptor (Teacher - Practitioner) on weekly basis and provide feedback to the student.
5. The clerkship work of the student should be assessed by testing the knowledge, skills and attitude during and also at the end of clerkship.
6. **Evaluation criterion:** clerkship student performance is evaluated using the following scoring system.

Particulars	Poor	Fair	Below average	Average	Above average	Excellent
Score	0	1	2	3	4	5

A score of 3 and above represents satisfactory completion of clerkship for the issue of clerkship completion certificate.

7. However, if the candidates work is not satisfactory & the scoring is less than 3, he/she has to continue the clerkship to the satisfaction of the Preceptors.

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CERTIFICATE OF CLERKSHIP

(on the institution letter head)

This is to certify that Mr./Ms_____of [Institution name and address] has successfully completed the Internship in the following units/departments as prescribed under regulation 16 and Appendix C of Pharm D Regulations 2008.

Department	Date		Total duration [in months]
	From	To	
Medicine [Two Months compulsory]			
Any 2 of the following			
Surgery			
Pediatrics			
OB &G			
Psychiatry			
Skin and VD			
Orthopedics			

V. Uma Sankar

Preceptor

Head of the Institution

PRINCIPAL

Avanthi Institute of Pharmaceutical Sciences

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Vizianagaram Dt., - 531162

Seal of the Institution

Pharm D 5 Th Year Clerkship Activity Report

Name of the student:

Reg No:

S No	Clinical activities	Activities prescribed (minimum)	Activities carried out	Performance* (on 0 to 5 scale)
	I. Clerkship Activities			
1.	Case collection	20		
2.	Patient history review	20		
3.	Treatment chart & prescription audit review	20		
4.	Patient counselling	20		
5.	Case presentations	06		
6.	Journal club presentations	06		
7.	Drug information quires	06		
	II. Optional activities			
8.	Drug - Drug interactions	(Optional)		
9.	Adverse drug reaction documentation	(Optional)		

**Use the given or similar formats for evaluation of students for each activity*

Overall scoring of the candidate:

Particulars	Poor	Fair	Below average	Average	Above average	Excellent
Score	0	1	2	3	4	5

Signature of the Preceptor

Signature of the Examiner

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CLERKSHIP EXAMINATION

Mode of examinations.

Oral examination shall be conducted after the completion of clerkship of students. An external and an internal examiner will evaluate the student. Students may be asked to present the allotted medical cases followed by discussion. Students' capabilities in delivering clinical pharmacy services, pharmaceutical care planning and knowledge of therapeutics shall be assessed.

Scheme For Practical Examination of Clerkship

Practical's	Sessional	Marks	Final Examination	Marks
Major experiment	Case presentation	10	Case presentation	30
Minor experiment	Perform clinical pharmacy activities as per defined objectives	05	Perform clinical pharmacy activities as per defined objectives	20
Clerkship activity	Reviewing of clerkship activity carried out by the student	03	Reviewing of clerkship activity carried out by the student	10
Viva	-	02	Viva	10
Regularity and promptness	-	10	-	-
Maximum marks		**30**	**-**	**70**
Duration	**3 hours**		**4 hours**	

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AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
CHERUKUPALLY(V), BHOGAPURAM (M)
VIZIANAGARAM (DIST), AP – 531162.

DEPARTMENT OF PHARMACY PRACTICE

DOCTOR OF PHARMACY - CLERKSHIP

(SUBMITTED TO)

JNTUGV, AP.

Submitted by

Name Of Intern: B. MADHAVI

Registration No: (18T51T0005)

2022 – 2023

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

CLERKSHIP INCHARGE: Dr. V. Uma Sankar, PhD.

DOCTOR OF PHARMACY - (PHARM-D)

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

cherukupally(v), bhogapuram (m) vizianagram (dist), ap – 531162.

ESTD 2005

CERTIFICATE

This is to certify that Mr./Mrs. **B. MADHAVI** Reg No. **18T51T0005** batch **2022-2023** of Avanthi Institute of Pharmaceutical Sciences, Vizianagaram has successfully completed the **CLERKSHIP** at the maharaja institute of medical sciences and hospitals Vizianagaram department of pharmacy practice under PHARM- D regulations 2008, Academic year; **2022-2023**

Faculty in charge

Mr. V. UMA SANKAR
HOD / Vice Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

signature of principal

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Internal Examiner

Mr. V. UMA SANKAR
HOD / Vice Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

External Examiner

Estd. 2005

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
CHERUKUPALLY, TAGARAPUVALASA, VIZIANAGARAM
DOCTOR OF PHARMACY
PATIENT PROFILE FORM

Name: xxx I.P. No: 06837 Age: 28 Gender: Female Department: Gen. Medicine

Unit: D.O.A: D.O.D: Address:

A) SUBJECTIVE EVIDENCE:

- Chief complaint: c/o vomitings 3 episodes since morning followed by seizures 2 episodes, froth from mouth, tongue bite, involuntary micturition
- History of present illness:
- Past medical history: Asthmatic : 2 years
  Paranoid schizophrenia : 1 year
- Past medication history:
  T. Olanzapine - 10mg
  T. Chlorpromazine 100mg
  T. Trihexyphenidyl
- Family history: Nil
- Social history:

Smoker: No Alcoholic: No Occupation:

B) OBJECTIVE EVIDNECE:

Vitals	Day1	Day2	Day3	Day4	Day5	Day6	Day7
Blood pressure	100/70	130/90	120/70	130/80	130/90	130/80	110/80
Respiratory rate							
Temperature	Af	Af	Af	Af	Af	Af	Af
PR	60	96	110	80	88	81	70

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PHYSICAL EXAMINATION:

Respiratory System							
Cardio Vascular System							
Central Nervous System							
Abdomen							

C) LAB INVESTIGATIONS:

Hb - 12g/dl

WBC - 23000 cells/cumm

Neutrophils - 80%

Lymphocytes : 16%

Eosinophils : 4%

Serum bilirubin : 0.4mg/dl

Direct bilirubin : 0.4 mg/dl

SGPT : 84 IU/L

SGOT : 94 IU/L

ALP : 77.5 IU/L

Albumin : 4.5g/dl

S. Creatinine - 0.6mg/dl

Blood urea - 21.3 mg/dl

Serum sodium : 121 mmol/L

Potassium : 4.3 mmol/L

Chloride : 89 mmol/L

Phosphates : 7.39 mmol/L

Calcium : 1.85 mmol/L

CT brain : Small hypodensity in B/L frontal periventricular white matter likely Small vessel ischaemia

D) DIAGNOSIS:

Paranoid schizophrenia, GTCS 2° to hyponatremia

Small vessel ischemia

E) ASSESSMENT:

1) Aetiology:

a) Cause of the problem:

Not known

b) Does the patient have any risk factors: No

c) Is this a drug-induced disease: No

2) Need for therapy:

Nature of the problem: Mild / Moderate / Severe / Acute / Chronic:

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3) **Current therapy:**

Drug name	Dose	Dosage form & R.O.A	Frequency	Duration Of the Treatment						
				1	2	3	4	5	6	7
Inj Pantop	40mg	IV	OD	✓	✓	✓	✓	✓	✓	✓
Inj Phenytoin	100mg	IV	TID	✓	✓		✓	✓	✓	✓
T. Trihexyphenidyl	2mg	PO	OD				✓			
T. Aspirin	150mg	PO	OD					✓	✓	✓
T. Clopidogrel	75mg	PO	OD					✓	✓	✓
T. Atorvastatin	40mg	Po	OD					✓	✓	✓
Inj Ondansetron	4mg	IV	SOS		✓	✓	✓			
Inj Optineuron	1 ampin 100ml NS	IV	-	✓	✓	✓	✓	✓	✓	✓
IV fluids NS+DNS	100ml/hr	IV		✓	✓	✓	✓	✓	✓	✓

a) The necessity of current drugs (justify):

Pantop - PPI
Phenytoin - Anticonvulsant
Trihexyphenidyl - Anticholinergic
Aspirin & Clopidogrel - Antiplatelet
Atorvastatin - Statin
Optineuron - Multivitamin

b) Patients response to treatment:

Good

c) Any adverse effects: Hyponatremia

d) Is patient adherent to the treatment: Yes

e) Correctness of Dose / Dosage form / R.O.A of drug regimen: Not required

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F) PLAN:

- Goals for the problem:

  To relieve from symptoms

  To improve quality of life

- Recommend treatment: continue treatment/discontinue treatment:
  (If discontinued specify the reason)

  Continue treatment

Suggest alternate therapy (if current therapy is not working or results in adverse effect)

Not required

Patient Education:

1) About disease: Paranoid Schizophrenia is a serious mental disorder in which people interpret reality abnormally GTCS : A grandmal seizure causes a loss of consciousness & violent muscle contractions

2) Use of the drugs:

Pantoprazole : To inhibit gastric acid secretion

Phenytoin : To prevent seizures

Southemphremidyl : Anticholinergic, relaxes smooth muscles

Aspirin & Clopidogrel : Prevent clot formation

Atorvastatin : Statins - Reduces lipid levels in blood.

