ST. STEPHENS COLLEGE OF NURSING

Lesson Plan on

MANAGEMENT OF NORMAL PUERPERIUM

(MIDWIFERY AND GYNECOLOGICAL NURSING)

(Bsc. (HONS) NURSING 3RD YEAR)

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INTRODUCTION

Name : AKANSHA GAUTAM

Topic : NORMAL PUERPERIUM

Method of Teaching : Lecture cum Discussion

Group : B.Sc.(Hons.) nursing 3rd year

Venue : B.Sc 3rd yr. classroom

General Objective:

At the end of the class, the students will be able to understand and clear all doubts about normal puerperium and its management

Specific Objectives:

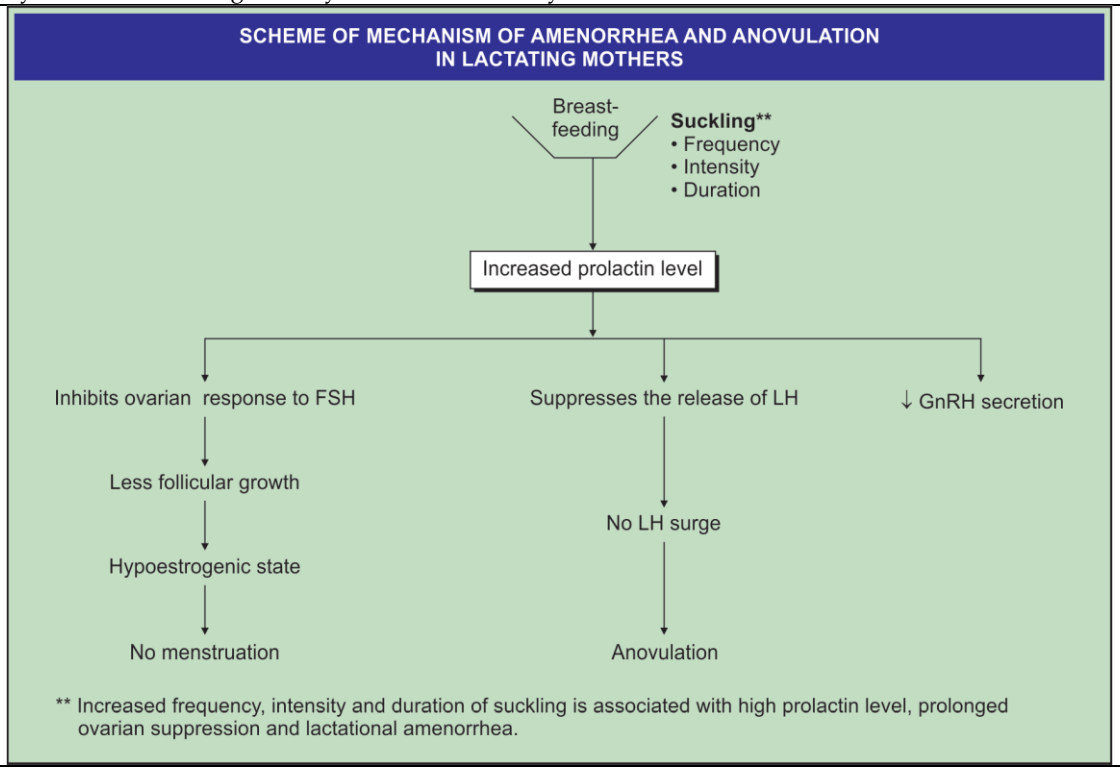
At the end of the class, the students will be able to:

- introduce about the meaning and definition of puerperium
- introduce about the duration of puerperium
- elaborate about the anatomical and physiological changes of puerperium
- describe the general physiological changes of puerperium
- explain briefly about lactation.
- explain the management of normal puerperium
- explain the management of ailments
- explain about postnatal care

SPECIFIC OBJECTIVES	TIME	CONTENT	METHOD OF TEACHING / LEARNING ACTIVITY	EVALUATION
	1min	INTRODUCTION	Puerperium is the postnatal period beginning immediately after the birth of a child and extending for about six weeks. During this period the body tissues, in particular the genital and the pelvic organs, return to the condition in to pre-pregnancy state of the women. This post delivery period of change continues till about 6 weeks (42 days) from delivery to normal, traditionally the concept of 40 days (or 'savamahina') of post-partumconfinement was and often still is, the rule in most Indian homes. It gives you time to recover and rest.	

