Kingdom of Bahrain
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Professional Skills
Unit IV – Reproductive System

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Obstetrics
Obstetrics – Introduction

• **What is obstetrics?**
  – It is the field of study concentrated on pregnancy, childbirth and post-partum period. As a medical specialty, it is combined with gynecology and known as (OB/GYN).

• **Physical examination of a pregnant female is composed of the following:**
  – **Inspection**: you look to the patient and comment (without touching her).
  – **Palpation**: examining the patient by touching her.
  – **Auscultation**: for fetal heart beat.

• **Before examining any patient (NOT ONLY IN OB/GYN), you have to obtain a detailed case history; excluding any chronic medical conditions, complication of present or previous pregnancies, psychosocial issues... etc.**

• **Considerations before you start examining your patient:**
  – Make sure of privacy.
  – Make sure there is a nurse with you (ESPECIALLY IF THE DOCTOR IS A MALE).
  – Wash your hands.
  – Introduce yourself to the patient.
  – Explain for her what you are going to do and ask for permission.
  – **Then, make sure of**
    • **Patient’s position**: semi-sitting; placing a pillow under her head and shoulders.
    • **Exposure**: from xiphisternum to mid-thigh.
**Obstetrics – Inspection**

- Don’t forget to mention that you will always start by commenting on patient’s general appearance, general inspection and measurement of vital signs.
- Where are you going to stand to comment on patient’s abdomen?
  - Foot of the bed.
- **What is the shape of the abdomen?**
  - Flat? Normal.
  - Scaphoid? Malnutrition, cancers, anorexia nervosa, CDH, dehydration or intestinal obstruction.
  - Distended? Obesity, pregnancy or ascites.
- **Comment on the umbilicus.**
  - Umbilicus is centrally located and it is: flat, everted (ascites) or inverted (obesity).
- **Is the abdomen symmetrical or not? Is it moving with respiration? What is the pattern?**
  - For example, there will be localized asymmetry of the abdomen if there is a localized mass.
  - Patterns of breathing:
    - **Males:** abdomino-thoracic.
    - **Females:** thoraco-abdominal.
- **Any visible fetal movements? Scars?**
  - Pfannenstiel incision is the one used in CS.
Obstetrics – Inspection

**FLAT**

**SCAPHOID**

**DISTENDED**
Obstetrics – Inspection

• Can you see any striae?
  – **Normal**: silver-white striae (stretch marks).
  – **Abnormal**: purple striae (Cushing’s syndrome, Obesity or pregnancy).

• What is linea nigra?
  – It is a dark vertical line which appears on the abdomen in ¾ of all pregnancies.
  – It is due to increased MSH made by the placenta.
  – It runs vertically along the midline of the abdomen from pubis to the umbilicus, but can also run from pubis to the top of abdomen.

• **Ask patient to cough and exclude the presence of hernias.**
Obstetrics – Palpation

• **Mention the 3 types of palpation.**
  – Superficial palpation.
  – Deep palpation.
  – Obstetric palpation.

• **What are you looking for in superficial palpation?**
  – Always ask the patient if she feels any **pain** (BEFORE you palpate). If yes, keep that area to the end of your palpation. Remember to keep your eyes on patient’s face while palpating to notice any sign of discomfort.
  – Are there any palpable **superficial masses**.
  – **Temperature**.

• **What is the aim behind deep palpation?**
  – Looking for palpable **deep masses**.
  – Check the presence of **organomegaly** (hepatomegaly and splenomegaly). Most of the time, examiner will not ask you to do it because it is difficult.
Obstetrics – Palpation

**Obstetric palpation:**

- **Fundal height:**
  - Why are you measuring it? To estimate the period of pregnancy. You have to feel for the fundus going down from xyphoid process.
  - There are 2 methods to measure fundal height:
    - *Tape method:* apply tape upside down, from upper border of pubic symphysis up to the fundus. Place the ulnar border of your left hand on the fundus and then take a measurement to pubic symphysis (cm).
    - *Finger method:* Each finger blow the umbilicus corresponds to 1 week; each finger above the umbilicus corresponds to 2 weeks.
  - **Level of pubis = 12 weeks, umbilicus = 22 weeks, xiphisternum = 36 weeks.**