Ondansetron : To prevent nausea & vomiting

Optineuron : Multivitamin

IV fluids : To treat hypo natremia

Administration Guidelines:

Administer the drugs as prescribed by Physician

Dietary changes:

No changes in diet

Lifestyle modifications:

- Exercise regularly
- Follow balanced diet

Precautions:

- Consult Psychiatrist
- Attend counselling sessions
- Follow prescription strictly

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AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

CHERUKUPALLY, TAGARAPUVALASA, VIZIANAGARAM

DOCTOR OF PHARMACY

DRUG INFORMATION DOCUMENTATION FORM

Date: Time: Received by:

Department: Gen Medicine Unit: Phone No.:

Enquirer's Professional status:

Physician P.G. Intern Others ✓

Patient details:

Age: 28 Weight: Sex: M/F ✓ Liver/Renal Function:

Allergies:

None

Current Medical Problems:

Paranoid schizophrenia, GTCS 2° to hyponatraemia & Small vessel ischaemia

Relevant Drug Therapy:

Inj Phenytoin - 100mg
T. Aspirin - 150mg
T. Clopidogrel - 75mg
T. Atorvastatin - 40mg
IV fluids
Inj optineuron - 1amp in 100ml NS

Specific background information collected? Yes ✓ No

Details of Enquiry:

Disease

Mode of Request: Direct Access During Ward-rounds ✓ Telephone Others

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Purpose of Enquiry: Update Knowledge ✓ Better Patient Care Others ✓

Question Category: Indication ✓ Availability/Cost Efficacy

Interaction Pharmacokinetics Poisoning

Drug Therapy Dosage/Administration ADR

Others

Answer Needed: Immediately ✓ Within 2-4 hours Within a day Within 1-2 days

Date of Reply:

Reasons for delayed answer (if any):

Follow up (if any):

Form of reply: Verbal ✓ Written Both Printed Material

Information Provided:

On disease

Reference (s) Consulted:

www.medscape.com

Name of Pharmacist: B.J.R Madhavi **Signature:** Madhavi

Staff In-charge: V. Murali Sankar **Signature:**

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CHERUKUPALLY, TAGARAPUVALASA, VIZIANAGARAM
DOCTOR OF PHARMACY
DRUG INTERACTION DOCUMENTATION FORM

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Name of the Patient: Age: 28 Sex: female I.P No: 06037

Social History: Diagnosis: k/c/o paranoid schizophrenia ε GTCs 2° to hypotrafaemia ε small vessel ischaemia

Pregnancy/Lactation:

Details of Drug Therapy

Inj phenytoin
Inj Atorvastatin

Type of Interaction	Severity & Documentation	Summary of Interaction	Clinical Management
Drug-Drug Phenytoin - Atorvastatin	Moderate	Phenytoin decreases Atorvastatin metabolism	Atorvastatin can be substituted by fluvastatin, pravastatin
Drug-Food			
Drug-Tobacco, Ethanol			
Drug-Pregnancy/Lactation			

Was the Drug Interaction was discussed with concerned physician: ☑ Yes ☐ No

Any appropriate Suggestion given: ☑ Yes ☐ No

Name of the Student: B.J.R Madhavi Date:

Reference Consulted: Staff In-charge: V. Murali Sankar.

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AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

CHERUKUPALLY, TAGARAPUVALASA, VIZIANAGARAM

DOCTOR OF PHARMACY

PHARMACIST INTERVENTION DOCUMENTATION FORM

1. **Patient Details:**

Name: xxx Age: 28 Sex: M/F I.P/O.P No:

Ward: Gen medicine D.I. No: Date of admission:

Reason for admission: c/o vomittings followed by seizures

On examination:

Diagnosis: Paranoid schizophrenia, GTCs 2° to hyponatremia, Small vessel ischaemia

2. **Prescription Details:** **Laboratory Data:**

S.No	Drug	Dose & Frequency
1.	Inj' Phenytoin	100 mg
2.	T. Atorvastatin	40 mg
3.	T. Clopidogrel	75 mg

3. **Prescription Problem (Check all that apply):**

- ☐ Allergy
- ☑ Interaction
- ☐ Incomplete Rx
- ☐ High Dose
- ☐ Prior ADR
- ☐ Unnecessary Drug
- ☐ Duplication
- ☐ Low Dose
- ☐ Contraindication
- ☐ Wrong Drug
- ☐ Excessive Duration
- ☐ Inconvenient
- ☐ Others (please specify)

Drugs Involved	Strength	Direction	Quantity	Cost (Rs.)

4. **Action Taken (Check all that apply):**

- ☐ Discussion with Patient
- ☑ Discussion with Prescriber
- ☐ Discussion with Patient Representative
- ☐ Drug Information Reference Consulted
- ☐ Others (please specify):

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5. **Recommendations (Check all that apply):**

Change:
- ☐ Drug
- ☐ Dose
- ☐ Duration
- ☐ Form/Route
- ☑ Schedule

Dose:
- ☐ Increase
- ☐ Decrease

Drug:
- ☐ Stop/Hold
- ☐ Add

Other:
- ☐ Laboratory Data

Brief:

---

6. **Intervention Accepted:**

☑ Yes ☐ No

7. **Results (Check all that apply):**

Rx:
- ☐ Dispensed as Written
- ☐ Not Dispensed
- ☑ Clarified & Dispensed
- ☐ Changed & Dispensed

Patient:
- ☑ Counselled
- ☐ Written Information given to Patient

Others:
- ☐ Improved Compliance
- ☐ Improved Monitoring of Therapy
- ☐ Reduced Cost by Rs. ……..
- ☐ Increased Therapeutic Effectiveness
- ☑ Prevent Toxicity/ Side Effects

8. **Follow up Details of the Patient:**

---

9. **Intervention Made By:** **Name:** B.S.R Madhavi

Designation: **Signature with Date:**

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AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

CHERUKUPALLY, TAGARAPUVALASA, VIZIANAGARAM

Estd. 2005

DOCTOR OF PHARMACY

PATIENT COUNSELLING FORM

Patient name: xxx **Age/Sex:** 28 | F **Date:**

Past Medical History:
Asthma - 3 years k/c/o Paranoid Schizophrenia

Family Medical History:
N.A

Personal Medical history (Life Style Occupation):
-

Current Illness: k/c/o Paranoid Schizophrenia c GTCS c Hyponatremia c Small vessel ischaemia

Allergies (Drug/Food/Other):
None

Medication:
Inj Pantop Inj Ondansetron T Clopidogrel
Inj Phenytoin T. Atorvastatin T. Trihexyphenidyl
T. Aspirin

Counseling Given On:
disease condition, Precautions

Patient perception with respect to disease and medication:

Patient compliance and evaluation: ☐ Poor ☑ Satisfactory ☐ Good

Major side effects and management:
Hyponatremia - IV fluids given

Provision of written information:

Precautions: follow prescription strictly
Attend counselling sessions

Interactions (drug-drug, drug-food, drug-disease):
Phenytoin - Atorvastatin

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Storage:

Information on missed doses:

Any Communication barriers: ☑ **yes** ☐ **no**

If Yes:

Language ☐ Literacy ☐ Physical (sensory impairment) ☐ Anxiety ☐ Age ☐ Time ☐

Non-Co operative ☑

Comments:

Signature of the Patient:

Signature of clinical pharmacist: Madhavi

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INTERNSHIP

ASSESSMENT

Guidelines for Pharm.D internship

1. In the Final year of academic program, each student will be posted to at least four different specialties during the internship period (12 months)on roaster basis.
2. Out of the total internship duration of 12 months, 6 months training in General Medicine, two months training each in Pediatrics and O&G shall be made compulsory and evaluation of the training should be done through maintenance of a log book.
3. During internship each intern is expected to provide the following services in the ward independently.
    - Ward round participation
    - Treatment chart review
    - Medication history interview
    - Drugs and poison information
    - Detection and management of Adverse drug reactions
    - Patient counseling
    - Therapeutic interventions
4. Each student is required to maintain the log book of services provided on daily basis.
5. The internship work log book should be signed by a preceptor (Teacher – Practitioner) on weekly basis and provide feedback to the intern.
6. The internship work of the student should be assessed by testing the knowledge, skills and attitude during and also at the end of internship.
7. The evaluation of satisfactory completion of the internship is done based on
    - Proficiency of knowledge
    - Competency
    - Responsibility and punctuality
    - Involvement in patient care.
    - Team behavior
    - Initiative and participation in active discussions and research.
8. Evaluation Criterion

   Intern's performance is evaluated using the following scoring system

Poor	Fair	Below Average	Average	Above average	Excellent
0	1	2	3	4	5

   A score of 3 and above represents satisfactory completion of internship for the issue of internship completion certificate.
9. However, if the candidates work is not satisfactory & the scoring is less than 3 he/she has to continue the internship to the satisfaction of the Preceptors.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

****

CERTIFICATE OF INTERNSHIP

(on the institution letter head)

This is to certify that Mr/Ms_____ of _____[Institution name and address] has successfully completed the Internship in the following units/departments as prescribed under regulation 16 and Appendix C of Pharm D Regulations 2008.