To introduce about the meaning and definition of puerperium	4min	**DEFINITION OF PUERPERIUM** • It is also known as POST NATAL PERIOD . DEFINATION : It is a period following childbirth during which the body tissue, especially the pelvic organ , revert approximately to the pre- pregnant state both anatomically and physiologically. Puerperium is the time from the delivery of the placenta and the membranes to the return of the women's reproductive tract to its non pregnantcondition . It lasts for 6weeks.	Teacher introduce the meaning and definition of puerperium with the help of lecture cum discussion	What do you mean by puerperium?
To introduce about the duration of puerperium	4min	**DURATION** **Puerperium is divided into:** 1. **Immediate Puerperium –the first 24 hrs** 2. **Early Puerperium – upto next 7 days** 3. **Remote Puerperium –upto 6 weeks**	Teacher introduce duration of puerperium with the help of lecture cum discussion	What is duration of puerperium?
To elaborate about the anatomical and physiological changes of puerperium	15min	ANATOMICAL AND PHYSIOLOGICAL CHANGES OF PUERPERIUM • UTERUS: Immediately following delivery, the uterus becomes firm and retracted with alternate hardening and softening . The uterus measures about 20*12*7.5 cm and weight about 1000gms. At the end of 6 weeks, its measurement is almost similar to the non pregnant state and weight about 60gms. • CERVIX: Immediately after delivery, the cervix is extremely soft , it may be bruised and edematous . The external os admits two fingers for few days and by the end of 1st week, narrows down to admit the tip of a finger only. At the end to the 6th week it reverts to its nulliparous state . • Lochia It is the vaginal discharge for the first fortnight during Puerperium. The discharge originates from the uterine body, cervix and vagina. Odour and reaction: It has offensive fishy smell. It is alkaline in nature and become acidic towards the end. Amount : The av. Amount of discharge for the first 5-6 days is estimated to be 250ml • Types for lochia There are 3 types of lochia	Teacher introduce about the anatomical and physiological changes of puerperium with the help of PPT	Explain about the anatomical and physiological changes of puerperium

		1. lochia Rubra: It is red in colour, as it contain blood cells. It is the first lochia that starts immediately after delivery and continues for the first 4 days Puerperium. Lochia Rubra contain primarily blood and decidual tissue. 2. Lochia Serosa: lochia serosa is the next lochia. It is paler then lochia rubra and is serous and pink, as it contain fewer red blood cells but leukocytes, wound exudates, decidual tissues and mucus from cervix. Lochia serosa lasts for 5 to 9 days of Puerperium. 3. Lochia Alba: lochia alba is the last lochia. It starts about 10^{th} day postpartum day and dwindles to nothing in about a week so, (10 to 15 days). Its is pale creamy, white and contain leukocytes, decidual cells and mucus.		
To describe the general physiological changes of puerperium	15min	**GENERAL PHYSIOLOGICAL CHANGES** PULSE: For a few hours after normal delivery, the pulse rate is likely to be raised, which settles down to normal during the second day. However, the pulse rate often rises with after-pain or excitement. TEMPERATURE: The temperature should not be above 37.2°C (99°F) within the first 24 hours. There may be slight reactionary rise following delivery by 0.5°F but comes down to normal within 12 hours. On the 3rd day, there may be slight rise of temperature due to breast engorgement which should not last for more than 24 hours. **However, genitourinary tract infection should be excluded if there is rise of temperature**. URINARY TRACT: The bladder mucosa becomes edematous and hyperemic and often shows evidences of submucous extravasation of blood. The bladder capacity is increased. The bladder may be over distended without any desire to pass urine. **The common urinary problems are**: over distension, incomplete emptying and presence of residual urine. Urinary stasis is seen in more than 50% of women. **The risk of urinary tract infection is, therefore, high**. Dilated ureters and renal pelves return to normal size within 8 weeks. There is pronounced diuresis on the second or third day of the puerperium. **Only 'clean catch' sample of urine should be collected** and sent for examination and contamination with lochia should be avoided. GASTROINTESTINAL TRACT: **Increased thirst** in early puerperium is due to loss of fluid during labor, in the lochia, diuresis and perspiration. Constipation is a common problem for the following reasons: delayed GI motility, mild ileus following delivery, together with perineal discomfort. Some women may have the problem of anal incontinence. WEIGHT LOSS: In addition to the weight loss (5–6 kg) as a consequence of the expulsion of the fetus, placentae, liquor and blood loss, a further loss of about 2 kg (5 lb) occurs during puerperium chiefly caused by diuresis. This weight loss may continue up to 6 months of delivery. FLUID LOSS: There is a net fluid loss of at least 2 liters during the first week and an additional 1.5 liters during the next 5 weeks. **The amount of loss depends** on the amount retained during pregnancy, dehydration during labor and blood loss during delivery. The loss of salt and water are larger in women with preeclampsia and eclampsia. BLOOD VALUES: Immediately following delivery, there is slight **decrease of blood volume** due to blood	Teacher describe the general physiological changes of puerperium with the help of PPT	Briefly describe the general physiological changes of puerperium

