

## Rx QUIZ-INQUIRY BASED LEARNING SOP

### OBJECTIVE:

The Rx Quiz will be conducted every continuing pharmacy education programme with the chief objective to promote the clinical oriented updating at the undergraduate and postgraduate level.

### SOP:

1. Rx quiz committee will comprise a convener (nominated by the Head of the department) with VI Pharm D Interns coordinators as members.
2. Rx quiz can be combined with the six CPEs.

### The rules for the quiz is as follows:

1. Event will be held under the supervision of the convener.
2. A team of eight intern students of Pharm D (6<sup>th</sup> term or above) will arrange for the conduction of the quiz.
3. The title of the each quiz ,team segregation of participant (IV Pharm D ,V Pharm D,M.Pharm)and organizers will be displayed
4. 5 Rounds – 5 Questions in each round one each for each team. Start 1<sup>ST</sup> question from 1<sup>st</sup> team, 2 from 2<sup>nd</sup> team, 3 from 3<sup>rd</sup> team, 4 from 4<sup>th</sup> team and 5 from 5<sup>th</sup> team.
5. Questions should be framed in such a way that it should have only one answer.
6. Example if each correct answer carries 20 marks (Primary question) and if the question is passed to next team (Secondary question), it will carry 10 marks.
7. Questions should be organized as follows and according to the rounds the mark will vary
  - Event may be an MCQs based written questions
  - Match up
  - Connections
  - Reasoning
  - Who am I?
  - Rapid fire round
  - True / False statement
8. In the event of tie, a five MCQ based tie-breaker may be held.
9. However, visual questions may be included in any round at the discretion of convener.

*[Handwritten Signature]*

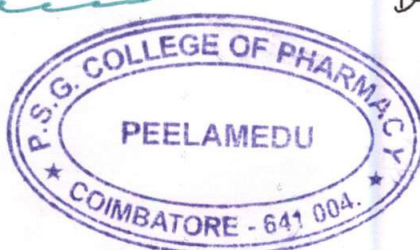


# QUIZ TEAMS - 2020

2020

TEAMS	V YEAR	IV YEAR	III YEAR	II YEAR
<b>TEAM 1</b> (12)	Karthikrajan .A.M Prasath Kumar .B Sruthi Menon .P	Santa Treasa Cyriac Satheesh Kumar .M Vijay .R	Sathish Kumar .A Kaviya .S P Mirudulaa .M M	Sai Shyam Kumar N S Sneha .B Dhanashri Babu
<b>TEAM 2</b> (12)	Aagnes Ruth Ponmani Kaaveyaa .R Pavithra .S	Yogavadula .S.S Abi Maheshwaran .K Gayathri .P.S.M	Vehashnee Sharmila .S Jessica .J	Dhinesh .M Jenita Shiny Samraj Jayakanthan .D
<b>TEAM 3</b> (12)	Dhanu Veera Pandian Adlin Nijish .G.M Nithin Selvam .S	Sowmika .S Anas .C.P Devaki .O.N Vinitha	Ramanaprasanth .G Devashree .V Annie Christy .D	Eniya .A.A Anjali .M
<b>TEAM 4</b> (11)	Kanishya .V Ramarathnam .C Naveen .R.N.G	Madhu Mitha .A Sona Sabu Preethi .P.S	Kaaviyapriya .A Abinesh .S Femina Marium .M.E	Ranjith Kumar .P Anjitha .P.S
<b>TEAM 5</b> (12)	Rasika .K Sumithra .C Thibhika .S	Kathir Nilavan .P Priyadarsini .S Divya Sara Iype	Dharshini .P Shreya Sreenivasan Abi Pushparaj Sheela	Sarathy .M.S Vijay .A Pranesh .S
<b>TEAM 6</b> (12)	Vasuki .M Varsha .V.V Kaviya .G	Srinidhi Sneha .M Gunaseelan Devkrishna .G	Maheshwari .M Thahseen .M Adeeb Ismail .Z	Jeffin Rijo .S Dheepthi .D Madhusri .M
<b>TEAM 7</b> (12)	Anitta .D.S Safia Nasreen Suleka	Nawaf Abdulla Shanti Priya .C Gowtham Kumar .N Ummay Salma	Tanushree .S Keziah .D Sriram .A	Dhinakar .E Sharon Angelin .J
<b>TEAM 8</b> (11)	Kavi Bharathi .R Oviya .K Janapreethi .P	Radhakrishnan .M Mohamed Fardan Sobitha .S	Bindhiya .M Sandeep .K G Monica F	Fathima Shazneen Sona Primuha .S
<b>TEAM 9</b> (12)	Tejoashwini .V Abhinaya .M.R Namratha Winson	Harshetha .V Janaranjani .L Kaaviyadevi	Madhunisha .V Krishnan .T Priyadharshini .K	Santhosh .A Preethi Nivedhaa .A Elango .S
<b>TEAM 10</b> (11)	Anilin Nelson Leah Jayan Varghese Pavithra .V	Reem Roy Vimal Vijayan Rajaram .K	Thejalakshmi Jenose Asmila .R Jaya Prakash .M	Rakshna .M Soorya .M.S

*[Handwritten signature]*



Dept of Pharmacy Practice  
Prudhvi  
20/1/20

# POSTER PRESENTATION ON CLINICAL BIOCHEMISTRY BY FIRST YEAR PHARM D STUDENTS ON 19.04.2017

6-17

District

nai organized  
re district from  
essure cooker  
jatti. Total of  
D.Siva Kumar

ies along with  
uction.