Department	Date		Total duration [in months]
	From	To	
Medicine [Six Months compulsory]			
Any 3 of the following			
Surgery			
Paediatrics			
OB &G			
Psychiatry			
Skin and VD			
Orthopaedics			

Preceptor

Head of the Institution

Seal of the Institution

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
CHERUKUPALLY(V), BHOGAPURAM (M)
VIZIANAGARAM (DIST), AP – 531162.

DEPARTMENT OF PHARMACY PRACTICE

DOCTOR OF PHARMACY - INTERNSHIP

(SUBMITTED TO)

JNTUGV, AP.

Submitted by

Name Of Intern: D. PADMA PRIYA

Registration No: (17T51T0007)

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

2022 – 2023

INTERNSHIP INCHARGE: **Dr. Randeep raj**

DOCTOR OF PHARMACY - (PHARM-D)

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

Cherukupally(v), bhogapuram (m) Vizianagaram (dist), ap – 531162.

ESTD 2005

CERTIFICATE

This is to certify that Mr./Mrs. **D. Padma Priya** **Reg No. 17T51T0007** batch **2022-2023** of Avanthi Institute of Pharmaceutical Sciences, Vizianagaram has successfully completed the **INTERNSHIP** at the maharaja institute of medical sciences and hospitals Vizianagaram department of pharmacy practice under PHARM- D regulations 2008, Academic year; **2022-2023**

Faculty in charge

Dr. V. C. RANDEEP RAJ
Pharm.D
ASSISTANT PROFESSOR
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Cherukupally (V), Bhogapuram (M),
Vizianagaram Dist-531162

signature of principal

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Internal Examiner

Dr. V. C. RANDEEP RAJ
Pharm.D
ASSISTANT PROFESSOR
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Cherukupally (V), Bhogapuram (M),
Vizianagaram Dist-531162

~~**External Examiner**~~

DOCTOR OF PHARMACY

ANNUAL CLINICAL ACTIVITIES – INTERNSHIP (2022-2023)

CLINCAL ACTIVITIES		
Attendance		**92.3%**
Ward round participation		280
Treatment chart review		280
PHARMACIST INTERVENTIONS	Dose Adjustments / Errors	40
	Non -Indication	10
	Contra Indication	10
	Sub Therapeutic Doses	15
	Off Labels	15
	Drug Interactions	30
	Poly Pharmacy	280
	Therapeutic Duplications	10
	Other Drug Related Problems	-
Medication Therapeutic Efficacy		78
Suspected -ADRs		25
Patient Counselling		280
Drug & Poison Information		20
PRESENTATIONS	Case Presentations	12
	Seminar Presentations	12
	Journal – Club Presentations	12
Medical awareness camp(s)/ rallies		3
Webinars/ seminars attended		5
TOTAL NUMBER OF ACTIVITIES		**=1407**

Name of intern: D. Padma Priya

REG NO: 17T51T0007

Signature of preceptor:

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY,
GURAJADA-VIZIANAGARAM.
CENTER : AVANTHI INSTITUTE OF PHARMCEUTICAL SCIENCES-T5
Cherukupally(V), Bhogapuram(M), Vizianagaram(Dst)

Examination : Pharm.D VI Year August- 2023

Subject : Internship

Name& Address of Examiner: External: **Dr. M. B. V. Raju,**
Principal.
Avanthi Inst. of Pharmaceutcal Sciences,
Cherukupally, Vizianagaram.

Internal : **Dr. V. C. Randeep Raj**
Preceptor.

Date of Exam : 04/08/2023

1. Name of the Candidate : **MYLAPALLI ABHISEKHAR**
2. Register No : **17T51T0017**

Grade : A

A	-	Excellent
B	-	Above Average
C	-	Average
D	-	Below Average
E	-	Fair
F	-	Poor

Signature of Preceptor

Preceptor
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Signature of External Examiner

Dr. M.B.V. RAJU
Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Cherukupally(V), Bhogapuram (M), Vizainagaram(Dst)

EVALUATION OF INTERNSHIP

Dt: 04/08/2023

Name of the Candidate: MYLAPALLI ABHISEKHAR

Regd No: 17T51T0017 Year: VI Pharm.D

S.No	Objective	Score Obtained	Score
1	Proficiency of knowledge required for each case management	5	0-5
2	The Competency in skills expected for providing clinical Pharmacy Services	5	0-5
3	Responsibility, Punctuality, Work up of case, involvement in patient care	5	0-5
4	Ability to work in a team (Behaviour with other healthcare professionals including medical doctors, nursing staff and colleagues).	5	0-5
5	Initiative, Participation in discussions, research aptitude.	5	0-5

Poor	Fair	Below Average	Average	Above Average	Excellent
0	1	2	3	4	(5)

Dr.V.C.Randeep Raj
PRECEPTOR
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

Dr.M.B.Venkatapathi.Raju
PRINCIPAL
Dr. M.B.V. RAJU
Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by AICTE, PCI, Recognized by the Govt. of A.P. & Affiliated to JNTUK, Kakinada)

Cherukupally Village, Near Tagarapuvalasa Bridge, Vizianagaram Dist. A.P - 531 162

Web : www.avanthipharma. ac in. E-mail : principalavanthit5@gmail.com

principal_t5@rediffmail.com

: 08922-245079

Cell : 9553492999

From:

Dr.M.B.V.Raju

M.Pharm,Ph.D

PRINCIPAL

CERTIFICATE OF INTERNSHIP

(Doctor of Pharmacy (Pharm-D) Program)

This is to certify that Ms. MYLAPALLI ABHISEKHAR Regd No.17T51T0017 Of Avanthi Institute of Pharmaceutical Sciences from **2017-2023** pursuing **Doctor of Pharmacy (Pharm-D)** course .She has successfully completed the Internship at the **Maharaja Institute of Medical Sciences,Vizianagaramin** the following Units/Departments as prescribed under regulation 16 and Appendix C of Pharm-D Regulations 2008 of Pharmacy Council of India ,New Delhi,

Department	Date		Total Duration (in months)
	From	To	
Dermatology	Aug 2022	Sep. 2022	2Months
Gynecology	Oct. 2022	Nov. 2022	2 Months
Pediatrics	Dec. 2022	Jan. 2023	2 Months
General medicine	Feb.2023	Jul .2023	6 Months

Preceptor

Seal of the Institution

Head of the Institution

Dr.M.B.V. RAJU
Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

Station:Cherukupally

Date: 4/8/2023

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY,
GURAJADA-VIZIANAGARAM.
CENTER : AVANTHI INSTITUTE OF PHARMCEUTICAL SCIENCES-T5
Cherukupally(V), Bhogapuram(M), Vizianagaram(Dst)

Examination : Pharm.D VI Year August- 2023

Subject : Internship

Name& Address of Examiner: External: **Dr. M. B. V. Raju,**

Principal.

Avanthi Inst. of Pharmaceutcal Sciences,

Cherukupally, Vizianagaram.

Internal : **Dr. V. C. Randeep Raj**

Preceptor.

