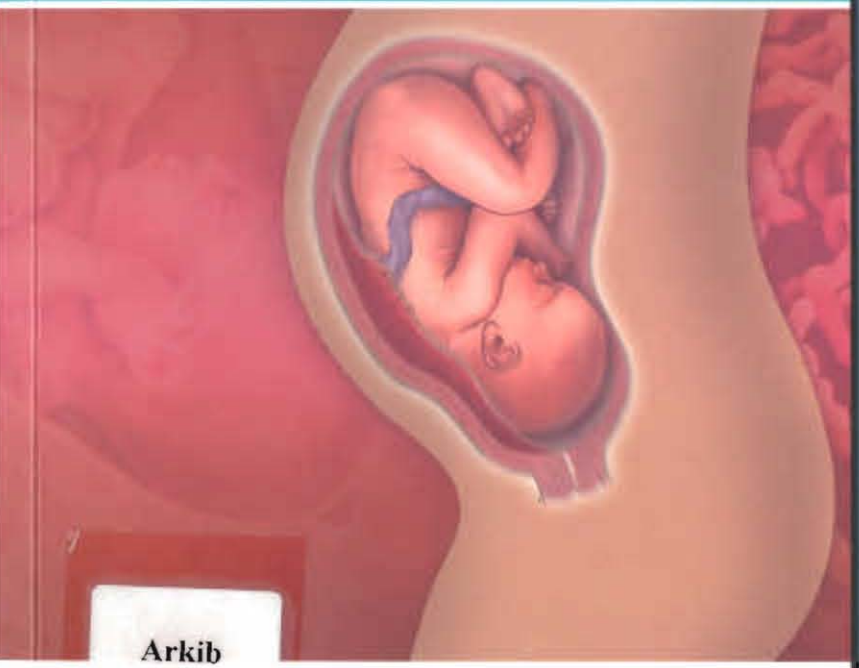
# HISTORY TAKING AND PHYSICAL EXAMINATION IN

## OBESTETRICS AND GYNAECOLOGY





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My sincere dedication to my past teacher, Professor Dato' Nik Mohd Nasri Nik Ismail MRCOG, FRCOG, the Dean of Faculty of Medicine and Health Sciences of Universiti Sains Islam Malaysia for his effort to edit, add new information and facts about history taking and physical examination in obstetrics and gynaecology. He has a vast experience in teaching the undergraduates and postgraduates.

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I express my gratitude to other colleagues in the Department of Obstetrics and Gynaecology Universiti Malaysia Sarawak and in the Ministry of Health for their invaluable comments.

Awi Idi
2011

# *Preface*

Different doctors use slightly different techniques in taking a history and performing examination and inevitably some would prefer slightly different instructions. This book is not meant to be exhaustive.

When a medical student first approaches a patient, he has to develop a suitable doctor-patient relationship, master many relevant skills and techniques and develop an enquiring and intelligent approach. This book is intended to assist and guide the student in Obstetrics and Gynaecology Posting.

This book is used in the Department of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, University Malaysia Sarawak. It will be helpful to any medical students, houseman, post-graduate students and other doctors working in the Obstetrics and Gynaecology disciplines.

Awi Idi
2011

# FOREWORD

Obstetrics and Gynaecology is taught in all medical schools in Malaysia. However the duration varies from school to school. In the Faculty of Medicine and Health Sciences, University Malaysia Sarawak (UNIMAS), it is introduced during the first clinical year of the clinical phase, there being three years altogether. The exposure to this discipline is longer in the final year where students would have been exposed to the normal pregnancies and common cases seen in the discipline during their earlier years. Notwithstanding this, the art and skill in history taking and clinical examination is important throughout the course.

This book hinted that a medical student is part of the patient management team in the wards and that a student is expected to present cases to the practicing doctors apart from bedside learning and teaching by their lecturers.

This handbook is presented in a systematic manner first detailing history taking in the discipline. History taking, no doubt is an important skill a medical student need to develop. As in the other medical disciplines, he has to learn the correct approach of history taking and yet mindful of the need to focus towards obstetrics and gynaecology patients' diagnoses.

Careful physical examination is also an essential tool in this discipline. The clinical examination here calls for an application of the fundamental skills in observation, palpation, percussion and auscultation. In addition, in this discipline students are exposed to the art of special examinations pertinent to obstetrics and gynaecology. Although this handbook does not describe history taking and physical examinations in greater detail, nonetheless it brings students to the right direction so as to avoid obvious pitfalls.

Ethical issues in clinical examination are also touched upon and in particular on bedside manners. Towards the end of the handbook, the author has dedicated several pages on key points in communication skills and presentation of cases to teachers and to examiners during examination.