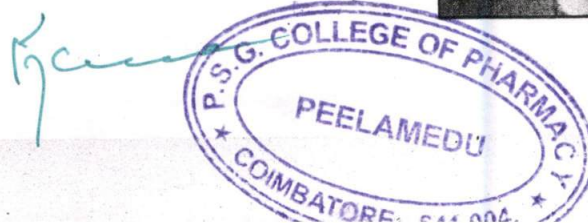
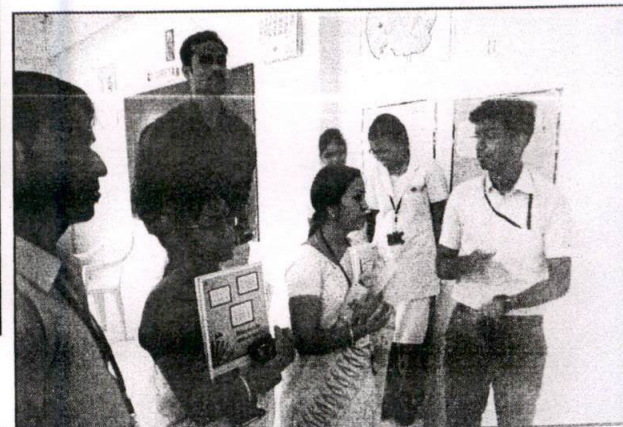
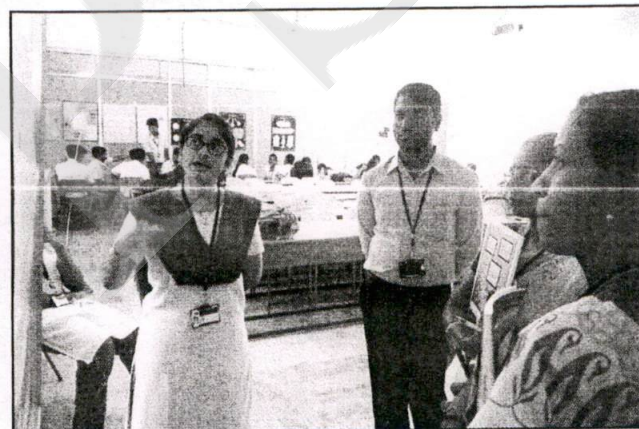
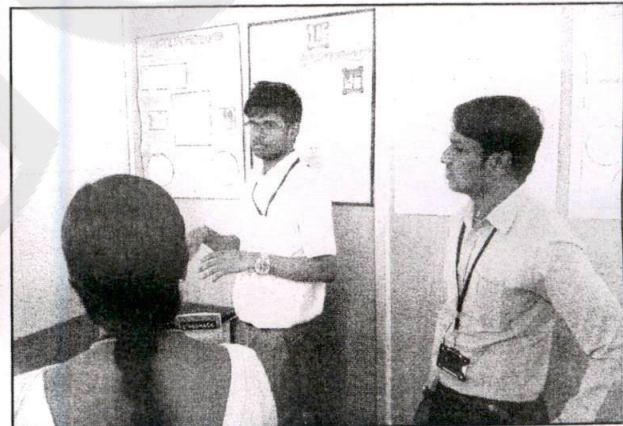
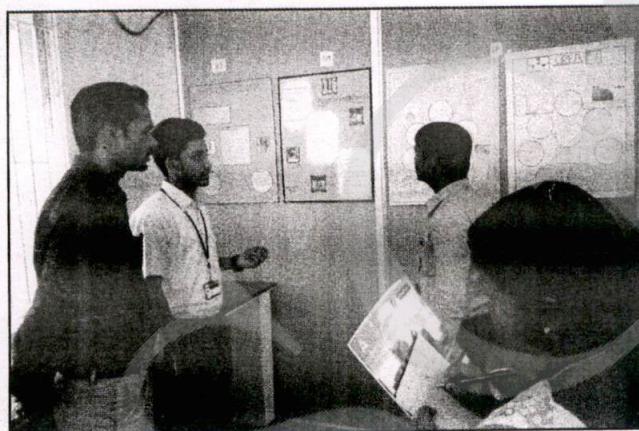
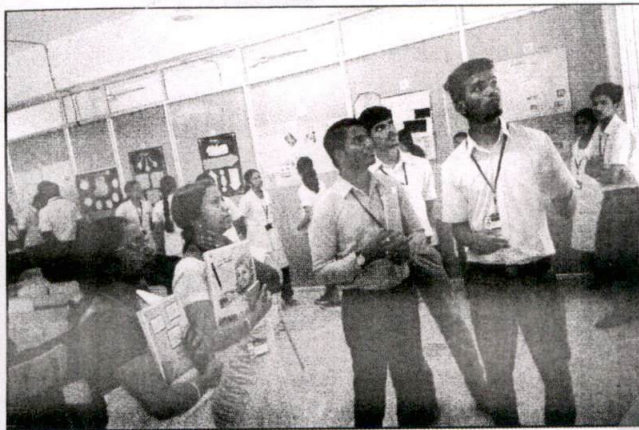
e presence of  
rimary health  
nity Medicine,  
wed by a quiz

i. Department  
ple , followed  
, Coimbatore.

e help of PSG  
estoration by

, Coimbatore.  
Development  
ls.

tory function  
batores.



# PRACTICAL BASED LEARNING

Peelamedu, Coimbatore - 641 004

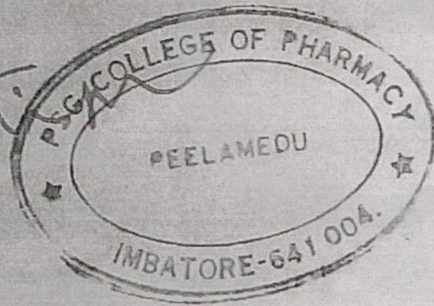
Agarose Gel Electrophoresis experiment was performed which was not in the syllabus.




## Laboratory Practical Record

This is to certify that Mr. / Miss. M. SUNITHA DEVI has satisfactorily completed the course of practical work in PHARMACEUTICAL BIOTECHNOLOGY of B.Pharm 3<sup>rd</sup> year as prescribed by The Tamil Nadu Dr. M.G.R. Medical University, Chennai during the year 2018 - 2019

Faculty in-charge

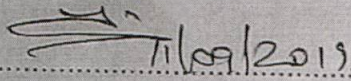


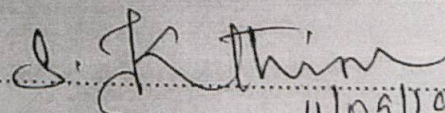
  
Dr. M. Ramanathan, M.Pharm, Ph.D.  
Principal  
PSG College of Pharmacy  
Peelamedu, Coimbatore-4.