Date of Exam : 04/08/2023

1. Name of the Candidate : **PENTAKOTA AKHILA**
2. Register No : **17T51T0019**

Grade : B

A	-	Excellent
B	-	Above Average
C	-	Average
D	-	Below Average
E	-	Fair
F	-	Poor

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Signature of Preceptor
Preceptor
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

Signature of External Examiner
Dr. M.B.V.RAJU
Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

# AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES
Cherukupally(V), Bhogapuram (M), Vizainagaram(Dst)

EVALUATION OF INTERNSHIP

Dt: 04/08/2023

Name of the Candidate: PENTAKOTA AKHILA

Regd No: 17T51T0019 Year: VI Pharm.D

S.No	Objective	Score Obtained	Score
1	Proficiency of knowledge required for each case management	4	0-5
2	The Competency in skills expected for providing clinical Pharmacy Services	4	0-5
3	Responsibility, Punctuality, Work up of case, involvement in patient care	4	0-5
4	Ability to work in a team (Behaviour with other healthcare professionals including medical doctors, nursing staff and colleagues).	4	0-5
5	Initiative, Participation in discussions, research aptitude.	4	0-5

Poor	Fair	Below Average	Average	Above Average	Excellent
0	1	2	3	(4)	5

Dr.V.C.Randeep Raj
PRECEPTOR
Preceptor
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

Dr.M.B.Venkatapathi.Raju
PRINCIPAL
Dr. M.B.V. RAJU
Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by AICTE, PCI, Recognized by the Govt. of A.P. & Affiliated to JNTUK, Kakinada)

Cherukupally Village, Near Tagarapuvalasa Bridge, Vizianagaram Dist. A.P - 531 162

Web : www.avanthipharma. ac in. E-mail : principalavanthit5@gmail.com

principal_t5@rediffmail.com

: 08922-245079

Cell : 9553492999

From:

Dr.M.B.V.Raju

M.Pharm,Ph.D

PRINCIPAL

CERTIFICATE OF INTERNSHIP

(Doctor of Pharmacy (Pharm-D) Program)

This is to certify that Ms. PENTAKOTA AKHILA Regd No.**17T51T0019** Of Avanthi Institute of Pharmaceutical Sciences from **2017-2023** pursuing **Doctor of Pharmacy (Pharm-D)** course .She has successfully completed the Internship at the **Maharaja Institute of Medical Sciences,Vizianagaramin** the following Units/Departments as prescribed under regulation 16 and Appendix C of Pharm-D Regulations 2008 of Pharmacy Council of India ,New Delhi.

Department	Date		Total Duration (in months)
	From	To	
Dermatology	Aug 2022	Sep. 2022	2 Months
Gynecology	Oct. 2022	Nov. 2022	2 Months
Pediatrics	Dec. 2022	Jan. 2023	2 Months
General medicine	Feb.2023	Jul .2023	6 Months

Preceptor

Seal of the Institution

Head of the Institution

Dr. M.B.V. RAJU
Principal
Avanthi Institute of Pharmaceutical Sciences
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dist.

Station:Cherukupally

Date: 4/8/2023

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

AVANTHI

INSTITUTE OF PHARMACEUTICAL SCIENCES

Estd. 2005

Approved by P.C.I., A.I.C.T.E. State Govt. Affliated to JNTUK - Kakinada

Cherukupalli (V), Near Tagarapuvalasa Bridge, Bhogapuram (M), Vizianagaram (Dist).

Certificate of Internship

Doctor of Pharmacy (Pharm.D.) Programme

This is to certify that Mr. **LEKKALA RAVITEJA** bearing Regd. Number **16T51T0010** is a Bonafide Student of Avanthi Institute of Pharmaceutical Sciences from 2016-2022 pursuing **Doctor of Pharmacy (Pharm.D) course.** He has successfully completed the Internship at the Maharaja Institute of Medical Sciences, Vizianagaram in the following Units / Departments as prescribed under regulation 16 and Appendix C of Pharm.D. Regulations 2008 of Pharmacy Council of India, New Delhi.

Department	Date		Total Duration (in Months)
	From	To	
General Medicine	Oct. 2021	Mar 2022	6
Paediatrics	Apl. 2022	May 2022	2
Gynaecology	June 2022	July 2022	2
Dermatology	Aug. 2022	Sep. 2022	2

Preceptor

Superintendent (MIMS)

Principal (AIPS)

Date:

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt.- 531162

EXTERNAL THEORY EXAMINATION ASSESSMENT

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
UNIVERSITY EXAMINATION CENTER, VIZIANAGARAM
PHARM "D"V YEAR REGULAR/SUPPLEMENTARY EXAMINATIONS, MAY- 2023

(2018 TO 2012 ADMITTED BATCHES)

TIME TABLE

Time:10.00 AM To 1.00 PM

DATE & DAY		
08-05-2023 (Monday)	**10-05-2023 (Wednesday)**	**12-05-2023 (Friday)**
CLINICAL RESEARCH (T5101)	PHARMACOEPIDEMIOLOGY & PHARMACOECONOMICS (T5102)	CLINICAL PHARMACOKINETICS & PHARMACOTHERAPEUTIC DRUG MONITORING (T5103)

NOTE:

(I) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS, IMMEDIATELY

(II) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL

(III) THE PRINCIPALS ARE REQUESTED TO INFORM THE UNIVERSITY IMMEDIATELY, IF ANY OTHER SUBSTITUTE SUBJECTS ARE NOT INCLUDED IN THE ABOVE LIST

Date:02-05-2023

Controller of Examinations

Controller of Examinations
JNTU Gurajada, Vizianaga...

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * AVANTHI EDUCATIONAL SOCIETY * HYDERABAD * VIZIANAGARAM *

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM

UNIVERSITY EXAMINATION CENTER, VIZIANAGARAM

PHARM "D"IV YEAR REGULAR/SUPPLEMENTARY EXAMINATIONS, MAY- 2023

(2019 TO 2017 ADMITTED BATCHES)

TIME TABLE

Time:10.00 AM To 1.00 PM

DATE & DAY						
09-05-2023 (Tuesday)	11-05-2023 (Thursday)	15-05-2023 (Monday)	17-05-2023 (Wednesday)	19-05-2023 (Friday)	22-05-2023 (Monday)	24-05-2023 (Wednesday)
PHARMACOTHERAPEUTICS –III (T4101)	HOSPITAL PHARMACY (T4102)	CLINICAL PHARMACY (T4103)	BIOSTATISTICS & RESEARCH METHODOLOGY (T4104)	BIOPHARMACEUTICS & PHARMACOKINETICS (T4105)	CLINICAL TOXICOLOGY (T4106)	PHARMACO THERAPEUTICS - I & II (T4111)

NOTE:

(I) ANY OMISSIONS OR CLASHES IN THIS TIME TABLE MAY PLEASE BE INFORMED TO THE CONTROLLER OF EXAMINATIONS. IMMEDIATELY

(II) EVEN IF GOVERNMENT DECLARES HOLIDAY ON ANY OF THE ABOVE DATES, THE EXAMINATIONS SHALL BE CONDUCTED AS USUAL

(III) THE PRINCIPALS ARE REQUESTED TO INFORM THE UNIVERSITY IMMEDIATELY, IF ANY OTHER SUBSTITUTE SUBJECTS ARE NOT INCLUDED IN THE ABOVE LIST

Date:02-05-2023

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES * AVANTHI EDUCATIONAL SOCIETY * HYDERABAD * VIZIANAGARAM

Controller of Examinations

Controller of Examinations
JNTU Gurajada, Vizianagaram

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-GURUJADA VIZINAGARAM Vizianagaram-535003, Andhra Pradesh (India)
(Established by Andhra Pradesh Act No.22 of 2021)

Appointment of Observer

Date: 06-05-2023

From
The Controller of Examinations,
J.N.T. University Gurajada-Vizianagaram,
Vizianagaram.

To
The Principal,
BABA INSTITUTE OF TECHNOLOGY AND SCIENCES
Bakkanapalem, Visakhapatnam

Sub: **Observer for Pharm.D Examinations May-2023 during 08-05-2023 to 15-05-2023 - reg**

This is to inform you that depute one senior faculty, Sri. MAHESHPALAKOLLU, 9866358722 from your college to **Avanthi Institute of Pharmaceutical Sciences (College Code: T5)** to act as observers for Pharm.D Examinations May - 2023. During conducting of examinations if any problem arise the observer can directly contact the office of the Controller of Examinations.

