# Frontier Medical & Dental College Study Guide (Adapted from Bahria University Guide)

## Final Year MBBS

# FRONTIER MEDICAL & DENTAL COLLEGE ABBOTTABAD

# FMDC STUDY GUIDE

The study guide serves as a useful handy resource, helping you to navigate your journey at FMDC.

The study guide is more than an academic guide.

It not only highlights what, as a student, you should aim to achieve as you work through the curriculum, but also provides essential information about various administrative protocols that you as students of Frontier Medical & Dental College are expected to follow.

## Vision Statement of FMDC

To become an internationally recognized medical institution that contributes towards development of community health through excellence in medical education.

## Mission Statement of FMDC

To attain highest standard in teaching, learning and research according to WFME and PMDC standards.

## Program Learning Outcomes (PLOs)

**The MBBS programs aims to produce medical graduates who are able to:**

1.0 Knowledge

1.1 Explain the microscopic, macroscopic and gross structure of different organ systems in the human body, including musculoskeletal system with their clinical correlation.
1.2 Explain the normal functions of the human body at the molecular, cellular and organ level with their regulation.
1.3 Describe the basic biochemical reactions, synthesis and function of body enzymes and hormones, metabolism of carbohydrate, proteins and lipids with their clinical correlation and basics of human genetics.
1.4 Describe the general principles and concepts of diseases along with etiology, pathogenesis, gross and microscopic morphology of diseases in different organ systems.
1.5 Describe the pharmacokinetics and pharmacological properties of different drugs in common use for human diseases with their different actions, adverse effects and interactions.
1.6 Describe life cycle, mode of transmission and microbiological properties of pathogens affecting human body including bacteria, viruses and parasites, with emphasis on body defense mechanism with their immunological bases and autoimmune diseases.
1.7 Recognize basics of forensic medicine and toxicology along with their clinical applications.
1.8 Recognize clinical presentations, differential diagnosis, investigations and principles of treatment of

common diseases affecting the pediatrics age group including congenital and developmental diseases.
1.9 Recognize clinical presentations, differential diagnosis, investigations and principles of treatment of common internal medicine, psychiatric and dermatological diseases including medical emergencies.
1.10 Recognize clinical presentations, differential diagnosis, investigations and principles of treatment of common surgical diseases including diseases of the eye and ear and their surgical emergencies.
1.11 Recognize clinical presentations, differential diagnosis, investigations and principles of treatment of common gynecological diseases and stages of normal and abnormal pregnancy and delivery with their complications.
1.12 Recognize basics of biostatistics and methods of medical research.
1.13 Explain the principles of problem solving & management strategies.
1.14 Analyze symptoms and signs of different diseases with their impact in differential diagnosis.
1.15 Interpret the results of commonly used diagnostic procedures (laboratory and radiological).

2.0 Skills

2.1 Perform different laboratory experiments with proper handling of laboratory tools.
2.2 Construct a complete medical history in the outpatient, inpatient or emergency settings.
2.3 Perform and document a complete or focused physical and mental examination with eliciting different special physical signs essential for diagnosing different diseases.
2.4 Illustrate the principles and international guidelines for management of traumatic conditions with emphasis on the severely polytraumatized patients.
2.5 Perform basic clinical procedures under strict supervision as and accordingly listed.

3.0 Attitude

3.1 Show respect, empathy and responsibility with the patients and respect for their privacy and dignity.
3.2 Demonstrate communication with the patients and to provide knowledge to patients and their families about the possible therapies and risks in alternative treatment along with obtaining informed consent.
3.3 Demonstrate how to work with the colleagues in a team and to seek consultation from senior doctors.
3.4 Illustrate and present different case studies and give accurate and clear oral summary of the patient's illness.
3.5 Illustrate ethical behavior expected from the doctors towards patients with recognition of patients' rights, particularly as regards to confidentiality and informed consent, access to health care for the members of the underserved populations.
3.6 Demonstrate professional image in manner, dress, speech and interpersonal relationships that is consistent with the accepted contemporary medical profession standards.

## 7 Star Competencies

The graduate doctor must be a:

1. **Skillful** – Demonstrates proficiency in clinical and procedural skills, applying them safely and effectively in patient care.
2. **Knowledgeable** – Possesses comprehensive medical knowledge integrating basic, clinical, and applied sciences.
3. **Community Health Promoter** – Advocates for public health, engages in preventive care, and addresses community health challenges.

4. **Critical Thinker** – Analyzes clinical problems, applies evidence-based reasoning, and makes sound clinical decisions.
5. **Professional** – Upholds ethical standards, empathy, and integrity while respecting patients' rights and dignity.
6. **Scholar** – Engages in lifelong learning, research, and academic activities to advance medical practice.
7. **Leader and Role Model** – Demonstrates leadership in healthcare teams, mentors peers, and serves as an example for future professionals.

# PMDC'S 7 STAR DOCTOR



# POLICIES

This section summarizes some key aspects of policies in vogue at FMDC. The student is advised to read the detail in the latest edition of FMDC's Student Handbook.

## Student's Code of Conduct

Every student shall observe the following code of conduct in the University premises, in the University administered hostels (on and off-campus) and places of other activities being held under the auspices of the University:

- Loyalty to Pakistan and refraining from doing anything which is repugnant to its honor and prestige in any way.
- Respect for convictions and traditions of others in matters of religion, conscience and customs while observing own religious duties/customs.
- Truthfulness and honesty in dealing with other people.
- Respect for elders and politeness to all, especially to women, children, elders, the weak and the helpless.
- Special respect for teachers and others in authority in the FMDC and BU.
- Cleanliness of body, mind, speech and habits.
- Helpfulness to fellow beings.
- Devotion to studies and prescribed co-curricular activities.
- Observance of thrift and protection of public property.
- Observance of the rules and regulations of FMDC in force from time to time.

## Prohibited Acts & Misconduct/Ill-Discipline

The following acts shall be unacceptable, and their commission shall be construed as misconduct or ill-discipline:

- Breach of the Code of Conduct.
- Smoking in the areas prohibited by the college.
- Consumption or possession of alcoholic drinks or other intoxicating drugs within the college vicinity or while attending off-site instructions, sports, cultural tours or survey camps.
- Organizing or taking part in any function inside the campus, or organizing any club or society of students, except were permitted and in accordance with the prescribed rules and regulations.
- Collecting donations or receiving funds or pecuniary assistance for or on behalf of the college except with the written permission of the Head of the College or any other person authorized in this behalf.
- Staging, inciting or participating in or abetting any walk-out, strike or other form of agitation against FMDC or students, teachers, officers or authorities; inciting others to violence; disruption of the peaceful atmosphere in any way; making inflammatory speeches or gestures which may cause resentment; issuing of pamphlets or cartoons which cast aspersions on the students, teachers, staff or college authorities/bodies; doing anything in a way likely to promote rift and hatred amongst the students; issuing statements in the press; making false accusations against or lowering the prestige of BU or its students, teachers, administrators, staff or bodies.
- Disobeys the lawful orders of a teacher or other person in authority.
- Habitually neglects work or absents from the classroom without valid reason.
- Willfully damages public property or the property of fellow students or any teacher or employees of FMDC.

- Does not pay the fees, fines, or other dues payable under the laid down rules and regulations; uses indecent language; wears immodest dress; makes indecent remarks; gestures; behaves in a disorderly manner; commits any criminal, immoral or dishonorable act (whether committed within the FMDC or outside) or any act which is prejudicial to the interests of FMDC; and/or
- Commits an act of sexual harassment, as defined in the HEC's document 'Policy Guideline against Sexual Harassment in Institutions of Higher Learning'.

## Action against Misconduct

Every member of the faculty shall have the power to check any disorder or improper conduct, or any breach of the rules, by students in any part of the campus or outside when the visit is sponsored or organized by it. Misconduct in a classroom when a student is under the charge of a teacher shall not be allowed and a punitive action such as a fine, removal from the classroom or a punishment of greater magnitude may be imposed as decided by the authority so empowered. The Student Advisor, the Admin Officer or any other employee authorized by the college shall be responsible for the maintenance of good behavior and law and order amongst the students on the premises of the college.

## Penalties:

A student guilty of an act of indiscipline shall be liable to the penalties specified below or promulgated through written orders/notifications:

| Penalty Code | Penalty | Awarding Authority | Appellate Authority |
|---|---|---|---|
| 1 | Removal from classroom, laboratory, or field work, for a maximum period of two contact hours | Teacher In-Charge | HOD |
| 2 | Expulsion from games or field work for not more than one week | Games/ Field Work In-Charge | Head of FMDC |
| 3 | Expulsion from educational visits and sports tours | Director Admin | Head of FMDC |
| 4 | Suspension from classes for a period not exceeding two weeks | Director/ Principal | Head of FMDC |
| 5 | Monetary penalties | Director/ Principal | Head of the FMDC |
| 6 | Removal from a position of authority on the advice of the Student Advisor / HOD | Director/ Principal | Head of the FMDC |
| 7 | Expulsion from the hostel | Head of FMDC | Next Higher Authority |
| 8 | Cancellation of remission of fees/assistantship/scholarship etc. | Head of FMDC | Next Higher Authority |
| 9 | Rustication for one or more semester | Head of FMDC with concurrence of BUHO | Rector |
| 10 | Expulsion from FMDC | Head of FMDC with concurrence of BUHO | Rector |

## Procedure In case of breach of discipline:

A teacher, a staff member in whose presence or in relation to whom an act of indiscipline has been committed or who gets to know of such act, may deal with the case him/herself, or if in his/her view the case is one which can be more appropriately dealt by another authority or which warrants a penalty of greater magnitude than they are competent to impose, shall refer the case to the Student Advisor or Deputy Director (Admin & Coord) or the higher authority as the case maybe.

All cases of serious breach of discipline shall be referred to the Disciplinary Committee for investigation which, after due process of investigation, will either impose the penalties if within its powers or recommend them to the Campus Head/Rector, as the case may be.

When a case against a student is referred to the Disciplinary Committee, it may, if it deems fit, suspend the student from the classes till the finalization of the case, with the approval of the Head of FMDC.

## Appeals

An appeal against the penalty may be filed by the student with the Appellate Authority within 30 days of announcement of the punishment. No appeal by a student shall be entertained unless it is presented within 30 days from the date of communication of the decision, provided that the Rector may, for valid reasons, extend this period.

No appeal shall lie against the decision of an authority imposing a penalty other than rustication or expulsion except on the grounds that such authority imposed a penalty which it was not competent to impose.

An appeal on the grounds that an authority imposed a penalty which it was not competent to impose, shall lie with the body or person of higher authority than the one who imposed the 44 penalty.

## Compensation for loss

The Head FMDC, or any teacher or officer to whom he may delegate the powers, may instruct a student to pay compensation for any loss or damage to property belonging to FMDC, public authority, a fellow student or an employee of FMDC, caused by a willful act or gross negligence of the student. If the student does not pay such compensation within a specified period, the Head of FMDC will proceed against the student in the manner as prescribed in these rules.

## Offences during examination

Cases of indiscipline in or around the Examination Hall, and use of unfair means, shall be dealt with by the Examination Committee.

## Dress code:

**Male students:**

1. Dress/Casual Trousers
2. Jeans (Plain blue) without an image, graphics, and write ups
3. Casual Shirts (Half/ Full sleeves)
4. T Shirts without any messages, images, graphics, and write ups
5. Dress/Casual shoes or Joggers with socks (no sandals)
6. Shalwar Kameez with shoes (only on Friday)
7. Suit/ Combination
8. Coat/ Pullovers/ Sweaters/ Jackets in winter

**Female students:**

1. Shalwar Qameez (no sleeveless)
2. Hijab, Abaya, Chaddar etc.
3. Full length Trousers (no tights) with long shirt/ kurta (knee length)
4. Light jewelry and light makeup
5. Shoes, Sandals and Joggers
6. Dupatta/ Scarf is compulsory with all dresses

**NOTE: All FMDC students are expected to wear white coat during classes, laboratory and hospital rotations, as well as outside the campus, when on official visit.**

## Student card

Students shall be issued ID Cards. The students shall be required to wear their ID Cards in the campus and show them to the authorized persons on demand.

## Loss of ID card

In case ID card is lost, it should be immediately reported to Admin Office who will make arrangements for re-issue of a new card by FMDC after payment of fine.

## Personal behavior

FMDC expects that all students should sustain professional manner when interacting with colleagues and others. The University recognizes that personalities, characters, and management styles may differ but, notwithstanding these differences, as a minimum standard, all are expected to:

- Work co-operatively with each other to achieve objectives and establish good working relationships.
- All should behave and speak professionally, respectfully, and courteously at all times.
- Tidiness and cleanliness must be always adhered to within the Campus premises which will help us maintain a safe, clean, and professional learning environment.
- Use the college's property, facilities, supplies, and other resources in the most effective and efficient manner.
- Unacceptable behavior such as aggressive or abusive behavior, shouting or personal insults or spreading rumors or gossip, or insulting someone is to be avoided at all costs. All these matters, if experienced, should be reported to the vice principal or your mentor or a senior faculty member.

## Punctuality:

Students are expected to arrive in class well in time. All cell phones, smartphones, and other electronic devices must be turned off and hidden from view during class time. Talking and other disruptive behaviors are not permitted while classes are in session. If the students miss a class, they are themselves responsible for the missed part of the course. It is the student's responsibility to contact a classmate or teacher to determine and cover what was missed.

At FMDC classes start immediately after holidays. There is no lag period after leave. There will be no relaxation for students who are absent. **Please inform your parents of this and make your travel arrangements accordingly**. Avoid taking leave for personal reasons like weddings during the academic year.

## Conduct in library

The College campus has a well-stocked library, and time spent by the students there will meet your research requirements in a calm place. The libraries also provide electronic access through the internet to databases throughout the world.

Library also provides plagiarism detection services

While using the library, Mobile Phones/ iPods/ laptops should be kept on silent mode. Sleeping, listening/ watching drama and music etc.while staying at library is prohibited.

## Rules for borrowing books

1. Students are permitted to borrow 3 books at a time for a maximum period of 14 days. Books borrowed may be re-issued on completion of the time period.
2. A valid college card is must for borrowing the Book(s) and other material
3. Textbooks will be issued for 7 working days only but may be reissued the next day of the due date
4. For the Book(s) returned after the due date, a fine of Rs.10/- per day would be charged.
5. Book Bank books will be issued for a period of whole/ one semester.
6. Writing, underling or marking any book is strictly prohibited. Library books are carefully examined on return and the borrower will be held responsible for any damage
7. Following library material will not be issued and must be consulted in the library:
    a. Reference Material.
    b. Thesis/ Project Reports.
    c. Audio/ Video cassettes/ CDs/ DVD's.
    d. Magazines and periodicals.
    e. Newspapers.

### Library Timings

| DAY | TIMINGS |
|---|---|
| WEEKDAYS: MON- SAT | 8:30 AM to 8:30 PM |
| WEEKENDS | 9:00 AM to 8:30 PM |

## Conduct in the hospital

When you are working in the hospital be quiet, avoid rowdiness and unnecessary laughter and chatter. Remember the patients need peace, quiet and their rest. You must always wear a white coat. Ladies will wear their dupattas inside the white coat and the gentlemen's ties must be tucked inside the shirt so that infection is not carried from one area to the next. Shoe covers, sterile aprons, caps and gowns must be worn where appropriate. Be polite to the patients, greet them appropriately and inquire after their health and wish them well. All nursing staff must be addressed appropriately and politely. Don't hang around once your work is done. Do not eat or drink inside the wards and treatment areas. Avoid making phone calls and put your phones on the silent mode.

## Conduct in cafeteria and common rooms

Campus has a cafeteria with a variety of food items and snacks available at reasonable rates Students are expected to show care, courtesy towards the cafeteria staff as well as to others. Place garbage and recyclables in the appropriate containers.

This behavior will maintain a clean and enjoyable environment for all.

## Academic misconduct and disciplinary committee

The Discipline Committee is responsible for maintaining discipline (both academic as well as conduct), and deals with all cases of indiscipline on the part of students.
It recommends award of penalties/ punishments and renders advice to the Director on administrative matters needed to maintain a peaceful environment on the campus. Intimation will be sent to BUHO for all penalties awarded to a student

## Members of the committee

| | |
|---|---|
| **Chairperson** | Prof.Dr.Munir Tahir, FMDC |
| **Secretary** | Mr. Arif Zaman Student section |
| **Members** | • Prof. Dr. Johar Ali Principal FMDC<br>• Prof. Dr. Saif ur Rehman, Physiology Dept FMDC<br>• Assistant Prof.Dr.Saadia Community Medicine, FMDC<br>• Mr.Y.M.Khokhar Exam Dept FMDC |
| **Co-opted member** | Varies according to the case |

## Students are to avoid the following:

a) Unauthorized use of the college & University's name or logo which is property of university.
b) Harassment, sexual or otherwise, or intimidation of any member of university.
c) Coming late for classes. The student may be considered absent and marked accordingly.
d) Improper/inappropriate dress
e) Loud and aggressive behavior in Cafeteria or Common rooms or within the premises of FMDC or the affiliated hospitals.
f) Non clearance of bills/dues. Non-clearance of dues may prevent student from appearing in the professional examination. The student may also be refused permission to attend classes.

## Use of mobile phone

a) Use of mobile phone for photography at cafeteria is restricted.
b) Library is 'NO Mobile Zone' area.
c) Use of mobile in class room is prohibited.
d) Students are not allowed to use mobile phone for photography/ video capturing during farewell parties.
e) Making videos, images, Vlogs etc. are monitored through CCTV cameras installed inside and outside building.

## Smoking

Student guilty of an act of smoking in the premises of Bahria University/ Constituent Unit or while entering/ attending offsite instructions like sports, cultural tours or survey campus shall be liable to the penalties asunder:

| Occasion | Penalties |
|---|---|
| 1st occasion of offence on act of Smoking. | Fine of Rs.5000/- along with warning letter with copy to parents from Director Campus |
| 2nd or onward occasion of offense(s). | Fine of Rs.10,000/- along with warning letter (s) With copy to parents from DG Campus on each offence. |

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Student guilty of an act of possession/ consumption/ usage/ supplying of intoxication drugs/ Alcoholic drinks in premises of FMDC and or entering FMDC or events of FMDC being intoxicated

and or

During official/ informal off-site events of the college, shall be liable to expulsion from FMDC.

## Criminal conviction

a) Applicants are required to inform FMDC of any criminal conviction. Full details are to be provided.
b) The college reserves the right to refuse admission to any applicant with a criminal conviction that may jeopardize the reputation of the University.
c) Failure to declare any criminal conviction by a student already enrolled in FMDC shall result in immediate cancellation of his/her admission.
d) Where admission to the program is denied on the basis of the criminal conviction, the applicant will be notified of the decision in writing by FMDC.

## Academic misconduct

Following acts shall constitute academic misconduct:

a) Cheating.
b) Fabrication.
c) Misuse
d) Forgery.
e) Plagiarism.
f) Facilitating academic misconduct.
g) Academic Dishonesty.

The student is advised to refer to their Student Handbook to become fully cognizant of these terms.

