

Antenatal Care

Module Title: Antenatal Care

Module Code: MidwM-4101

Module ECTS: 10 ECTS= 6 credit hours.

Module Duration: 07 Weeks (Clinical Practice parallel to class room and SDL teaching)

Module Description: This module is designed for pot basic BSc midwifery students to help acquiring the essential knowledge, skills and attitudes related with basic care during pregnancy. The module includes preventive measures, supportive care, health message and counseling, and birth preparedness and complication readiness planning that enable Midwives to provide high quality culturally acceptable care during pregnancy. This Module will be addressed through Interactive lecture, Seminar presentations, Skill Development Lab (SDL) demonstration and supervised feedbacks in simulated environment and real health care setup including ANC clinic and Obstetrics ward (Maternity ward).

Module Objective

At the end of this module, students will be able to provide high quality, culturally acceptable care during pregnancy.

Module Competencies

The core professional competencies where this practice Module aimed at achieving are:

1. Diagnose and manage normal pregnancy
2. Diagnose and manage abnormal pregnancy
3. Diagnose and manage common medical and surgical disorders during pregnancy

Learning Outcomes

In order to achieve core competencies, at the end of this Module (students) will be able to:

Diagnose pregnancy (S)

Take a complete initial and on-going history for each antenatal visit (S)

Measure vital signs of the pregnant mother and interpret the findings (S)

Perform a complete physical examination including abdominal examination (Leopold's maneuver) and explain findings to the woman (S) (A)

Calculate gestational age (k, S)
 Calculate the estimated date of birth (k, s)
 Assess fetal growth (S)
 Provide women friendly Focused Antenatal care using national guidelines (S)(A)
 Monitor fetal growth and heart rate, placental location, and amniotic fluid volume using ultrasonographic assessment (S)
 Demonstrate measures to decrease common discomforts during pregnancy (S)
 Diagnose minor disorders of pregnancy (S)
 Manage minor disorders of pregnancy (S)
 Apply the basic principles of pharmacology, Prescribe, dispense and administer selected, lifesaving drugs to pregnant women (K/S)
 Assess the use of substance, prescribed medications, street drugs, traditional medicines, and over-the-counter drugs during pregnancy (K, A, S)
 Identify Anemia during pregnancy (K)
 Manage and/ or refer Anemia during pregnancy (S)
 Diagnose malaria during pregnancy (K/S)
 Manage and/or refer malaria during pregnancy (S)
 Diagnose Hyperemesis gravida (K/S)
 Manage and/ or refer Hyperemesis gravida (S)
 Diagnose Hypertensive disorder during pregnancy (K/S)
 Manage and/ or refer Hypertensive disorder during pregnancy (S)
 Diagnose Bleeding in Late pregnancy (S)
 Manage and/ or refer Bleeding in Late pregnancy (S)
 Diagnose Amniotic fluid disorders (S)
 Manage and/ or refer Amniotic fluid disorders (S)
 Diagnose Premature rupture of membranes (S)
 Manage and/ or refer Premature rupture of membranes (S)
 Diagnose Intrauterine growth restriction (S)
 Manage and/ or refer Intrauterine growth restriction (S)
 Diagnose Intrauterine fetal death (K/S)
 Manage and/ or refer Intrauterine fetal death (S)
 Identify sign/symptoms of amniotic fluid embolism (K)
 Provide basic life support for patients with amniotic fluid embolism (S)
 Diagnose Preterm labor (K/S)
 Manage and/ or refer Preterm labor (S)
 Diagnose Prolonged pregnancy (S)
 Manage and/ or refer Prolonged pregnancy (S)
 Diagnose Multiple pregnancy and associated complications (K/S)
 Manage and/ or refer Multiple pregnancy and associated complications (S)
 Diagnose RH in compatibility and Iso-immunization (K/S)

Manage and/ or refer RH in compatibility and Iso-immunization (S)

Provide Tetanus toxoid immunization during pregnancy (S)