Thanking You

Principal

Controller of Examinations

NOTE:
1. The observer must clearly identify that every Hall ticket should have the photo of that particular student and it shouldbe online generated.
2. The student who are not received online hall ticket are not eligible for University Examinations.
3. Exams will be conducted as per timetable timings, strictly.
4. If deputed faculty not available, principal may depute any other senior faculty (recently not deputed) as observer andsend the concern details to Controller of Examinations and Exam Center.
5. Observer must and should fill the Dairy and sent it to Controller of Examinations.
6. The Observer shall report the Examination Center before one hour the commencement of examination.
7. For any Queries Regarding Examination, Observer can Contact to Exam Cell 8374033499.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM

Jumbling/Clustering Centers List For Pharm D III, IV & V Year Regular & Supply Examinations , May - 2023

SNO	CC	COLLEGE NAME	CC	EXAM CENTER NAME	ALLOTTED STRENGTH	DIST
1	PK	Viswanadha Institute of Pharmaceutical Sciences	T5	Avanthi Institute of Pharmaceutical Sciences	71	VSP
2	HH	Gokul Pharmacy College	6B	Swami Vivekananda Engineering College	9	VZM
3	T5	Avanthi Institute of Pharmaceutical Sciences	PK	Viswanadha Institute of Pharmaceutical Sciences	80	VSP
4	AC	Vignan Institute of Pharmaceutical Technology	NT	Visakha Institute of Engg and Tech, Narva, Visakhapatnam	72	VSP

DATE: 04-05-2023

NOTE : For any queries mail to ce@jntugv.edu.in on or before 05.05.2023 [05:00 PM]

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Controller of Examinations

Controller of Examinations
JNTU Gurajada, Vizianagaram

PART - I

To be filled by Candidate

Q. Paper Set No.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA
VIZIANAGARAM - 535 003

(Read the Instructions given on the reverse side)

Sl. No. : 200266

Q. Paper Set No.

Signature of the Controller of exams

Hall Ticket No.:

Name :

Examination :

Month-Year :

Branch :

Sub. Code :

Subject Name :

Date of Exam :

College Code & Name :

Signature of the Student with date

Signature of the Invigilator with date

Y/S

MARKS AWARDED FOR QUESTIONS
(for Examiner's award only)

Q.No.	a	b	c	d	Total
1					
2					
3					
4					
5					
6					
7					
8					
Total Marks (In Figures) :					

Total Marks

Sl. No. of Answer Book in the Bundle

JNTUGV

PART - III

To be filled by the Student

Q. Paper Set No.

Use for 2nd Valuation only

Valuation

Use for 2nd Valuation only

2

Exam :

Branch :

Sub. Code :

Sub. Name :

Control Bundle No.

MARKS IN WORDS

Tens Place | Units Place

* To be filled by the Examiner

Sign / write within the box only

Examiner's Signature

Examiner's Name

Scrutinizer's Signature

Scrutinizer's Name

Sl. No. of Ans. Book in Bundle

MARKS AWARDED FOR QUESTIONS
(for Examiner's award only)

Q.No.	a	b	c	d	Total
1					
2					
3					
4					
5					
6					
7					
8					
Total Marks (In Figures) :					

Total Marks

Sl. No. of Answer Book in the Bundle

JNTUGV

PART - II

To be filled by the Student

Q. Paper Set No.

Use for 1st Valuation only

Valuation

Use for 1st Valuation only

1

Exam :

Branch :

Sub. Code :

Sub. Name :

Control Bundle No.

MARKS IN WORDS

Tens Place | Units Place

* To be filled by the Examiner

Sign / write within the box only

Examiner's Signature

Examiner's Name

Scrutinizer's Signature

Scrutinizer's Name

Bundle Number - To be filled by the Examiner

PRINCIPAL

Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY : KAKINADA

LIST OF SUBJECT EXPERTS FOR SPOT VALUATION OF PHARM D 3,4 & 5 YEARS REGULAR/SUPPLEMENTARY EXAMINATIONS, June/July - 2022

SPOT CENTRE : ADITYA COLLEGE OF ENGINEERING, SURAMPALEM(A9), EAST GODAVARI DISTRICT, Valuation start from: 29.07.2022

Sl. No	CC	Faculty Name	Designation	Qualification	Sub Code	Sub Name	Total Exp	Sub Exp	Contact	Dist	Spot Center
1	AC	DR. G VASANTHA	ASSOC PROFESSOR	PH.D	T3101	PHARMACOLOGY-II	10	10	9959521226	VSP	A9
2	3H	JOKA MANIKANTA SRUTHI	ASST PROFESSOR	M.PHARMACY	T3101	PHARMACOLOGY-II	4	4	8179764779	EG	A9
3	AC	MR. KRVS CHAITANYA	ASST PROFESSOR	M.PHARMACY	T3101	PHARMACOLOGY-II	8	8	9398167891	VSP	A9
4	PK	MRS P.SIVALALITHA	ASST PROFESSOR	M.PHARMACY	T3102	PHARMACEUTICAL ANALYSIS	5	4	7989216964	VSP	A9
5	3H	N DIVYA	ASSOC PROFESSOR	M.PHARMACY	T3102	PHARMACEUTICAL ANALYSIS	10	10	7660003187	EG	A9
6	3M	Smt.P.SUNEETHA	ASSOC PROFESSOR	M.PHARMACY	T3102	PHARMACEUTICAL ANALYSIS	11	7	9949729399	EG	A9
7	PK	MR.G.UMA SANKAR	ASST PROFESSOR	M.PHARMACY	T3103	PHARMACOTHERAPEUTICS-II	7	4	8500444400	VSP	A9
8	3H	DR P VINEELA	ASST PROFESSOR	M.PHARMACY	T3103	PHARMACOTHERAPEUTICS-II	7	7	9177484206	EG	A9
9	3H	T.PRASANTHI	ASST PROFESSOR	M.PHARMACY	T3104	PHARMACEUTICAL JURISPRUDENCE	5	5	8639683523	EG	A9
10	AC	DR. K GANA MANJUSHA	ASSOC PROFESSOR	PH.D	T3104	PHARMACEUTICAL JURISPRUDENCE	11	11	9885574803	VSP	A9
11	PK	MRS M.BHAGYA SREE	ASST PROFESSOR	M.PHARMACY	T3104	PHARMACEUTICAL JURISPRUDENCE	7	5	7013884208	VSP	A9
12	3M	Smt.P.SUNEETHA	ASSOC PROFESSOR	M.PHARMACY	T3104	PHARMACEUTICAL JURISPRUDENCE	11	5	9949729399	EG	A9
13	3H	B N B VAIDEHI	ASSOC PROFESSOR	M.PHARMACY	T3105	MEDICINAL CHEMISTRY	11	11	9493747698	EG	A9
14	AC	DR.D. VASUDHA	ASSOC PROFESSOR	PH.D	T3105	MEDICINAL CHEMISTRY	13	13	9505060543	VSP	A9
15	PK	MS.K.SUVARNA	ASST PROFESSOR	M.PHARMACY	T3105	MEDICINAL CHEMISTRY	6	4	7416760496	VSP	A9
16	PK	MS.A.SUNEETHA DEVI	ASST PROFESSOR	M.PHARMACY	T3106	PHARMACEUTICAL FORMULATIONS	7	6	7989868959	VSP	A9
17	3H	K.VENKATESWARULU	ASSOC PROFESSOR	M.PHARMACY	T3106	PHARMACEUTICAL FORMULATIONS	11	11	8897993001	EG	A9
18	CR	K MALLESWARI	ASSOC PROFESSOR	M.PHARMACY	T4101	PHARMACOTHERAPEUTICS-III	12	8	8499038636	GTR	A9
19	3M	DR.D.RAVI PRAKASH	ASSOC PROFESSOR	M.PHARMACY	T4101	PHARMACOTHERAPEUTICS-III	7	5	8555864888	EG	A9
20	3G	PYDIMALLA DEEPIKA	ASST PROFESSOR	M.PHARMACY	T4101	PHARMACOTHERAPEUTICS-III	3	3	8790983150	EG	A9
21	T5	V.UMA SHANKAR	ASSOC PROFESSOR	M.PHARMACY	T4102	HOSPITAL PHARMACY	10	10	9885498549	VZM	A9
22	PK	MRS.I. VASAVI	ASST PROFESSOR	M.PHARMACY	T4102	HOSPITAL PHARMACY	7	3	7989176399	VSP	A9
23	3G	DASARI NAGA SEN	ASST PROFESSOR	M.PHARMACY	T4102	HOSPITAL PHARMACY	5	5	8688704977	EG	A9
24	AC	DR. M. VINOD KUMAR	ASST PROFESSOR	M.PHARMACY	T4103	CLINICAL PHARMACY	9	9	7095197222	VSP	A9
25	7N	DR K. PURUSHOTHAMA RE	PROFESSOR	PH.D	T4103	CLINICAL PHARMACY	14	12	9618266403	KRI	A9
26	3G	MR. K PYDI RAJU	ASST PROFESSOR	M.PHARMACY	T4103	CLINICAL PHARMACY	5	5	9640004621	EG	A9
27	PK	DR.B.NAGAMANI	ASSOC PROFESSOR	PH.D	T4104	BIOSTATISTICS & RESEARCH METHOD	14	9	9985407591	VSP	A9
28	7N	MR. V. SRINIVAS	ASSOC PROFESSOR	M.PHILL	T4104	BIOSTATISTICS & RESEARCH METHOD	20	14	9182693079	KRI	A9
29	3M	DR.B.BHAVANI	PROFESSOR	PH.D	T4104	BIOSTATISTICS & RESEARCH METHOD	10	10	9640209296	EG	A9
30	3G	DR P S S SAIKIRAN	ASSOC PROFESSOR	PH.D	T4104	BIOSTATISTICS & RESEARCH METHOD	10	10	8106105372	EG	A9
31	3G	DR J ANU PRAVALLIKA	ASSOC PROFESSOR	PH.D	T4105	BIOPHARMACEUTICS & PHARMACOK	5	5	8790133898	EG	A9
32	AC	MR. P N MALLIKARJUN	ASSOC PROFESSOR	M.PHARMACY	T4105	BIOPHARMACEUTICS & PHARMACOK	16	16	9908056167	VSP	A9