## Penalties for academic misconduct

| TYPE OF MISCONDUCT | PENALTY |
|---|---|
| Attempt (Successful/ unsuccessful) to know contents of question papers through unfair means prior to examination | ***Minor punishment***<br>a Warning letter (Copy to parents)<br>b. Fine of Rs.2,000.<br>***Major punishment***<br>a. Expulsion from the University<br>b. Fine Rs. 5000/00.<br>c. Letter to parents |
| Possession of written material, relevant to the subject/paper concerned.<br>• Writing on palm, arm or anywhere on the candidate's body or clothes whether the written material is relevant or irrelevant to the concerned paper.<br>• Possession of Mobile phones, Smartwatches, PDAs and other electronics devices, whether or not carrying any relevant or irrelevant material in the memory. | a. Grade 'F' in the subject.<br>b. Fine Rs 5,000.<br>c. Warning, copy to parents.<br>d. Mobile phones/electronic devices to be confiscated. (will be returned after investigation |
| Giving/receiving assistance or allowing any other candidate to copy from his/her answer books. | ***Minor Punishment***<br>a. Cancellation of the relevant paper.<br>b. Fine Rs 2,000/-.<br>c. Letter of Warning. |

| | |
|---|---|
| | ***Major Punishment***<br>a. Grade 'F' in the subject.(for students involved)<br>b. Fine Rs 5,000/-<br>c. Letter of Warning. |
| Removing a leaf from answer book.<br>Taking the whole or a part of an answer book or a continuation sheet into or out of examination hall. | a. Grade "F" in the subject. (for students involved)<br>b. Fine Rs. 5,000.<br>c. Letter of warning |
| Substituting the whole or a part of an answer book or a continuation sheet not duly issued to him for the examination; | a. Grade 'F' in the subject. (For students involved)<br>b. Fine Rs 5,000.<br>c. Letter of Warning. |
| Forging, mutilating, altering, erasing or otherwise tampering with marked answer scripts | a. Grade "F" in the subject. (for students involved)<br>b. Fine Rs 5,000.<br>c. Letter of Warning |
| Impersonation | a. Grade "F" in all subjects of relevant semester studied at BU (including the impersonator/facilitator, if a student of BU).<br>b. Expulsion from the university (including the impersonator/ facilitator, if a student of BU).<br>c. In case the impersonator/facilitator is an ex-student of BU or not a BU student, an FIR may be lodged for the offence, asper law of the land. |
| Using abusive or obscene language in answer book | a. Grade 'F' in the relevant course.<br>b. Fine Rs 5,000.<br>c. Letter of Warning. |
| Refusing to obey the Invigilator or Head Invigilator in the Examination Hall and misbehaving, resorting to misconduct, or creating any kind of disturbance in or around the Examination Hall | ***Minor Punishment***<br>a. Grade 'F' in the course.<br>b. Fine Rs 5,000.<br>c. Letter of Warning.<br>***Major Punishment***<br>a. Rustication for one Semester.<br>b. Grade 'F' in the course.<br>c. Fine Rs5,000/<br>d. Letter of Warning. |
| Communicating or attempting to communicate with Examiners with the intention of influencing Them in the award of marks. | a. Cancellation of relevant paper.<br>b. Fine Rs 5,000.<br>c. Letter of Warning. |
| Possession of firearms, knives etc. inside and in the close vicinity of Examination Hall | a. Expulsion from the University.<br>b. Fine Rs 5,000.<br>c. Letter of Warning. |

## Sexual Harassment

All students are required to educate and familiarize themselves about the act/actions categorized as "Sexual Harassment" may it be physical, verbal or while utilizing electronic media and refrain from it being a punishable offence.

Higher Education Commission has issued very strict policy guideline against "Sexual Harassment in Higher Education Institutions (HEI)".

All such policies are strictly applicable and followed at FMDC.

All students are therefore required to go through the entire policy's contents which are available with campus (concerned HODs) and University/ HEC website.

- The Protection against Harassment of Women at Workplace Act, 2010
- The Protection against Harassment of Women at Workplace (Amndt) Ac& 2022.
- HEC Policy on Protection against Sexual Harassment in HEIs effective 01 July 2020

**Committee for protection against sexual harassment in FMDC**

| **FOCAL PERSONS** | |
|---|---|
| Prof. Dr. Munir Tahir Dean & Prof of Biochemistry FMDC<br>Associate Prof.Dr.Abir Hussain Dean Dental section | Cell: 03345253446<br>Email:drmunirtahir355@gmail.com<br><br>Cell:03339108387 |
| Prof. Dr. Johar Ali Principal & HOD General Surgery | Cell: 03009110744 |
| **INQUIRY COMMITTEE** | |
| Prof.Dr.Saif-ur-Rehman; Physiology Dept FMDC<br>Associate.Prof.Dr.Irfan;Anatomy Dept | Cell:03213025911<br><br>Cell:03370438990 |
| Prof.Dr.Safdar Malik<br>Asst.Prof.Dr.Zeeshan Baig HOD Maxillofacial surgery | Cell:03145154748<br>Cell:03214669917 |
| Mr.Arif Zaman student section FMDC<br>Mr.Khurram Shehzad student section FMDC | 03009118232<br><br>03315719810 |

## Code of conduct for protection against harassment of woman at the work place

1. An informal approach to resolve a complaint of harassment may be though mediation between the parties involved and by providing advice and counseling on a strictly confidential basis.
2. A complainant or a staff member designated by the complainant for the purpose may report an incident of harassment informally to her supervisor, or a member of the Inquiry committee, in which case the supervisor or the committee member may address the issue at her discretion in the spirit of this Code. The request may be made orally or in writing.
3. If the incident or the case reported does constitute harassment of a higher degree and the officer or a member reviewing the case feel that its needs to be complainant, the case can be taken as a formal complaint.
4. A complainant does not necessarily have to take a complaint of harassment through the informal channel. She can launch a formal complaint at any time.
5. The harassment usually occurs between colleagues when they are alone, therefore usually, it is difficult to produce evidence. It is strongly recommended that staff should report offensive behavior immediately to someone they trust, even if they do not wish to make a formal complaint at the time.

## HEC policy on protection against sexual harassment in higher education institutions

1. Higher Education Institutions ("HEIs") are highly consequential institutions in society that are dedicated to the pursuit and dissemination of knowledge. Members of the HEI community have several important rights and privileges, central among which is the right to pursue inquiry and search for knowledge without hindrance from unlawful or otherwise unacceptable constraints. The HEC, takes very seriously the freedom of teachers, researchers, scholars, students to live and work in a safe environment in which their dignity is protected.
2. Protection against sexual harassment is important not only because it threatens the freedom and conduciveness of the environment and the institutions of higher learning. At a more fundamental level, such conduct is unacceptable because it's violet personal dignity and shall not be tolerated at HEIs in Pakistan under any circumstance.
3. All administrators, deans, managers, faculty, department chairs, directors of schools or program and others in supervisory or leadership positions have an obligation to be familiar with and to uphold this policy and its procedures along with informing members of their staff about its existence.
4. In order to ensure protection of women against harassment complaint may be lodge by any person who has experienced sexual harassment with either the focal person or with any member of the Sexual Harassment Inquiry Committee.

## Students grievances oversight committee

There shall be a Student Grievances Oversight Committee (SGOC), to address grievances of students against any teacher, instructor, or administrative staff, with respect to matters of code of conduct, grades, or any administrative matter. The committee shall comprise:

a) Head of FMDC.
b) HOD.
c) FMDC Exam-In-charge.
d) Two (2) seniors-most FMs of the department.

**If grievance is about the award of a grade, the procedure shall be as follows:**

a) The student must submit the grievance, in writing, within seven working days of the receipt of the grade, to the HOD who shall forward it to the SGOC.

b) The SGOC shall hear both sides and will give its decision, which shall be final and binding on all parties, within five working days or before the start of registration for the new semester, whichever is earlier.

# ATTENDANCE POLICY FOR STUDENTS

**Attendance policy for regular students.**
**PMDC rules for eligibility in annual examinations.**

- Minimum attendance requirement is 85% in each subject: attendance is for lectures, demos, practical's, clinics, PBLs, PSILs, CPC, presentations etc: indoor and outdoor
- The attendance is not simply for lectures.
- No shortfall in attendance will be condoned in any case by any authority

Attendance is maintained by the Attendance Department at FMDC.

All students should try and achieve 100% attendance. Every teaching session is essential. For clinical students remember a disease being demonstrated may not be seen during the rest of your stay in the college again. You will make the mistake of a life time by missing the opportunity to attend a clinical demonstration. You must have at least 85% attendance in to be permitted to sit for the professional examination.

- Lecture Attendance is marked at the start of the class.
- Students who come more than 10 minutes late are marked absent.
- A random head count is done to ensure correct entry of attendance.
- The attendance sheet is signed by the teacher and sent to Attendance Department.
- The attendance is entered into the spreadsheet as soon as possible on that day.
- No correction will be made later than 24 hours as the system is then locked.

**Attendance for clinics, demonstrations, and practical's etc.**

- Student signs the attendance sheet in front of the teacher.
- The teacher countersigns it daily.
- Weekly attendance is given by the CR to the Attendance Department - every Monday.
- Attendance submitted later than Friday of the current week will not be accepted.

FMDC rules permit a 15% short fall for genuine reasons of personal ill health of a life-threatening nature or unavoidable circumstances such as death of a blood relative. This 15%relaxation is not so that you can take a holiday.

***If you have less than 85% attendance even for reasons of health, you will be asked to repeat the year. Maintaining adequate attendance is your personal responsibility.***

## Attendance policy for students repeating a year.

Students who have been asked to repeat the year either because of poor attendance or failure in the professional examination or supplementary examination will attend the classes of the failed subject(s).

- Their previous year attendance will not be considered.
- If their attendance is less than 85% in their current class they will not be allowed to appear in the next examination.
- If a student is repeating one subject, then the attendance must be equal to or more than 85% in that subject. This includes all practical classes, demonstrations, PBL sessions, lectures and clinical classes.

## Attendance policy for students appearing in supplementary exams.

1. Only students who have appeared in a professional examination are allowed to appear in the supplementary examination**.**
2. Those who were not eligible for the annual exam are not eligible for the supplementary exam.
3. Those who did not avail the chance will have to repeat the year and cannot appear in the supplementary.
4. Students will be provisionally promoted to the next class while preparing for the supplementary examination.
5. Attendance will be marked in the class to which they have been promoted.
6. The student will prepare for the supplementary exam in his/her own time.
7. In case the student fails to pass the supplementary exam he/she will revert to the previous class and the attendance in the new class will be counted in the class to which they revert.
8. Those students who do not attend classes will be marked absent and may face a shortage of attendance and will be asked to repeat the year.

# RESEARCH

FMDC has a strong emphasis on research and students are not only taught research methodology as part of their curriculum, but also actively engage in research work, under the supervisor of faculty members.

FMDC has a Research Advisory Committee that has been specifically formulated to guide students in every aspect of their research, from synopsis writing through to publications in peer reviewed journals.

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# THE MODULES

**Organization of modular curriculum and teaching**

Each Academic Year is divided into three Modules

| | | |
|---|---|---|
| **First Year** | **Modules** | **I,II,III** |
| **Second Year** | **Modules** | **IV,V,VI,** |
| **Third Year** | **Modules** | **VII,VIII,IX,** |
| **Fourth Year** | **Modules** | **X,XI,Xll,** |
| **Final Year** | **Modules** | **XIII,XIV,XV** |

The Examining subjects are

- **FIRST AND SECOND YEAR MBBS**
  - Anatomy
  - Physiology
  - Biochemistry
- **THIRD YEAR MBBS**
  - General Pathology
  - Pharmacology
  - Forensic Medicine
- **FOURTH YEAR MBBS**
  - Special pathology
  - Community Health Sciences
  - Ophthalmology
  - Otorhinolaryngology
- **FINAL YEAR MBBS**
  - Medicine & Allied
  - Surgery & Allied
  - Pediatric medicine
  - Obstetrics and Gynecology

You will be taught clinical subjects from 3rd year as this need to be taught in great detail and the final year is not sufficient. **The attendance for the subjects of medicine, surgery, Gynae/Obs and pediatrics will be counted from third year.** You will also be taught ethics, Islamiyat, Pakistan Studies and communication skills.

A weekly schedule is placed on the notice board.

# LEARNING METHODS

**Following Learning Strategies encourage active learning**

- PBL
- PSIL
- Journal Club
- Interactive lecture,
- Practical's,
- Demonstrations,
- Dissection Hall Teaching
- Clinical Skills learning
- Skills Lab
- Small group discussions
- Bed Side Teaching
- Field / Community field Trips
- Self-Study with feedback
- Seminars, Workshops

**The program lays emphasis on**

**Problem Based Learning (PBL):**

This is a small group activity in which the discussion revolves around a real life problem using the Seven Jump process. Students are expected to consult various learning resources to develop better understanding of the subject. PBL sessions contribute towards internal assessment. Students are expected to attend all PBL sessions.

**Self-Directed Study:**

Student may achieve the objectives by assuming responsibilities of their own learning. By sharing and discussing with peers, working individually, seeking information from LRC, teachers and resources persons within and outside the college. This is possible by utilizing scheduled self- study period in college, and time outside the college.

**Problem Based Learning (PBL): What is it?**

It is a student-centered approach encouraging deeper learning. Students learn about a problem by working in groups. In first encounter, a problem which is close to real life situation is given. The problem is generally discussed in two sessions.

**Frist Session:** Learners in small groups, using existing knowledge, discuss (in the presence of facilitator) and list what they do not know or are not sure of, about the problem, the list is known as learning goals objectives.

**Self-Study:** Learners have approximately three days, during which learners search for new information required to achieve the learning objectives listed. In this process, learners are encouraged to consult various learning resources in addition to the textbooks. This does not require a tutor.

**Second Session:** Students present their solution and review what they have learnt. Students engage in self, peer, and tutor review of the classes. Learners discuss learning issues and application of

new knowledge to the problem and summarize by integrating prior and new knowledge in understanding the problem.

# ASSESMENT POLICY

The student at FMDC will be assessed by following strategy

1. **Continuous / Formative Assessment done throughout the Year**
   - Practical journals, PBL sessions
   - Quizzes and tests

   Reflective, constructive feedback is provided

2. **Internal Assessment based upon 03 end of module exams**

**Each year is organized in 3 modules. Each module is assessed separately. It is mandatory for students to appear in the end of module exams**

End of Module Exam comprises of

- Knowledge assessment by MCQs & SAQs;
- Skills & attitude are assessed by OSPE / OSCEs

***The internal evaluation will contribute 20% towards final results***

**Student not appearing in end of module exams will lose internal evaluation marks**

3. **Summative Assessment**
   1. The written examination comprises of one paper with:
      - MCQs section
      - SAQ section

**Eligibility criteria for appearing in annual professional examinations**

A student will be eligible to appear in the annual professional examination if he/she fulfills the following criteria:

1. **85% attendance**
2. **Must have cleared all financial dues**
3. **Must have appeared in all three end-of-module examinations**
4. **No breach of discipline should have occurred for which the Disciplinary Committee has advocated a punishment**

# PASS PERCENTAGE

Passing marks in each subject shall be 65% with 55 % in theory and 55% in practical.

# POLICY FOR ELECTIVES

- Electives are not mandatory nor are they a part of the curriculum. Electives are considered add on extra-curricular activities with benefits for selection for jobs or postgraduate training after MBBS.
- The Electives Rotation will be of four weeks duration.
- It will be planned at least six months in advance.
- The Elective will be planned during the **WINTER HOLIDAYS** preferably.
- The institution or department will be of the student's choice.
- During the elective the student will not get credit for attending lectures at FMDC.
- It is the student's responsibility to ensure that his/her overall attendance record is not affected adversely by the elective.
- The student will not proceed on an elective without informing the Dean.
- The student will sign a waiver to the effect that any shortfall in attendance is his /her own responsibility and will be dealt with as per rules of BU & FMDC.
- The adequacy of education during the elective is the student's own responsibility.
- Permission to attend an elective is given by the Chairperson Student Affair Department designated for this purpose at FMDC. This simply implies that the college authorities are aware that the student is away for this period so that admission is not cancelled.
- The student will ensure that the Elective Supervisor completes an evaluation report at the end of the elective.
- FMDC will not provide any financial assistance for the elective.

# STUDENT AFFAIRS AND STUDENT ASSIST PROGRAM

Chairperson of student affairs is assigned to cooperate with students and parents concerning academic and non-academic matters and can be contacted according to availability or after setting an appointment.

**Students' Affairs office**

The Students' Affairs Office coordinates administrative co-curricular and extracurricular activities. Students are advised to approach the coordinator student affairs (CSA) for any academic or non-academic matter.

**Liaison with parents**

The Students Affairs Office also serves as a bridge between the College Administration and parents. Students' progress reports will be mailed to parents on request at the conclusion of every term and annual examination. Similarly, the issue of short attendance, college discipline, and violation of college rules and regulations are handled by this Office.

**Within FMDC & Attached SJTH & KATH always display your Student Identity Card!**






# WHOM TO CONTACT?

## Administration FMDC

Prof. Dr. Munir Tahir Dean MBBS section FMDC

Prof.Dr.Syed Abir Hussain Dean Dental section FMDC

Prof. Dr. Johar Ali Principal MBBS section FMDC

Prof.Dr.Wahid Principal Dental section

Mr.Amir Malik HR & Finance Department

Mr.Awais Finance Department

**Chairperson: Madam Dr.Shahina Jamil Khan**

**FMDC Dental & MBBS sections**

## LEARNING OBJECTIVES IN CLINICAL SCIENCES

At the end of the 5th clinical year the medical student should be able to:

- Take a relevant history politely and with tact from patients of all genders, ages, races, religions and cultures and nationalities
- Take a history from a visually disabled, linguistically different or disabled patient and those unable to hear
- Examine a patient with empathy, using a hands on techniques
- Perform a general physical examination, examination of the abdomen including abdominal and pelvic examination of pregnant and non-pregnant women with relevant symptoms, respiratory system, cardiovascular system, the muscles and joints, the nervous system, the skin and hair.
- Perform a psychological assessment of the patient
- Diagnose the general pattern of manifestation of diseases, and disease syndromes and make a rational differential diagnosis
- Apply the principles of anatomy, physiology, biochemistry, pharmacology and pathology to practical health related problems in the wards.
- Counsel about: diet, how to take the medicine, what side effects of drugs to expect, the progression and complications of the disease and alternative treatments which may be effective and available
- Refer the patient to the appropriate consultant if needed
- Prescribe treatment in the OPD and write assessment in OPD notes, and recommend next visit.
- Interpret laboratory tests and understand the principles of the tests performed.
- Interpret ECGs, X rays, CT scans, MRIs, Ultrasound, CTG, partogram and other imaging techniques
- Demonstrate antiseptic techniques for prevention of spreading of diseases in the hospital and to be able to plan nursing in isolation and reverse isolation
- Perform preoperative assessment, postoperative care of a patient and observe operative techniques
- Observe the different methods of delivering anesthesia, be aware of the indications for the use of these techniques and be familiar with drugs used for anesthesia and analgesia
- Demonstrate the care of patients who require high dependency nursing care or who are unconscious.
- Demonstrate the use of mechanical methods of treatment like mechanical respirators, nebulizers, use of oxygen, dialysis, cardiac support devices, IV fluids, parenteral feeding and enteral feeding, catheters etc.
- Prescribe drugs in the right dose and method, for the required period of time
- Interpret drug reactions and interactions and be able to manage or prevent them.
- Perform invasive procedures such as venipuncture, intramuscular injections, and assist in ward procedures such as chest aspiration, lumbar puncture, liver and kidney biopsies, ETT and have observed echocardiograms, endoscopies, colonoscopies,

- Bronchoscopies, endotracheal intubation, instruments used during delivery, amniotomy, splinting, bandaging, suturing etc.
- Perform cardiopulmonary resuscitation.
- Write certificates such as birth and death certificates, follow up notes, discharge summaries, laboratory request forms

FRONTIER MEDICAL COLLEGE
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EXCELLENCE & INNOVATION

# CURRICULUM GUIDELINES

## MEDICINE

### Introduction

Teaching of the subject of medicine begins with the integration of the basic sciences in 1st and 2nd years. These topics are as important as topics of the final year. They are taught early because they are better understood when the anatomy, physiology, and biochemistry of the body are being learnt.

Emphasis will be on hands on learning in the emergency room, wards and OPD, observation of procedures such as GI endoscopies, bronchoscopes, ETT, echocardiogram, coronary angiogram, dialysis sessions, mechanical ventilation, lumbar punctures, pleural and peritoneal aspiration and biopsy of various organs.