		loss and dehydration. Blood volume returns to non-pregnant level by the second week. **Cardiac output** rises soon after delivery to about 80% above the pre-labor value but slowly returns to normal within one week. **RBC volume and hematocrit values** returns to normal by 8 weeks postpartum after the hydremia disappears. **Leukocytosis**to the extent of 25,000 per cumm occurs following delivery probably in response to stress of labor. **Platelet count** decreases soon after the separation of the placenta but secondary elevation occurs, with increase in platelet adhesiveness between 4-10 days. **Fibrinogen level** remains high up to the second week of puerperium. A hypercoagulable state persists for 48 hours postpartum and fibrinolytic activity is enhanced in first 4 days. The secondary increase in fibrinogen, factor VIII and platelets in the first week increases the risk for thrombosis. The increase in fibrinolytic activity after delivery acts as a protective mechanism. MENSTRUATION AND OVULATION: The onset of the first menstrual period following delivery is very variable and depends on lactation. **If the woman does not breastfeed her baby**, the menstruation returns by 6th week following delivery in about 40% and by 12th week in 80% of cases.		
				.
To explain briefly about lactation.	20min	**LACTATION** For the first two days following delivery, no further anatomic changes in the breasts occur. The secretion from the breasts called colostrum which starts during pregnancy becomes more abundant during the period. COMPOSITION OF THE COLOSTRUM: It is deep yellow serous fluid, alkaline in reaction. It has got a higher	Teacher explain about lactation	Describe lactation.

specific gravity; a high protein, vitamin A, sodium and chloride content but has got lower carbohydrate, fat and potassium than the breast milk. It contains antibody (IgA) produced locally.

Advantages: (1) The antibodies (IgA, IgG, IgM) and humoral factors (lactoferrin) provides immunogical defense to the new born .

(2) It has laxative action on the baby because of large fat globules.

PHYSIOLOGY OF LACTATION

Although, lactation starts following delivery, the preparation for effective lactation starts during pregnancy.