Develop a birth preparedness and emergency readiness plan with the woman and her companion (if present) (S)(A)

Prerequisite modules:

Foundation of Midwifery I

Foundation of Midwifery II

Duration: 07 weeks

Teaching-Learning Methods

Interactive lecture and discussion

Small group discussion

Role play

Case study

Bedside teaching

Clinical round

Portfolio

Clinical simulation

Video show

Demonstration

Guided clinical practice

Individual studies

Inter-professional learning experience in the clinics, and community practice

PBL Cases

Potential topics for Seminar Presentations

CHF

DM

Pneumonia

Antenatal depression

Acute abdomen during pregnancy

DIC

Abnormal placental formation

Chorioamnionitis

TORCH infection

Maternal nutrition during pregnancy

Post term pregnancy

Amniotic fluid embolism

Teaching-Learning Materials

Learning guides and checklists

Text books

Reference manual

National manuals and guidelines

Writing board, posters and charts

Anatomic models & simulators

LCD Projector

White board, marker

Laptop and Videotapes

Pregnant doll

Measuring tap

BP apparatuses

Wight scale

HMIS antenatal format

Methods of Assessment

Formative

Drills, essay exams, quizzes,

PBL progressive assessment

Practical test (in SDL & clinical practice area)

Structured feedback report

Oral exam

Case studies

Logbook

Portfolio

360⁰ evaluation

Summative

Progressive/continuous assessment (Quiz, assignment, seminar and test) (15%)

Direct observation of clinical /procedural skill (DOP) - 25%

PBL progressive assessment (10%)

End of module objectively written exam 20%

Structured Oral Examination - 10%

Objectively Structured Clinical Examination (OSCE) - 20%

Possible Summative assessment areas for:

Direct Observed Procedure (DOP)

History taking and physical examination during ANC

Provision of focused ANC
 Calculating GA and EDD
 Performing Leopold maneuver
 Appropriate midwifery care plan development using midwifery continuum of care
 Ordering and Interpretation of laboratory tests and Ultrasound findings ordered for ANC
 Producing complete midwifery record sheet (Filling ANC record sheet)
 Counseling about birth preparedness, complication readiness, family planning, hygiene, nutrition, etc....
 Checking vital sign.
 Confirmation of fetal heart beat
 Providing TT vaccination
 Communication skills (with friends, clinic staffs, clients)

Objectively Structured Clinical Examination (OSCE)

History taking and physical examination for ANC
 Assessment of Position, presentation and lie of the fetus using proper abdominal examination
 Counsel for birth preparedness and complication readiness, family planning, hygiene, nutrition, etc.....
 Management of pre-eclampsia and eclampsia

Module Policy

Attendance: It is compulsory to attend lecture class, SDL and Hospital clinical practice on time and every time. If students are going to miss more than three classes of this module, they will not be allowed to sit for final assessment unless otherwise proven by evidence as per the legislation requirement. 100% attendance is mandatory for Clinical Practice.

Assignments and projects: Students must complete Module assignments and work-based assessments on time. Uncompleted work-based assessments and assignments will result in Incomplete (I) grade submissions to registrar. Further consecutive procedures will be handled in line with the institutional senate legislation.

References






1. Bennet VR, Brown L. Myles Textbook for Midwives. Edinburgh: Churchill Livingstone, 2000, 16 th edition
2. Best Practices in Maternal and Newborn Care: A Learning Resource Package for Essential and Basic Emergency Obstetric and Newborn Care (ACCESS 2008)
3. Managing complications in pregnancy and childbirth: a guide for midwives and doctors 2017, 2nd editions.
4. Managing Newborn Problems: A Guide for Doctors, Nurses, and Midwives. WHO: Geneva, 2003