1. Perform cardiac resuscitation on mannequin
2. Demonstrate communication skills including patient interviewing, case presentations and discussion.
3. Explore various recent resources including biomedical journals, e learning for improved patient care and self- learning.
4. Demonstrate competence in formal presentation skills
5. Be sensitive to moral and ethical issues in medical care
6. Demonstrate non-judgmental attitude, honesty, compassion and respect towards patients
7. Demonstrate comprehensive history taking from patients
8. Perform a comprehensive physical examination
9. Perform systemic examination for each system
10. Formulate probable diagnosis and differential diagnosis
11. Demonstrate knowledge of principles of behavioral sciences.
12. Formulate a prescription for drugs used in Medicine
13. Identify principles of medical ethics
14. Demonstrate skills to explore for recent advances for undertaking research in medicine
15. Demonstrate methods of asepsis, prevention of hospital infections and methods of barrier nursing
16. Administer IM, intravenous injections and placement of IV cannulas
17. Observe procedures such as lumbar puncture, pleural, peritoneal aspiration and placement of chest tubes
18. Demonstrate common minor invasive procedures such as passing nasogastric tubes, Foley catheters and endotracheal tubes.

## MODULE -XIII
## CARDIOVASCULAR SYSTEM

### Outcome

- Interpret differential diagnosis, investigations, management and complication of common cardiovascular diseases
- Recognize and manage commonly encountered clinical problems and provide emergency treatment.
- Suggest preventive measure for the common public health problem in the community and Perform relevant procedures

**Learning Objectives**

1. Discuss the pathophysiology, clinical manifestations, investigations, complications & management of Rheumatic Fever & Rheumatic Heart Diseases.
2. Explain the approach to a patient with Valvular Heart Disease & its management.
3. Discuss the approach to a patient with ischemic heart disease with investigations, management and complications of ischemic heart disease including acute coronary syndrome and myocardial infarction.
4. Explain the pathophysiology, clinical manifestations, investigations, complications & management of cardiac arrhythmias.
5. Explain the pathophysiology, clinical manifestations and management of different types of heart failure.
6. Describe the approach to a patient with Congenital Heart disease and its management.
7. Discuss the pathophysiology, clinical manifestations, investigations and management of different types of cardiomyopathies.
8. Discuss the approach to a patient with pericardial diseases with its management.
9. Determine the approach to a patient with shortness of breath and describe its causes, investigations and management.
10. Explain the pathophysiology, clinical manifestations, investigations, complications & management of infective endocarditis.
11. Specify the latest update in heart disease.
12. Describe the approach to a patient with primary and secondary hypertension with its investigations & management.
13. Discuss the pathophysiology, clinical manifestations, investigations, and management of peripheral arterial disease.
14. Determine the approach to a patient with chest pain with its management.

**RHEUMATOLOGY**

15. Discuss the approach to a patient with rheumatoid arthritis, its pathophysiology, diagnostic criteria, clinical manifestations, investigations, management and the role of biological agents.
16. Explain the pathophysiology with its diagnostic criteria, clinical manifestations, investigations, management and counseling of systemic lupus erythematous.
17. Describe the pathophysiology, diagnostic criteria, clinical manifestations, investigations and management of systemic sclerosis.
18. Discuss the pathophysiology, clinical manifestations, investigations and management of osteoporosis.
19. Identify different spondyloarthropathies with its pathophysiology, clinical manifestations, investigations and management of ankylosing spondylitis.
20. Determine the pathophysiology, diagnostic criteria, clinical manifestations, investigations and management of Sjogren's syndrome.
21. Describe vaculitis, with the clinical manifestations, investigations and management of polyarthritis nodosa, hypersensitivity vasculitis, Bechet's disease, Wegeners granulomatosis and anaphylactoid purpura, polymyalgia rheumatica , giant cell arteritis.
22. Describe the pathophysiology with the clinical manifestations, investigations and management of osteoarthritis and septic arthritis
23. Outline the clinical manifestations, investigations and management of rhabdomyolisis, fibromyalgia and muscle sprain.
24. State the pathophysiology, clinical manifestations, investigations and management of polymyositis and dermatomyositis .
25. Discuss the pathophysiology, clinical manifestations, investigations and management Antiphospholipid antibody syndrome.

## DERMATOLOGY

26. Determine the approach to a patient with eczema and its management.
27. Outline the pathophysiology, clinical manifestations, complications and management of papulo-squamous dermatosIs.
28. Explain the approach to a patient with drug eruption and its management.
29. Describe the pathophysiology, clinical manifestations, complications and management of bullous dermatoses.
30. Differentiate between the pathophysiology, clinical manifestations and management of bacterial skin conditions.
31. Differentiate between the approach to a patient with cutaneous infestations and their management.
32. Distinguish between the pathophysiology, clinical manifestations, complications and management of sexually transmitted infections/AIDS.
33. Differentiate between the pathophysiology, clinical manifestations and management of viral infections of skin.
34. List clinical manifestations and management of different fungal skin infections.

## ENVIRONMENTAL DISORDERS

35. Describe the pathophysiology, clinical manifestations, investigations, complications and management of heat stroke.
36. Explain the approach to a patient with electric shock and its management.
37. Discuss the pathophysiology, clinical manifestations, investigations, complications and management of Frost bite.
38. Determine the approach to a patient with drowning, mountain sickness and its management.

## PULMONARY MEDICINE

39. Describe in detail the pathogenesis, clinical features, treatment and counseling plan for asthma.
40. Explain the various types of occupational lung diseases, their clinical findings, evaluation and management approach.
41. Differentiate between the pathogenesis, clinical features, evaluation and treatment plan for different types of Pneumonias.
42. Recognize ARDS with its etiology, clinical manifestations and management.
43. Categorize acute respiratory failure along with its types.
44. Discuss the indications for mechanical ventilation.
45. Describe the etiology, clinical features, diagnostic tests, and treatment of Bronchiectasis.
46. Differentiate between the pathogenesis, clinical features, evaluation and treatment plan for COPD.
47. State the various types of interstitial lung diseases along with their evaluation and treatment
48. Outline the pathogenesis and clinical manifestations, evaluation and management of pulmonary thromboembolism.
49. Define cor- pulmonale along with its etiology and clinical findings.
50. Recognize the evaluation and management plan for a patient presenting with cough and breathlessness
51. Discuss the pathogenesis, etiology, and the clinical picture and management of Pleural effusion.
52. Explain in detail the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Tuberculosis.
53. Discuss the types of lung tumors and their evaluation.
54. Differentiate between the disorders of chest wall & pleura.
55. Recognize Empyema, along with its etiology, evaluation and treatment.

56. Interpret pulmonary function tests and radiological findings of pulmonary diseases
57. Discuss the pathophysiology, clinical manifestations, investigations and management of sarcoidosis.
58. Categorize the types of pulmonary hypertension along with their evaluation and treatment

## MODULE –XIII GRID

| | MIT | MEDICINE | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-17 | LGIS | 1-5,8-11,12-14, 15-25,26-34,32,35-38,39-41,42,43,44-47,48,49,50,51,52-55 | BCQs , SEQ, VIVA |
| | PSIL | 1-3,9,10,12,15-17,25-30,32,36,39,41,46,47-49,56 | BCQs , SEQ, VIVA |
| | PMP | 3,4,15-17,36,39,45,49, 50,51,52,57 | BCQs , SEQ, VIVA |
| | SSL/WBT | 1-6,9,10,12,14,15-20,25-30,32,36-38,42-44,47-49,50,51,56 | BCQs , SEQ, VIVA, OSCE |
| | Student's presentations JC / CPC | 1-10,12,15-20,25-30,32,36,39,42-45,47,57 | BCQs , SEQ, VIVA, OSCE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
PMP: PATIENTS MANAGEMENT PROBLEM
CPC: CLINICAL PATHOLOGICAL CASE JC: JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

## MODULE -XIV
## POISONING/ENVENOMATION

**Outcome**

- Recognize commonly encountered clinical problems
- Manage commonly encountered clinical problems
- Interpret the clinical signs and symptoms of different diseases
- Formulate an investigation plan
- Provide emergency treatment and if necessary, refer the patient to the concerned health care provider
- Counsel patients, families on investigation, treatment and preventive measures
- Diagnose different diseases on the basis of common laboratory investigations, ECG findings and X ray findings.

**Learning Objectives**

- Recognize the pathophysiology, clinical manifestations, investigations, complications and management of Organo-phosphate poisoning.
- Discuss the approach to a patient with paracetamol, alcohol and benzodiazepine over-dosage.
- Outline the approach to a patient with snake bite and scorpion bite and its management.
- Identify the approach to a patient with dog bite & its management.

**GASTEROINTESTINAL SYSTEM**

1. Describe the pathogenesis, along with clinical manifestations, investigations and management of celiac disease.
2. Explain the pathogenesis, clinical manifestations, investigations and management of irritable bowel syndrome.
3. Differentiate between diarrhea and constipation (acute and chronic), and their management.
4. Discuss the approach to a patient presenting with dyspepsia and dysphagia, and their management.
5. State the approach to a patient with peptic ulcer disease its pathogenesis, investigation and their management.
6. Describe the approach to a patient presenting with upper and lower GI bleeding and their management.
7. Explain the pathogenesis, clinical manifestations, investigations and management of inflammatory bowel disease.
8. Determine the etiology, pathophysiology, clinical manifestations, investigations and management of chronic liver disease.
9. Describe the etiology, pathophysiology, clinical manifestations, investigations and management of cirrhosis of liver and its complications like ascites, and hepatic encephalopathy.
10. State the approach to a patient presenting with jaundice and its management.
11. Determine the etiology, pathophysiology, clinical manifestations, investigations and management of autoimmune hepatitis.
12. Discuss the etiology, pathophysiology, clinical manifestations, investigations and management of acute and chronic pancreatitis.
13. Discuss the approach to a patient with acute hepatitis, its etiology, investigations and management
14. Explain the pathogenesis, clinical manifestations, investigations and management of malabsorption syndrome.
15. Describe the pathogenesis, clinical manifestations, investigations and management of liver abscess, and hydatid cyst 20. Discuss the pathogenesis, clinical manifestations,

investigations and management of primary sclerosing cholangitis and primary biliary cirrhosis and alpha one antitrypsin deficiency.

16. Describe the pathogenesis, clinical features, evaluation and treatment plan for Hemochromatosis and Wilson's disease.

**NERVOUS SYSTEM DISORDERS**

17. Discuss the approach to a patient presenting with suspected meningitis and encephalitis, their etiology, clinical manifestations, CSF report and treatment.
18. Differentiate between the types of epilepsy with their clinical manifestations, investigations, and treatment options.
19. Recognize the pathophysiology of stroke with its clinical manifestations, investigations, management, and complications.
20. Differentiate dementia and Alzheimer's disease.
21. Identify the pathophysiology of Parkinson disease with its clinical manifestations, investigations, management.
22. Differentiate the variants of motor neuron disease with the clinical manifestations, investigations, management.
23. Explain the pathophysiology, clinical manifestations, investigations, management of multiple sclerosis.
24. Perform the examination of the different cranial nerve disorders.
25. Distinguish the space occupying lesions of brain and spinal cord and their clinical manifestations, investigations, management
26. Differentiate the types of muscular dystrophies and their clinical presentations.
27. Discuss the pathophysiology, clinical manifestations, investigations, management of myasthenia gravis.
28. Identify the approach to a patient with peripheral neuropathy, its investigations and management.
29. Describe the pathophysiology, clinical manifestations, investigations, management of Gullian barre syndrome.
30. Classify the different types of headaches with their clinical manifestations, investigations, and management.

**NUTRITIONAL DEFICIENCIES**

31. Classify the headaches with their clinical manifestations, investigations, and management..
32. Discuss the evaluation and treatment of folic acid, Vitamin B1, B2, B 5, B6 and B12 deficiency
33. State the treatment of Vitamin A, C & D deficiency.
34. Distinguish between Rickets & Osteomalacia along with their management plan.

**MODULE –XIV GRID**

| OUT COMES | MIT | MEDICINE | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-25 | LGIS | 1-4,5,6-10,11-15,16-21,22,23,24,27,28,30-35,36-39 | BCQs , SEQ, VIVA |
| | PSIL | 5,9,11,13,14,17,18,29,34,35 | BCQs , SEQ, VIVA |
| | PMP | 2,3,4,10,13,14,15,17,18,19,22,2329,33,35,38 | BCQs , SEQ, VIVA |
| | SSL/WBT | 5,9,11,12,13,14,17,18,19,29,31,32,33,34,35,38 | BCQs , SEQ, VIVA, OSCE |
| | Student's presentations JC / CPC | 5,6,11,12,17,20,21,26,32,34,35 | BCQs , SEQ, VIVA, OSCE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
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## MODULE –XV
## ENDOCRINOLOGY

### Outcomes

Differentiate between the pathophysiology, clinical manifestations, investigations, complications and management of types of diabetes mellitus, bleeding disorders, infectious diseases, renal disorders and psychiatry.

### Learning Objectives

Differentiate between the pathophysiology, clinical manifestations, investigations, complications and management of types of diabetes mellitus.

Determine the pathophysiology, clinical manifestations, investigations, complications and management of thyroid & parathyroid disorders.

Discuss the approach to a patient with adrenal disorders and their management.

Explain the pathophysiology, clinical manifestations, investigations, complications and management of pituitary disorders.

State the approach to a patient with obesity and its management.

Outline the pathophysiology, clinical manifestations, investigations, complications and management of hypogonadism and polycystic ovarian syndrome.

### BLOOD

1. Compare the different types of anemia with their pathogenesis, clinical features, management and complications.
2. Describe the different myeloproliferative disorders with their clinical manifestations, investigations, management and complications.
3. Describe the lymphoproliferative disorder with their clinical manifestations, investigations, management and complications
4. Determine the approach to a patient with generalized bleeding, disorder with their pathophysiology.
5. Discuss the pathophysiology, clinical manifestations, investigations, management of deep venous thrombosis.
6. Explain the pathophysiology, clinical manifestations, investigations and management of multiple myeloma.

### PSYCHIATRY

7. Differentiate between generalized anxiety disorders and organic brain disorder with its etiology, clinical manifestations, treatment
8. Discuss somatization, its etiology, clinical manifestations, and treatment.
9. Differentiate between depressive disorders and organic causes, their clinical manifestations, and treatment
10. Describe the approach to a patient with confusion along with its differential diagnosis.
11. Differentiate between delirium and organic brain disorder with its etiology, clinical manifestations, treatment.
12. Differentiate between obsessive compulsive disorder and organic brain disorder with its etiology, clinical manifestations, treatment.
13. Discuss the approach to a patient presenting with violence and agitation.
14. Discuss the approach to a patient presenting with deliberate self-harm and substance abuse.

### RENAL, WATER, ACID BASE/ ELECTROLYTES

15. Differentiate between the etiology, pathogenesis, and the clinical features of acute and chronic

renal failure

16. Describe the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Nephrotic syndrome
17. Determine the etiology, pathogenesis, the clinical features, diagnostic tests, and treatment of nephritic syndrome.
18. State the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Hemolytic uremic syndrome and Henoch schnolein purpura.
19. Define Urinary tract infections along with their evaluation and treatment
20. Discuss the various types of drugs causing renal disease.
21. Describe the various types of Renal vascular and inflammatory disorders
22. Discuss the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Adult Polycystic kidneys
23. Differentiate between the, pathogenesis, clinical features, diagnostic tests, and treatment of Renal Carcinoma and bladder outlet obstruction.
24. Differentiate between, pathogenesis, clinical features, diagnostic tests, and treatment of Renal Tubular Acidosis and diabetic nephropathy.
25. Interpret Arterial Blood gases with their abnormalities.
26. Interpret the electrolyte abnormalities.

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## INFECTION/ TROPICAL DISEASE

27. Describe the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Tetanus.
28. Define sepsis, septicemia, and septic shock
29. State the various types of Common bacterial/ viral/ fungal infections.
30. Explain in detail the pathophysiology, clinical manifestations, diagnosis, and treatment of Enteric fever
31. Discuss the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of cholera.
32. Identify the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Infectious mononucleosis.
33. Describe in detail the pathophysiology, the clinical manifestations, diagnosis, and treatment of Tuberculosis.
34. Recognize the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Rabies.
35. Describe in detail the pathophysiology, clinical manifestations, diagnosis, and treatment of Malaria.
36. Discuss the etiology, pathogenesis clinical features, diagnostic tests, and treatment of HIV and AIDS.
37. Discuss the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Amoebiasis.
38. Determine the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Leprosy
39. Describe common parasitic infections (protozoa/ cestodes/ nematodes) along with their treatment.
40. Explain the etiology, pathogenesis, clinical findings, diagnostic tests, and treatment of dengue fever.
41. Discuss the etiology, pathogenesis, the clinical features, diagnostic tests, and treatment of COVID infection.

## METABOLIC DISORDERS

42. Describe the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Hyperlipidemia.
43. Explain the etiology, clinical features, diagnostic tests, and treatment of hypercalcemia and hypocalcemia.
44. Discuss the etiology, clinical features, diagnostic tests, and treatment of Acute Intermittent Porphyria.
45. Differentiate between the pathogenesis, the clinical features, evaluation and treatment plan for hyperuricemia , gout, and pseudo gout.
46. Determine the pathogenesis and clinical features of Marfan syndrome.
47. Differentiate between the metabolic and respiratory acidosis and alkalosis.

## MODULE –XV GRID

| OUT COMES | MIT | MEDICINE | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-25 | LGIS | 1-4,6-8,10,13-20,21-25,27,28,32,33,34,35,38,39,40,41 ,43,46,47,48-52 | BCQs , SEQ, VIVA |
| | PSIL | 1,2,9,20,21,22,23.30,33,36,39,41, 42,46,47,51 | BCQs , SEQ, VIVA |
| | PMP | 1,2,7,8,10,11-18,21,22,23,36,39,41,46,47 | BCQs , SEQ, VIVA |
| | SL / WBT | 1,2,3,5,7,8,9,19,20,21,23,32,35,3 6,39,40,41,46,47,51,53 | BCQs , SEQ, VIVA, OSPE |
| | Student's presentations JC / CPC | 1,8,9,28,29,36,37,39,41,46,47 | BCQs , SEQ, VIVA, OSPE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE
LEARNING PMP: PATIENTS MANAGEMENT
PROBLEM
CPC: CLINICAL
PATHOLOGICAL CASE JC:
JOURNAL CLUB
SL: SKILL LAB
WBT: WARD BASED TEACHING

**RECOMMENDED BOOKS**

1. Davidson. Principles and Practice of Medicine
2. PJ Kumar. Textbook of Medicine
3. Current Medicine Treatment and Diagnosis
4. Hutchison's Clinical Methods
5. Macleod's Clinical Examination Book

## SURGERY

**INTRODUCTION**

The subject of surgery will be taught in integration with the basic sciences specially anatomy and pathology. Integration will give the subject clarity to the students. Integration will be horizontal and vertical both. Surgical skills will also begin from first year i.e. bandaging, splinting, rescue and resuscitation techniques etc. This will make the students more interested as an active participant.

Teaching will be in the form of large group lectures, interactive sessions, small group discussion forums such as Problem Solving Sessions, ward rounds, OPD sessions, workshops and hands on learning in the emergency room, wards and OPD and operation theatre. Observation of procedures such as diagnostic imaging, GI endoscopy (flexible), preoperative preparation, care in the operating room, aseptic techniques, perioperative care. Minor surgical procedures can be assisted. They will learn the bedside procedures like cathetrizatation & NG tube, IV and IM injections insertion and basic surgical skills, like stitching and knot tying and FNAC, Trucut Biopsy on Mannequins in the skill lab.

Techniques in anesthesia such as endotracheal intubation, ventilator care will be taught during rotation through the anesthesia and also in skill lab.

Students will be required to maintain a portfolio of histories written in the 3rd, 4th and final year as well as a record of clinical teaching in the form of logbooks and a record of presentations, posters etc. as part of clinical learning.

Students are advised to attend 100% of the teaching sessions. Attendance of less than 75% will result in the student not being allowed to appear in the final examination. Any failure to attend less than 100% of the teaching sessions will be condoned only if an unavoidable circumstance mitigates the absence. Students will be examined after every module.