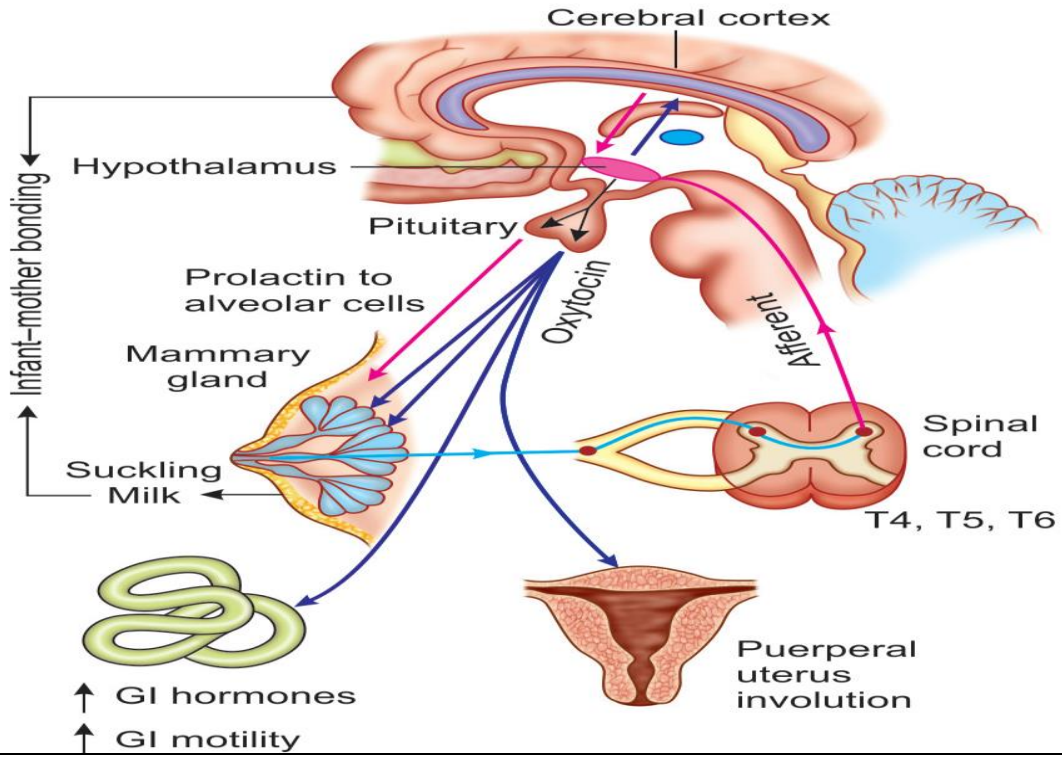
The physiological basis of lactation is divided into four phases:

(a) Preparation of breasts (mammogenesis).

(b) Synthesis and secretion from the breast alveoli (lactogenesis).

(c) Ejection of milk (galactokinesis).

(d) Maintenance of lactation (galactopoiesis).



STIMULATION OF LACTATION: Mother is motivated as regard the benefits of breastfeeding since the **early pregnancy**. No prelacteal feeds (honey, water) are given to the infant. **Following delivery** important steps are:

		(i) To put the baby to the breast at 2–3 hours interval from the first day. (ii) Plenty of fluids todrink. (iii) To avoid breast engorgement. **Early (½– 1 hour) and exclusive breastfeeding in correct position are encouraged**. INADEQUATE MILK PRODUCTION (Lactation failure): It may be due to infrequent suckling or due to endogenous suppression of prolactin (ergot preparation, pyridoxin, diuretics or retained placental bits). Pain, anxiety and insecurity may be the hidden reasons. **Unrestricted feeding at short interval (2–3 hours) is helpful**. DRUGS TO IMPROVE MILK PRODUCTION (Galactogogues): Metoclopramide (10 mg thrice daily) increases milk volume (60-100%) by increasing prolactin levels. Sulpuride (dopamine antagonist) has also been found effective. Intranasal oxytocin contracts myoepithelial cells and causes milk let down. **Lactation suppression:** It may be needed for women who cannot breastfeed for personal or medical reasons. Lactation is suppressed when the baby is born dead or dies in the neonatal period or if breastfeeding is contraindicated. Methods commonly used are: (i) To stop breastfeeding (ii) To avoid pumping or milk expression (iii) To wear breast support (iv) Ice packs to prevent engagement (v) Analgesics (aspirin) to relievepain (vi) A tight compression bandage is applied for 2–3 days. The natural inhibition of prolactin secretionwill result in breast involution. **Medical methods of suppression** with estrogen, androgen or bromocriptine is not recommended. The side effects of bromocriptine are: hypotension, rebound secretion, seizures, myocardial infarction and puerperal stroke. **Breast milk for premature infant** is beneficial by many ways (psychological, nutritional and immunological). **Metabolic disturbances like azotemia, hyperamnioacidemia and metabolic acidosis are less with breast milk compared to formula**. It gives immunological protection to the premature infant. There are methods for collection (manual expression or electric pumps), and milk preservation.		
To explain the management of normal puerperium	20min	**MANAGEMENT OF NORMAL PUERPERIUM** **The principles in management are:** (1) To restore the health of the mother. (2) **To prevent infection**. (3) **Totake care of the breasts**, including promotion of breastfeeding. (4) **To motivate the mother** for contraception. **Immediate attention:** Immediately following delivery, the patient should be closely observed as outlined inthe management of the fourth stage of labor (see p. 141). She may be given a drink of her choice or somethingto eat, if she is hungry. **Emotional support is essential**. Usually the first feeling of mother is the sense ofhappiness and relief, with the birth of a healthy baby. The woman needs emotional support when she suffersfrom postpartum blues or stress due to newborn's prematurity, illness, congenital	Teacher explain the management of normal puerperium	What is the management of normal puerperium

malformation or death.