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33	3M	DR.B.BHAVANI	PROFESSOR	PH.D	T4105	BIOPHARMACEUTICS & PHARMACOK	10	10	9640209296	EG	A9
34	PK	DR.B.NAGAMANI	ASSOC PROFESSOR	PH.D	T4105	BIOPHARMACEUTICS & PHARMACOK	14	9	9985407591	VSP	A9
35	AC	DR. G VASANTHA	ASSOC PROFESSOR	PH.D	T4106	CLINICAL TOXICOLOGY	10	10	9959521226	VSP	A9
36	DR	DR.D.JEEVAN MANI BABU	PROFESSOR	PH.D	T4106	CLINICAL TOXICOLOGY	15	10	7675969632	KRI	A9
37	3G	SAMIDALA NAGESWARA RA	ASSOC PROFESSOR	M.PHARMACY	T4106	CLINICAL TOXICOLOGY	12	12	7729995798	EG	A9
38	DR	DR.P.GIRISH BABU	ASST PROFESSOR	PH.D	T4111	PHARMACOTHERAPEUTICS I & II	3	3	8555931148	KRI	A9
39	3H	AMITH KUMAR	ASSOC PROFESSOR	M.PHARMACY	T5101	CLINICAL RESEARCH	10	10	8790592977	EG	A9
40	AC	MR. KRVS CHAITANYA	ASST PROFESSOR	M.PHARMACY	T5101	CLINICAL RESEARCH	8	8	9398167891	VSP	A9
41	3G	SAMIDALA NAGESWARA RA	ASSOC PROFESSOR	M.PHARMACY	T5101	CLINICAL RESEARCH	12	11	7729995798	EG	A9
42	3H	DR P VINEELA	ASST PROFESSOR	M.PHARMACY	T5102	PHARMACOEPIDEMIOLOGY AND PHA	7	7	9177484206	EG	A9
43	3H	AMITH KUMAR	ASSOC PROFESSOR	M.PHARMACY	T5102	PHARMACOEPIDEMIOLOGY AND PHA	10	10	8790592977	EG	A9
44	AC	DR. M. VINOD KUMAR	ASST PROFESSOR	M.PHARMACY	T5102	PHARMACOEPIDEMIOLOGY AND PHA	9	9	7095197222	VSP	A9
45	DR	SK AMEER PASHA	ASSOC PROFESSOR	M.PHARMACY	T5103	CLINICAL PHARMACOKINETICS & PHA	10	5	9866679467	KRI	A9
46	3G	DR P S S SAIKIRAN	ASSOC PROFESSOR	PH.D	T5103	CLINICAL PHARMACOKINETICS & PHA	10	10	8106105372	EG	A9
47	3H	DR P VINEELA	ASST PROFESSOR	M.PHARMACY	T5103	CLINICAL PHARMACOKINETICS & PHA	7	7	9177484206	EG	A9

In case of any further clarification, Valuers may contact Additional Controller of Examinations over phone number 0884 2300942(Office), or can reach through email:
ace9.jntuk@gmail.com

Controller of Examinations

Director of Evaluation

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EXTERNAL LAB EXAMINATION ASSESSMENT

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
VIZIANAGARAM – 535 003, A.P.
UNIVERSITY EXAMINATION CENTER, VIZIANAGARAM

Dr.V.S.Vakula
Asst. Professor, EEE
Controller of Examination

Mobile No: +91 8374033499
Email: ce@jntugv.edu.in

Date: 09-05-2023

NOTICE

All the Principals of affiliated colleges are hereby informed that the Laboratory external examinations, May-2023 for Pharma-D III & IV Years Regular/ Supplementary students are to be conducted from **25-05-2023 to 31-05-2023.**

The reports/OMR sheets of the above exams are to be submitted in person to CE office on **01.06.2023 (Thursday) & 02.06.2023 (Friday).**

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Controller of Examinations
Controller of Examinations
JNTU Gurajada, Vizianagaram

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
UNIVERSITY EXAMINATION CENTER, VIZIANAGARAM
EXTERNAL LAB EXAMINERS FOR PHARMA D - III & IV YEAR REGULAR & SUPPLEMENTARY EXAMINATIONS, MAY- 2023

Sl No	CC	College Name	Dist	Examiner's CC
1	PK	Viswanadha Institute of Pharmaceutical Sciences	VSKP	AC
2	AC	Vignan Institute of Pharmaceutical Technology	VSKP	PK
3	T5	Avanthi Institute of Pharmaceutical Sciences	VZM	HH
4	HH	Gokul Pharmacy College	VZM	T5

Note:

Principals of affliated colleges are requested to make necessary arrangements to depute a senior staff member (who taught the lab subject in current semester) to act as External Examiner for Pharma D - III & IV Year Regular & Supplementary Examinations, May- 2023 from 25-05-2023 to 31-05-2023.

Date: 09-05-2023

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Controller of Examinations
Controller of Examinations
JNTU Gurajada, Vizianagaram

ESTD : 2005

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www.avanthipharma.ac.in, principal@avanthipharma.ac.in

III Pharm D External Lab Examination PCI (R8), February 2023

Subject: Medicinal Chemistry **Branch: Pharm D**

Time: 180 min **Max.Marks: 70 M** **Date of exam: 28/01/2023**

I. Synopsis (15 M)

1. Write the principle involved in the synthesis of 7-Hydroxy-4-methyl Coumarin.
2. Write the synthesis and MOA of 5-Fluoro Uracil.

II. Major Experiment (25 M)

Prepare and submit Benzimidazole from O- Phenylene diamine and report its percentage yield.

III. Minor Experiment (15 M)

Perform the assay of Acetyl Salicylic acid tablets and report its percentage purity

IV. Viva – voce – Record (15 M)

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Signature of the faculty

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VIZIANAGARAM - 535 003, ANDHRA PRADESH, INDIA

UNIVERSITY END EXAMINATIONS : MAIN ANSWER BOOK

Exam : _____ Year _____ Semester : Reg/Supply

Month & Year : _____

Branch : _____

Name of the Laboratory : _____

Hallticket Number										

Marks Awarded	

Signature of the Examiner-1

Signature of the Examiner-2

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EXTERNAL PROJECT ASSESSMENT

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
VIZIANAGARAM – 535 003, A.P.
UNIVERSITY EXAMINATION CENTER, VIZIANAGARAM

Dr.V.S.Vakula
Asst. Professor, EEE
Controller of Examination

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Email: ce@jntugv.edu.in

Date: 26-05-2023

NOTICE

All the Principals of affiliated colleges are hereby informed that the Viva Voce examinations for Pharma-D V-Year Regular/ Supplementary, May-2023 students are to be conducted from **30-05-2023 to 03-06-2023**.

The reports/OMR sheets of the above exams are to be submitted in person to CE office on **05.06.2023 (Monday) & 06.06.2023 (Tuesday).**

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Controller of Examinations (i/c)

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
UNIVERSITY EXAMINATION CENTER, VIZIANAGARAM
PHARM D -V YEAR (PCI REGULATIONS) PROJECT PANEL, MAY – 2023

S.No	CC	College Name	Clerkship (T5104)	Project Work (T5105)
01	T5	Avanthi Institute of Pharmaceutical Sciences	Name: Dr K Daniel Raju Designation: Associate Professor Qualification: Ph.D Mobile No: 9642194419 Email: drdaniel.vignan@gmail.com College Name: Vignan Inst of Pharmaceutical Technology Teaching Experience:10 years	Name: Dr K Daniel Raju Designation: Associate Professor Qualification: Ph.D Mobile No: 9642194419 Email: drdaniel.vignan@gmail.com College Name: Vignan Inst of Pharmaceutical Technology Teaching Experience:10 years

Controller of Examinations

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Guidelines for pharm D Project work

1. To allow the student to develop data collection and reporting skills in the area of community, hospital and clinical pharmacy, a project work shall be carried out under the supervision of a teacher. The project topic must be approved by the Head of the Department or Head of the Institution. The same shall be announced to students within one month of commencement of the fifth-year classes. Project work shall be presented in a written report and as a seminar at the end of the year. External and the internal examiners shall do the assessment of the project work.
2. Project work shall comprise of objectives of the work, methodology, results, discussions and conclusions.