5. World Health Organization (WHO). 2004. Prevention of Mother-to-Child Transmission of HIV. Generic Training Package. In collaboration with the U.S. Department of Health and Human Services, Centers for Disease Control (CDC) and Global AIDS Program (GAP). WHO: Geneva.
6. Steven G.Gabbe. Obstetrics normal and problems in pregnancy 2007, fifth edition.
7. F. Gary Cunningham, Kenneth J. Leveno Steven L. Bloom: Williams OBSTETRICS, 24th edition, 2014:668
8. Management protocol selected obstetrics topics federal democratic republic of Ethiopia ministry of health January, 2010.
9. Lange current Series, Current Diagnosis & Treatment: Obstetrics &Gynecology,2013, eleventh Edition
10. DC, Dutta, text book of obstetrics, 2015, eight editions.
11. Susan scottricci, Maternity and Pediatric nursing, 2017, third editions.
12. Family Planning – A Global Handbook for Providers, 2007.
13. Leon speroff, A clinical guide for contraception, 2011, fifth editions.
14. Liolen Jones, Fundamental of obstetrics and gynecology, 2017, tenth editions.
15. Gabbe, Obstetrics: Normal and Problem Pregnancies, Seventh Edition, 2017
16. Dewhurst's Textbook of Obstetrics & Gynecology, Blackwell Publishers Seventh Ediction,2007
17. Lawrence Impey and Tim Child, Obstetrics & Gynecology – 4th ed, 2012
18. RichaSaxena , A Practical Guide to Obstetrics & Gynecology,2015
19. Williams Obstetrics 23r edition, Mc Grew Hill Publishers, 2010
20. Hacker, Moor and Gambon Essentials Of Obstetrics and Gynecology 4Th edition, Elsevier Publishers, 2011.

Week	Learning Activity	Required Reading Assignment
1	Interactive lecture and discussion (6 hrs.) Review of Anatomy and Physiology of female reproductive system (2 hrs.) Anatomical and physiological changes during pregnancy (3 hrs.) Skin Breast Metabolism Hematologic change Cardiovascular Respiratory Gastrointestinal Urinary system Musculoskeletal Endocrine system	Embryologic and Fetal development

	<p>Central nerves system Reproductive system Weight change</p> <p>Diagnosis of pregnancy [1 Hrs.] Presumptive signs and symptoms Probable signs Positive signs</p>	
	PBL (4 hrs.)	
	Hyperemesis gravidarum	
	Skills lab (4 hrs.)	
	Antenatal history taking Role plays	
	Clinical attachment (16 hrs.)	
	History taking (Guided clinical practice) Antenatal physical examination (Guided clinical practice)	
	Whole group session (2 hrs.)	
	Faculty facilitated discussion and reflection on the week's learning activities	
	Self-study (5hrs.)	
	Health promotion, education and disease prevention Module [Lecture=3Hrs + self-study 2Hrs]	
2	<p>Introduction to ANC: (2 hrs.) Terminologies related to pregnancy Focused Antenatal care (4) Hrs.] Birth preparedness and complication readiness for pregnant women Danger signs, Nutrition, rest and hygiene, Substance use, harmful traditional practices Benefit of child spacing, breast feeding, protection against STI and HIV factors affecting fetal growth and development</p>	<p>Reading</p> <p>Assignment on:</p> <p>Malformations of the placenta and cord</p>
	PBL (4 hrs.) RH incompatibility	
	Skills lab (4 hrs.)	
	Physical examination for pregnant women using anatomic models.	