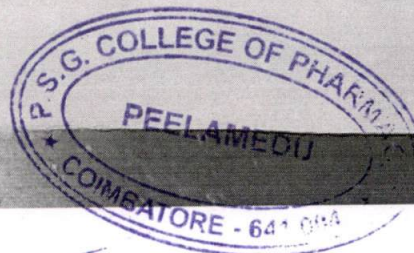
Head of the Department

Submitted for the University Practical Examination held on 11/09/2019

bearing the Register Number 561682049

Examiners: (1)  11/09/2019

(2)  11/09/19





2.3.1 Student Centric Methods  
Programme: PharmD

Course: V PharmD CPPDM

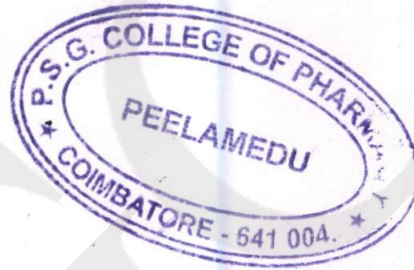
Academic Year - 2019-2020

TDM - PROBLEM BASED LEARNING

A 37-year-old patient with a history of generalized tonic-clonic seizure had been taking Phenytoin 100mg twice daily for the last 7 years. The patient had good medication compliance and had not experienced any seizures during this time. The serum concentration of Phenytoin 2 years ago was 14.2mg/l (TR: 10-20mg/l). Recently he experienced a generalized seizure and was brought to the emergency department by family members. Phenytoin TDM was requested and the result was 8.4mg/l.

1. Was TDM appropriate in this case?
2. What factor should the pharmacist consider when interpreting the result of his latest TDM assay?

*Handwritten signature*



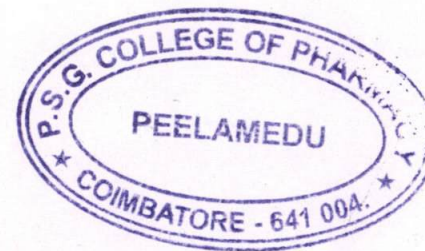
## CASE .6

A 70- years-old man is being treated for meningitis due to streptococcus pneumonia that is moderately resistant to penicillin (MIC value 0.7mg/l). Despite 7 days' treatment with intravenous vancomycin and cefotaxime, there has been little improvement in his clinical condition. ACT scan has show meningeal inflammation consistent with meningitis, but no evidence of intracranial complications that might explain his poor clinical response.

### Questions

1. Why might there have been an inadequate response to treatment With cefoxime and vancomycin?
2. What option is there to modify his antimicrobial therapy?

*[Handwritten signature]*



### CASE. 3

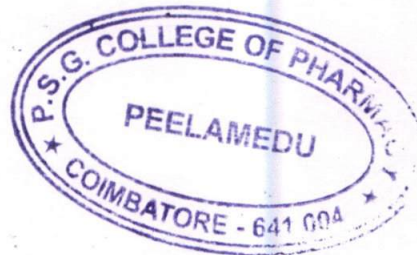
Mr. D, a 19-year-old undergraduate student visited health center complaining of a 3-month history of at fatigue, weakness, nausea and vomiting that he had attribute examination stress, .his previous medical history of bed wetting from an early age. Laboratory result from a routine blood screen showed the following

		Reference range
Sodium	137mmol/L	(135-145)
Potassium	4.8mmol/L	(93.5-5.0)
Phosphate	2.5mmol/L	(0.9-1.5)
Calcium	1.6mmol/L	(92.20-2.55)
Urea	52mmol/L	(3.0-6.5)
Creatinine	62mmol/L	(50-120)
Hemoglobin	7.5g/d L	(13.5-18.0)

Subsequent referral to a specialist hospital centre established a diagnosis of chronic renal failure secondary to reflux nephropathy

#### Question

Explain the signs and symptoms experienced by Mr.D and the likely course of the disease?







① a) HTN

b) FeNa. is expected to be less than 1%

② c)  $\frac{1}{2}$  FeNa may be inactivate due to furosemide.

2) A 17 yrs p. treated by paediatric med. cause essential HTN due to metabolic syndrome present to the emergency department with complaints of Respi. & urine output

past medical history - HTN 2 yrs recently completed 14 days therapy of aprroxacin for UTI.

Medications - Amlodipine 10mg for Oral  $\beta$ -Blocker

Hydrochlorothiazides - 25mg / Oral  $\alpha$ -Blocker

Sildenafil -

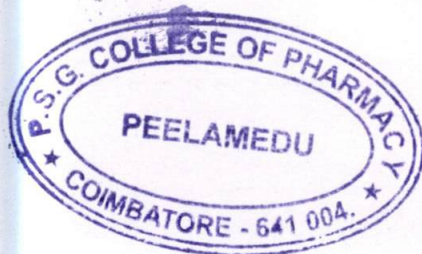
Multivitamin - 1 per Oral  $\alpha$ -Blocker Blood urea Nitrogen 15mg,  
Last Serum Creat - 0.8 mg/dl

Lab Investigation

Blood urea Nitrogen - 6mg/dl - Serum Creatinine -

Urine Analysis should a pH of 5.5

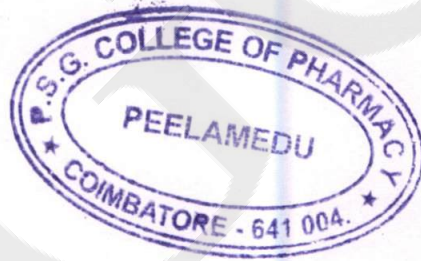
Kycan



- ① what is cause of GFR ↓ AKI.
- ② what are the signs of symptoms are consistent
- ③ Is this pre-renal intrinsic or post renal AKI?

Answer

- ① Essential HTN + Metabolic syndrome
- ② leg swelling, ↓ urine output, hematuria
- ③ post renal AKI.



2.3.1 Student Centric Methods.

Programme: II B. Pharm

Course: Pharmacy practice & pathophysiology.