- **Fundal palpation (two hands) and fundal grip (one hand):**
  - You are trying to identify what occupies the fundus:
    - *Soft, irregular, not-ballotable* = buttocks.
    - *Hard, round, ballotable* = head.
Obstetrics – Palpation

The fundal height is determined by measuring the distance from the pubic symphysis to the highest part of the uterus. A 33 week baby should measure 33 (+/- 2) centimeters.
Fundal height is measured in centimeters from the pubic symphysis to the topmost portion of the uterus.
Obstetrics – Palpation

- **Lateral palpation:**
  - Pay attention that you have to **stabilize one hand** and palpate with the other... then switch hands.
  - **Why?** → to know where is the back of the fetus.
  - **Back:** long, continuous and hard.
  - **Limbs:** irregular and non-continuous.

- **Pelvic grips:**
  - **First pelvic grip:** you want to know what occupies the lower part of the uterus (head or buttocks).
  - **Second pelvic grip:** you are testing for engagement (of head or the presenting part). Use both of your hands, your back to the patient. If the presenting part descended into the pelvic, your hands will not be able to meet each other.
Obstetrics – Auscultation of Fetal Heart

- **Cephalic presentation**: it can be heard below the umbilicus either right or left to the midline.
- **Breech presentation**: it can be heard above the umbilicus either right or left to the midline.
- **You auscultate using**: fetoscope.
- **Normal fetal heart rate** = 120 – 160 beats/minute.
- **Don’t forget at the end of your examination to check for lower limb edema or presence of varicose veins.**
Gynecology

Pelvic Exam

- Bladder
- Uterus
- Fallopian tube
- Ovary
- Vagina
- Rectum
- Cervix

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• **What is gynecology?**
  – It is the medical practice dealing with the health of the female reproductive system (vagina, uterus and ovaries) and the breasts.

• **Gynecological examination is composed –mainly- of the following:**
  – Internal and external inspection of female genitalia.
  – **Speculum exam**: high vaginal swab and pap-smear.
  – **Palpation**: bimanual and rectovaginal exams.

• **Considerations before you start examining your patient:**
  – Make sure of privacy and presence of good light source.
  – Make sure there is a nurse with you (ESPECIALLY IF THE DOCTOR IS A MALE).
  – Wash your hands and WEAR GLOVES!
  – Introduce yourself to the patient.
  – Explain for her what you are going to do and ask for permission.
  – Then, make sure of
    • **Patient’s position**: lithotomy position. It involves the positioning of patient’s feet above the level of the hips (often in stirrups), with the perineum positioned at the edge of an examination table.
Gynecology – Inspection

• **What are you going to inspect?**
  – Mons pubis, labia majora, labia minora, clitoris, urethral opening, vaginal opening and anal region.

• **What are you going to comment on in external inspection (before applying the speculum)?**
  – Evidence of infection (Skin changes; vaginal discharge).
  – Presence of vesicles (Mostly caused by Herpes Simplex Virus HSV-II).
  – Warts (caused by Human Papilloma Virus HPV).
  – Hair distribution inmons pubis and labia majora (inverted triangle pattern).

• **To proceed with internal inspection, you must insert the speculum:**
  – Explain for your patient what you are going to do and tell her that she might uncomfortable.
  – Choose appropriate speculum size and lubricate it.
  – Separate labia minora with one hand. Make sure to avoid touching the clitoris as it is a sensitive area.
  – Insert the speculum sideways and turn it upwards once inserted. (You must practice how to use the speculum. DON’T BREAK IT DURING THE EXAM 😊!).