	<p>Techniques of physical examination (assisted with video show)</p> <p>Perform physical examination for a pregnant woman focusing on abdominal examination (Leopold's maneuver) using anatomic models/simulators</p> <p>Perform a pelvic examination</p> <p>Perform clinical pelvimetry using anatomic model</p>	
	<p>Clinical attachment (16hrs.)</p> <p>ANC history taking and physical examination (Guided clinical practice)</p> <p>Counseling on health promotion and disease prevention (Guided clinical practice)</p>	
	<p>Whole group session (2 hrs.)</p> <p>Faculty facilitated discussion and reflection on the week's learning activities</p>	
	<p>Self-study (5hrs.)</p>	
	<p>Health promotion, education and disease prevention Module [Lecture=3Hrs + self-study 2Hrs]</p>	
3	<p>Interactive lecture and discussion (6 hrs.)</p> <p>Antepartum fetal surveillance (assessment) (2 hrs.)</p> <p>Fetal movement</p> <p>Contraction stress test</p> <p>Non-stress test</p> <p>Biophysical profile</p> <p>Routine ANC laboratory investigations (1 hrs.)</p> <p>Obstetrics ultrasound (14 hrs.)</p> <p>Biophysical profile</p> <p>Gestational age determination using CRL, BPD, FL, HC, abdominal circumference and fetal weight estimation</p> <p>Site of pregnancy, fetal presentation, number of fetuses</p> <p>Placenta location, grading, adherence, and separation</p> <p>Amniotic volume maximum vertical length and amniotic fluid index</p> <p>Fetal anatomy, congenital malformation</p> <p>Indication of intrauterine fetal death</p>	<p>Technological advances in assessment of Feto-maternal conditions.</p> <p>(Reflective Portfolio)</p>
	<p>PBL (4 hrs.)</p> <p>PROM</p>	

	Skills lab (4 hrs.) Observation of ultrasound material Demonstration on ultra-sonographic examination/scanning technique	
	Clinical attachment (24 hrs.) Observe ultra-sonographic assessment Guided practice on ultrasound visualization	
	Whole group session (2 hrs.) Faculty facilitated discussion and reflection on the week’s learning activities.	
	Self-study (5hrs.)	
	Health promotion, education and disease prevention Module [Lecture=3Hrs + self-study 2Hrs]	
4	Interactive lecture and discussion (6 hrs.) Minor disorder of pregnancy (1 hr.) Minor disorder of pregnancy Diagnosis and management of minor disorders of pregnancy Introduction to drugs in pregnancy (2 hrs.) FDA pregnancy drugs category Folic acid Iron TT Vaccine Teratogenic drugs Substance and drugs affecting fetal growth and development Interactive lecture and discussion (3 hrs.) PMTCT (2 hrs.) The 4 prongs of PMTCT Counseling and testing for HIV Introduction, cause, risk factors, pathophysiology, Investigation, Complication, Assessment and Management  Women and HIV/AIDS  Discordant HIV test results  Antiretroviral therapy  Feeding options for HIV exposed infants  Care and follow-up for HIV exposed infants	Traditional medicines for the management of minor disorders of pregnancy (evidence based) Reflective portfolio

	Prolonged pregnancy (1 hrs.) Introduction, Pathophysiology, Cause/ Risk factors/contributing factors, Diagnosis, Complication, Assessment and Management	
	PBL (4 hrs.) Preeclampsia	
	Skills lab (4hrs.) Demonstration on ANC services including TT immunization, iron/folate supplementation and documentation Video show about ANC care provision Case study, role play and simulated practice on PMTCT	
	Clinical attachment (16 hrs.) Observation and guided clinical practice on ultrasound visualization Side lab and ANC unit observation and guided practice: basic screening laboratory test during pregnancy Clinical attachment on ANC unit (Guided clinical practice), participate in the management of minor disorders of pregnancy Clinical attachment on ANC unit PMTCT (history taking/patient interview, physical examination, patient care and counseling)	
	Whole group session (2 hrs.) Faculty facilitated discussion and reflection on the week's learning activities	
	Self-study (5hrs.)	
	Health promotion, education and disease prevention Module [Lecture=5Hrs + self-study 2Hrs]	
5	Interactive lecture and discussion (8 hrs.) RH, ABO in compatibility and Iso-immunization (2 hrs.) Introduction, Pathophysiology, Cause, Risk factors/contributing factors, Diagnosis, Complication, Assessment and Management	Traditional beliefs regarding RH/ABO