***All assessment sessions are compulsory and failure to appear in a test will be considered as "FAIL" Log Book should be signed by the Tutor after every clinical session***

**OUTCOMES**

- Recognize and manage commonly encountered surgical problems.
- Interprets laboratory and radiological investigations
- Demonstrate emergency treatment and if necessary refer the patient to the concerned health care provider.
- Counsel patients, families on investigation, treatment and preventive measures.

**Learning Objectives**

1. Demonstrate communication skills with patients by taking and writing clinical histories.
2. Counsel patients about diet, risk factors, prognosis and behavior modification.
3. Complete the necessary documentation such as progress notes, discharge, referral, death certificate, lab requisition forms
4. Explore various recent resources including biomedical journals, e-learning for improved patient care and self- learning.
5. Collaborate with the health care team in providing patient care.
6. Accept responsibility and accountability for their own performance and adjust to changing circumstances.
7. Provide medical care considering moral and ethical issues.
8. Demonstrate non-judgmental attitude, honesty, compassion and respect towards patients
9. Demonstrate preparation of patients for surgeries according to the principles of peri operative care.
10. Assist in the operation theatre.

11. Demonstrate patient care postoperatively.
12. Observe operative techniques including laparoscopic procedures etc.
13. Observe techniques of anesthesia.
14. Take informed consent.
15. Demonstrate respect seniors, nursing and paramedical staff & opinion of colleagues
16. Demonstrate comprehensive clinical history taking skills.
17. Demonstrate competence in performing clinical examination.
18. Identify risk factors of common diseases
19. Interpret the clinical signs and symptoms.
20. Formulate a list of differential diagnosis.
21. Identify history taking skills in a patient comprehensively.
22. Formulate an investigation plan.
23. Identify a relevant prescription with knowledge of therapeutics
24. Perform common minor surgical procedures.
25. Apply knowledge of common operative surgical techniques.
26. Present cases on the ward round and discuss the diagnosis
27. Demonstrate competence in formal presentation skills.
28. Take informed consent.
29. Explore the recent advances and research by reading journals or searching on internet.
30. Demonstrate insertion of chest tubes, Foley's catheter, and suprapubic catheter, Nasogastric intubation
31. Apply stitches, knot tying and identify sutures and needles.
32. Demonstrate different methods of injections and types of syringes, cannulas etc.
33. emonstrate uses of tubes and drains in surgery including types, indications and technique.
34. Identify common surgical instruments including their uses and handling.
35. Apply surgical dressing and bandages: principles and methods of wounds care.
36. Assist minor surgical procedures.
37. Counsel a patient and concerned family about the illness.
38. Provide medical care considering moral and ethical issues.
39. Observes endoscopies and can identify various lesions photograph.
40. Recognize radiological procedures and x-rays

***To achieve the above Objectives the student under goes rigorous Teaching and Training in all three years. We teach the following in Final Year:***

**General surgery**

1. Recognize the principles of general surgery
2. Identify common chest and vascular diseases and their management
3. Differentiate the common abdominal diseases and their principles of management

**Anesthesia & ICU**

4. Identify various anesthetic techniques.
5. Apply knowledge of anesthetic drugs and muscle relaxants.
6. Demonstrate how to maintain an airway.
7. Perform CPR, endotracheal intubation
8. Observe patient care in ICU.
9. Outline use of monitor
10. Demonstrate use of applying local and spinal anesthesia.
11. Apply pain relieving techniques
12. Observes the working of Ventilators

**Neuro Surgery**

13. Assess a patient of head injury

14. Identify CT scan brain and common disorders
15. Interpret signs and symptoms of cerebral edema.
16. Demonstrate localization signs of tumors, meningitis etc

**Orthopedics and trauma**

17. Identify radiological features of fractures
18. Describe management of common fractures
19. Identify the signs and symptoms of various orthopedic diseases
20. Demonstrate the management of infections, tumors, congenital and degenerative diseases

**Trauma and Burns**

21. Perform the ABCDE and cervical stability and CPR
22. Demonstrate the knowledge of Torso Trauma and Burns

## MODULE XIII

**Outcomes**

- Demonstrate communication skills with patients by taking and writing clinical histories.
- Counsel patients about diet, risk factors, prognosis and behavior modification.
- Complete the necessary documentation such as progress notes, discharge, referral, death certificate, lab requisition forms
- Explore various recent resources including biomedical journals, e-learning for improved patient care and self- learning.
- Collaborate with the health care team in providing patient care.

**Learning Objectives**

1. Accept responsibility and accountability for their own performance and adjust to changing
2. Describe different types of wound & management, specific wound infections .
3. Apply the principles of laproscopic surgery, Robotic, endoscopic & Day case surgery
4. Use Patient safety+OT protocols,HIV,Hepatitis care
5. Summarize preoperative, perioperative care and postoperative management of high risk patients and referrals.
6. Recognize Nutritional issues and fluid management in surgical patients
7. Apply surgical safety check list in theater
8. Compare different types of anesthesia and its complications
9. Describe Pain management and use of Local & regional anesthesia &analgesia
10. Describe ICU ventilators working and its role in sepsis and trauma
11. List Principles of oncology
12. Discuss introduction to trauma and early assessment & management
13. Recognize Abdominal and perineal ,pelvic, Chest & mediastinal trauma
14. injuries, damage control surgery and resuscitation
15. Identify Neurosurgical emergency, Spine trauma and Neck trauma and tracheostomy Other emergency measures to protect airway
16. Classify faciomaxillary surgery and their management
17. Compare fracture and dislocations of extremities and Pelvic fractures and Management
18. Interpret different types of radiological images
19. Identify Burns, types and management

## MODULE XIII GRID

| Outcome | Mit | Surgery | Assessment Tools |
|---|---|---|---|
| 1-17 | Lgis | 1-17 | Bcq,Seq,Viva |
| | Psil | 1,2,3,5,8,11,15 | Bcq,Seq,Viva |
| | Pmp | 1,3,4,6,12,13 | Bcq,Seq,Viva |
| | Sl/Wb | 6,7,11,12,13,15,16,17 | Bcq,Seq,Viva, Osce |
| | Student's Presentation JC/CPC | 1,3,5,6,9,11,12,15 | Bcq,Seq,Viva,Osce |

## TEACHING STRATEGIES

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
PMP: PATIENTS MANAGEMENT PROBLEM
CPC: CLINICAL PATHOLOGICAL CASE
JC: JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

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## MODULE XIV

**Outcomes**

- Provide medical care considering moral and ethical issues.
- Demonstrate non-judgmental attitude, honesty, compassion and respect towards patients
- Demonstrate preparation of patients for surgeries according to the principles of peri operative care.
- Assist in the operation theatre.
- Demonstrate patient care postoperatively.
- Observe operative techniques including laparoscopic procedures etc.
- Observe techniques of anesthesia.
- Take informed consent.
- Demonstrate respect seniors, nursing and paramedical staff & opinion of colleagues

**Learning Objectives**

1. Compare the anatomy, pathology and disease management of different SALIVARY GLAND tumors
2. Identify and manage benign breast lesion and breast carcinoma
3. Recognise degenerative and chronic diseases of upper limb and shoulder and lower limb and pelvis
4. Describe Parathyroid Gland and its related lesions
5. Identify and manage thyroid benign and toxic diseases, thyroid carcinoma and inflammatory lesions
6. Classify musculoskeletal tumors
7. Explain infection of foot and Hand Diabetic foot and infections and metabolic diseases of bones and joints
8. Identify common elective neuro surgery problems and Neuromuscular disorders
9. Recognize and manage DVT And Varicose Veins and venous insufficiency
10. Compare Acute and Chronic Limb Ischemia
11. Summarize Lung and Pleural Diseases and Mediastinum
12. Classify and describe aneurysm and arteritis, gangrene & amputations
13. Classify and describe the pathophysiology of lymphatic disorder

## MODULE XIV GRID

| Outcome | Mit | Surgery | Assessment Tools |
|---|---|---|---|
| 1-13 | Lgis | 1-13 | Bcq,Seq,Viva |
| | Psil | 1,5,7,8,10 | Bcq,Seq,Viva |
| | Pmp | 1,2,5,7,10,11 | Bcq,Seq,Viva |
| | Sl/Wb | 2,5,7,11,12 | Bcq,Seq,Viva, Osce |
| | Student's Presentation Jc/Cpc | 1,2,5,7,8 | Bcq,Seq,Viva,Osce |

**TEACHING STRATEGIES**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
PMP: PATIENTS MANAGEMENT PROBLEM
CPC: CLINICAL PATHOLOGICAL CASE
JC: JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

## MODULE XV

**Learning Objectives**

1. Classify ventral wall hernia,inguinal and femoral hernia and their management
2. Describe omentum, mesentry and retroperitoneal space
3. Recognize the mechanism of esophageal perforation and its management along with hiatal hernia
4. Describe oesophageal carcinoma ,achalasia and oesophageal stricture
5. Describe gastric cancer and gastric outlet obstruction
6. Relate surgical anatomy of liver and its tumor and diseases
7. Explain gall bladder and biliary tree pathology and its management
8. Discuss the management of pancreatic diseases and its complications
9. Describe intestinal diseases and its management
10. Summarize anatomy and diseases of anal and perianal region
11. Classify colorectal tumors with its management
12. Explain urogenital diseases and its management
13. Identify and manage scrotal and testicular pathologies

## MODULE XV GRID

| OUTCOME | MIT | SURGERY | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-13 | LGIS | 1-13 | BCQ,SEQ,VIVA |
| | PSIL | 1,3,5,7,8,9,12,13 | BCQ,SEQ,VIVA |
| | PMP | 1,2,3,4,5,7,8,9,12,13 | BCQ,SEQ,VIVA |
| | SL/WB | 3,4,7,9,10 | BCQ,SEQ,VIVA, OSCE |
| | STUDENT'S PRESENTATION JC/CPC | 1,3,4,5,7,8,9,12,13 | BCQ,SEQ,VIVA,OSCE |

**TEACHING STRATEGIES**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE
LEARNING PMP: PATIENTS MANAGEMENT
PROBLEM
CPC: CLINICAL
PATHOLOGICAL CASE JC:
JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

**Recommended Books:**

1.Norman browse clinical methods 2.Hamilton Bailey Signs and symptom 3.Bailey's & Love's short practice of surgery 27th edition

23. Current Diagnosis and Treatment Surgery (Lange Current Series)
24. Farquharson's Textbook of Operative Surgery

# GYNAECOLOGY & OBSTETRICS

## Introduction

Learning in the wards is expected to be driven by the student's own initiative. Medical students will practice communication, interviewing and examination skills by taking histories from female patients with symptoms pertaining to reproductive system. The students will maintain the privacy of the patients, without breaking cultural and gender norms as practiced in Pakistani society.

Students will attend patients in the outdoor clinics, labor room, operation theatre, and participate in the management of emergencies.

Students will write histories and clinical reports of cases attended in the OPD, labor room, and operation theatre and maintain a log book which will be assessed for internal evaluation.

## Learning Objectives

1. Take a focused history of a pregnant woman and from patients with obstetrical and gynecological problems
2. Demonstrate effective communication skills with patients and their attending family members
3. Interpret investigations and reports of common obstetrical & gynecological conditions
4. Perform minor procedures
5. Observe major operative procedures
6. Identify the operative instruments, their uses and complications
7. Observe the different anesthesia techniques
8. Counsel patients and their families
9. Refer the complicated cases to the concerned health care providers
10. Complete the necessary documentation such as progress notes, discharge, referral, death certificate, laboratory requisition forms
11. Explore various recent resources including biomedical journals for improved patient care and self-learning
12. Collaborate with the health care team in providing patient care
13. Accept responsibility and accountability for their own performance, and adjust to changing circumstances
14. Respond to sensitive moral and ethical issues in medical care
15. Demonstrate non-judgmental attitude, honesty, compassion and respect towards patients including pregnant women
16. Prepare patients for surgeries in view of the principles of preoperative preparation
17. Monitor the postnatal and postoperative patients
18. Take a focused history from pregnant women
19. Perform abdominal examination of pregnant women
20. Take a comprehensive history from a patient with gynecological problems
21. Identify common obstetrical and gynecological instruments
22. Interpret indications and complications of Dilatation & Curettage, Instruments
23. Observe steps of Dilatation & Curettage
24. Observe steps of MVA
25. Demonstrate a clinical presentation in the ward
26. Observe IM and IV injections
27. Observe IV fluids maintenance
28. Monitor FHR and partogram in a pregnant woman in labor
29. Perform and Interpret cardiotocography & partogram
30. Observe artificial rupture of membranes
31. Observe induction & augmentation of labor
32. Monitor patients with complications of pregnancy & labor
33. Observe normal vaginal deliveries with episiotomy

34. Observe abnormal deliveries (instrumental, breech, twins)
35. Observe methods of analgesia & anesthesia
36. Observe gowning and gloving in labor room & O.T.
37. Adopt labor room and O.T etiquettes
38. Observe caesarean section
39. Observe manual vacuum aspiration
40. Observe minor and major gynecological procedures
41. Identify contraceptive materials
42. Describe the indications, contraindications and side effects of contraceptive methods
43. Counsel the client for contraception
44. Observe use of ultrasound in Obstetrics/ Gynecology
45. Write prescription for drugs used in Obstetrics/ Gynecology in OPD
46. Take a comprehensive history of pregnant women and females with gynecological problem
47. Demonstrate Present clinical cases competently
48. Perform abdominal examination of pregnant women
49. Performing the clinical examination of gynecological patients
50. Interpret the clinical signs and symptoms
51. Formulate a list of differential diagnosis
52. Formulate an investigation plan
53. Write a relevant prescription
54. Present the clinical cases in ward rounds
55. Demonstrate competence in formal presentation skills
56. Counsel patient and family regarding bad news
57. Maintain IV line and administer IV fluids
58. Administer IM & IV injections
59. Insert urinary catheter
60. Observe and understand intake & output chart
61. Observe and understand medication chart
62. Assist in managing women with pregnancy related complications
63. Describe the uses and complications of common obstetrical and gynecological instruments
64. Interpret the findings of ultrasound in Obstetrics/Gynecology
65. Explore for recent advances and research in Obstetrics/Gynecology

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## MODULE – XIII

### Learning Objectives

### PHYSIOLOGICAL CHANGES IN PREGNANCY

1. Describe the major physiologic changes in each organ system during pregnancy. (Cognitive)
2. Evaluate symptoms and physical findings in a pregnant patient to distinguish physiologic from pathologic findings. (Cognitive)
3. Interpret common diagnostic tests in the context of the normal physiologic changes of pregnancy. (Psychomotor)

### ANTENATAL CARE

4. Perform a comprehensive history and physical examination. (Psychomotor)
5. Order and interpret routine laboratory tests and those related to risk factors during pregnancy. (Cognitive)
6. Counsel patients about lifestyle modifications that improve pregnancy outcome. (Psychomotor)

### ABORTION

7. Enumerate the causes of abortion? (Cognitive)
8. Describe the types of abortion, clinical features and treatment of each abortion? (Cognitive)
9. Describe the different methods of treatment of abortion? (Cognitive)
10. Discuses the complications of abortion? (Cognitive)

### MAL POSITION

11. Differentiate normal position and male Position of Fetus. (Cognitive)
12. Describe the causes of male Position of Fetus. (Cognitive)
13. Describe the complications and management of male position of Fetus. (Cognitive)

### BREECH PRESENTATION

14. Describe the different types of Breech presentation. (Cognitive)
15. Describe the causes and complications of Breech presentation. (Cognitive)
16. Discuss the management of Breech Presentation in pregnancy and labour. (Cognitive)

### ANTEPARTUM AND INTRAPARTUM FETAL MONITORING

17. Describe the indications, contraindications, advantages, and disadvantages of antepartum diagnostic tests, such as: (Cognitive)
    a. Nonstress test
    b. Contraction stress test
    c. Biophysical profile
    d. Doppler velocimetry
18. Perform and interpret antepartum diagnostic tests accurately and integrate the interpretation of such tests into clinical management algorithms. (Psychomotor)
19. Describe the possible causes for, and clinical significance of, abnormal fetal heart rate patterns: (Cognitive)
    a. Bradycardia
    b. Tachycardia
    c. Variability
    d. Early decelerations
    e. Variable decelerations
    f. Late decelerations
    g. Sinusoidal waveform

## LABOR AND DELIVERY

20. Obtain an accurate history, describing onset of uterine contractions and ruptured membranes. ( Psychomotor)
21. Perform a pertinent physical examination to assess: ( Psychomotor)
    a. Status of membranes
    b. Presence of vaginal bleeding
    c. Fetal presentation
    d. Fetal position
    e. Fetal weight
    f. Cervical effacement
    g. Cervical dilatation
    h. Station of the presenting part
    i. Clinical pelvimetry
    j. Uterine contractility
22. Describe the normal course of labor. (Cognitive)
23. Assess the progress of labor. (Psychomotor)
24. Describe the risk factors for abnormal labor.
25. Identify abnormalities of labor. (Psychomotor)
    a. Failed induction
    b. Prolonged latent phase
    c. Prolonged active phase
    d. Arrest of cervical dilatation
26. Describe the appropriate role for, and complications of, the following interventions for abnormal labor: (Cognitive)
    a. Analgesia/anesthesia
    b. Amniotomy
    c. Augmentation of labor
    d. Uterine contraction monitoring
    e. Episiotomy
    f. Operative vaginal forceps/vacuum delivery
    g. Cesarean delivery
27. Recognize and appropriately evaluate abnormal fetal presentations and positions. (Psychomotor)
28. Observe the delivery of fetus and placenta. (Psychomotor)

## ECTOPIC PREGNANCY

29. Describe the major factors that predispose to ectopic pregnancy. (Cognitive)
30. Elicit a pertinent history in a patient with a suspected ectopic pregnancy. (Psychomotor)
31. Perform a focused physical examination in a patient with suspected ectopic pregnancy ( Psychomotor)
32. Describe the differential diagnosis of ectopic pregnancy. (Cognitive)
33. Observe and interpret the results of tests to confirm the diagnosis of ectopic pregnancy, such as: (Psychomotor)
    a. Quantitative serum BhCG titer
    b. Transvaginal ultrasonography
    c. Laparoscopy
34. Describe the indications and contraindications for, and complications of, medical and surgical management of an ectopic pregnancy. ( Cognative)
35. Describe the indications for anti-D immune globulin in patients with an ectopic pregnancy. ( Cognative)
36. Describe the follow-up that is indicated for a patient treated for an ectopic pregnancy. ( Cognative)
37. Counsel patients about the recurrence risk for an ectopic pregnancy(Psychomotor)

## RECURRENT PREGNANCY LOSS

38. Describe the most common causes of recurrent first- and mid-trimester pregnancy loss. ( Cognative)
39. Elicit a pertinent history in a patient with recurrent first- trimester and mid-trimester pregnancy losses including issues such as: ( Cognative)
    a. Family history and pedigree analysis
    b. Detection of underlying medical disorders
    c. Exposure to toxins
    d. Identification of a hereditary thrombophilia
40. Perform a focused physical examination to identify possible causes of recurrent first- and mid- trimester pregnancy loss, such as: ( Psychomotor)
    a. Genital tract malformations
    b. Galactorrhea
41. Perform and interpret the results of selected diagnostic tests to determine the etiology of recurrent early pregnancy loss, for example: ( Psychomotor)
    a. Microbiologic cultures of the genital tract
    b. Hysteroscopy
    c. Endometrial biopsy
    d. Pelvic ultrasonography
    e. Hysterosalpingography
42. Interpret the results of other diagnostic tests, such as: ( Psychomotor)
    a. Serum prolactin
    b. Thyroid function tests
    c. Serologic tests for autoimmune or connective tissue diseases
    d. Peripheral blood karyotype
    e. Tests for thrombophilias
43. Treat patients with a history of recurrent pregnancy loss with surgical or nonsurgical methods depending on etiology. (Cognitive)
44. Counsel patients about the prognosis for successful treatment of recurrent pregnancy loss. (Psychomotor)