Academic Year: 2016-2017

Crossword Puzzle on Prescription

1	2	4	5							
r	e	d	a			8	a	m	b	r
p	f		9	e	v	r	p	r		
c	i		s	s					14	10
e	k		e	n						
			n	e						
s		t	t	p						11
o		a	s					c	n	12
7		t								16
		15		6		13				3

Across (Right to Left)

1. Drugs protected by patent (11)
8. Light resistant containers (5)
13. Three times a day (1, 1, 1)
9. Checking system in preparing a prescription - it is scrambled (6)

Across (Left to Right):

6. Measure of a drug (4)
10. Ancient book important in extemporaneous preparation
11. Signatura - other name - only prefix (5) - it is shuffled
12. Refill lifespan for a prescription in years (3)
16. Prescription in latin (11)

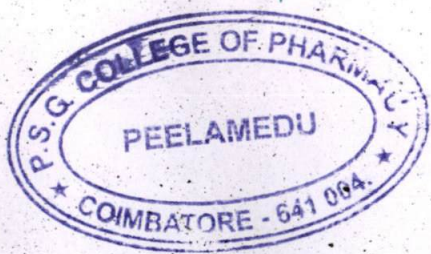
Down:

1. One of the criteria in choice of treatment (5)
2. This is prohibited for controlled drug substances (6)
4. Every day (2)
5. Sufferer/ sick person (7)
14. Book of Approved drugs with therapeutic equivalent (6) shuffled

UP:

3. Ancient Drug seller (10)
6. Pharmacist responsibility (8)
7. whenever necessary (1,1,1)
15. Immediately - latin word

*Spencer*



Subject in charge  
S. Vijayalakshmi

S. Saran Akurathaman

**Crossword Puzzle on Prescription**

1	P	R	4	5	8	a	n	t	a	r	y
	e	D	a				8	A	m	b	e
	i	f		9	e	l	i	P	L	E	
	c	i		n	s						14
	e	i		e	n						10
											C
				n	e						
											H
	S		t	e	p			A	N	G	11
	O		a		s						T
										e	12
7	S	U	E	P	i	8	C	S	i	r	16
		e	15	S	O	6	D		13	T	i
										d	
											3
											A

**Across (Right to Left):**

1. Drugs protected by patent (11)
8. Light resistant containers (5)
13. Three times a day (1, 1, 1)
9. Checking system in preparing a prescription – it is scrambled (6) *triple check*

**Across (Left to Right):**

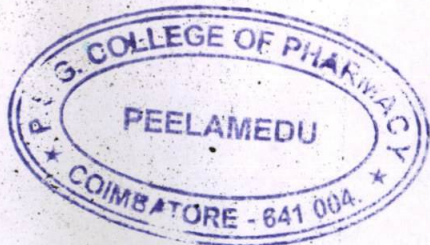
6. Measure of a drug (4)
10. Ancient book important in extemporaneous preparation
11. Signatura – other name - only prefix (5)- it is shuffled
12. Refill lifespan for a prescription in years (3)
16. Prescription in latin (11)

**Down:**

1. One of the criteria in choice of treatment (5)
2. This is prohibited for controlled drug substances (6)
4. Every day (2)
5. Sufferer/ sick person (7)
14. Book of Approved drugs with therapeutic equivalent (6) shuffled

**UP:**

3. Ancient Drug seller (10)
6. Pharmacist responsibility (8)
7. whenever necessary (1,1,1)
15. Immediately – latin word



*S. Vijayalakshmi*

**Crossword Puzzle on Prescription**

1	2	4	5	8	a	n	t	a	r	y
p	r	o	p							
y	e	D	a			8	A	m	b	e
i	f		9	e	l	P	L	E		A
c	i		i	s					14	10
e	l		e	r						C
	i		n	e						H
S		t	e	p		A	N	A	i	11
O		a	s					e	w	12
7	S	U	E	P	i	8	C	S	i	16
	e	15	S	o	6	D	13	T	i	d
										3
										A

**Across (Right to Left)**

1. Drugs protected by patent (11)
8. Light resistant containers (5)
13. Three times a day (1, 1, 1)
9. Checking system in preparing a prescription – it is scrambled (6) *triple check*

**Across (Left to Right):**

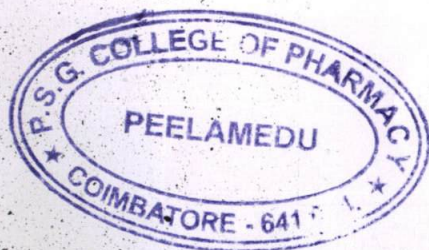
6. Measure of a drug (4)
10. Ancient book important in extemporaneous preparation
11. Signatura – other name - only prefix (5)- it is shuffled
12. Refill lifespan for a prescription in years (3)
16. Prescription in latin (11)

**Down:**

1. One of the criteria in choice of treatment (5)
2. This is prohibited for controlled drug substances(6)
4. Every day (2)
5. Sufferer/ sick person (7)
14. Book of Approved drugs with therapeutic equivalent (6) shuffled

**UP:**

3. Ancient Drug seller (10)
6. Pharmacist responsibility (8)
7. whenever necessary(1,1,1)
15. Immediately –latin word



*S. Vignayalakshmi*

Crossword Puzzle on Prescription

1 P	2 R	4 O	5 P	R	A	T	O	R	O	Y
R	E	D	A			8 A	M	B	E	R
I	F		9 T	E	I	P	L	E		A
C	I		I	S					14	10 C
E	L		E	N						I
	L		N	E						H
S			T	T	P		A	N	G	I
O			A	S					E	N
3	U	T	P	I	R	C	S	I	R	16
	E	15	S	O	D		13	T	I	D
										3 A

Left → Right

Across (Right to Left):

1. Drugs protected by patent (11)
- ~~8.~~ Light resistant containers (5)
- ~~13.~~ Three times a day (1, 1, 1)
9. Checking system in preparing a prescription – it is scrambled (6)

Across (Left to Right): Right → Left:

- ~~6.~~ Measure of a drug (4)
10. Ancient book important in extemporaneous preparation
11. Signatura – other name - only prefix (5)- it is shuffled
12. Refill lifespan for a prescription in years (3)
16. Prescription in latin (11)

Down:

1. One of the criteria in choice of treatment (5)
2. This is prohibited for controlled drug substances (6)
- ~~4.~~ Every day (2)
- ~~5.~~ Sufferer/ sick person (7)
14. Book of Approved drugs with therapeutic equivalent (6) shuffled

UP:

3. Ancient Drug seller (10)
6. Pharmacist responsibility (8)
7. whenever necessary (1,1,1)
15. Immediately – latin word

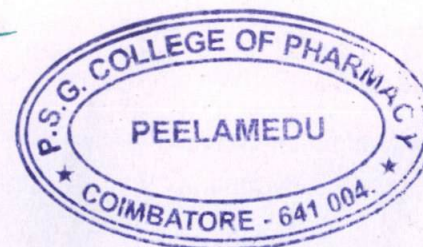
2.3.1 Student Centric methods.