Examiners often judge the clinical skill of a student. Thus adequate preparation for examination is essential. If the students are properly guided towards the best practice in history taking and clinical examination, they are then left to acquire other aspects of examination technique such as picking the right and relevant signs and symptoms. With repeated practices this is possible. In addition they should have good clinical judgment and accurate interpretation of the presenting signs and symptoms.

Students will find this handbook particularly useful as an introduction to the discipline as well as in revising the subject in preparation for an examination.

Dr Awi Idi is an experienced practicing Obstetrician and Gynaecologist and an experience teacher in this discipline. With his dedication to raise the quality of students and standard he has produced this guidebook which is practical and relevant to all medical students.

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Dean
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Universiti Malaysia Sarawak.

2011



# HISTORY TAKING & EXAMINATION

**Introduction:**

A student must develop a definite system of history taking and examination, which should be carried out in a routine fashion to save time and to ensure that no important data are omitted. In time, this routine becomes a habit in his professional life as a doctor, a habit that must be cultivated assiduously.

None of the handbook can give you the best method of taking history and performing an examination, but only as a guide. The habit can only come by constant practice in dealing with the sick people. Perhaps practice, practice and practice make perfect!

The ultimate objective of the history taking and examination is to make a diagnosis. Without a diagnosis there can be no satisfactory treatment and the diagnosis depends on a well-balanced judgment of all the facts relating to the case. These facts consist of the history, physical examination and investigations. Sometimes the diagnosis depends chiefly on one of these, but all must be considered in conjunction before a diagnosis is made.

The principle of history taking and examination in any medical discipline (medical, surgical etc) are similar, however in Obstetrics and Gynaecology there may be slight variations in term of flow and how to present. Similarly the individual physician, in the course of practice, usually develops a particular scheme of questioning and examination that to him seems the most appropriate.

In taking a history or performing examination there are two complimentary aims: to obtain all possible information about a patient and her illness and to make a diagnosis so as to treat her problems.

For each symptoms or signs, you need to think of a differential diagnosis, and of other relevant information (by history, examination & investigations), which you need to support or to refute these possible diagnoses. Take an advantage of seeing patient in the wards and in the clinics. Choose a medium-size student's textbook in which you can read up about each disease you see or each problem you encounter.

**General rule of history taking:**

- Greet the patient when you first see her. "Good morning Madam Suriani."
- Introduce yourself that you are a "medical student."
- Ensure that she is comfortable and at ease.
- Explain to her that you would like to ask her some questions to find out what happened to her.
- Let the patient tell her story with her own words. Try to conduct a conversation rather than interrogation. Ask with opened ended questions, avoid leading questions and avoid using medical terms.
- Use time and event lines during clerking especially during taking history of presenting illness.



## KEY POINTS OF OBSTETRICS HISTORY

1. Identification data
2. Chief complaint/complaints
3. History of presenting problems [antenatal history]
4. Past obstetrics history
5. Gynaecological history
6. Menstrual history
7. Past medical & surgical history
8. Drug history (if relevant)
9. Family history
10. Social history
11. Summary of the history

## Obstetrics History

Good history taking in obstetrics is the foundation for high quality maternity care. It is a dynamic process starting when a woman first comes into contact with maternity services and continuing for the duration of her pregnancy however the history must be both comprehensive and concise.

The elements that need to be considered are those factors that would be relevant to or have an important impact on the management of the patient. This would involve taking both relevant positive and negative points. Irrelevant information should be left out. "Don't take history for the sake of asking routinely."

The following demographic data must be obtained and included: name, occupation, age, race, gravida, parity and last normal menstrual period.

Calling the patient by her name would establish good rapport with her and reflects good bedside manners. The occupation generally gives us the idea of the social class of the patient. The young and elderly women are more likely to have problems during pregnancy. In very young (< 16 years old) primigravida, a higher perinatal morbidity and mortality is associated with late booking. In elderly (>40 years old), a higher risks of fetal abnormality, higher incidence of medical disorders in pregnancy may occur.

The parity of the patient is equally important. In primigravida certain problems that usually arise are pre-eclampsia, dysfunctional labour and high risk of



instrumental deliveries. In multigravida, problems such as anaemia, mal-presentation and postpartum haemorrhage are common.

A detailed menstrual history should be taken as to establish the first day of the last normal menstrual period [LNMP]. From the LNMP, the examiner can calculate the period of amenorrhoea [POA] and expected date of delivery [EDD].

Period of amenorrhoea is calculated from the first day of her last normal menstrual period till the day you clerk her, stated in weeks.

The expected date of delivery is calculated from the first day of her last normal menstrual period as stated by Naegele's rule [regular of 28 days cycle and duration of pregnancy is 280 days]. Usually seven days and nine months are added to the first day of the last normal menstrual period. For example; LNMP: 10. 04. 2010 + 7 days and 9 months = EDD: 17. 01. 2011.