## HYDATIDIFORM MOLE

45. Describe the epidemiology and genetics of hydatidiform mole. (Cognitive)
46. Describe the clinical manifestations of gestational trophoblastic disease (GTD). (Cognitive)
47. Diagnose GTD and its manifestations using tests, such as: (Psychomotor)
    a. Ultrasonography
    b. Quantitative b-hCG titer
    c. Chest x-ray
    d. Thyroid function tests
48. Distinguish between a complete and partial hydatidiform mole using histologic and cytogenetic findings. (Cognitive)
49. Observe the surgical treatment for a patient with GTD. (Psychomotor)
50. Provide the appropriate follow-up for a patient who has had suction evacuation of a molar pregnancy. (Psychomotor)
51. Counsel the patient regarding recurrence risk for GTD. (Psychomotor)

## DYSMENORRHEA

52. Describe the classification of dysmenorrhea. (Cognitive)
53. List the principal causes of primary and secondary dysmenorrhea. ( Cognitive)
54. Elicit a pertinent history to evaluate dysmenorrhea. ( Psychomotor)
55. Perform a focused physical examination to evaluate dysmenorrhea. ( Psychomotor)
56. Perform and/or interpret selected tests to evaluate dysmenorrhea, such as: ( Psychomotor)

a. Microbiologic cultures of the genital tract
b. Endometrial biopsy
c. Pelvic ultrasonography/saline infusion ultrasonography
d. Hysteroscopy
e. Laparoscopy
f. CT
g. MRI

57. Treat dysmenorrhea medically/surgically. (Cognitive)
58. Describe long-term follow-up and prognosis for a patient with dysmenorrhea. (Cognitive)

**DYSFUNCTIONAL UTERINE BLEEDING**

59. Describe the principal causes of abnormal uterine bleeding and distinguish abnormal uterine bleeding from dysfunctional uterine bleeding. (Cognitive)
60. Elicit a pertinent history to evaluate abnormal uterine bleeding. (Psychomotor)
61. Perform a focused physical examination to investigate the etiology of abnormal uterine bleeding. (Psychomotor)
62. Perform and interpret the results of selected diagnostic tests to determine the cause of abnormal uterine bleeding, such as: ( Psychomotor)
    a. Endometrial biopsy
    b. Pelvic ultrasonography/saline infusion ultrasonography
    c. Hysteroscopy
    d. Laparoscopy
63. Interpret the results of other diagnostic tests, such as: ( Psychomotor)
    a. Serum/urine human chorionic gonadotropin (hCG) assay
    b. Hormonal assays
    c. Microbiologic cultures of the genital tract
    d. Complete blood count
    e. Coagulation profile
64. Observe the treatment of abnormal uterine bleeding using both medical and surgical methods. (Psychomotor)
65. Recommend appropriate follow-up that is necessary for a patient with abnormal uterine bleeding. (Cognitive)

**VAGINAL DISCHARGE**

66. Describe the principal infections that affect the vulva and vagina. (Cognitive)
67. Elicit a pertinent history in a patient with a possible infection of the vulva or vagina. (Psychomotor)
68. Perform a focused physical examination. (Psychomotor)
69. Observe and interpret the results of selected tests to con- firm the diagnosis of vulvar or vaginal infection, such as: (Psychomotor)
    a. Vaginal pH
    b. Saline microscopy
    c. Potassium hydroxide microscopy
    d. Bacterial, fungal and viral culture
    e. Colposcopic examination
    f. Vulvar or vaginal biopsy
70. Observe the treatment of vulvar and vaginal infections. ( Psychomotor)
71. Describe the follow-up that is necessary for a patient with a vulvar or vaginal infection, for example: ( Cognitive)
    a. Assessing and treating sexual partner(s)
    b. Requirements for reporting a communicable disease
    c. Assessing the patient for other possible genital tract infections

d. Counseling the patient regarding the prevention of reinfection

## AMENORRHEA

72. Describe the classification of amenorrhea ( Cognitive)
73. List the major causes of primary and secondary amenorrhea. ( Cognitive)
74. Elicit a pertinent history to evaluate amenorrhea. (Psychomotor)
75. Perform a focused physical examination to evaluate amenorrhea. (Psychomotor)
76. Preform and interpret selected diagnostic tests to evaluate amenorrhea, such as: (Psychomotor)
    a. Hysteroscopy
    b. Hysterosalpingography (HSG)
    c. Ultrasonography/saline infusion ultrasonography
77. Interpret other diagnostic tests, such as: (Psychomotor)
    a. Serum and urine hCG assay
    b. Serum gonadotropin assays
    c. Thyroid-stimulating hormone assay
    d. Prolactin assay
    e. Progestin challenge test
    f. Dexamethasone suppression test
    g. Peripheral blood karyotype
    h. CT or MRI
78. Treat amenorrhea medically/surgically. (Cognitive)
79. Describe the long-term follow-up for a patient with amenorrhea. (Cognitive)

## PELVIC INFLAMMATORY DISEASE (PID)

80. Describe the diagnostic criteria for PID. ( Cognitive)
81. List the common infectious agents implicated in PID. (Cognitive)
82. Elicit a pertinent history from a patient suspected to have PID. ( Psychomotor)
83. Perform a physical exam to confirm the diagnosis of PID. ( Psychomotor)
84. Describe the appropriate diagnostic tests to confirm PID and interpret the results. (Cognitive)
    a. High vaginal swab for culture and sensitivity
    b. Ultrasonography
    c. Endometrial biopsy
    d. Laparoscopy
85. Know the treatment of PID with appropriate antimicrobial and surgical options. (Cognitive)
86. Summarize the potential long-term effects and counsel patients regarding risks of further complications, including: (Cognitive)
    a. Chronic pelvic pain
    b. Infertility
    c. Ectopic pregnancy

## MODULE –XIII GRID

| OUT COMES | MIT | GYNAE & OBS | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-11 | LGIS | 1,7,8,9,10,12,13,14,15,16,17,18 ,21-24,28,31,33-35,37,42,44-46,51,52,58,62,65,69,70,71,74-75,78,79,82-84 | BCQs , SEQ, VIVA |
| | PSIL | 4-10,21-26,28-36,54-64,66,69 | BCQs , SEQ, VIVA |
| | PMP | 62,64 | BCQs , SEQ, VIVA |
| | SL / WBT | 2-6,11,14-30,32,36,38-41,43,48-50,53-57,59-64,62-68,70-73,76,77,80,81 | BCQs , SEQ, VIVA, OSCE |
| | Student's presentations JC / CPC | 62-64,72-77 | BCQs , SEQ, VIVA, OSCE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE
LEARNING PMP: PATIENTS MANAGEMENT
PROBLEM
CPC: CLINICAL
PATHOLOGICAL CASE JC:
JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

## MODULE – XIV

**Learning Objectives**

### CARDIAC DISEASE IN PREGNANCY

87. Describe the types of Cardiac Disease in Pregnancy. (Cognitive)
88. Discus the (NYHA) classification of heart diseases in pregnancy. ( Cognitive)
89. Discus the management of cardiac disease in pregnancy, labour and puerperium. ( Cognitive)

### HYPERTENSION IN PREGNANCY

90. Describe the possible causes of hypertension in pregnancy. (Cognitive)
91. Describe the usual clinical manifestations of chronic hyper- tension, gestational hypertension, and preeclampsia. (Cognitive)
92. Perform a physical examination pertinent to patients with hypertension. ( Psychomotor)
93. Perform tests to:
    a. Determine the etiology of chronic hypertension. (Cognitive)
    b. Differentiate chronic hypertension from preeclampsia and gestational hypertension. (Cognitive)
    c. Assess the severity of chronic hypertension, gestational hypertension, and preeclampsia. (Psychomotor)
94. Assess fetal well-being in patients with hypertension in pregnancy. ( Psychomotor)
95. Treat hypertensive disorders of pregnancy. (Cognitive)
96. Recognize and treat possible maternal complications of hypertension in pregnancy, such as: (Cognitive)

a. Cerebrovascular accident
b. Seizure
c. Renal failure
d. Pulmonary edema
e. HELLP (hemolysis, elevated liver enzymes, and low plate- let count) syndrome
f. Abruptio placentae

**DIABETES MELLITUS**

97. Classify diabetes mellitus in pregnancy. (Cognitive)
98. Interpret screening tests for gestational diabetes. (Psychomotor)
99. Monitor and control blood sugar in the pregnant patient with diabetes mellitus. (Cognitive)
100. Assess, recognize, and manage fetal and maternal complications such as: ( Psychomotor)
    a. Fetal malformations
    b. Disturbances in fetal growth
    c. Diabetic ketoacidosis
101. Counsel patients with diabetes regarding future reproduction and the long-term health implications of their medical condition. (Psychomotor)

**DISEASES OF THE URINARY SYSTEM IN PREGNANCY**

102. Evaluate signs and symptoms of urinary tract pathology in pregnant patients. (Psychomotor)
103. Describe the indications for the common diagnostic tests for renal disease in pregnancy. (Cognitive)
104. Interpret the results of common diagnostic tests for renal disease in pregnancy. (Psychomotor)
105. Counsel patients about the possible adverse effects of diseases of the urinary tract on fetal and maternal outcome, such as: ( Psychomotor)
    a. Intrauterine growth restriction
    b. Prematurity
    c. Perinatal mortality
    d. Hypertension
106. Develop multidisciplinary approach, a comprehensive plan for the perinatal management of a patient with renal disease. (Cognitive)

**FETAL DEATH**

107. Describe the clinical history indicative of fetal death. (Cognitive)
108. Describe the possible causes of fetal death. (Cognitive)
109. Confirm the diagnosis of fetal death by ultrasound examination. (Psychomotor)
110. Interpret the results of diagnostic tests to determine the etiology of fetal death. ( Psychomotor)
111. Select and perform the most appropriate procedure for uterine evacuation based on considerations of gestational age and maternal history. ( Psychomotor)

**BLEEDING IN LATE PREGNANCY**

112. Describe the etiology of bleeding in late pregnancy. (Cognitive)
113. Describe the factors that predispose to placenta previa and Abruptio placentae. (Cognitive)
114. Perform a focused physical examination in patients with bleeding in late pregnancy. (Psychomotor)
115. Interpret diagnostic tests, such as:
    a. Hematocrit
    b. Platelet count
    c. Coagulation profile
    d. Kleihauer Betke test
116. Perform the following diagnostic tests: (Psychomotor)
    a. Abdominal ultrasonography to localize the placenta and evaluate for possible placental separation.

117. Determine the appropriate timing and method of delivery in patients with bleeding in late pregnancy. (Cognitive)
118. Observe the management of serious complications of Abruptio placentae and placenta previa, such as hypovolemic shock and coagulopathy. (Psychomotor)
119. Counsel patients about the recurrence risk for placenta previa and Abruptio placentae. (Psychomotor)

**PUBERTY, ADOLESCENCE**

120. Describes the normal physiology and physical development of Puberty. (Cognitive)
121. Differentiate delayed Puberty and precocious Puberty. (Cognitive)
122. Describe the adolescent menorrhagia. (Cognitive)

**DEVELOPMENTAL ANOMALIES OF THE UROGENITAL TRACT**

123. Describe the major developmental anomalies and their implications for sexual function, menstruation, fertility, and reproductive outcome, including: (Cognitive)
    a. Hymenal abnormalities
    b. Vaginal agenesis with or without a uterus
    c. Vaginal septum
    d. Uterine septum
    e. Unicornuate or bicornuate uterus
124. Describe the features of a patient's history suggestive of a developmental anomaly of the urogenital tract. (Cognitive)
125. Perform a focused physical examination to identify developmental anomalies of the urogenital tract and associated anomalies. (Psychomotor)
126. Interpret the following tests to confirm the diagnosis of a developmental anomaly, its etiology, and its potential clinical implications: ( Psychomotor)
    a. Ultrasonography, hysterosalpingography, hysteroscopy, laparoscopy
    b. Hormonal assays
    c. Microbiologic tests
    d. Peripheral blood karyotype assessment
    e. CT or MRI
127. Describe appropriate medical and surgical treatments for patients with developmental anomalies. (Cognitive)
128. Counsel patients and their families about the impact of genital tract anomalies on reproduction. (Psychomotor)

**GALACTORRHEA / HYPERPROLACTINEMIA**

129. Describe the causes of galactorrhea/hyperprolactinemia. (Cognitive)
130. Elicit a pertinent history to evaluate galactorrhea/hyperprolactinemia. (Cognitive)
131. Perform a targeted physical examination to evaluate galactorrhea/hyperprolactinemia. (Psychomotor)
132. Prescribe and interpret selected diagnostic studies, including: (Cognitive)
    a. Serum prolactin
    b. Serum TSH
    c. CT or MRI of pituitary
133. Know the treatment of galactorrhea/hyperprolactinemia. (Cognitive)
134. Describe long-term follow-up for the patient with galactorrhea /hyperprolactinemia / pituitary adenoma focusing particularly on the risk of complications, such as: (Cognitive)
    a. Headaches
    b. Visual field defects

c. Infertility
d. Hypoestrogenism

135. Describe the management of patients with a pituitary adenoma in pregnancy. (Cognitive)

**POLYCYSTIC OVARY SYNDROME (PCOS)**

136. Describe the clinical features of PCOS. (Cognitive)
137. Describe the genetic and environmental factors contributing to the pathogenesis of PCOS. (Cognitive)
138. Elicit a pertinent history to evaluate PCOS. (Cognitive)
139. Perform a focused physical examination to evaluate PCOS. (Psychomotor)
140. Perform and/or interpret selected tests to determine the diagnosis: (Psychomotor)
    a. Serum testing, including ovarian and pituitary hormone assays and insulin resistance.
    b. Pelvic ultrasonography
141. Describe the medical treatment for PCOS in patients who do not desire pregnancy. (Cognitive)
142. Describe the medical and/or surgical treatment for PCOS in patients who desire pregnancy and require ovulation induction. (Cognitive)
143. Describe the long-term follow-up for an affected patient. (Cognitive)

**INFERTILITY**

144. Describe the classification of infertility. (Cognitive)
145. List the principal causes of primary and secondary infertility. (Cognitive)
146. Elicit a pertinent history to evaluate infertility.
147. Perform a focused physical examination to evaluate infertility. (Psychomotor)
148. Perform and/or interpret selected diagnostic tests to determine the most likely cause of infertility, such as: (Psychomotor)
    a. Basal body temperature chart
    b. Serum assays of:
        i. Luteal phase progesterone
        ii. Thyroid function
        iii. Prolactin
        iv. Pituitary and ovarian hormones
        v. Microbiologic cultures of genital tract
        vi. Pelvic ultrasonography/saline infusion ultrasonography
        vii. Hysterosalpinography
        viii. Semen analysis and culture, antisperm antibodies, male genetic evaluation
        ix. Laparoscopy and hysteroscopy
        x. know the treatment of infertile patients who have irregular ovulation such as:
        xi. Clomiphene citrate
        xii. Aromatase inhibitors
        xiii. Insulin-sensitizing agents
149. Observe selected surgical procedures to correct conditions that cause infertility, such as: (Psychomotor)
    a. Lysis of pelvic adhesions
    b. Resection of endometriomas/endometriotic implants
150. Describe the indications for referral to a subspecialist for treatment. (Cognitive)
151. Counsel patients about the long-term prognosis for their condition, and alternatives to childbearing, such as adoption. (Psychomotor)
152. Counsel patients regarding sexual activity during fertility treatment. (Psychomotor)
153. Reproductive technologies
154. Describe indications for ART procedures, such as: (Cognitive)
    a. In vitro fertilization (IVF)
    b. Gamete intrafallopian transfer (GIFT)
    c. Zygote intrafallopian transfer (ZIFT)

d. Intracytoplasmic sperm injection (ICSI)
e. Gamete donation
f. Preimplantation genetic diagnosis

155. Describe the prognosis and complications of ART. (Cognitive)

**MALE INFERTILITY**

156. Describe the factors essential for fertility? (Cognitive)
157. Describe the causes of male infertility (Cognitive)
158. Describe the WHO criteria for normal semen (Cognitive)
159. Differentiate normal semen from abnormal semen analysis? (Cognitive)
160. Describe the abnormalities of semen analysis. (Cognitive)
161. Discusses the treatment of male infertility and indications of AR T in male infertility. (Cognitive)

**CONTRACEPTION**

162. Describe the factors that influence the individual patient's choice of contraception. (Cognitive)
163. Elicit a pertinent history from a patient requesting information about contraception. (Cognitive)
164. Perform a focused physical examination to detect findings that might influence the choice of contraception. (Psychomotor)
165. Interpret the results of selected laboratory tests that might influence a patient's choice of contraception. (Psychomotor)
166. Describe the advantages, disadvantages, failure rates, mechanisms of action and complications associated with the following methods of contraception: (Cognitive)
    a. Sterilization
    b. Oral steroid contraception
    c. Transdermal steroid contraception
    d. Vaginal steroid contraception
    e. Injectable contraception
    f. Implantable contraception
    g. Intrauterine device
    h. Barrier methods
    i. Natural family planning
167. Describe the pharmacology of hormonal contraception. (Cognitive)
168. Describe appropriate methods for postcoital contraception. (Cognitive)
169. Describe the appropriate follow-up for a woman using any of the methods of contraception. (Cognitive)

**MENOPAUSE**

170. Describe typical symptoms experienced by a woman at the time of menopause. (Cognitive)
171. Perform a focused physical examination of a menopausal patient. (Psychomotor)
172. Interpret selected laboratory tests to evaluate menopause. (Psychomotor)
173. Assess the risk of osteoporosis by history, examination, and testing. (Psychomotor)
174. Manage perimenopausal and menopausal conditions, including osteoporosis, using interventions, such as: (Cognitive)
    a. Hormone therapy (estrogen, progestogens, selective estrogen receptor modulators)
    b. Calcium and vitamin supplementation
    c. Behavioral and lifestyle modifications
    d. Dietary alterations
    e. Medications that preserve/build bone mass
    f. Describe the long-term follow-up indicated for menopausal patients. (Cognitive)

## MODULE –XIV GRID

| OUTCOMES | MIT | GYNAE & OBS | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-11 | LGIS | 89-93,97-99,104,105,109,110,111-115,122-125,128,130,133-138,142-146,154-158,162,166-170,175 | BCQs , SEQ, VIVA |
| | PSIL | 96,97,98 114-120,123,124,147-149,152,153 | BCQs , SEQ, VIVA |
| | PMP | 89-92,98-108,134-136,139-144,171-174 | BCQs , SEQ, VIVA |
| | SL / WBT | 94-103,106-108,112,113,119-121,126,127,129,131,132,139, 140,141,147-153,159-165 | BCQs , SEQ, VIVA, OSCE |
| | Student's presentations JC / CPC | 89-99,103-108 | BCQs , SEQ, VIVA, OSCE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE
LEARNING PMP: PATIENTS MANAGEMENT
PROBLEM
CPC: CLINICAL
PATHOLOGICAL CASE JC:
JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

## MODULE – XV

**Learning Objectives**

### TWIN GESTATION

175. Describe the factors that predispose to twin gestation. (Cognitive)
176. Describe the physical findings suggestive of multiple gestation. (Cognitive)
177. Confirm the diagnosis of multiple gestation by performing an abdominal ultrasound. (Cognitive)
178. Know the management of twin gestation. (Cognitive)
179. Perform tests to assess the general well-being of the fetuses of a multiple gestation. (Psychomotor)
180. Counsel patients as to the antenatal testing and delivery plans for multiple gestations. (Psychomotor)

### INTRAUTERINE GROWTH RESTRICTION

181. Describe the factors that predispose to fetal growth restriction. (Cognitive)
182. Assess uterine size by physical examination and identify size/date discrepancies. (Psychomotor)
183. Evaluate the patient for causes of intrauterine growth restriction. (Cognitive)
184. Observe ultrasound examination to assess fetal growth. (Psychomotor)
185. Know the monitoring of a fetus with suspected growth restriction (e.g., with antepartum heart rate tests, ultrasonography, and Doppler velocimetry). (Psychomotor)
186. Counsel patients about the recurrence risk for intrauterine growth restriction. (Psychomotor)