REST AND AMBULANCE: Early ambulation after delivery is beneficial. After a good resting period, the patient becomes fresh and can breastfeed the baby or moves out of bed to go to the toilet. **Early ambulation isencouraged**.

Advantages are:

(1) Provides a sense of well-being

(2) Bladder complications and constipation areless

(3) Facilitates uterine drainage and hastens involution of the uterus

(4) Lessens puerperal venous thrombosisand embolism. Following an uncomplicated delivery, climbing stairs, lifting objects, daily household work,cooking may be resumed.

HOSPITAL STAY: Early discharge from the hospital is an almost universal procedure. If adequate supervisionby trained health visitors is provided, there is no harm in early discharge. Most women are discharged fit andhealthy after 2 days of spontaneous vaginal delivery with proper education and instructions. Early dischargemay be done in a few selected women. Some need prolonged hospitalization due to morbidities (infections ofurinary tract, or the perineal wound, pain, or breastfeeding problems).

DIET: The patient should be on normal diet of her choice. **If the patient is lactating,** high calories, adequateprotein, fat, plenty of fluids, minerals and vitamins are to be given (see p. 100). **However, in non-lactatingmothers**, a diet as in non-pregnant is enough.

CARE OF THE BLADDER: The patient is encouraged to pass urine following delivery as soon as convenient. At times, **the patient fails to pass urine and the causes are** —

(1) Unaccustomed position

(2) Reflex painfrom the perineal injuries.

This is common after a difficult labor or a forceps delivery. **If the patient still failsto pass urine, catheterization should be done**. Catheterization is also indicated in case of incomplete emptying of the bladder evidenced by the presence of residual urine of more than 60 mL.***Continuous drainage*** **is keptuntil the bladder tone is regained**. The underlying principle of the bladder care is to ensure adequate drainageof urine so that infection and cystitis are avoided.

CARE OF THE BOWEL: The problem of constipation is much less because of early ambulation and liberalizationof the dietary intake. A diet containing sufficient roughage and fluids is enough to move the bowel. If necessary,mild laxative such as isabgol husk 2 teaspoons may be given at bed time.

SLEEP: **The patient is in need of rest, both physical and mental**. So she should be protected against worries and undue fatigue. Sleep is ensured providing adequate physical and emotional support. If there isany discomfort, such as after pains or painful piles or engorged breasts, they should be dealt with adequateanalgesics (Ibuprofen).

CARE OF THE VULVA AND EPISIOTOMY WOUND: Shortly after delivery, the vulva and buttocks are washed withsoap water down over the anus and a sterile pad is applied. The patient should look after personal cleanlinessof the vulval region. The perineal wound should be dressed with spirit and antiseptic powder after each actof micturition and defecation or at least twice a day. **The nurse should use sterilised gloves during dressing**.Cold (ice) sitz baths relieve pain. When the perineal pain is persistent, a vaginal and rectal examination is doneto detect any hematoma, wound gaping or infection. For pain Ibuprofen is safe for nursing mothers.