PSG College of Pharmacy, Coimbatore

Details of Field Visit

S.No	Date of Field Visit	Name of the Course	Name of the Field Visit	No of Students Benefitted
1.	24.2.2020	III Sem B.Pharm Pharmaceutical Engineering	Field Visit to Dept of Physics,PSG College of Technology,Coimbatore	62
2.	8.1.2020	V Sem B.Pharm Pharmacognosy & PHYtochemsitry II	The Nilgiri Biosphere Nature Park Located at Anaikatti	54
3.	29.11.2019	IV B.Pharm Advanced Pharmacognosy	Field Visit to ayurvedic formulation unit/hospital to learn the traditional system of medicine	60
4.	21.3.2019	IV B.Pharm Modern methods of pharmaceutical analysis	SITRA,Coimbatore	45
5.	7.2.2019	III Sem B.Pharm Pharmaceutical Engineering	Field Visit to Dept of Biotechnology & Dept of Mechanical Engineering ,PSG College of Technology,Coimbatore	62
6.	5.2.2018	IV B.Pharm Modern methods of pharmaceutical analysis	SITRA,Coimbatore	35
7.	31.3.2017	IV B.Pharm Advanced Pharmacognosy	Field Visit to Plant tissue culture lab Lab,PSG College of arts & science,Coimbatore	60

*[Handwritten signature]*





2.3.1 Student Centric Method  
OSW (2017-2018)  
Programme: B-pharm PPP

**CASE STUDY 1 (Roll no 1, 2, 21, 40)**

Course: Pathophysiology

Academic Year: 2017-2018

Mrs PJ is a 67-year-old woman with rheumatoid arthritis. Her current prescription includes:

- Salazopyrin EN 500mg twice a day;
- Diclofenac 50mg three times a day;
- Paracetamol 1g up to four times a day when required.

She collected her first prescription for sulfasalazine two weeks ago. She has returned to the pharmacy and asks to speak to you. She has several problems with her medication which she wishes to discuss. First, she complains that her medication is not working properly and she tells you that she has not noticed any benefit from it. She asks you whether you think she should make an appointment with her GP to discuss this.

**CASE STUDY 2 (Roll no 3, 22, 23, 41)**

Mr AG, a 57-year-old taxi driver of Indian origin, attends your community pharmacy with a new prescription for: glyceryl trinitrate (GTN) spray 400 micrograms – one or two puffs as required. You dispense this item and speak with him and he tells you that his GP thinks he has angina and has asked him to use the spray the next time he gets any minor chest pain or tightness. You counsel Mr AG on the correct use of the spray.

Mr AG returns a few days later complaining of a headache following the use of the spray. He is reluctant to use the spray again. He asks your advice on managing his headache. He also smokes about five cigarettes a week and asks if he should now stop.

1a What is angina?

1b What typical symptoms could a patient with angina present with?

2a What are the risk factors for developing angina?

2b What, if any, risk factors does Mr AG have for developing stable angina?

3a What group of drugs does GTN spray belong to?

3b What are the side-effects of GTN spray?

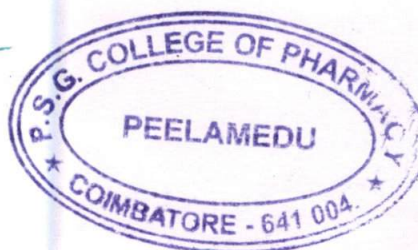
3c How would you counsel Mr AG on the use of his spray?

3d What other formulations of GTN are available? List their advantages and disadvantages.

4 Mr AG's headache may be caused by his use of GTN spray. What can you recommend to him to help manage his headache?

5 What advice would you give Mr AG in relation to his smoking?

*[Handwritten signature]*



### CASE STUDY 3 (Roll no 4, 24, 42, 43)

On your daily ward visit you are approached by a junior doctor who asks about suitability of therapy for a 5-year-old child who has been diagnosed with meningitis thought to be caused by meningococci. Lumbar puncture cultures have been taken and the infection is sensitive to benzylpenicillin, which the doctor would like to prescribe. Other microbial sensitivities are not yet known. The child's medicine chart notes that the patient is allergic to penicillin. The nature of the allergy is documented as 'rash (more than 72 hours after previous administration), no sign of anaphylaxis'.

1. Which antibiotic therapy would you recommend for the patient?
2. Why would you recommend this choice? Explain your answer with reference to the information you have been given.
3. What advice would you give to the nursing staff about monitoring this patient with reference to allergic reactions?

### CASE STUDY 4 (Roll no 5, 6, 25, 44)

A. You are working in your community pharmacy and are approached by Mr P, a 40-year-old man with a history of depression. Your records show that he is currently prescribed sertraline 100 mg daily. He has hurt his back while playing rugby. One of his friends has suggested ibuprofen 200 mg tablets, which helped him when similarly injured. He asks your advice about dosage. What advice will you give Mr P?

B. Mrs C, a patient who is known to you, attends the pharmacy wishing to purchase ibuprofen 400 mg t.d.s. to treat back pain. Mrs C gave birth two months ago.

1. What questions do you need to ask Mrs C?
2. What advice would you offer Mrs C?

### CASE STUDY 5 (Roll no 7, 26, 27, 45)

You are in a community pharmacy and receive a prescription for a 65-year-old male patient for ciprofloxacin 500 mg to be taken twice daily for seven days. You note from his patient medication record (PMR) that the patient has previously had numerous courses of trimethoprim. You also note that the patient currently takes the following medicines:

Aspirin 75 mg daily

Rampiril 5 mg daily

Simvastatin 40 mg daily

Sodium valproate (Epilim Chrono®) 300 mg daily.