## RH INCOMPATIBILITY

187. Describe the major antigen–antibody reactions that result in red cell isoimmunization. (Cognitive)
188. Know the serological assays that quantify antibody titers.
189. Describe the major fetal complications of isoimmunization. (Cognative)
190. Observe, in consultation with other specialists, a comprehensive plan for the perinatal management of patients with isoimmunization. (Psychomotor)

## PRETERM LABOR

191. Describe the multifactorial etiology of preterm labor. (Cognitive)
192. Obtain a complete obstetric history in patients with preterm labor. (Psychomotor)
193. Observe the thorough physical examination to determine uterine size, fetal presentation and fetal heart rate, and to assess cervical effacement and dilatation. (Psychomotor)
194. Perform and interpret biophysical, biochemical, and microbiologic tests to assess patients with suspected preterm labor. (Psychomotor)
195. Recognize the indications for, and complications of, interventions for preterm labor, such as: (Psychomotor)
    a. Antibiotics
    b. Tocolytics
    c. Corticosteroids
    d. Amniocentesis
    e. Cerclage
    f. Bed rest
196. Describe the expected frequency and severity of neonatal complications resulting from preterm delivery. (Cognitive)

197. Appropriately counsel patients about management options for the extremely premature fetus. (Psychomotor)
198. Counsel patients about recurrence risk and preventive measures for preterm delivery. (Psychomotor)

## POST TERM PREGNANCY

199. Determine gestational age using a combination of menstrual history, physical examination, and ultrasound examination. (Cognitive)
200. Describe the potential fetal and neonatal complications of post term pregnancy, such as: (Cognitive)
    a. Macrosomia
    b. Meconium aspiration syndrome
    c. Oligohydroamnios
    d. Fetal hypoxia
    e. Fetal demise
201. Perform and interpret surveillance tests for the post term fetus: (Psychomotor)
    a. Antepartum fetal heart rate testing
    b. Ultrasound examination
202. Describe appropriate mode of delivery in the post term pregnancy. (Cognitive)

## PREMATURE RUPTURE OF MEMBRANES

203. Describe the possible causes of premature rupture of membranes (PROM) in preterm and term patients. (Cognitive)
204. Perform diagnostic tests to confirm rupture of membranes. (Psychomotor)
205. Assess patients with PROM for lower and upper genital tract infection. (Psychomotor)
206. Describe the indications for, and complications of, expectant management in preterm and term patients with PROM. (Cognitive)
207. Describe the indications for, and complications of, induction of labor in preterm and term patients with PROM. (Cognitive)

208. Describe the role and possible complications of the following interventions in patients with preterm PROM: (Cognitive)
    a. Tocolytics
    b. Corticosteroids
    c. Antibiotics
    d. Amniocentesis

**ENDOMETRIOSIS**

209. Define the theories of the pathogenesis of endometriosis. (Cognitive)
210. Describe the typical history of a patient with endometriosis. (Cognitive)
211. Perform a focused physical examination in a patient with suspected endometriosis. (Psychomotor)
212. Perform and interpret the results of selected tests to confirm the diagnosis of endometriosis, for example: (Psychomotor)
    a. Transvaginal ultrasonography
    b. Laparoscopy with/without biopsy
213. Describe various features of endometriosis. (Cognitive)
214. Describe the staging system for endometriosis according to the American Society for Reproductive Medicine Classification of Endometriosis. (Cognitive)
215. Know the medical and surgical treatment of endometriosis. (Cognitive)
216. Describe the appropriate long-term follow-up and outcome in patients who have endometriosis, including infertility. (Cognitive)

**PRE-INVASIVE CERVICAL DISEASE**

217. Describe the epidemiology of cervical dysplasia. (Cognitive)
218. Elicit a pertinent history in a woman with an abnormal Pap test.
219. Interpret Pap test reports using the Bethesda classification system and determine appropriate follow-up. (Psychomotor)
220. Perform and interpret the results of diagnostic procedures for cervical dysplasia. (Psychomotor)
221. Know the treatment of cervical dysplasia with modalities, such as: (Cognitive)
    a. Cryosurgery
    b. Laser ablation
    c. Loop electrical excision
    d. knife conization
222. Know an appropriate follow-up plan for a woman who has been treated for cervical dysplasia. (Cognitive)
223. Describe the structural changes in the cervix that are characteristic of in utero DES exposure. (Cognitive)
224. Counsel patients regarding the use of vaccinations for the prevention of HPV related diseases. (Psychomotor)

**INVASIVE CERVICAL CANCER**

225. Describe the epidemiology of cervical cancer. (Cognitive)
226. Describe the typical clinical manifestations of cervical cancer. (Cognitive)
227. Describe the differential diagnosis of cervical cancer. (Cognitive)
228. Observe the biopsies to diagnose invasive cervical cancer. (Psychomotor)
229. Describe the FIGO staging of cervical cancer. (Cognitive)
230. In consultation with a gynecologic oncologist, counsel the patient about the evaluation and treatment (indications, complications) of cervical cancer.
231. Describe the prognosis for cervical cancer. (Cognitive)
232. Describe the impact of treatment of cervical cancer on sexual function and manage/refer patient appropriately. (Cognitive)
233. Provide psychosocial support and long-term follow-up for patients with cervical cancer. (Affective)

## ENDOMETRIAL HYPERPLASIA

234. Obtain a targeted history in patients who have abnormal uterine bleeding, including an assessment of risk factors, such as: (Psychomotor)
    a. Obesity
    b. Anovulation
    c. Polycystic ovary syndrome
    d. Glucose intolerance
    e. Estrogen exposure
    f. Family history
235. Perform a focused physical examination in women who have abnormal bleeding and risk factors for endometrial hyperplasia. (Psychomotor)
236. Describe factors that influence the treatment of hyperplasia, such as: (Cognitive)
    a. Classification and histology
    b. Age of patient
    c. Reproduction goals
    d. Risk of malignancy
237. Treat endometrial hyperplasia medically and surgically. (Cognitive)
238. Describe and manage the potential complications of these interventions. (Cognitive)
239. Describe appropriate post-treatment follow-up. (Cognitive)

## CARCINOMA OF THE ENDOMETRIUM

240. Describe the epidemiology of endometrial cancer. (Cognitive)
241. Describe the clinical manifestations of endometrial cancer. (Cognitive)
242. Describe the differential diagnosis of invasive endometrial cancer. (Cognitive)
243. Perform biopsies to diagnose endometrial cancer. (Psychomotor)
244. Describe the FIGO staging of invasive endometrial cancer. (Cognitive)
245. In consultation with a gynecologic oncologist, counsel the patient about the evaluation and treatment (indications, complications) of endometrial cancer. (Psychomotor)
246. Describe the prognosis for invasive endometrial cancer. (Cognitive)
247. Provide psychosocial support and long-term follow-up for women with endometrial cancer. (Affective)

## CARCINOMA OF THE OVARY

248. Describe the epidemiology of ovarian cancer. (Cognitive)
249. Describe the inherited syndromes that increase a woman's likelihood of developing ovarian cancer. (Cognitive)
250. Describe the clinical manifestations of ovarian cancer. (Cognitive)
251. Describe the staging and prognosis for: (Cognitive)
    a. Epithelial tumors
    b. Germ cell tumors
    c. Stromal tumors
    d. Sarcomas
    e. Metastatic tumors
252. Interpret for the patient the following tests to diagnose ovarian cancer: (Psychomotor)
    a. Ultrasonography

## MODULE –XV GRID

| OUT COMES | MIT | GYNAE & OBS | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-11 | LGIS | 176,177,179,182,186,188-192,196,197,200-204,207-210,217,218,222-230,232,233,237,238,239,240, 241,243,245,246, | BCQs , SEQ, VIVA |
| | PSIL | 183-185,186,187-189,253-255, | BCQs , SEQ, VIVA |
| | PMP | 211,212,213,216,238,239,240, 243-248 | BCQs , SEQ, VIVA |
| | SL / WBT | 178,180,181,183,185,187,191,193 ,195,198,199,202,205,206,214,219,220,221,225,229,231,234,235,236,244,246 | BCQs , SEQ, VIVA, OSCE |
| | Student's presentations JC / CPC | 190,198,199,211,212,213,224, 225 | BCQs , SEQ, VIVA, OSCE |

## TEACHING STRATEGIES:

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
PMP: PATIENTS MANAGEMENT PROBLEM
CPC: CLINICAL PATHOLOGICAL CASE
JC: JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

## RECOMMENDED BOOKS

1. Gynecology by Ten Teachers Nineteenth edition (Edited by Ash Monga & Stephen Dobbs)
2. Obstetrics by Ten Teachers Nineteenth edition (Edited by Philip N Baker & Louise C Kenny)
3. Rashid Latif. Textbook of Gynecology
4. DEWHURST'S Textbook of Obstetrics & Gynecology Seventeenth edition (Edited by D. Keith Edmonds)
5. Gynecology by Arshad Chohan
6. OBST by Arshad Chohan

# PAEDIATRICS

## INTRODUCTION

The curriculum of Pediatric is based on common health related problems of Pakistani children. A medical student should have the minimum knowledge and skills to provide comprehensive health care to children, counsel mothers and care givers on immunization, nutritional diet, and risk factors. Medical students should be sensitive to children needs and behavior.

From MBBS third to fifth year, students will have several learning opportunities in different clinical settings to achieve the objectives.

## OUTCOME

Diagnose common Pediatric problems, suggest and interpret appropriate investigation, rationalize treatment plan and if appropriate, refer patient for specialist opinion/ management.

## Learning Objectives

1. Recognize and manage common health problems of children by interpreting the clinical signs and symptoms, formulate a list of differential diagnosis and plan for a proposed relevant investigation
2. Demonstrate the ability to clerk a patient comprehensively by obtaining a structured patient-centred medical history
3. Demonstrate competence in performing detail clinical examination for a child and neonate
4. Perform proper anthropometric assessments for the nutritional status of the child and plot appropriately in a growth chart
5. Assess physical and mental development in children according to standard milestones and recognize deviations from normal
6. Interpret clinical and laboratory data inward for diagnosis
7. Advise appropriate nutritional measures for healthy and sick children (Breast feeding, avoidance of bottle, proper weaning)
8. Describe the common nutritional deficiencies in pediatric age group.
9. Counsel the parents on health promotion and disease preventive strategies for the child e.g. immunisation procedures, hand washing
10. Formulate a broad management plan children according to the standard guidelines
11. Recognize the danger signs of disease in children
12. Demonstrate ability to perform the following essential clinical procedures relevant to children
    a. Resuscitation of new-born (NRP-8)
    b. Basic cardio-pulmonary resuscitation
    c. Anthropometric measurements
    d. Measuring blood pressure
13. Demonstrate understanding of important paediatric emergencies
14. Refer the patient beyond common conditions to the appropriate health care provider
15. Record the necessary documentation such as progress notes, discharge, referral, lab requisition forms
16. Explore various recent resources including biomedical journals, e learning for improved patient care and self- learning
17. Collaborate with the health care team in providing patient care

18. Accept responsibility and accountability for their own performance and adjust to changing circumstances
19. Demonstrate understanding of moral and ethical issues particularly in medical care of paediatric patients
20. Demonstrate non-judgmental attitude, honesty, compassion and respect towards infants, children and adolescents in dealing with problems of sick children
21. Describe common paediatric problems and diseases, in children at different ages
22. Explain national programmes for health promotion and disease prevention in children e.g. EPI, IMCI, ARI etc.
23. Describe growth parameters and developmental milestones at different ages
24. Describe diets suitable for different ages and in different diseases
25. Relate the interaction between heredity and environment to the genesis of disease in children
26. Describe care of new-born baby, in health and when suffering from common problems, along with importance of perinatal factors impacting on the well-being of the new-born
27. Explain common childhood illnesses and their management
28. Explain common accidents and poisoning in children and their management
29. Explain the common infectious disease including skin problems in children, clinical resentation, investigation, prevention and treatment, prognosis and to Implement in clinical rotation.
30. Describe various gastrointestinal diseases,implement the knowledge regarding presentation,diagnosis and management of the disease.
31. Explain the acute and chronic upper and lower respiratory tract infections and pathology in a child and to know the managment plan of the disease.
32. Recognize the cyanotic and acynotic cardiac diaseases ,interpret the normal and abnormal ecg pattern,explain the pathophysiology of cardiac structural disorder and other infectious eitiology of cardiac diseases,presentation and management of the cardiac disorder.
33. Explain the developmental milestone of a child,know the various congenital neurological structural disorder, acute and chronic neurological manifestation of the disease, myopathic disorders ,classification of various seizure disorders ,discuss the various neurological infectious diseases common in a child and their management plan.
34. Discuss common endocrine disorders in a child,know the etiology ,presentation,diagnosis and treatment plan.
35. Discuss the classification of various rheumatolgical disorder and their clinical feature with management plan.
36. Explain the various causes of anemia , presentation and treatment in a child.
37. Discuss common malignancies related to hematology in a child .
38. Discuss the common renal diseases including congenital disorder in a child, know the etiology, clinical feature, diagnosis and management of acute and chronic renal diseases.
39. Provide medical care considering moral and ethical issues
40. Explore multiple sources for recent advances and research in Paediatrics
41. Apply basic knowledge of normal and abnormal growth and development and clinical application from birth till adolescence
42. Provide basic health care for Paediatric age groups
43. Apply appropriate knowledge and skills needed for different manifestations and management of the common childhood illnesses
44. Demonstrate appropriate professional behaviours and problem solving skills
45. Demonstrate learning competencies necessary for continuous professional development
46. Perform veni-puncture
47. Administer BCG injection
48. Administer oxygen/nebulization
49. Observe Lumbar puncture

50. Administer Nasogastric intubation
51. Perform Heel prick blood sampling
52. Perform Urinary Catheterization
53. Observe suprapubic puncture
54. Observe Bone marrow aspiration
55. Observe subdural tap
56. Observe Thoracocentesis /Pericardiocentesis
57. Observe liver biopsy
58. Observe renal biopsy
59. Observe Cardiopulmonary resuscitation

## MODULE XIII
## SOCIAL AND PREVENTIVE PAEDIATRICS

## OUTCOMES

- Convey relevant information and explanations accurately to patients, families, colleagues and other professionals
- Participate effectively and appropriately in an inter professional health care team
- Understand medical ethics and its application pertaining to paediatrics and maintain the confidentiality of the patient.
- Adapt research findings appropriately to the individual patient situation or relevant patient

## Learning Objectives

1. Formulate the patterns of paediatric morbidity and mortality in the society,
2. Formulate the Integrated Management of Childhood Illness (IMCI) and its role in preventive and social aspects of paediatrics
3. Formulate the strategies for prevention of infections;
4. Assess the National Immunization Programme.(EPI schedule)
5. Prioritize the Principles of Immunization.
6. Summarize about Vaccine preservation and cold-chain.
7. Formulate Types, contents, efficacy storage, dose, site, route, contra-indications and adverse reactions of vaccines – BCG, DPT, OPV, Measles, MMR, hepatitis B, Penta and Typhoid
8. Assess the AFP (Acute Flaccid Paralysis) surveillance
9. Identify the types of polio vaccines and herd immunity.
10. Recognize the knowledge about special vaccines like Typhoid, Hepatitis A, Chicken pox, Meningococcal, and Rabies.
11. Recognize the knowledge about EPI and newer vaccines.
12. Plan and evaluate for prevention of injuries and recognition of the most important behavioural and social issues during childhood and adolescence.
13. Plan and formulate the approach to child abuse and how to manage the case of child abuse.

## GROWTH AND DEVELOPMENT

14. Assess the knowledge about normal growth monitoring and growth charts. Assess anthropometry – measurement and interpretation of weight, length/height, head circumference, mid-arm circumference. Use of weighing machines, infantometer Measurement and interpretation of sitting height, US: LS ratio and arm span.
15. Recognize the abnormalities in growth and development.

16. List different milestones of development and detection of developmental abnormalities. Important milestones in infancy and early childhood in the areas of Gross Motor, Fine Motor, Language and Personal–Social development. 3-4 milestones in each of the developmental fields, age of normal appearance and the upper age of normal psychological and behavioural problems.

## NUTRITION

17. Identify the normal nutritional requirements (breast feeding, infant feeding, weaning).
18. List the nutritional disorders (malnutrition, rickets, scurvy, Vitamin A deficiency, iodine deficiency, and iron deficiency)
19. Identify various vitamin deficiencies (vit A, B,C,D,E,K ). Indicate the recommended daily allowances.
20. Summarize hypervitaminosis A and D.
21. Identify the causes and management of malnutrition, its classification; identify the risk factors.
22. Discuss Management of protein calorie malnutrition as per WHO guidelines.
23. Describe the micronutrient deficiencies and their management (iron, zinc, biotin)

## PERINATOLOGY/ NEONATOLOGY

24. Evaluate – live birth, neonatal period, classification according to weight and gestation, mortality rates.
25. Manage Delivery room management including neonatal resuscitation and temperature control ·
26. Asses the etiology, clinical features, principles of management and prevention of birth asphyxia. Knows Apgar score.
27. Discriminate among various Birth injuries – causes and their recognition.
28. Predict the care of the normal newborn in the first week of life.
29. Examine a newborn baby and the normal variations.
30. Describe the Breast feeding physiology and principles and clinical management of breast feeding problems.
31. Identification of congenital anomalies at birth with special reference to anorectal anomalies, tracheoesophageal fistula, diaphragmatic hernias, neural tube defects.
32. Assess for Neonatal Jaundice: causes, diagnosis and principles of management.
33. Assess for Neonatal infection: etiology, diagnosis, principles of management. Superficial infections, sepsis. Assess and examine for neonatal tetanus and formulate a management plan.
34. Assess the Low birth weight babies-causes of prematurity and small-for-date baby, clinical features and differentiation. Principles of feeding and temperature regulation. Problems of low birth weight babies.
35. Identification of sick newborn (i.e. detection of abnormal signs – cyanosis, jaundice, respiratory distress, bleeding, seizures, refusal to feed, abdominal distension, failure to pass meconium and urine)
36. Recognition and management of specific neonatal problems-hypoglycemia, hypocalcemia, anemia, seizures, necrotizing enterocolitis, haemorrhage.
37. Distinguish Common intra-uterine infections, TORCH, malaria, chicken pox.
38. Assess for Metabolic disorders
39. List the basic principles of Neonatal resuscitation.

## GENETICS AND DYSMORPHOLOGY

40. Analyse different patterns of inheritance.
41. Discriminate common Chromosomal disorders including Down's syndrome, turners syndrome, Klinefelters syndrome, Edward and Patau syndrome, Williams syndrome,

Prader Willi syndrome, Angelman syndrome, Cri chat syndrome, Bardet Biedl Syndrome.

## PSIL

## POISONING:

42. Summarize the presentation and management of various poisonings especially focusing on the poisoning of: acetaminophen, salicylate, iron poisoning, organophosphorus poisoning, kerosene oil poisoning, tricyclic antidepressants and other drugs.
43. Summarize the presentation and management of various Animal and Insect bites with special emphasis on: dog bite and rabies (know the national guidelines to manage), snake bite (grading), scorpio bite, bee sting.

## FLUID AND ELECTROLYTE THERAPY:

44. Summarize the Principles of fluid and electrolyte therapy in children; assess Pathophysiology of acid-base imbalance and principle of management.
45. Interpret basics of ABG.
46. Discuss the composition of ORS and Hartmann's solution, normal saline.

## ECG INTERPRETATION:

47. Evaluate the ECG in children. Normal and abnormal.

## IMMUNIZATION:

48. Prioritize the Principles of Immunization.
49. Summarize about Vaccine preservation and cold-chain.
50. Differentiate between Types, contents, efficacy storage, dose, site, route, contra-indications and adverse reactions of vaccines – BCG, DPT, OPV, Measles, MMR, hepatitis B, Penta and Typhoid·
51. Assess the AFP (Acute Flaccid Paralysis) surveillance ·
52. List the types of polio vaccines and herd immunity.
53. Assess the knowledge about special vaccines like Typhoid, Hepatitis A, Chicken pox, Meningococcal, and Rabies.
54. Discuss EPI and newer vaccines.