If the cycles are irregular, unsure of dates, unreliable, has been on oral contraception, then Naegele's rule cannot be applied. The best method is to rely on the earliest ultrasound scanning performed in this current pregnancy, then the duration of pregnancy should be in period of gestations [POG] and the date is known as revised expected date of delivery [REDD].

## 1. Chief complaint

The symptoms are arranged in a logical and chronological sequence. Earlier symptom describes first followed by the second one and state the duration of each symptom. It must be in patient's own word and includes the duration of each symptom.

**For example:** Per-vaginal bleeding for two weeks and lower abdominal pain for three days.

## 2. History of presenting problems [Antenatal History].

It begins with when the patient is known to be pregnant and booking, schedule antenatal visits until the problem arises during the pregnancy. Obtained a detailed description of each symptom and asked the following details: duration, onset (both the date of onset and the length of time in term of weeks of gestation), progression of symptom, relieving or aggravating factors and associated symptoms.

If the patient is already been admitted to the ward, the history should include what had happened to her in the ward until the day you are taking the history and the treatment plan.

This is an example of **"time line and event line"** that can be very helpful when clerking your patient. It is in a chronological order.

| Confirm pregnant | Booking | 1st admission | 2nd admission | Today [3rd admission] |
|---|---|---|---|---|
| ---------- TIME LINE ---------- | | | | |
| 8/52 | 14/52 | 20/52 | 26/52 | 34/52 |
| ---------- EVENT LINE ---------- | | | | |
| UPT USG | Vital signs Investigation Ultrasound | Why? Any Rx? Any improvement | Dosage adjustment? Fetns well being? | Why? What been done? |



## Example of the history

This is a planned pregnancy. She suspected that she was pregnant when she missed her period for two cycles and confirmed it with urine pregnancy test at the Private clinic at 8 weeks period of amenorrhoea.

She booked at the Maternal & Child Health Clinic [MCHC] at about 13 weeks. She had done all the routine antenatal blood investigations and urine test, which was told to be normal. Ultrasound scanning was performed and the parameters were corresponded to her date. She was scheduled to come again in 4 weeks time. She felt quickening at 20 weeks.

She was followed up by her private obstetrician and also at MCHC regularly as schedule until at 32 weeks of gestation when she experienced mild contraction pain but no show or leaking.....

## 3. Past Obstetrics History

Previous obstetrics history is a guide and invaluable information to what may be anticipated in the coming deliveries. Some complications of pregnancy and deliveries have a tendency to recur *(PIH, PE, GDM, PPH, MRP etc)*.

State clearly the history of each pregnancy:

| Year | Mode and place of delivery | Gestation | Birth weight | Outcome | |
|---|---|---|---|---|---|
| 2003 | Abortion Hospital | 12 weeks | | - | Evacuation done |
| 2005 | SVD Hospital | 39 weeks | 3.2 kg | Alive | Well |
| 2007 | Caesarean section for fetal distress Hospital | 40 weeks | 3.5 kg | Died | Died 4 hours of live due to meconium aspiration |

These include the year of pregnancy, mode of delivery, place of delivery, gestation, birth weight and whether they are alive and well. If the baby died, state the cause. A history of previous caesarean section or history of recurrent miscarriage or stillbirth would have significant impact on the mode of delivery or management of current pregnancy.

**4. Gynaecological History.**

History of contraception usage and its duration should be recorded (what type, when started, any side effects, why stop taking it). Any history of per vaginal discharge. Any recent Pap smear and its result. A previous history of infertility that may have the impact on the management of the current pregnancy.

**5. Menstrual History.**

At what age was the first menstrual flow [menarche]? Is the cycle regular? What is the duration of flow? How heavy is the flow? Any dysmenorrhoea or premenstrual syndrome.

**6. Past Medical & Surgical History.**

There are medical conditions that will significantly affect on the pregnancy or the pregnancy will affect the disease process; for example established hypertension, established diabetes mellitus, thyrotoxicosis and heart disease. State the diagnosis clearly, when it was made and the severity of the disease. What treatment she is on before and during the pregnancy. Any operations or fracture of pelvic bone that may results in cephalo-pelvic disproportions.



**7. Drug History.**

Patients should be asked specially about reactions to antibiotics, analgesics, and anesthetics. Allergies and hypersensitivities are critical. Current medications, the dose of each currently used drug should be recorded. This is important especially in patients who are taking medication which may be teratogenic to the fetus. It may be possible to adjust the dosage or change to other drugs that are safe in pregnancy.