He has no known drug allergies.

1. What is the likely indication for the ciprofloxacin?
2. Which, if any, of his medicines may interfere with ciprofloxacin?
3. What counselling points are important for this patient?

4. What discussion might you want to have with the patient or his doctor?

**CASE STUDY 6 (Roll no 8, 28, 46, 47)**

- A. A prescription is received by the pharmacy for captopril (an ACE inhibitor) 12.5 mg bd and bendroflumethiazide (a diuretic) 2.5 mg om. The pharmacist notices that Appendix 1 of the British National Formulary states that there is an enhanced hypotensive effect when ACE inhibitors are administered with diuretics. What should the pharmacist do?
- B. Prescription is received by the pharmacy for cimetidine (an H<sub>2</sub> receptor antagonist) 400 mg bd and theophylline (a bronchodilator) (as Slo- Phyllin), 250 mg bd. The pharmacist notices that Appendix 1 of the *British National Formulary* states that cimetidine inhibits the metabolism of theophylline (therefore increasing the plasma concentration of the theophylline). What should the pharmacist do?

**CASE STUDY 7 (Roll no 9, 10, 29, 48)**

An elderly patient wishes to speak to you about their cough and wheeze, which they have experienced for a few days now. The cough is 'dry' and as they have been feeling wheezy, they have needed to use their asthma inhalers more often than usual over the last few days. When asked about medication, the patient states that apart from the inhalers, he takes Uniphyllin Continus® (for the last year), his dose having gone up to 400mg every 12 hours last month. Also for the last three months he has been taking St John's Wort, as he has been feeling 'low' since a friend passed away, although that is not a medicine but something 'natural' he states.

1. What is the most likely cause of the patient's symptoms?
2. What mechanism of interaction could be involved here, and what are the consequences of the interaction?
3. Should the patient just stop taking the St John's Wort? Explain your answer.

**CASE STUDY 8 (Roll no 11, 30, 31, 49)**

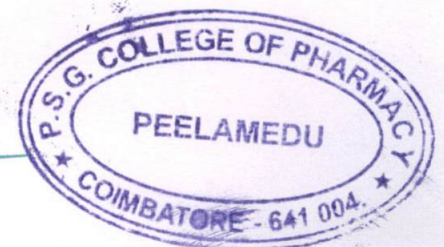
A young female patient comes into your pharmacy and wants to buy over-the-counter ibuprofen for her headache. You know this patient well and know that she suffers from moderate asthma and has inhalers for this condition. Your counter assistant is about to make the sale after having established the need for the medicine but does not consult with you. You know that the patient is known to be allergic to aspirin. The patient is prescribed the following medicines:

salbutamol 100 microgram metered dose inhaler (MDI), two puffs four times a day when required

Seretide® 250/50 MDI, two puffs twice daily

theophylline modified release (Uniphyllin Continus®) 400mg twice daily.

What would be your advice to the patient and why?



**CASE STUDY 9 (Roll no 12, 32, 50, 51)**

You are in a community pharmacy and receive a prescription for a 35-year-old female patient for ciprofloxacin 500mg to be taken twice daily for seven days. You note from her PMR that the patient was previously taking the combined oral contraceptive pill (Microgynon®) but did not get her repeat prescription for this the last time it was due. She is currently taking folic acid 400 micrograms daily which she recently purchased from your pharmacy. She has no known drug allergies.

1. What is the likely indication for the ciprofloxacin?
2. What information will you need from the patient to ensure the appropriateness of this prescription?

**CASE STUDY 10 (Roll no 13, 14, 33, 52)**

66 year old female was newly diagnosed with atrial fibrillation. Her other diagnoses included hypertension, diabetes, hyperlipidemia, and GERD.

Current medication list included:

- Aspirin 81 mg daily
- Simvastatin (Zocor) 40 mg at bedtime
- Tylenol as needed
- Protonix 40 mg daily
- Lisinopril 10 mg daily
- Metformin 500 mg twice daily

With the new diagnosis of atrial fibrillation, the primary provider started the patient on Diltiazem (Cardizem) CD 180 mg daily.

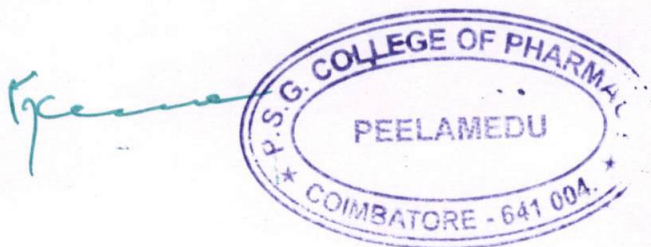
Within a few weeks, the patient began to feel worsening muscle pains and aching. She could not attribute it to physical activity or anything else going on in her life. She began taking the Tylenol as needed 2-3 times per day to try to help with the pain she was having.

1. What is the indication for diltiazem?
2. Why the patient felt the muscle pain?
3. What would you recommend the patient?

**CASE STUDY 11 (Roll no 15, 34, 35, 53)**

As a hospital pharmacist you are making your daily visit to a medical ward. You are given a prescription to prepare for Mr S to go home. Mr S was taking co-amlozide before coming in to hospital, for water retention. He has since been started on lisinopril to treat heart failure. His serum potassium level is 5.4 mmol/L, which has increased from 4.3 mol/L on admission to hospital. (Normal potassium range 3.5–5.0 mmol/L.)

His prescription for taking home is:



■ co-amlozide 5/50mg i mane

■ lisinopril 20mg i mane.

1. Is this prescription clinically appropriate? Explain your answer
2. What action(s) would you recommend? Explain your answer.

### **CASE STUDY 12 (Roll no 16, 36, 54, 55)**

FT, a 59-year old woman, is looking for a treatment option to alleviate congestion. She is suffering from a head cold and has been unable to sleep comfortably for the past several nights due to nasal congestion. FT's past medical history includes depression, dyslipidemia, and hypertension. She reports taking an antidepressant and a statin for her cholesterol and says that she has been told that her blood pressure is difficult to control, despite numerous medications. FT has been told that because of her blood pressure, she needs to avoid certain OTC medications. She explains that she would prefer to avoid all medications, if possible, and would rather use natural or drug-free remedies to treat her cold symptoms and congestion and allow her to sleep better. What advice should you give FT?