1. Objectives of project work.

The main objectives of the project work is to:

i. Show the evidence of having made accurate description of published work of others and of having recorded the findings in an impartial manner; and

ii. Develop the students in data collection, analysis and reporting and interpretation skills.

2.Methodology:

i. To complete the project work following methodology shall be adopted, namely: students shall work in groups of not less than two and not more than four under an authorized teacher;

ii. Project topic shall be approved by the Head of the Department or Head of the Institution;

iii. Project work chosen shall be related to the pharmacy practice in community, hospital and clinical setup. It shall be patient and treatment (Medicine) oriented, like drug utilization reviews, pharmacoepidemiology, pharmacovigilance or Pharmacoeconomics;

iv. project work shall be approved by the institutional ethics committee;

v. Student shall present at least three seminars, one in the beginning, one at middle and one at the end of the project work; and

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vi. Two-page write-up of the project indicating title, objectives, methodology anticipated benefits and references shall be submitted to the Head of the Department or Head of the Institution.

3.Reporting:

I. Student working on the project shall submit jointly to the Head of the Department or Head of the Institution a project report of about 40-50 pages. Project report should include a certificate issued by the authorized teacher, Head of the Department as well as by the Head of the Institution

II. Project report shall be computer typed in double space using Times Roman font on A4 paper. The title shall be in bold with font size 18, sub-tiles in bold with font size 14 and the text with font size 12. The cover page of the project report shall contain details about the name of the student and the name of the authorized teacher with font size 14.

III. Submission of the project report shall be done at least one month prior to the commencement of annual or supplementary examination.

4.Evaluation: (external)

The following methodology shall be adopted for evaluating the project work:

i. Project work shall be evaluated by external examiner.

ii. Students shall be evaluated in groups for four hours (i.e., about half an hour for a group of four students).

iii. Three seminars presented by students shall be evaluated for twenty marks each and the average of best two shall be forwarded to the university with marks of other subjects.

iv. Evaluation shall be done on the following items.

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Scheme of Project Evaluation

S No	Name of the subject	Maximum marks for Theory			Maximum marks for Practicals		
		Examination	Sessional	Total	Examination	Sessional	Total
1.	Project work (Six Months)	-	-	-	**100****	-	**100**

*** 30 marks – viva-voce (oral) & 70 marks – Thesis work***

S No	Viva – Voce(oral)	Marks
1.	Write up of the seminar	(7.5)
2.	Presentation of work	(7.5)
3.	Communication skills	(7.5)
4.	Question and answer skills	(7.5)
Total marks		**30 marks**

S No	Thesis work	Marks
1.	Write up of the seminar	(17.5)
2.	Presentation of work	(17.5)
3.	Communication skills	(17.5)
4.	Question and answer skills	(17.5)
Total marks		**70 marks**

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"COMPARISON OF EFFICACY AND SAFETY IN PLATELET RICH PLASMA THERAPY VERSUS CORTICOSTEROID INJECTION IN ORTHOPAEDIC PATIENTS ATTENDING IN A TERITIARY CARE TEACHING HOSPITAL: A PROSPECTIVE OBSERVATIONAL STUDY"

A project report submitted to

JNTUGV, GURAJADA VIZIANAGARAM, A.P.,

In partial fulfillment of the regulations for the Award of Degree of

DOCTOR OF PHARMACY

Submitted by

BONELA. MEGHANA - [18T51T0006]

PEER. MAHAMOODHA - [18T51T0020]

RALLAPALLI. PYDI VENKATA SATYA SAI PRASANTH - [18T51T0021]

VENIGALLA. SRINIVASA RAO - [21T51T0101]

Under the guidance of

Dr. B Manoj Kumar, Pharm. D (Ph.D), PDCR, PCPV

Head of Department, Associate Professor, Department of Pharmacy Practice

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

CHERUKUPALLY (V), BHOGAPURAM (M), VIZIANAGARAM (DIST), A.P-531162.

2022-2023

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Administrative Office : Beside PEN SCHOOL, Dabagardens, Visakhapatnam - 530 020 (A.P.)
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Fax : 0891-5567321

ENDORSEMENT BY THE PRINCIPAL

This is to certify that the dissertation entitled **"COMPARISON OF EFFICACY AND SAFETY IN PLATELET RICH PLAMSA THERAPY VERSUS CORTICOSTERIOD INJECTION IN ORTHOPAEDIC PATIENTS ATTENDING IN A TERITIARY CARE TEACHING HOSPITAL : A PROSPECTIVE OBSERVATIONAL STUDY"** is a Bonafide research work done by **B. Meghana [18T51T0006], P. Mahamoodha [18T51T0020], R.P.V.S.S.Prasanth [18T51T0021], V. Srinivasa Rao [21T51T0101]** under the guidance of **Associate Prof. Dr. B Manoj Kumar,** Doctor of Pharmacy, Avanthi Institute of Pharmaceutical Sciences, Cherukupally (V), Chittivalasa (P. O), Bhogapuram (M), Vizianagaram (Dt.)-531162, A.P

Date:

Place: Cherukupally.

Principal
Avanthi Institute of Pharmaceutical Scie
CHERUKUPALLY (V)
CHITTIVALASA S.A.O
Bhogapuram (M), Vizianagaram Dis

Prof. M. B. Venkatapathi Raju
Principal
Avanthi Institute of Pharmaceutical Sciences

2/6/23

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CERTIFICATE BY THE GUIDE

This is to certify that this thesis entitled **"COMPARISON OF EFFICACY AND SAFETY IN PLATELET RICH PLASMA THERAPY VERSUS CORTICOSTERIOD INJECTION IN ORTHOPAEDIC PATIENTS ATTENDING IN A TERITIARY CARE TEACHING HOSPITAL : A PROSPECTIVE OBSERVATIONAL STUDY"** is a bonafide research work done by **B. Meghana [18T51T0006], P. Mahamoodha [18T51T0020], R.P.V.S.S.Prasanth [18T51T0021], V. Srinivasa Rao [21T51T0101]** under my supervision and guidance in partial fulfillment of Doctor of Phramacy, Avanthi Institute of Pharmaceutical Sciences, Cherukupally (V), Chittivalasa (P. O), Bhogapuram (M), Vizianagaram (Dt.) - 531162, A.P

Date:

Place: Cherukupally.

Dr. **B Manoj Kumar, PharmD (PhD)**

Department of Pharmacy Practice

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09866664637
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☎ 0891-2748231
5567320
Fax : 0891-5567321

DECLARATION BY THE CANDIDATE

We hereby declared that the work entitled **"COMPARISON OF EFFICACY AND SAFETY IN PLATELET RICH PLASMA THERAPY VERSUS CORTICOSTERIOD INJECTION IN ORTHOPAEDIC PATIENTS ATTENDING IN A TERITIARY CARE TEACHING HOSPITAL: A PROSPECTIVE OBSERVATIONAL STUDY"** was carried out by us in Avanthi Institute of Pharmaceutical Sciences affiliated to Jawaharlal Nehru Technological Sciences University Gurajada, Vizianagaram, under the guidance of Dr .B Manoj Kumar, Department of Pharmacy Practice, Avanthi Institute of Pharmaceutical Sciences. The plan and results obtained in this project are original and it is not been submitted in any degree or diploma courses of this or any other university.

Date:

Place: Cherukupally

B. Meghana B. Meghana

P. Mahamoodha

R.P.V.S.S. Prasanth R. Prasanth

V. Srinivasa Rao

ACKNOWLEDGEMENT

We take this opportunity to express our profound gratitude towards our chairman sir **M. SRINIVASA RAO**, Avanthi group of Institutions for providing inspiration, patronizing affectionate guidance and moral support during our Pharm D course. Our sincere regards to our management and Principal of Avanthi Institute of Pharmaceutical Sciences "**Mr. M. B. VENKATAPATHI RAJU**", for his active support and making facilities available for our project group and for their constant encouragement regarding completion of work.

We express our gratefulness towards our guide "**Dr. B Manoj Kumar,** Pharm.D (Ph.D.)" who's excellent guidance and dedicated efforts made us think upon and understand a number of problems and solve them sincerely, her keen interest and encouragement serves as a constant support and inspiration during the course of the entire project.

The guidance and support received from all the members who contributed to this study was vital for the completion of this study. We are grateful to all of them for their constant support and guidance either directly or indirectly towards completion of our study.

Sincere thanks to all Pharmacy Practice Department Faculty

Date:

Place: Cherukupally

B. Meghana

P. Mahamoodha

R.P.V.S.S. Prasanth

V. Srinivas Rao

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KAKINADA - 533 003, ANDHRA PRADESH, INDIA

MEMO NO. : K9164180

MEMORANDUM OF MARKS

P. Sumathya

S.No. : 2220916.00

EXAMINATION : PHARM_D V Year (R08) Reg.