• **Internal inspection:**
  – **Comment on the cervix:** does it look healthy? Bleeding? Erosions? Abnormal discharge? Mass?
  – **Nulliparous:** external cervical os is pinpoint.
  – **Multiparous:** external cervical os is slit-like.
Gynecology – Inspection

(a) Speculum enters vagina closed with opening mechanism pointing to patient's right

(b) Speculum is inserted deeply, rotated 90° then opened

(c) Cervix comes into view once speculum is opened
• **High vaginal swab:**
  - What are you going to use? → cotton swab.
  - Take it from: posterior fornix.
  - Place it in transporting medium.
  - Label it with patient’s name, CPR and date.
  - Send it to: bacteriology/microbiology lab.

• **Pap-smear (it is used for screening of cervical cancer):**
  - What does “pap” stand for? → papanicolaou 😊!
  - Exocervix:
    • What are you going to use? Ayre’s spatula (wooden spatula).
    • Notice that this spatula has 2 ends. Insert the bigger one into the external cervical os and rotate it to obtain a sample from the transformation zone.
    • What is the transformation zone? → It is the squamocolumnar junction of the cervix and commonest site of cervical cancer.
    • Apply the sample on a slide and fix it with methyl alcohol
Gynecology – Speculum Exam

- **Pap-smear (continued):**
  - **Endocervix:**
    - What are you going to use? → endocervical brush.
    - Take an endocervical sample by rotating the brush 360 degrees (4-5 times).
    - Apply the sample on a slide and fix it.
  - Label both samples with patient’s name, CPR and date then send it to cytology lab.

- **As you withdraw the speculum, inspect the lateral walls of the vagina.**
- **Remember to remove the speculum the same way you put it in (closed).**
Gynecology – Speculum Exam
• **Considerations to be taken before proceeding with your examination:**
  – Explain for the patient what you are going to do and ask for permission.
  – Ask your patient to **EMPTY** her urinary bladder before examining her.
  – Wash your hands, wear gloves and lubricate your fingers.

• **Vaginal examination:**
  – Insert your index finger into the vagina and feel for:
    • Cervix (as the tip of the nose).
    • Vaginal wall.

• **Bimanual vaginal exam:**
  – Separate the labia by one hand; insert the index finger of the other hand first; followed by the middle finger (2 fingers must be inserted into the vagina).
  – Palpate the cervix with both of your fingers; place the other hand (flat) over the abdomen (above pubic symphysis).
  – **Hands are pressed towards each other to feel for:** size, shape, mobility and tenderness of the uterus.
  – Notice that uterus should be antevverted-anteflexed. You will not be able to feel it if it is retroverted or your patient is obese.
  – **Normally uterus is:** firm, slightly mobile and non-tender.

  – Place your fingers in the fornices and your other hand on the adnexia (corner) trying to palpate the ovaries.
  – Normally, ovaries are non-palpable.
  – Slowly withdraw your fingers.
Gynecology – Palpation

- **Combined recto-vaginal examination:**
  - Insert your index finger in the vagina and your middle finger in the rectum.
  - Feel for posterior vaginal wall and rectum for masses, fistula... etc.
  - This exam is especially done when there are symptoms related to the bowel.

- **Rectal examination:**
  - It is necessary when you need to examine the uterus in a child or virgin adult.
Breast Examination
Breast Examination – Introduction

• **What is triple assessment of the breast?**
  – History and physical examination.
  – Radiological investigations (mammogram and ultrasound).
  – Histopathology (Core needle biopsy; FNA biopsy).

• **Considerations to be taken before proceeding with your examination:**
  – Wash your hand and wear gloves.
  – Make sure of privacy.
  – Make sure a third person is observing with you = a nurse (especially if you are a male doctor).
  – Introduce yourself to the patient, explain for her what you are going to do and ask for permission.
  – **Patient’s position and exposure:**
    • **Position:** seat her on the edge of the bed with hands on her lap (for inspection).
    • **Exposure:** down to the umbilicus.
Breast Examination – Inspection

- **Nipples:**
  - Are they symmetrical?
  - Inverted (fibrosis of Cooper’s ligament)?
  - Cracked (Paget’s disease)?
  - Abnormal discharge? Blood?
  - Montgomery’s tubercles are seen during pregnancy (they are sebaceous glands in the areola surrounding the nipple and are responsible for keeping the breast lubricated during breastfeeding).