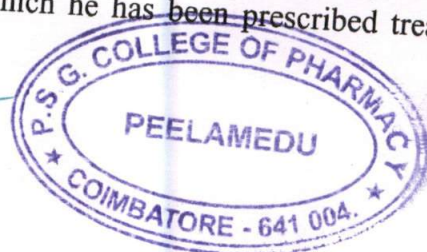
### **CASE STUDY 13 (Roll no 17, 18, 37, 56)**

- A. NM is a 34-year-old woman who comes to the pharmacy looking for something to help relieve her heartburn. For the past few months, she has been feeling a burn in her stomach and feels like she has regurgitation. She says this happens 3 or 4 times a week, typically 30 to 60 minutes after she eats. She tries to drink milk whenever she has heartburn, but it does not help that much. She says her symptoms are bothersome but do not interfere with her daily activities. On questioning, she states she has not tried treating her symptoms with anything besides milk. She travels a lot for work and tends to eat out most days of the week, so her diet is inconsistent. She has no medical conditions. What can you recommend for NM?
- B. MB, a 29-year-old woman, is looking for a recommendation for treating her runny nose, itchy eyes, and sore throat. She says these symptoms occur every year at this time, and she attributes that to the change of seasons. MB says that these symptoms are disrupting her sleep. She has previously tried OTC cetirizine and fexofenadine but says they made her feel groggy the next day. MB has no significant past medical history and only uses ibuprofen as needed for headache relief. What recommendations do you have?

### **CASE STUDY 14 (Roll no 19, 38, 57, 58)**

FL, a 28-year-old man, calls the pharmacy asking for a recommendation to treat gastrointestinal symptoms. He recently returned from a 3-week backpacking and camping trip across Europe, during which he developed abdominal cramps, diarrhea, and weakness that lasted several days, causing him to cut his travels short. Upon returning home, FL visited his physician. A stool specimen revealed a diagnosis of giardiasis, for which he has been prescribed treatment with

*[Handwritten signature]*



metronidazole. FL has no allergies to medications and takes no other medications, but he wants to know whether there is anything else he should be doing until the metronidazole starts to work.

What information should you provide him regarding self-management of his symptoms?

**CASE STUDY 15 (Roll no 20, 39, 59, 60)**

A 59-year-old male (height: 5'8"; weight: 160 lbs) presented to the emergency department with nausea and emesis. On examination the patient was slightly febrile (99.4F) and had left upper abdominal tenderness with evidence of mild hepatomegaly and mild sclera icterus. The patient admitted to a history of moderate alcohol intake (10-12 drinks/week for the past several years).<sup>1</sup> He stated that he had also recently been taking approximately 8 tablets of Extra-Strength Tylenol (500 mg acetaminophen each) over the course of the day, every day, for the past 2 weeks for pain relief from a recent knee injury sustained during a fall. Laboratory analysis revealed markedly elevated serum ALT (535 IU/L) and AST (430 IU/L) levels (normal values: 4-51 IU/L and 15-45 IU/L, respectively), increased bilirubin (41  $\mu\text{mol/L}$ ; normal:  $< 17 \mu\text{mol/L}$ ), a serum glucose level of 2.0 mmol/L (normal: 3.9-5.8 mmol/L), and a blood acetaminophen concentration of 58  $\mu\text{g/mL}$ . The patient was admitted to the hospital and administered an intravenous infusion that included glucose and N-acetylcysteine (NAC).

- A. What is the reason for hepatomegaly?
- B. Discuss on the treatment given to the patient.

4.3.1 Student Center Method  
Programme: Pharm D

Course: Community pharmacy.

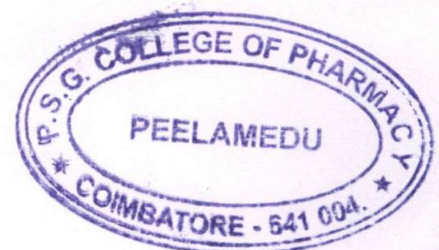
01/03/2018.

TUTORIAL HOUR

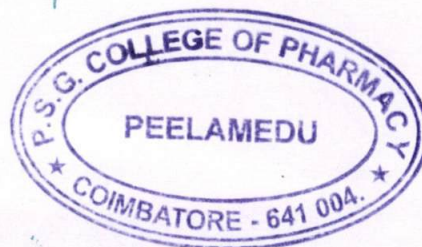
GROUP ACTIVITY -MALARIA

1. Why does only female anopheles mosquito cause malaria?  
A. because female are evolutionarily designed to be cruel  
 B. because female need blood from vertebral host to nourish eggs  
C. males find it difficult to suck blood  
D. blood is the only diet for female mosquitoes
2. In which continent, as per WHO, one in every five (20%) childhood deaths is due to Malaria?  
 A. Africa  
B. South America  
C. North America  
D. Asia
3. Malaria is caused by a  
A. Bacteria  
B. Fungi  
C. Virus  
 D. Parasite
4. There are four types of human malaria Plasmodium vivax, P. malariae, P. ovale and P. falciparum. ~~P. vivax~~ Which is most common type and also most deadly?
5. The sexual cycle of Plasmodium is completed in the  
 A. The gut of mosquito  
B. RBC  
C. Liver  
D. The salivary gland of the mosquito
6. Which life form of malarial parasites is responsible for the symptoms (fever, anemia, splenomegaly) of the disease?  
A. Sporozoites  
B. Schizonts  
 C. Merozoites  
D. Trophozoites
7. Which part of body is seriously affected in Malaria?  
A. Spleen  
B. Lungs  
 C. Liver  
D. Heart
8. Malarial parasite is best obtained from a patient  
A. An hour after rise of temperature.  
 B. While temperature is rising sharply.  
C. After 24 hours when temperature is normal.  
D. After temperature becomes normal.
9. Which day is celebrated as WORLD MALARIA DAY?  
 A. 25<sup>th</sup> April  
B. 25<sup>th</sup> June  
C. 25<sup>th</sup> July  
D. 16<sup>th</sup> September
10. Quartan malaria is caused by  
A. Plasmodium Vivax  
B. Plasmodium Ovale  
 C. Plasmodium malariae  
D. Plasmodium falciparum