		CARE OF THE BREASTS: The nipple should be washed with sterile water before each feeding. It should be cleaned and kept dry after the feeding is over. A nursing brassiere provides comfortable support. **Nipple soreness** is avoided by frequent short feedings rather than the prolonged feeding, keeping the nipples clear and dry. Candida infection may be another cause **Nipple confusion** is a situation where the infant accepts the artificial nipple but refuses the mother's nipple. This is avoided by making the mother's nipple more protractile and not offering any supplemental fluids to the infant. MATERNAL–INFANT BONDING (ROOMING-IN): It starts from first few moments after birth. This is manifested by fondling, kissing, cuddling and gazing at the infant. The baby should be kept in her bed or in a cot besides her bed. This not only establishes the mother-child relationship but the mother is conversant with the art of baby care so that she can take full care of the baby while at home. Baby, friendly hospital initiative promotes parent-infant-bonding, baby rooming with the mother and breastfeeding. ASEPSIS AND ANTISEPTICS: Asepsis must be maintained especially during the first week of puerperium. Liberal use of local antiseptics, aseptic measures during perineal wound dressing, use of clean bed linen and clothings are positive steps. Clean surroundings and limited number of visitors could be of help in reducing nosocomial infection. IMMUNISATION: (i) Administration of anti–D–gamma globulin to unimmunized Rh–negative mother bearingRh–positive baby . (ii) Women who are susceptible to rubella can be vaccinated safelywith live attenuated rubella virus. Mandatory postponement of pregnancy for at least two months followingvaccination can easily be achieved. (iii) The booster dose of tetanus toxoid should be given at the time ofdischarge, if it is not given during pregnancy.		
To explain the management of ailments	20min	**MANAGEMENT OF AILMENTS** **After pain — It is the infrequent, spasmodic pain felt in the lower abdomen after delivery** for a variable period of 2–4 days. **Presence of blood clots** or bits of the after births lead to hypertonic contractions of the uterus in an attempt to expel them out. This is commonly met in primipara. The pain may also be due to vigorous uterine contraction especially in multipara. The mechanism of pain is similar to cardiac anginal pain induced by ischemia. Both the types are excited during breastfeeding. **The treatment includes** massaging the uterus with expulsion of the clot followed by administration of analgesics (Ibuprofen) and antispasmodics. • **Pain on the perineum: Never forget to examine the perineum** when analgesic is given to relieve pain. Early detection of vulvo-vaginal hematoma can thus be made. Sitz baths (hot or cold) can give additional pain relief. • **Correction of anemia**: Majority of the women in the tropics remain in an anemic state following delivery. Supplementary iron therapy (ferrous sulfate 200 mg) is to be given daily for a minimum period of 4–6 weeks. • **Hypertension** is to be treated until it comes to a normal limit. **The physician should be consulted if proteinuria persists**. TO MAINTAIN A CHART:	Teacher explain the management of ailments	Explain the management of ailments

A progress chart is to be maintained noting the following:
: (1) Pulse, respiration and temperature recording 6 hourly or at least twice a day
(2) Measurement of the height of the uterus above the symphysis pubis once a day in a fixed time with prior evacuation of the bladder and preferably the bowel too
(3) Character of the lochia
(4) Urination and bowel movement.

POSTPARTUM EXERCISE:

The objectives of postpartum exercises are:
(1) To improve the muscle tone, which are stretched during pregnancy and labor especially the abdominal and perineal muscles.
(2) To educate about correct posture to be attained when the patient is getting up from her bed. This also includes the correct principle of lifting and working positions during day-to-day activities.

Advantages gained thereby are:
(1) To minimize the risk of puerperal venous thrombosis by promoting arterial circulation and preventing venous stasis
(2) To prevent backache
(3) To prevent genital prolapse and stress incontinence of urine.

Physical activity should be resumed without delay.

Sexual activity may be resumed (after 6 weeks) when the perineum is comfortable and bleeding has stopped. Some women may get "flaring response of some autoimmune disorders due to rebound effect of the immune suppression during pregnancy

CHECK-UP AND ADVICE ON DISCHARGE: A thorough check-up of the mother and the baby is mandatory prior to discharge of the patient from the hospital. Discharge certificate should have all the important information as regard the mother and baby.

Advices include:
(1) Measures to improve her general health. Continuance of supplementary iron therapy
(2) Postnatal exercises
(3) Procedures for a gradual return to day-to-day activities (4) Breastfeeding and care of the newborn
(5) Avoidance of intercourse for a reasonable period of 4–6 weeks until lacerations or episiotomy wound are well healed
(6) **Family planning advice and guidance — Non-lactating women should practice some form of contraceptive measures after 3 weeks and the lactating women should start 3 months afterdelivery**
(7) To have postnatal check up after 6 weeks.