- **Breasts:**
  - Normal size and contour?
  - Presence of skin changes:
    - Discoloration.
    - Rash.
    - Erythema.
    - Peau d’orange (due to obstruction of superficial lymphatics mostly with inflammatory carcinoma).
    - Dimpling (due to fibrosis of Cooper’s ligament = suspensory ligament of the breast).
  - Presence of any visible lumps.
Breast Examination – Inspection

• **Ask the patient to hold-up her arms and put her hands behind her head:**
  - Notice symmetry in movement.
  - Notice any visible masses or unusual changes.
  - Dimpling (showed clearly.. Why?).

• **Ask patient to put her hands on her hips or waist:**
  - This will cause contraction of pectoralis major muscle.
  - Any invasive carcinomas which attach to the chest wall will move with it.

• **You may also ask your patient to lean forward:**
  - Watch breasts as they become pendulous and check for symmetry.
  - Dimpling?
Breast Examination – Palpation

- **Patient’s position:** supine; place a pillow under the side which will be examined or let her lie at 45 degrees.

- **Before you start palpation, ask your patient if she has pain. If yes, avoid that area until the end.**

- **Support the breast by one hand and palpate using the other hand (pads of your fingers); keep an eye on your patient.**

- **Go in concentric circles around the breast (from in-to-out); cover all the quadrants, don’t forget nipple and tail of Spence.**

- **If you find a mass, comment on the following:**
  - Site (which quadrant?).
  - Size (approximately?).
  - Shape/borders (regular, irregular, smooth... etc).
  - Consistency (soft, hard, firm?).
  - Tenderness.
  - Mobile (usually benign) or attached (usually malignant).

- **If patient complains of any abnormal discharge from the nipple; make her sit; gently palpate the nipple and squeeze it; describe the discharge.**
Breast Examination – Palpation

- **Axillary lymph node palpation:**
  - **Position:** patient’s arm on your non-working shoulder.
  - Explain for your patient what you are going to do and warn her that it might be painful.
  - You should know the names of axillary lymph nodes and where they drain.
  - Always check both axilla.
  - Notice that axillary lymph nodes eventually drain into supraclavicular lymph nodes (normally, neither supraclavicular or infraclavicular lymph nodes are palpable).
Examination of Male Genitalia
+
Catheterization
Male Genitalia – Introduction

• **Physical examination of male genitalia is composed of the following:**
  – Inspection of penis and scrotum.
  – Palpation of penis and scrotum.
  – Urinary bladder catheterization.

• **You must differentiate between the following:**
  – **Hydrocele**: accumulation of serous fluid in the scrotum.
  – **Varicocele**: a mass of varicose veins in the spermatic cord due to destruction of valves in these veins and backflow of blood. This condition is usually noticed on the left side. When you inspect the scrotum → bag of worms.
  – **Hematocele**: accumulation of blood in the scrotum.

• **Considerations before you start examining your patient:**
  – Make sure of privacy.
  – Wash your hands and wear gloves.
  – Introduce yourself to the patient.
  – Explain for him what you are going to do and ask for permission.
  – **Then, make sure of:**
    • **Patient’s position**: standing position.
    • **Exposure**: from umbilicus downwards.
Male Genitalia – Introduction
**Penis:**
- **Hair distribution.** If it is abnormal → this might indicate hormonal imbalance (affecting androgens) or genetic abnormalities (for example: Klinefelter’s syndrome).
- **Penile size (the average penile size is between 13-14 cm).** If it is abnormal → there might be insufficient testosterone secretion → if this occurs during 3rd trimester of pregnancy → baby will have micropenis.
- **Penile deviation or bending.**
- **Position of external meatus and abnormalities:** such as epispadias or hypospadias (these two conditions are caused by incomplete exposure or urethral groove and fold during the development of urogenital tract).
- **Any obvious masses?**
- **Any abnormal discharge or blood from external meatus?**
  - **Gonorrhea:** yellowish-greenish and thick.
  - **Chlamydia:** mucoid, scarce, especially noticed in the morning.
  - **Trichomoniasis:** frothy, profuse and foul smelling.
  - **Candidiasis:** cottage-cheese appearance.
- **Ulceration; warts (HPV).**
  - **Painful:** herpes.
  - **Painless:** syphilis. Known as chancre and formed during the primary stage of syphilis.