	<p>Hypertensive disorders during pregnancy (4 Hrs.) Introduction, Pathophysiology, Types, Risk factors, Differential diagnosis, Complication, Assessment and Management</p> <p>Premature rupture of membranes (2 hrs.) Introduction to Premature rupture of membranes, Pathophysiology, diagnosis, complications and management.</p>	incompatibility
	<p>PBL (4 hrs.) Abruptio placenta</p>	Reflective portfolio
	<p>Skills lab (4 hrs.) Case study and simulated practice on management of PIH (focusing on Preeclampsia and eclampsia) Demonstration on MgSO₄ preparation and administration, Antihypertensive drugs and ABC of life</p>	
	<p>Clinical attachment (16hrs.) Obstetrics ward and ANC bed side teaching, clinical round and guided practice: Hypertensive disorder during pregnancy (history taking/patient interview, physical examination, lab investigation, patient care) Identification and management of variations from normal pregnancy Preparation and administration of Anticonvulsants and antihypertensive drugs</p>	
	<p>Whole group session (2 hrs.) Faculty facilitated discussion and reflection on the week's learning activities</p>	
	<p>Self-study (5hrs.)</p>	
	Health promotion, education and disease prevention Module [Lecture=3Hrs + self-study 2Hrs]	

6	Interactive lecture and discussion (7 hrs.) Bleeding in Late pregnancy (2 hrs.) Introduction, Pathophysiology, Types, Risk factors, Differential diagnosis, Complication, Assessment and Management Focusing on Abruptio placenta and placenta previa Preterm labor (2 hrs.) Introduction, Pathophysiology, Cause/ Risk factors, Assessment, Diagnosis, Complication, Management and Prevention Intrauterine growth restriction and intrauterine fetal death (2 hrs.) Introduction, Pathophysiology, Types, Risk factors, Assessment, Diagnosis, Complication, Management and Prevention Hyper emesis gravidarum (1 hr.)	
	PBL (4 hrs.)	
	Preterm labor	
	Skills lab (4 hrs.) Case study on Bleeding in Late pregnancy and Amniotic fluid disorder Case study on amniotic fluid disorders Simulated practice on basic life support for patients with amniotic fluid embolism	
	Clinical attachment (16 hrs.) Obstetrics ward and ANC unit: bed side teaching, clinical round and guided practice: Bleeding in Late pregnancy and Amniotic fluid disorder during pregnancy (history taking/patient interview, physical examination, patient care)	
	Whole group session (2 hrs.) Faculty facilitated discussion and reflection on the week's learning activities	
	Self-study (5 hrs.)	
	Health promotion, education and disease prevention Module [Lecture=4Hrs + self-study 2Hrs]	
7	Interactive lecture and discussion (6 hrs.)	

	<p>Malaria</p> <p>Syphilis during pregnancy</p> <p>Hepatitis during pregnancy</p> <p>Infection of the urinary tract (UTI)</p> <p>Pyelonephritis</p> <p>Cystitis</p> <p>Asymptomatic bacteriuria</p> <p>Complicated pregnancy/bad obstetrics history</p> <p>Previous c/section</p> <p>Early and late Primigravida</p> <p>Grand-multiparity</p> <p>Consecutive spontaneous abortion</p> <p>Pelvic deformity</p> <p>Repeated perinatal/neonatal loss</p> <p>Contracted pelvis</p> <p>Assessment and diagnosis</p>	
	<p>PBL (4 hrs.)</p> <p>Malaria during pregnancy</p>	
	<p>Clinical attachment (16 hrs.)</p> <p>Medical disorders during pregnancy (history taking/patient interview, physical examination, patient care)</p> <p>ANC unit: -assessment, diagnosis and management of pregnancies complicated by infections (Guided clinical practice)</p>	
	<p>Whole group session (2 hrs.)</p> <p>Faculty facilitated discussion and reflection on the week's learning activities</p>	
	<p>Self-study (5 hrs.)</p>	
	Health promotion, education and disease prevention Module [Lecture=5Hrs + self-study 2Hrs]	