*[Handwritten signature]*



11. A patient is given an anti-malarial for plasmodium falciparum. After taking the drug, he has anemia, cynosis, tachypnoea and passage of dark urine. The patient is given which drug?
- A. chloroquine
  - B. mefloquine
  - C. artesunate
  - D. primaquine
12. Which of the following 4- amino quinoline is used for malaria as well as in rheumatoid arthritis and it causes reversible retinal damage?
- A. chloroquine
  - B. pyrimethamine
  - C. mefloquine
  - D. amodiaquine
13. Which of the following can be used in pregnancy to treat malaria?
- A. quinine
  - B. primaquine
  - C. chloroquine
  - D. pyrimethamine
14. Biguanides (PROGUANIL, PYRIMETHAMINE) prevent
- A. DHFRase
  - B. G6P dehydrogenase
  - C. Hemazoin formation
  - D. None of the above
15. How do antibacterial drugs like doxycycline and sulphadoxine work against protozoal plasmodium parasite?
- A. mechanism unknown
  - B. by affecting apicoplast enzymes
  - C. by peroxide formation
  - D. none of these
16. Which of the following is NOT recommended as a solo agent in the treatment of P. falciparum malaria?
- A. Quinidine
  - B. Doxycycline
  - C. Atovaquone/Proguanil
  - D. Quinine
  - E. Artesunate
17. Chloroquine can be used to achieve suppressive cure in what malaria species?
- A. P. vivax
  - B. P. ovale
  - C. P. vivax and P. ovale
  - D. P. falciparum
18. Which of the following drugs is essential for radical cure of P. ovale and P. vivax?
- A. Chloroquine
  - B. Mefloquine
  - C. Doxycycline
  - D. Primaquine





12  
18

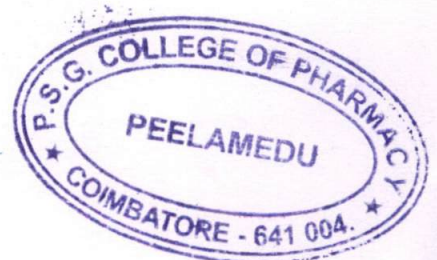
Community Pharmacy - (G.A)

1 1/3/0

GROUP ACTIVITY - MALARIA

Adlin, DK, Anili  
Suleka, Vasuki, Sumit

1. Why does only female anopheles mosquito cause malaria?  
A. because female are evolutionarily designed to be cruel  
B. because female need blood from vertebral host to nourish eggs (1)  
C. males find it difficult to suck blood  
D. blood is the only diet for female mosquitoes
2. In which continent, as per WHO, one in every five (20%) childhood deaths is due to Malaria?  
A. Africa  
B. South America ✗  
C. North America  
D. Asia (1)
3. Malaria is caused by a  
A. Bacteria  
B. Fungi  
C. Virus  
D. Parasite (1)
4. There are four types of human malaria Plasmodium vivax, P. malariae, P. ovale and P. falciparum. P. vivax. Which is most common type and also most deadly? P. falciparum (1)
5. The sexual cycle of Plasmodium is completed in the  
A. The gut of mosquito (1)  
B. RBC  
C. Liver  
D. The salivary gland of the mosquito
6. Which life form of malarial parasites is responsible for the symptoms (fever, anemia, splenomegaly) of the disease?  
A. Sporozoites  
B. Schizonts ✗  
C. Merozoites  
D. Trophozoites
7. Which part of body is seriously affected in Malaria?  
A. Spleen  
B. Lungs  
C. Liver ✗  
D. Heart
8. Malarial parasite is best obtained from a patient  
A. An hour after rise of temperature.  
B. While temperature is rising sharply. ✗  
C. After 24 hours when temperature is normal.  
D. After temperature becomes normal.
9. Which day is celebrated as WORLD MALARIA DAY?  
A. 25<sup>th</sup> April  
B. 25<sup>th</sup> June (1)  
C. 25<sup>th</sup> July  
D. 16<sup>th</sup> September
10. Quartan malaria is caused by  
A. Plasmodium Vivax  
B. Plasmodium Ovale  
C. Plasmodium malariae (1)  
D. Plasmodium falciparum



Tycoon

11. A patient is given an anti-malarial for plasmodium falciparum. After taking the drug, he has anemia, cynosis, tachypnoea and passage of dark urine. The patient is given which drug?
- A. chloroquine
  - B. mefloquine ✕
  - C. artesunate
  - D. primaquine
12. Which of the following 4- amino quinoline is used for malaria as well as in rheumatoid arthritis and it causes reversible retinal damage?
- A. chloroquine
  - B. pyrimethamine (1)
  - C. mefloquine
  - D. amodiaquine
13. Which of the following can be used in pregnancy to treat malaria?
- A. quinine
  - B. primaquine (1)
  - C. chloroquine
  - D. pyrimethamine
14. Biguanides (PROGUANIL, PYRIMETHAMINE) prevent
- A. DHFRase
  - B. G6P dehydrogenase (1)
  - C. Hemazoin formation
  - D. None of the above
15. How do antibacterial drugs like doxycycline and sulphadoxine work against protozoal plasmodium parasite?
- A. mechanism unknown
  - B. by affecting apicoplast enzymes (1)
  - C. by peroxide formation
  - D. none of these
16. Which of the following is NOT recommended as a solo agent in the treatment of P. falciparum malaria?
- A. Quinidine
  - B. Doxycycline ✕
  - C. Atovaquone/Proguanil
  - D. Quinine
  - E. Artesunate
17. Chloroquine can be used to achieve suppressive cure in what malaria species?
- A. P. vivax
  - B. P. ovale (1)
  - C. P. vivax and P. ovale
  - D. P. falciparum
18. Which of the following drugs is essential for radical cure of P. ovale and P. vivax?
- A. Chloroquine
  - B. Mefloquine
  - C. Doxycycline (1)
  - D. Primaquine