The method of contraception will depend upon breastfeeding status, state of health and number of children
Natural methods cannot be used until menstrual cycles are regular. Exclusive breastfeeding provides 98% contraceptiveprotection for 6 months.
Barrier methods may be used. **Steroidal contraceptions**— combined preparations are suitable for nonlactating women and should be started 3 weeks after.
In **lactating women**it is avoided due to its suppressive

		effects . **Progestin only pill** may be a better choice for them. **Other progestins** (DMPA, Levonorgestrel implantsmay be used. **IUDs** are also a satisfactory method irrespective of breastfeeding status. **Sterilization** (puerperal)is suitable for those who have completed their families.		
To explain about postnatal care	20 min	**POSTNATAL CARE** **Postnatal care includes** systematic examination of the mother and the baby and appropriate advice given to the mother during postpartum period. **The first postnatal examination** is done and the advice is given on discharge of the patient from the hospital. This has already been discussed. **The second routine postnatal care is conducted** at the end of 6th week postpartum. AIMS AND OBJECTIVES: • To assess the health status of the mother. Medical disorders like diabetes, hypertension should be reassessed. • To detect and treat at the earliest any gynecological condition arising out of obstetric legacy. • To note the progress of the baby including the immunization schedule for the infant . • **To impart family planning guidance (discussed above)**. PROCEDURE: • **Examination of the mother** • **Advice given to the mother** • **Examination of the baby and advice** **Examination of the Mother:** • **Routine examination includes** recording weight, pallor, blood pressure and tone of the abdominal muscles and examination of the breasts. • **Pelvic examination should be done only when indicated**. **The following should be noted:** A cervical smear may be taken for exfoliative cytological examination if this has not been done previously and insertion of intrauterine contraceptive device may be done when desired. • **Laboratory investigations (e.g. hemoglobin) depending on the clinical need may be advised**. **Examination of the baby:** This should be conducted by a **pediatrician**. In this respect, an attached well baby clinic to the postpartum unit is an absolute necessity. The progress of the baby is evaluated and preventive or curative steps are to be taken. Immunization to the baby is started (see p. 455). **Advices given:** **General —** (1) If the patient is in sound health she is allowed to do her usual duties. (2) Postpartum exercises may be continued for another 4–6 weeks. (3) To evaluate the progress of the baby periodically and to continue breastfeeding for 6 months. **Family planning counseling and guidance —** **Management of ailments:** Additional investigation and appropriate therapy is given according to the abnormalities detected during check up. **Management of some common gynecological problems are given below**. Some women need psychological support also. • **Irregular vaginal bleeding:** It is not uncommon to encounter irregular or at times, heavy bleeding after 4–6	Teacher explain the postnatal care	Explain briefly about post natal care

		weeks following an uneventful period after delivery. This is usually the first period especially in non-lactating women and simple assurance is enough. Persistence of bleeding dating back from childbirth is likely due to retained bits of conceptus and usually requires ultrasound examination followed by dilatation and curettage operation. • **Leukorrhea**: Profuse white discharge might be due to ill health, vaginitis, cervicitis or subinvolution. Improvement of the general health and specific therapy cure the condition. • **Cervical ectopy (erosion)** met during this period without any symptom should not be treated surgically. Hormone induced ectopy during pregnancy takes a longer time (about 12 weeks) to regress. **Thus, asymptomatic ectopy should be examined again after 6 weeks and if it still persists, cauterization is to be considered.** • **Backache:** It is mostly due to sacroiliac or lumbosacral strain. **Backache situated over the sacrum is likely due to pelvic pathology**, but if it is over the lumbar region, it might be due to an orthopedic condition and is often relieved by physiotherapy. • **Retroversion** seldom produces backache. If associated with subinvolution with symptoms, a pessary is inserted after correcting the position and is to be kept about 2 months. • **Slight degree of uterine descent** with cystocele, stress incontinence and relaxed perineum are the common findings at this stage. These can be cured by effective pelvic floor exercise. However, **if the prolapse is marked, effective surgery should be done after three months**.		
	1min		**SUMMARY** So we had a discussion regarding definition and duration of puerperium, anatomical and physiological changes in puerperium, lactation, management of normal puerperium	
		REFERENCES • Page no. 177-195 ANNAMMA JACOB, A comprehensive textbook of midwifery and gynecological nursing , 5th edition. • Page no. 144-153 DC DUTTA, Textbook of obstetrics, 7thedition .		