**Scrotum (always examine the normal side first):**
- Scrotal size.
- Skin changes.
- Normally, left testicle is lower than the right one.
Male Genitalia – Inspection
Male Genitalia – Palpation

- **Penis:**
  - Before you start palpating, ask your patient if he has pain. If yes, avoid that area until the end. Remember to keep an eye on your patient while palpating.
  - Examine the shaft of the penis by pressing it using two fingers and thumb (feeling the spongy urethra).
  - Index finger and thumb pressed down on glans to check for urethral discharge.
  - **When palpating the penis, you are checking for:** plaques (fibrosis), stones or nodules.

- **Scrotum:**
  - Palpate the scrotum using both of your hands (two fingers and a thumb).
  - **Check for:**
    - **Masses.** To detect if the swelling is fluid or solid tumor → transillumination test.
    - **Tenderness** (keep and eye on your patient).
    - **Feel for epididymis** (posterior and superior to testis).
    - **Feel the vas deferens by going a bit upwards.**
    - **Hernia** (by asking patient to cough).
Male Genitalia – Catheterization

Considerations to be taken before you catheterize your patient:

– Wash your hands and wear a glove in one hand.
– Make sure of privacy.
– Introduce yourself to the patient, explain for him what you are going to do and ask for permission.
– Patient is supine position; expose him from umbilicus to mid-thigh; maintain as aseptic technique by applying betadine (antiseptic) over the whole area.

– Before inserting Foley’s catheter, test for integrity by filling some air to inflate the balloon (in reality, normal saline is used).

– Hold the penis from sides by the hand which is not gloved.
– With the gloved hand, apply Xylocaine gel 2% (anesthetic and lubricant) into external urethral meatus.
– Wait 2-3 minutes for its effect.
– Place the tip of the catheter into the urethra and keep pushing it until you feel resistance.
– How to make sure that you reached urinary bladder? → urine might drip through the catheter (bladder massage?)
– Inflate the balloon with 15-20 cc of normal saline and attach the catheter to urine drainage bag.

– When removing the catheter, ensure that you deflate the balloon first. Then, pull it out carefully and slowly.
Digital Rectal Examination
• **Considerations to be taken before starting your examination:**
  - Wash your hands and wear gloves + lubrication.
  - Make sure of privacy.
  - Introduce yourself to the patient, explain for him what you are going to do and ask for permission.
  - **Expose your patient and remember these positions:**
    - *Left lateral position with right leg flexed* (patient is lying on the left side – most common).
    - *Supine.*
    - *Knee-chest position.*

• **Inspection:** warts, ulcers, hemorrhoids, visible masses, anal tags, fistulas and discharge.

  - Insert your index finger inside the anus slowly.
  - Assess the anal tone (massage the perineum).
  - Clockwise and ant-clockwise rotation of your finger.

• **Feel prostate gland:**
  - *Median sulcus* (separating the two lateral lobes of prostate gland).
  - *Posterior lobe (peripheral zone):* prostate cancer.
  - *Middle lobe (transitional zone):* benign prostatic hyperplasia BPH (affects urination).
  - Feel for any hardness or irregular mass.
  - Look for tenderness.
  - Slowly pull out your finger and examine it for any blood, stool... etc.
Digital Rectal Examination
GOOD LUCK!
Wish You All The Best 😊