## GROWTH AND DEVELOPMENT

55. Assess the knowledge about normal growth monitoring and growth charts. Assess anthropometry – measurement and interpretation of weight, length/height, head circumference, mid-arm circumference. Use of weighing machines, infantometer. Measurement and interpretation of sitting height, US: LS ratio and arm span
56. List the abnormalities in growth and development.
57. Recognize of different milestones of development and detection of developmental abnormalities. Important milestones in infancy and early childhood in the areas of Gross Motor, Fine Motor, Language and Personal–Social development. 3-4 milestones in each of the developmental fields, age of normal appearance and the upper age of normal psychological and behavioral problems.

### IMNCI

58. Summarize the Integrated Management of Childhood Illness (IMCI) and its role in preventive and social aspects of paediatrics

59. Pneumonia.

## LIST OF X-RAYS

60. Primary complex, Miliary tuberculosis.
61. Pleural effusion/Pneumothorax.
62. Congenital heart disease with increased/ decreased pulmonary blood flow.
63. Rickets, scurvy, haemolytic anaemia.
64. Diaphragmatic hernia.
65. Intestinal obstruction.
66. Foreign body aspiration
67. Approach to the child with
    a. anemia
    b. PUO
    c. Recurrent abdominal pain
    d. Tuberculous meningitis
    e. Chronic diarrhea and malnutrition
    f. Respiratory distress
68. Infant on breast feeding
69. Neonate with birth asphyxia
70. Infant with neonatal sepsis
71. Child with recurrent seizures

## SKILLS LAB

72. **BLS:**
    - Perform CHILD BLS:
        - Paediatric chain of survival.
        - Child BLS
        - 2 rescuer child BLS
    - Perform RELIEF OF CHOKING:
        - Infant/child choking
    - Perform INFANT BLS:
        - Infant compressions
        - 2 rescuer infant BLS
        - AED for infants and children less than 8 years

73. **NRP -8:**
    - Perform Neonatal Resuscitation Program -8

74. **PROCEDURES:**
    - Injections (IM, IV, S/C, I/D)
    - Blood sampling, IV cannula insertion
    - Naso-gastric tube insertion
    - Lumbar puncture
    - Pleural/ Ascitic tap
    - Bone marrow aspiration
    - Foleys catheterization

75. **LIST OF INSTRUMENTS:**
    - Tuberculin syringe
    - Intravenous cannula

- Lumbar puncture needle
- Bone marrow aspiration and trephine needle
- Ambu bag and mask
- Endotracheal tube
- Laryngoscopes
- Emergency drugs/ vaccine
- Foleys catheter

**JOURNAL CLUB AND CPC:**

76. Approach to the child with anemia
77. Down Syndrome/Dysmorphism
78. Enteric fever/ Malaria/ Dengue fever/ TB
79. Wilsons Disease/chronic liver disease
80. Pyrexia of unknown origin
81. Protein Calorie Malnutrition/ Rickets
82. Immunodeficiency
83. Sustainable development goals
84. Covid-19 guidelines for neonates & paediatrics

**PMP**

85. Plan and formulate the approach to child abuse and how to manage the case of child abuse.
86. Summarize the basics of malnutrition.
87. Formulate the causes and management of obesity. Summarize the traffic light diet.
88. Discuss hypervitaminosis A and D.
89. Identify the etiology, symptoms, diagnosis and management of Bronchiectasis, pulmonary cysts.
90. Summarize the knowledge about cystic fibrosis and devise a plan to manage a child with cystic fibrosis.
91. Summarize the basic principles of diagnosing the delayed and precocious puberty. Approach to short stature. (Devise a plan to diagnose and manage short stature)
92. Predict an outline to Counsel parents for inherited neurological diseases.
93. Summarize the basics of neuroregression disorders.
94. Analyse the myopathic disorders. Formulate the signs and symptoms, investigations, management of myopathies: Duchenne and Becker muscular dystrophy.
95. Summarize the presentation and management of psychiatric problems: ADHD and Autistic spectrum disorders.
96. Peads Surgery 1:
    a. Summarize the management of hydrocele.
    b. Formulate the presentation of Vesico ureteric reflux, its grading and management.
    c. Assess the causes, presentation, diagnosis and management of Intestinal obstruction.
    d. Assess the causes, presentation, diagnosis and management of intussusception.
97. Peads Surgery2:
    e. Assess the causes, presentation, diagnosis and management of Congenital dislocation of Hip.
    f. Assess the causes, presentation, diagnosis and management hydrocephalus, myelocele, meningomyelocele.
    g. Evaluate the Diagnosis and timing of surgery of Cleft lip/palate, hypospadias, undescended testis, tracheoesophageal fistula, hydrocephalus, CTEV, Umbilical and inguinal hernia, hypertrophic pyloric stenosis, congenital diaphragmatic hernia.
98. Discuss the common Pediatric emergencies:
    a. Status epilepticus
    b. Shock and anaphylaxis.

c. Gastrointestinal bleed.
d. Comatose child
e. Diabetic ketoacidosis
f. Septic shock.
g. Severe dehydration.
h. Status asthmaticus

**Ward Based Teaching (WBT)**

1. Demonstrate the ability to create an age-appropriate differential diagnosis based on the history and physical examination of a child.
2. Perform the physical examination including general physical exam including anthropometric measurements ,chest exam,abdominal exam,cardiovascular exam,central nervous system exam and locomotor exam.
3. Identify and interpret the age appropriate gowth centile charts of a child.
4. Describe the use of screening tools, and immunizations for newborns, infants, toddlers, school age children, and adolescents.
5. Interpret the results of common diagnostic tests with an emphasis on age-related norms.
6. Enlist the differential diagnosis for common symptoms or presentations in a child, such as abdominal pain, abnormal growth pattern,fever,malaria,typhoid,dengue, ALTE, respiratory distress,anemia, jaundice, vomiting, diarrhea, wheezing and seizures.
7. Describe the clinical features of common acute and chronic medical conditions, such as fever,anemia,viral hepatitis,malaria,dengue,typhoid, asthma,atopic, ermatitis,bronchiolitis,tuberculosis,Polio,cellulitis, cerebral palsy, child abuse, croup, dehydration, diabetes, strep pharyngitis, meningitis, epilepsy, urinary tract infection, osteomyelitis, gastroenteritis, gastroesophageal reflux, otitis media and viral URI.

**Attitude**

8. Demonstrate a positive attitude and regard for education by establishing universal attendance, punctuality, intellectual curiosity, initiative, honesty, responsibility, dedication to being prepared, maturity in soliciting, accepting and acting on feedback.
9. Demonstrate communication skills with patients and families that convey respect, integrity, flexibility, sensitivity and compassion while avoiding use of medical jargon.
10. Ability to present a complete, well-organized verbal and written summary of the patient's history and physical examination findings, including an assessment and plan modifying the presentation to fit the time constraints and educational goals of the situation.
11. Demonstrate the use of data sources (textbooks, electronic searches) and critically assess the information achieved to make evidence based decisions in patient care.

EXCELLENCE & INNOVATION

## MODULE –XIII GRID

| OUT COMES | MIT | PEADS | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-28<br>39-57 | LGIS | 1-41<br>1, 2, 3, 14, 15, 16,<br>17,18,19,20,21,22,23,24,25<br>,<br>26,27,28,29,30,31,32,33,34<br>,<br>35,36,37, 38 | BCQs , SEQ, VIVA |
| | PSIL | 42-71<br>26,33,35,42-58 | BCQs , SEQ, VIVA |
| | PMP | 85-92<br>12,13,20,36,37,38,70-77 | BCQs , SEQ, VIVA |
| | SSL / WBT | 72-75/ 1-7, 8-11<br>4,5,6,7,8,9,10,11,14,15,16,1<br>7,18,19,20,21,22,23,24,39,<br>4<br>0,41,59, 60,61 | BCQs , SEQ, VIVA, OSPE |
| | Student's<br><br>presentations<br>JC / CPC | 1,17,18,19,20,21,22,23,24,<br>4<br>0,41, 62-69, | BCQs , SEQ, VIVA, OSPE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
PMP: PATIENTS MANAGEMENT PROBLEM
CPC: CLINICAL PATHOLOGICAL CASE
JC: JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

KHYBER MEDICAL COLLEGE ABBOTTABAD EXCELLENCE & INNOVATION

## MODULE XIV
## INFECTIOUS AND PARASITIC DISEASES

**Learning Objectives**

40. Assess the causes of febrile illness.
41. Assess and analyse the epidemiology, basic pathology, natural history, symptoms, signs, complications, investigations, differential diagnosis, management and prevention of common bacterial, viral and parasitic infections in the region, with special reference to vaccine-preventable disease: Diarrhea, LRTI, Tuberculosis, Poliomyelitis, Meningitis, Diphtheria, Whooping cough, Tetanus including neonatal tetanus, Measles, Mumps, Rubella, Typhoid, Viral Hepatitis, Cholera, Chickenpox, Giardiasis, Amoebiasis, Intestinal helminthiasis, Malaria, Dengue fever, AIDS Kala-Azar, Leprosy, Chlamydia infection, rabies.
42. Identify and assess the causes, symptoms, diagnosis and treatment of Septic arthritis and osteomyelitis.
43. Assess and plan to manage common skin infections

**GASTROENTEROLOGY AND HEPATOLOGY**

44. List the Clinical approach to a child with jaundice, vomiting, abdominal pain, upper and lower GI bleeding, hepatosplenomegaly.
45. Assess the acute diarrheal disease- pathogenesis, Clinical differentiation of watery and invasive diarrhoea, complications of diarrheal illness.
46. Assessment of dehydration, treatment at home and in hospital. Fluid and electrolyte management. Oral rehydration, composition of ORS.
47. Analyse the causes, investigations and management of Persistent and chronic diarrhea. Assessment and management of dysentery.
48. Assess the Clinical features and management of acute viral hepatitis and acute liver failure. Explain drug induced hepatitis. Assessment and management of fulminant liver failure.
49. Describe the Management of hepatic encephalopathy. Explain the grading of hepatic encephalopathy.
50. Assess the causes & diagnosis of Chronic Liver Disease: including Wilson disease, viral hepatitis.
51. List the causes and management of portal hypertension.
52. Analyse Common causes of constipation and management in children.
53. Summarize the investigation, signs and symptoms and management of Abdominal tuberculosis.
54. Describe causes, clinical features and management of Celiac disease. Counselling of parents regarding celiac disease.
55. Analyse and assess worm infestation and its management.
56. Assess recurrent abdominal pain.

**RESPIRATORY SYSTEM**

57. Design a plan of Clinical approach to a child with cyanosis, respiratory distress, wheezing.
58. Predict the Significance of recession, retraction.
59. Evaluate the Etiopathogenesis, clinical features, complications, investigations, differential diagnosis and management of acute upper respiratory infections, pneumonia with emphasis on bronchopneumonia, bronchiolitis, bronchitis. Acute and chronic otitis media.
60. Evaluate the etiopathogenesis, clinical features, diagnosis, classification and management of bronchial asthma according to GINA guidelines.
61. Plan the Treatment of acute severe asthma as well as for treatment to control the symptoms of disease.
62. Evaluate the etiology,management and diagnosis of Pulmonary and other types of tuberculosis.

63. Differentiate between the tuberculous infection versus tuberculous disease.
64. Differentiate between primary and post-primary tuberculosis.
65. Evaluate the etiopathogenesis, diagnostic criteria of tuberculosis in children versus adults.
66. Formulate the Diagnostic aids-technique and interpretation of Mantoux test and BCG test.
67. Asses the Radiological patterns and plan the Chemoprophylaxis and treatment in tuberculosis.
68. Summarize the basic principle of diagnosis and management of Multidrug resistant tuberculosis.
69. Plan for the diagnosis and management of foreign body aspiration.
70. Formulate the differential diagnosis of stridor. Assess knowledge about Croup, epiglottitis, tracheitis , quinsy.
71. Assess the pathogenesis, clinical features and management of pneumothorax, pleural effusion and empyema.
72. Identify the etiology, symptoms, diagnosis and management of Bronchiectasis, pulmonary cysts.
73. Summarize the knowledge about cystic fibrosis and devise a plan to manage a child with cystic fibrosis.

**CARDIOVASCULAR SYSTEM**

74. Develop a list of clinical features, diagnosis, investigation, treatment and prevention of acute rheumatic fever.
75. Summarize the causes, diagnosis and management of rheumatic heart disease in childhood.
76. Distinguish between congenital acyanotic and cyanotic heart disease.
77. Formulate the hemodynamics, clinical features and management of VSD, PDA, ASD and Fallot's tetralogy (Cyanotic spells).
78. Assess the Pathophysiology and management of Tet spells.
79. Develop a list of aetiology, diagnosis, investigation and management of congestive cardiac failure in children.
80. Assess for Hypertension in children-recognition and referral.
81. Recognize the ~~list of~~ etiology, diagnosis and management of bacterial endocarditis, pericardial effusion and myocarditis.
82. Evaluate the ECG in children. Normal and abnormal.

**NERVOUS SYSTEM**

83. Evaluation of milestones and developmental age.
84. Recommend the plan to localize of neurological deficit.
85. Plan the clinical approach to a child with coma, mental retardation.
86. Differentiate between the clinical diagnosis, investigations and treatment of acute pyogenic meningitis, encephalitis & Tubercular Meningitis, Cerebral Malaria.
87. Analyse the Seizure Disorder-Causes and types of convulsions at different ages. Diagnosis categorization & management of Epilepsy (Broad outline). Febrile convulsions-definition, types Management of seizures and status epilepticus.
88. Identify the Causes, diagnosis and management of cerebral palsy. Explain the types of cerebral palsy.
89. Predict the problem list of Cerebral palsy patient.
90. Assess the Acute flaccid paralysis:case definition, AFP surveillance.
91. Distinguish between Polio and Guillain – Barre syndrome.
92. Assess a child with Microcephaly. Causes, monitoring, diagnosis and management.
93. Assess the causes, signs and symptoms,investigations and management of hydrocephalus.
94. Analyse causes and management of chorea.
95. Outline how to Counsel parents for inherited neurological diseases.
96. Summarize the basics of neuroregression disorders.

97. Analyse the myopathic disorders. Formulate the signs and symptoms, investigations, management of myopathies: Duchenne and Becker muscular dystrophy.

**PSIL**

**POISONING**

- Summarize the presentation and management of various poisonings especially focusing on the poisoning of: acetaminophen, salicylate, iron poisoning, organophosphorus poisoning, kerosene oil poisoning, tricyclic antidepressants and other drugs.

- Summarize the presentation and management of various Animal and Insect bites with special emphasis on: dog bite and rabies (know the national guidelines to manage), snake bite (grading), scorpion bite, bee sting.

**FLUID AND ELECTROLYTE THERAPY**

- Summarize the Principles of fluid and electrolyte therapy in children; assess Pathophysiology of acid-base imbalance and principle of management.
- Interpret ABGs.
- Discuss the composition of ORS and Hartmanns solution, normal saline.

**ECG INTERPRETATION**

- Evaluate the ECG in children. Normal and abnormal.

**IMMUNIZATION**

- Prioritize the Principles of Immunization.
- Summarize about Vaccine preservation and cold-chain.
- Formulate Types, contents, efficacy storage, dose, site, route, contra-indications and adverse reactions of vaccines – BCG, DPT, OPV, Measles, MMR, hepatitis B, Penta and Typhoid·
- Assess the AFP (Acute Flaccid Paralysis) surveillance ·
- Formulate the types of polio vaccines and herd immunity.
- Assess the knowledge about special vaccines like Typhoid, Hepatitis A, Chicken pox, Meningococcal, and Rabies.
- Formulate the knowledge about EPI and newer vaccines.

**GROWTH AND DEVELOPMENT**

- Assess the knowledge about normal growth monitoring and growth charts. Assess anthropometry – measurement and interpretation of weight, length/height, head circumference, mid-arm circumference. Use of weighing machines, infantometer. Measurement and interpretation of sitting height, US: LS ratio and arm span.
- Formulate the abnormalities in growth and development.
- Recognize different milestones of development and detection of developmental abnormalities. Important milestones in infancy and early childhood in the areas of Gross Motor, Fine Motor, Language and Personal–Social development. 3-4 milestones in each of the developmental fields, age of normal appearance and the upper age of normal psychological and behavioral problems.

**IMNCI**

- Formulate the Integrated Management of Childhood Illness (IMCI) and its role in preventive and social aspects of paediatrics,

**LIST OF X-RAYS**

- Pneumonia.
- Primary complex, Miliary tuberculosis.
- Pleural effusion/Pneumothorax.
- Congenital heart disease with increased/ decreased pulmonary blood flow.
- Rickets, scurvy, haemolytic anaemia.
- Diaphragmatic hernia.
- Intestinal obstruction.
- Foreign body aspiration

98. Approach to the child with anemia
99. Febrile child (PUO))
100. Child with recurrent abdominal pain
101. Tuberculous meningitis
102. Child with Chronic diarrhea and malnutrition
103. Child with respiratory distress
104. Infant on breast feeding
105. Neonate with birth asphyxia
106. Infant with neonatal sepsis
107. Child with recurrent seizures

**SKILLS LAB:**

108. **BLS:**
- CHILD BLS:
  - Paediatric chain of survival.
  - Child BLS
  - 2 rescuer child BLS
- RELIEF OF CHOKING:
  - Infant/child choking
- INFANT BLS:
  - Infant compressions
  - 2 rescuer infant BLS
  - AED for infants and children less than 8 years

109. **NRP-8:**
  - Perform Neonatal Resuscitation Program-8

110. **PROCEDURES**:
  - Injections (IM, IV, S/C, I/D)
  - Blood sampling, IV cannula insertion
  - Naso-gastric tube insertion
  - Lumbar puncture
  - Pleural/ Ascitic tap
  - Bone marrow aspiration
  - Foleys catheterization

111. LIST OF **INSTRUMENTS**:
  - Tuberculin syringe
  - Intravenous cannula
  - Lumbar puncture needle
  - Bone marrow aspiration and trephine needle
  - Ambu bag and mask
  - Endotracheal tube

- Laryngoscopes
- Emergency drugs/ vaccine
- Foleys catheter

**JOURNAL CLUB AND CPC:**

112. Approach to the child with anemia
113. Down Syndrome/Dysmorphism
114. Enteric fever/ Malaria/ Dengue fever/ TB
115. Wilsons Disease/chronic liver disease
116. Pyrexia of unknown origin
117. Protein Calorie Malnutrition/ Rickets
118. Immunodeficiency
119. Sustainable development goals

**PMP**

120. Plan and formulate the approach to child abuse and how to manage the case of child abuse.
121. Summarize the basics of malnutrition.
122. Formulate the causes and management of obesity. Summarize the traffic light diet. Discuss hypervitaminosis A and D.
123. Identify the etiology, symptoms, diagnosis and management of Bronchiectasis, pulmonary cysts.
124. Summarize the knowledge about cystic fibrosis and devise a plan to manage a child with cystic fibrosis.
125. Summarize the basic principles of diagnosing the delayed and precocious puberty.
126. Approach to short stature (Devise a plan to diagnose and manage short strature)
127. Predict an outline to Counsel Parents for inherited neurological diseases.
128. Summarize the basics of neuroregression disorders.
129. Analyse the myopathic disorders. Formulate the signs and symptoms, investigations, management of myopathies: Duchenne and Becker muscular dystrophy.
130. Summarize the presentation and management of psychiatric problems: ADHD and Autistic spectrum disorders.
131. Peads Surgery 1:
132. Summarize the management of hydrocele.
133. Formulate the presentation of Vesico ureteric reflux, its grading and management.
134. Assess the causes, presentation, diagnosis and management of Intestinal obstruction.
135. Assess the causes, presentation, diagnosis and management of intussusception.
136. Peads Surgery2:
137. Assess the causes, presentation, diagnosis and management of Congenital dislocation of Hip.
138. Assess the causes, presentation, diagnosis and management hydrocephalus, myelocele, meningomyelocele.
139. Evaluate the Diagnosis and timing of surgery of Cleft lip/palate, hypospadias, undescended testis, tracheoesophageal fistula, hydrocephalus, CTEV, Umbilical and inguinal hernia, hypertrophic pyloric stenosis, congenital diaphragmatic hernia.
140. Discuss the common Pediatric emergencies:
    - Status epilepticus
    - Shock and anaphylaxis.
    - Gastrointestinal bleed.
    - Comatose child
    - Diabetic ketoacidosis
    - Septic shock.