BRANCH : --

NAME : PULUGURTHA SUMATHYA

AADHAR NO. :

HALL TICKET NO. : 17T51T0021

MONTH & YEAR OF EXAM : JULY 2022

INSTITUTION : AVANTHI INSTITUTE OF PHRAMACEUTICAL SCIENCES

S. No.	SUBJECT CODE	SUBJECT TITLE	INTERNAL MARKS	END EXAM MARKS	TOTAL MARKS	RESULT	CREDITS
1	T5101	CLINICAL RESEARCH	25	50	75	P	1
2	T5102	PHARMACOEPIDEMIOLOGY AND PHARMACOECONOMICS	28	48	76	P	1
3	T5103	CLINICAL PHARMACOKINETICS & PHARMACOTHERAPEUTIC DRUG MONITORING	25	37	62	P	1
4	T5104	CLERKSHIP	26	64	90	P	1
5	T5105	PROJECT WORK	--	93	93	P	1
SUBJECTS REGISTERED : 5	APPEARED : 5	PASSED : 5 TOTAL :	104	292	396		5

TOTAL (IN WORDS) *** THREE HUNDRED NINETY-SIX ***

DATE : 05-May-2023 VERIFIED BY

CONTROLLER OF EXAMINATIONS

INSTRUCTIONS :

	MAXIMUM MARKS Internal	End Exam.	Total of Int. & End	MINIMUM FOR PASS End Exam	Total of Int. & End
THEORY/DRAWING/DESIGN SUBJECTS	30	70	100	--	50
PRACTICAL SUBJECTS	30	70	100	--	50
PROJECT	--	100	100	--	50
SEMINAR					
MINI PROJECT					

50295

P: Pass F : Fail AB : Absent * Medium of Instruction and Examinations in English

Note : Any discrepancy must be represented within 15 days from the date mentioned above.

EXTERNAL GRIEVANCES

List of External Grievances During the academic year -2022-2023

The Examination cell is responsible for addressing any grievances pertaining to End examinations. If necessary, the cell promptly sends a letter to the university. The University then takes immediate action based on the nature of the grievance. In case a student is dissatisfied with the marks awarded to them in the End examination, they have the option to choose Revaluation, Recounting, or Challenge evaluation by paying the required fee to the university. If students opt for re-evaluation or rechecking of their answer scripts, they must submit the same to the university for necessary action. Therefore, the college has implemented a transparent, time-bound, and efficient mechanism. The Examination cell handles grievances related to errors in certificates by raising the matter with the university. The following list provides the number of students who have applied for Revaluation/Recounting and the number of students whose marks have been changed for the academic year **2022-2023.**

The total number of external grievances regarding Recounting/Re-Evaluation, Modification in Certificates during the academic year **2022-2023** is **Nil.**

The total number of external grievances regarding Recounting/Re-Evaluation, Modification in Certificates during the academic year **2021-2022** was **09.**

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Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Revaluation/Recounting Results for Pharm D III Year Examinations August-2021

College: AVANTHI INSTITUTE OF PHRAMACEUTICAL SCIENCES, BHOGAPURAM (P):T5

Htno	Subcode	Subname	INTERNAL	EXTERNAL	credits
18T51T0023	T3103	PHARMACOTHERAPEUTICS-II	---	No Change	---

Date:18-01-2022

Controller of Examinations

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Revaluation/Recounting Results for Pharm D IV Year Examinations August-2021

College: AVANTHI INSTITUTE OF PHRAMACEUTICAL SCIENCES, BHOGAPURAM (P):T5

Htno	Subcode	Subname	INTERNAL	EXTERNAL	credits
17T51T0002	T4103	CLINICAL PHARMACY	25	32	1
17T51T0017	T4103	CLINICAL PHARMACY	24	31	1
17T51T0022	T4103	CLINICAL PHARMACY	22	32	1

Controller of Examinations

Date:18-01-2022

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Revaluation/Recounting Results for Pharm D II Year Examinations August-2021

College: AVANTHI INSTITUTE OF PHRAMACEUTICAL SCIENCES, BHOGAPURAM (P):T5

Htno	Subcode	Subname	INTERNAL	EXTERNAL	credits
17T51T0012	T2103	PHARMACOGNOSY & PHYTOPHARMACEUTICALS	---	No Change	---
17T51T0012	T2105	COMMUNITY PHARMACY	---	No Change	---
18T51T0001	T2105	COMMUNITY PHARMACY	---	No Change	---
18T51T0001	T2106	PHARMACOTHERAPEUTICS-I	28	25	1
19T51T0015	T2101	PATHOPHYSIOLOGY	---	No Change	---

Date:18-01-2022

Controller of Examinations

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

INTERNAL GRIEVANCES

List of Internal Grievances During the academic year -2022-2023

S No	Name of the Issue /Grievances	Date of issue raised	Date of issue solved
1.	Seeking permission for ID Card	07/02/2023	07/02/2023
2.	Seeking permission for mid examination	03/04/2023	03/04/2023
3.	Seeking permission for transport for exam center	07/05/2023	07/05/2023
4.	Re-issuing of hall ticket	08/5/2023	08/05/2023
5.	Seeking permission for ID Card	29/05/2023	29/05/2023
6.	Seeking permission for transport for exam center	20/07/2023	20/07/2023

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES AVANTHI EDUCATIONAL SOCIETY HYDERABAD VIZIANAGARAM

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Vizayanagaram.
Date :- 29-05-2023

To,
The Principal Sir,
Avanthi Institute of Pharmaceutical Sciences,
Cherukupally.

Subject : Seeking permission for ID card.

Respected Sir.

I am N. Rishitha studying pharm.D 2nd year bearing roll no: 21T51T0018. I would like to inform you that as I have forgetten my ID card at home. So, I request you to allow me for the External Exam.

Thanking You,

Yours obediently,
N. Rishitha,
21T51T0018.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Vizayanagaram.

Date :- 7-05-2023

To,

The Principal sir,

Avanthi Institue of pharmaceutical sciences,

Cherukupally.

Subject: Seeking permission for transport.

Respected sir,

I K. Sai Lavanya studing 3rd pharm D bearing roll no:- 20T51T0020. I would like to inform you that we are writing semester end Examination in other colleges. As it is too far from our home town, there is no other alternative for us to reach the centre. So I request you to provide the transportation during Exams time.

Thanking You.

Yours obediently

K. Sai Lavanya.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

08-05-2023,
Cherukupally.

To,
The Principal,
Avanthi Institute of pharmaceutical Sciences,
Cherukupally.

Sub: Reissuing of HallTicket.

Respected Sir,

I S. Sonika Sruthi persueing Pharm.D. 4th year. bearing the (19T51T0017). I would like to inform you that my hallticket was missing due to I was not allowed for Examination. I hope my problem would be considered and reissue my hallticket. And, Hope that I would be allowed for Examination.

Thanking You,

Yours Obediently,
S. Sonika Sruthi,
19T51T0017.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Vizianagaram

Date: 09.02.2023

To

The principal sir,

Avanthi institute of pharmaceutical sciences,

Cherukupally.

Subject: Seeking permission for ID card.

Respected sir,

I am G.Varshini studying pharm-D 3rd year bearing roll no: 20T51T0010. I would like to inform you that I have forgotten my ID card at home. So, I request you to allow me for the external exam.

Thanking you,

Yours Obediently,

G.Varshini,

20T51T0010.

PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

VIJAYANAGARAM,
Date : 20/07/2023

To,

The Principal sir,
Avanthi Institute of Pharmaceutical sciences,
cherukupally.

subject: seeking Permission for transport

Respected sir,

I am CH. Sahruday studying 2nd PharmD bearing roll no. 21T51T0007. I would like to inform you that we are writing semester Examination in other collage. As it is too far from our home, there is no alternative for us to reach the center. so I Requist you to provide the transportion during exams time.

Thanking you,

Yours obediently
CH. Sahruday

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PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cherukupally (V), Bhogapuram Mandal
Vizianagaram Dt., - 531162

Vizianagaram

Dt :- 3/4/23

To

The principal,

Avanthi Institute of Pharmaceutical sciences,

Vizianagaram

Sub:- Asking permission for mid examination

Respected sir.

I. N. Abhishek studying 1st pharm D of Roll No 22T61T0018. I would like to inform you that due to some transport problem iam unable to attend for mid exams. I request you to allow to write examination. I hope my problem will be resolved

Thanking You

Your's obidiently

N. Abhishek.

22T61T0018

PharmD 1st Year

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PRINCIPAL

Avanthi Institute of Pharmaceutical Sciences

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