- Severe dehydration.
- Status asthmaticus

## MODULE –XIV GRID

| OUT COMES | MIT | PEADS | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-28<br>29-32<br>39-57 | LGIS | 93-148<br>78-81, 86-89, 95-103,<br>112,115,117, 121-127 | BCQs , SEQ, VIVA |
| | PSIL | 149-165<br>142-158 | BCQs , SEQ, VIVA |
| | PMP | 177-197<br>171-190 | BCQs , SEQ, VIVA |
| | SSL / WBT | 166-168, 1-7, 8-11<br>78-81, 153-155,78-81,82-94,95-<br>111, 112-120, 121-135 | BCQs , SEQ, VIVA, OSPE |
| | Student's presentations<br>JC / CPC | 169-170 | BCQs , SEQ, VIVA, OSPE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
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SSL: SKILL LAB
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**ENDOCRINOLOGY**

141. Analyse the aetiology, clinical features & diagnosis and management of hypothyroidism, hyperthyroidism and goiter in children.
142. Analyse the aetiology, clinical features & diagnosis and management of diabetes: Type 1 diabetes/diabetic ketoacidosis (DKA)
143. Summarize the basic principles of diagnosing the delayed and precocious puberty.
144. Devise a plan to diagnose and manage short strature

**RHEUMATOLOGY**

145. Summarize the Presentation and management of autoimmune/connective tissue disorders e.g. Juvenile Idiopathic Arthritis, Systemic Lupus Erythematosus, Dermatomyositis, Henoch-Schonlein Purpura etc.

**HAEMATOLOGY/ ONCOLOGY**

146. Evaluate the causes of anemia in childhood.
147. Classify anemia based on etiology and morphology.
148. Evaluate and assess nutritional and haemolytic anemias.
149. List the types, clinical features and management of acute haemolytic anemias.
150. Analyse the epidemiology, recognition, diagnosis, management and prevention of nutritional anemia-iron deficiency, megaloblastic.
151. Identify and assess the epidemiology, etiology, clinical features, investigations for the diagnosis of Thalassemia. Summarize different types.
152. Develop a treatment plan for management of thalassemia major and intermedia. Also assess the complications and develop a plan to manage them. Assess the current situation in country to control the disease.
153. Formulate and develop an outline about breaking a bad news.( counselling of parents regarding a thalassemia major child)
154. Develop an approach to a bleeding child.
155. Analyse the causes, diagnosis and management of different bleeding and coagulation disorders.
156. Assess the Clinical features, diagnosis and management of hemophilia, ITP, Von Willi brand disease, platelet defects.
157. Analyse the complications of haemophilia and the management.
158. Analyse and evaluate the causes, symptoms, etiology and management of nonthrombocytopenic purpura (HSP).
159. Clinical approach to a child with anemia with lymphadenopathy and/or hepato-splenomegaly.
160. Formulate a plan for diagnosis of acute lymphoblastic leukemia and principles of treatment.
161. Analyse the pathogenesis, etiology, clinical presentation, diagnosis and principles of management of lymphomas.
162. Assess the common childhood malignancies: Neuroblastomas, Wilms tumor, common brain tumors, teratomas and germ cell tumors.

**NEPHROLOGY**

163. Identify the basic etiopathogenesis, clinical features, diagnosis, complications and management of acute poststreptococcal glomerulo-nephritis and nephrotic syndrome.
164. Formulate the etiology, clinical feature, diagnosis and management of urinary tract infection – acute and recurrent.
165. Evaluate the etiology, diagnosis and principles of management of acute renal failure.

166. Formulate the causes and diagnosis of obstructive uropathy in children.
167. Formulate the diagnosis and principles of management of chronic renal failure.
168. Develop a list of causes and diagnosis of hematuria: Renal and bladder stones.
169. Assess and formulate the causes of Hemolytic-uremic syndrome and outline the management and outcome.
170. Recognize the aetiology of enuresis and modify the plan to manage it.

**PSIL**

**POISONING**

- Summarize the presentation and management of various poisonings especially focusing on the poisoning of: acetaminophen, salicylate, iron poisoning, organophosphorus poisoning, kerosene oil poisoning, tricyclic antidepressants and other drugs.

- Summarize the presentation and management of various Animal and Insect bites with special emphasis on: dog bite and rabies (know the national guidelines to manage), snake bite (grading), scorpio bite, bee sting.

**FLUID AND ELECTROLYTE THERAPY**

- Summarize the Principles of fluid and electrolyte therapy in children; assess Pathophysiology of acid-base imbalance and principle of management.
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- Evaluate the ECG in children. Normal and abnormal.

**IMMUNIZATION**

- Prioritize the Principles of Immunization.
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- Formulate the types of polio vaccines and herd immunity.
- Assess the knowledge about special vaccines like Typhoid, Hepatitis A, Chicken pox, Meningococcal, and Rabies.
- Formulate the knowledge about EPI and newer vaccines.

**GROWTH AND DEVELOPMENT**

- Assess the knowledge about normal growth monitoring and growth charts. Assess anthropometry – measurement and interpretation of weight, length/height, head circumference, mid-arm circumference. Use of weighing machines, infantometer. Measurement and interpretation of sitting height, US: LS ratio and arm span.
- Formulate the abnormalities in growth and development.
- Formulation of different milestones of development and detection of developmental abnormalities. Important milestones in infancy and early childhood in the areas of Gross Motor, Fine Motor, Language and Personal–Social development. 3-4 milestones in each of the developmental fields, age of normal appearance and the upper age of normal psychological and behavioral problems.

**IMNCI**

- Formulate the Integrated Management of Childhood Illness (IMCI) and its role in preventive and social aspects of paediatrics,

**LIST OF X-RAYS**

- Pneumonia.Primary complex, Miliary tuberculosis.
- Pleural effusion/Pneumothorax.
- Congenital heart disease with increased/ decreased pulmonary blood flow.
- Rickets, scurvy, haemolytic anaemia.
- Diaphragmatic hernia.
- Intestinal obstruction.
- Foreign body aspiration

171. Approach to the child with anemia
172. Febrile child (PUO))
173. Child with recurrent abdominal pain
174. Tuberculous meningitis
175. Child with Chronic diarrhea and malnutrition
176. Child with respiratory distress
177. Infant on breast feeding
178. Neonate with birth asphyxia
179. Infant with neonatal sepsis
180. Child with recurrent seizures

**SKILLS LAB:**

181. **BLS:**

- CHILD BLS:
  - Paediatric chain of survival.
  - Child BLS
  - 2 rescuer child BLS

- RELIEF OF CHOKING:
  - Infant/child choking

- INFANT BLS:
  - Infant compressions
  - 2 rescuer infant BLS
  - AED for infants and children less than 8 years

182. **PROCEDURES:**
  - Injections (IM, IV, S/C, I/D)
  - Blood sampling, IV cannula insertion
  - Naso-gastric tube insertion
  - Lumbar puncture
  - Pleural/ Ascitic tap
  - Bone marrow aspiration
  - Foleys catheterization

183. **LIST OF INSTRUMENTS:**
  - Tuberculin syringe
  - Intravenous cannula
  - Lumbar puncture needle
  - Bone marrow aspiration and trephine needle
  - Ambu bag and mask

- Endotracheal tube
- Laryngoscopes
- Emergency drugs/ vaccine
- Foleys catheter

**JOURNAL CLUB AND CPC:**

184. Approach to the child with anemia
185. Down Syndrome/Dysmorphism
186. Enteric fever/ Malaria/ Dengue fever/ TB
187. Wilsons Disease/chronic liver disease
188. Pyrexia of unknown origin
189. Protein Calorie Malnutrition/ Rickets
190. Immunodeficiency
191. Sustainable development goals

**PMP**

192. Plan and formulate the approach to child abuse and how to manage the case of child abuse.
193. Summarize the basics of malnutrition.
194. Formulate the causes and management of obesity. Summarize the traffic light diet.
195. Discuss hypervitaminosis A and D.
196. 1) Formulate the etiology, symptoms, diagnosis and management of Bronchiectasis, pulmonary cysts.
197. 2) Summarize the knowledge about cystic fibrosis and devise a plan to manage a child with cystic fibrosis.
198. Summarize the basic principles of diagnosing the delayed and precocious puberty.
199. Approach to short stature (Devise a plan to diagnose and manage short strature)
200. Predict an outline to Counsel parents for inherited neurological diseases.
201. Summarize the basics of neuroregression disorders.
202. Analyse the myopathic disorders. Formulate the signs and symptoms, investigations, management of myopathies: Duchenne and Becker muscular dystrophy.
203. Summarize the presentation and management of psychiatric problems: ADHD and Autistic spectrum disorders.
204. Peads Surgery 1:
205. Summarize the management of hydrocele.
206. Formulate the presentation of Vesico ureteric reflux, its grading and management.
207. Assess the causes, presentation, diagnosis and management of Intestinal obstruction.
208. Assess the causes, presentation, diagnosis and management of intussusception.
209. Peads Surgery2:
210. Assess the causes, presentation, diagnosis and management of Congenital dislocation of Hip.
211. Assess the causes, presentation, diagnosis and management hydrocephalus, myelocele, meningomyelocele.
212. Evaluate the Diagnosis and timing of surgery of Cleft lip/palate, hypospadias, undescended testis, tracheoesophageal fistula, hydrocephalus, CTEV, Umbilical and inguinal hernia, hypertrophic pyloric stenosis, congenital diaphragmatic hernia.
213. Discuss the common Pediatric emergencies:
    - Status epilepticus
    - Shock and anaphylaxis.
    - Gastrointestinal bleed.

- Comatose child
- Diabetic ketoacidosis
- Septic shock.
- Severe dehydration.
- Status asthmaticus

## MODULE –XV GRID

| OUT COMES | MIT | PEADS | ASSESSMENT TOOLS |
|---|---|---|---|
| 1-52 | LGIS | 172,173,175,176,177-191, 194-198 | BCQs , SEQ, VIVA |
| | PSIL | 202-218 | BCQs , SEQ, VIVA |
| | PMP | 174, 230-237 | BCQs , SEQ, VIVA |
| | SSL / WBT | 192,193, 198-201,219-221 | BCQs , SEQ, VIVA, OSPE |
| | Student's presentations JC / CPC | 222-229 | BCQs , SEQ, VIVA, OSPE |

**TEACHING STRATEGIES:**

LEC: LECTURE
PSIL: PROBLEM SOLVING INTERACTIVE LEARNING
PMP: PATIENTS MANAGEMENT PROBLEM
CPC: CLINICAL PATHOLOGICAL CASE
JC: JOURNAL CLUB
SSL: SKILL LAB
WBT: WARD BASED TEACHING

**RECOMMENDED BOOKS**

**Essential Reading**

1. Nelson Essentials of Pediatrics by Behrman & Kliegman
2. Illustrated Textbooks of Pediatrics by Tom Lessaier
3. Bates Physical Diagnosis: Section on Pediatrics
4. Current Pediatrics Diagnosis & Management. Lange Series
5. IMNCI WHO Manual (latest)
6. GINA Guidelines (latest)
7. WHO manual for protein calorie malnutrition.
8. National guidelines for tuberculosis management. (latest)

**Reference**

1. Nelson -Text Book of Pediatrics by Behrman, Kliegman & Jenson
2. Manual of Neonatal Care By N.L.C Roberton

**Clinical Methods**

1. Hutchison's Clinical Methods by M Swash (latest edition)

**COMMUNICATION LEADERSHIP AND PROFESSIONALISM**

| Learning objectives | Instructional strategies |
|---|---|
| • Communicate effectively using a written health record, electronic medical record, or other digital technology<br>• Uses effective and efficient communication and management strategies<br>• Share information with patients and others in a manner that respects patient privacy and confidentiality and enhances understanding | • Small group discussion video presentation with multiple scenarios<br>• Role play<br>• Demonstration on Standardized patients<br>• Small group exercises<br>• Student's presentations.<br>• PBL, PSIL, Journal club |
| • Demonstrate the skills while working with physicians and other colleagues in the healthcare professions<br>• Use a process for decision making<br>• Apply appropriate leadership style for achieving the desired goals | |
| • Recognizes difficult situations and communication challenges and deals with them sensitively and constructively<br>• Recognize and respond to unprofessional and unethical behaviors in physicians and other colleagues in the health care professions | |

FRONTIER MEDICAL COLLEGE ABBOTTABAD EXCELLENCE & INNOVATION

## ENTREPRENEURSHIP CURRICULUM

| S.No | TOPICS/ THEME | LEARNING OUTCOMES | LEARNING OBJECTIVES | INSTRUCTIONAL STRATEGIES | ASSESSMENT TOOLS |
|---|---|---|---|---|---|
| 1. | **What Entrepreneurship and Why Is It Important?** | • The learners shall be able to<br>○ Understand the nature, fundamental concepts, and the importance of entrepreneurship | • Introduction to entrepreneurship<br>• Understand fundamental concepts of entrepreneurship | Mini Cases:<br>Class Discussion<br>• How a Lack of Passion and Too Few Customers Can Kill a Business<br>• Angry Birds and Zeo | IA:<br>Presentations, assignments, group projects, case studies |
| 2. | **Window of opportunity** | • The learners shall be able to<br>○ Understand concepts of 'idea', and opportunity recognition | • Recognizing Opportunities and Generating Ideas<br>• Describe the three general approaches entrepreneurs use to identify opportunities<br>• Identify the major environmental trends that are most instrumental | | |
| | | | in creating business opportunities application of these concepts to local business scenario | | |
| 3. | **Feasibility Analysis** | • The learners shall be able to<br>○ Describe the purpose of a product/service feasibility analysis | • Be able to analyse feasibility analysis (sample cases)<br>• Understand the importance of library, Internet, and gumshoe research | | |
| 4. | **Business Model Canvas** | • The learners shall be able to<br>○ Discuss the importance and relevance of a developing a business model | • Understanding of the concept of value proposition, value chain and core competency | | |
| 5. | **Preparing the Legal Foundation** | • The learners shall be able to<br>○ Construct a "skills profile" and explain how it helps a startup identify gaps in its new-venture team | • How to register a business in Pakistan<br>• Discuss the differences among sole proprietorships, partnerships, corporations, and limited liability companies | | |

| | | | | | |
|---|---|---|---|---|---|
| 6. | **Marketing** | • The learners shall be able to<br>○ Analyse marketing, advertising and sales aspects of entrepreneurial venture | • Marketing Aspects<br>• Building a Brand<br>• Marketing Mix<br>• Advertising and PR<br>• Be able to suggest/devise marketing compaign for a new entrepreneurial venture | | |

FRONTIER MEDICAL COLLEGE ABBOTTABAD EXCELLENCE & INNOVATION

## ACADEMIC SCHEDULE

### Frontier Medical and Dental College Abbottabad

### Academic Calender 2026-2027

| MONTHS, WEEK DAYS & DATES | | | | | | | | SCHEDULED ACADEMIC & CO CURRICULAR EVENTS | PUBLIC HOLIDAYS/ HEALTH & AWARENESS DAYS |
|---|---|---|---|---|---|---|---|---|---|
| | SUN | MON | TUE | WED | THU | FRI | SAT | MBBS | |
| Jan-26 | | | | | 1 | 2 | 3 | WINTER BREAK | |
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | |
| | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | |
| | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | World Leprosy Day 26th Jan |
| Feb-26 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | World Cancer Day 4th Feb |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Commencement of Modules IV, VII, X, XIII | Kashmir Solidarity Day 5th Feb |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | | |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | Intl's Women's Day 8th Mar |
| Mar-26 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Commencement of Module I<br>Orientation Week | World Kidney Day 12th Mar |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | World Disabled Day 15th Mar |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | | Eid ul Fitr 21st - 23rd March |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | Pakistan Day 23rd March |
| | 29 | 30 | 31 | | | | | | World Tuberculosis Day 24th Mar |
| Apr-26 | | | | 1 | 2 | 3 | 4 | | Oral Cancer Awareness 1st April |
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | World Health Day 7th Apr |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | | Hemophilia Day 17th Apr |
| | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | World Liver Day 19th Apr |
| | 26 | 27 | 28 | 29 | 30 | | | End of Module IV, VII, X, XIII Exams | |
| May-26 | | | | | | 1 | 2 | | Labour Day 1st May |
| | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Commencement of Modules V, VIII, XI, XIV | Thalassemia Day 8th May |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | |
| | 17 | 18 | 19 | 20 | 21 | 22 | 23 | End of Module I | Eid ul Azha 26th-28th May |
| | 24 | 25 | 26 | 27 | 28 | 29 | 30 | Commencement of Module II | Youme Takbeer 28th May |
| | 31 | | | | | | | | World Tobacco Day 31st May |
| | | 1 | 2 | 3 | 4 | 5 | 6 | Summer Break | |
| Jun-26 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | World Brain Tumor Day 8th Jun |
| | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | World Blood Donation Day 14th June |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | | Ashura Days 25th-26th June |
| | 28 | 29 | 30 | | | | | Extracurricural Activities/ Sports Week | |
| Jul-26 | | | | 1 | 2 | 3 | 4 | | National Doctor's Day 1st July |
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | | |
| | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | |
| | 26 | 27 | 28 | 29 | 30 | 31 | | | World Hepatitis Day 28th July |
| Aug-26 | | | | | | | 1 | | 1st August Oral Hygiene Day |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | End Moodular Exam V, VIII, XI,IV Exams | |
| | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Commencement of Modules VI, IX, XII, XV | Independence day 14th Aug |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | | |
| | 23 | 24 | 25 | 26 | 27 | 28 | 29 | End Moodular Exam II | Eid Milad un-Nabi 25th August |
| | 30 | 31 | | | | | | Commencement of Module III | |
| Sep-26 | | | 1 | 2 | 3 | 4 | 5 | | Defence Day 6th Sep |
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | Research Competition Sep |
| | 13 | 14 | 15 | 16 | 17 | 18 | 19 | | World Patient Safety Day 17th sept |
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | | World Alzeheimer's Day 21st Sep |
| | 27 | 28 | 29 | 30 | | | | | World Heart Day 28th Sep |
| Oct-26 | | | | | 1 | 2 | 3 | | Breast Cancer Month-October |
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | Intl Teacher's Day 5th Oct |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | World Mental Health Day 10th Oct |
| | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | World Food Day 16th Oct |
| | 25 | 26 | 27 | 28 | 29 | 30 | 31 | End of Modules VI, IX, XII, XV Exams | World Osteoporosis Day 20th Oct |
| | | | | | | | | | World Polio Day 24th Oct |
| Nov-26 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | Iqbal Day 9th Nov |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | Tentaive Date of MBBS Professional Exam End of Module III | World Immunization Day 10th Nov |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | World Diabetes Day 14th Nov |
| | 29 | 30 | | | | | | | |
| | | | | | | | | | World AIDS Day 1st Dec |
| Dec-26 | | | 1 | 2 | 3 | 4 | 5 | | National Pollution Day 2nd Dec |
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Tentaive Date of MBBS 1ST Professional Exam | Intl Universal Health Coverage Day 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 | 19 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| | 27 | 28 | 29 | 30 | 31 | | |

Quaid's Day / Christmas Day 25 Dec

Public Holidays

Health & Awareness Days

Modules & College Vocations

Prepared By: DME

Frontier Medical & Dental College