**8. Family History.**

It gives clues to possible predisposition to certain illness as a wide variety of conditions that are genetically transmitted. Family history of diabetes in her first-degree relative or multiple pregnancies in the family is significantly important to this current pregnancy

**9. Social History.**

It is important for a risk assessment of patient personal qualities. One needs to find out her home circumstances and how far from the nearest clinic. It is also relevant either she is a single mother, poor social economic class or consume alcohol or smoking.

**Summarize the history.**

At the end of the history taking, the summary (2 or 3 sentences) should include the name, age, parity, period of gestation, presenting problems and other relevant history that may affect the management of the current pregnancy. However, if she had more than one problem then lists them all according to priority.

**Example of the summary**

Madam SLY is a 36 years old teacher Gravida 6 Para 5 currently at 28 weeks period of amenorrhoea presented with generalized weakness and fainting episode. She has a poor spacing and past history of postpartum haemorrhage.

She was admitted to the antenatal ward two days ago for further assessment and management.

Madam CNY is a 24 years old housewife, Gravida 3 Para 2 currently at 32 weeks period of amenorrhoea with multiple problems:

1. Gestational diabetes mellitus diagnosed at 24 weeks, currently on insulin injection and her blood sugar is well controlled.

2. Past history of previous caesarean section for fetal distress. Her baby is alive and well.

3. Symptoms suggestive of urinary tract infection.

However there is no past medical or surgical history of significance.

Madam KC is a 16 years old college student, Gravida 1 Para 0 currently at 30 weeks period of gestation admitted for blood pressure stabilization.

She was diagnosed to have pregnancy induced hypertension at 24 weeks POG and was on Methyldopa 250 mg tds however she was asymptomatic.



## KEY POINTS OF GYNAECOLOGICAL HISTORY

1. Identification data
2. Chief complaint/complaints
3. History of presenting illness
4. Systemic review
5. Past obstetrics history
6. Gynaecological history
7. Menstrual history
8. Sexual history [if warranted]
9. Past medical & surgical history
10. Drug history
11. Family history
12. Social history
13. Summary of the history

Taking a gynaecological history also apply the general rule of history taking that starts with greetings, the introduction of the examiner to the patient. It is most important for the examiner to make a formal introduction and confirm the name of the patient before any further information is obtained. The introduction should take the form of *"My name is Ms Suria, a medical student"*.

After the introduction, the examiner should state that he or she would like to inquire about the reasons for her visit or admission. Ensure that she is comfortable and let she talks and tells her story with her own words.

Patient's identification data includes full name, age, race, parity, occupation, marital status and address.

**1. Chief complaint.**

The chief complaint or reason for the patient's visit is first elicited and the duration of each symptom.

**2. History of the present illness.**

The questions that the examiner asks the patient will be determined by the nature of her complaint. The line of questions addressing each complaint should follow the routine pattern. In this way with practice, the information can be elicited in a smooth and uniform manner.

Pertinent negative information should be recorded however it should be reserved until she has described the course of her illness.



**Common symptoms in gynaecology such as:**

**Per vaginal bleeding: (ascertained the quality, quantity, timing and pattern and pain).**

- Is it bleeding dark, bright, fluid, or clotted?
- How many pads were required? Any passage of clots or flooding?
- Is the bleeding sporadic or daily, intermittent or continuous? Whether is it related to the menstrual cycle?
- Is it associated with coitus or trauma?
- Is the bleeding associated with any pain?

**Vaginal discharge.**

- The volume, frequency and duration of the discharge should be ascertained.
- What is the nature of the discharge? Is the discharge bloodstained, clear, white, yellowish, or greenish? Is it watery, viscous, or "chessy" Is it malodorous?
- Any presence of pruritus or burning sensation in the vulva? Do these symptoms accompany the discharge?

**Abdominal pain.**

- The complaint of pain should be in an objective manner. It is appropriate to describe in term of timing, site, character, severity, relieving and aggravating factors.
- The time of onset, frequency, duration of each attack should be ascertained.
- The primary site and any radiation to the back, groin, or lower extremity should be established.

- Whether the pain is sharp or dull, constant or intermittent, mild, moderate or severe, cramping or pricking should be recorded along with any other qualifications the patient offer.

- It is worthwhile to ask especially if the pain interferes with normal activities such as daily works or sexual relations.

- The patient should be asked whether any position, diet, medication, or other factor provokes or relieves the pain. Even if a mechanism that reduces the pain may not seem medically important to the interviewer, the history should be recorded as given.

- Any changes in the bowel habit.

**Pelvic swelling.**

- The examiner should record the location of the mass as perceived by the patient as well as the time of onset and whether there was associated with pain, vaginal discharge, or alteration in the menstrual status. Any pressure symptoms such as shortness of breath or frequency of urine.

- When a patient is being seen for pregnancy – related complaints or to determine whether she is pregnant, reference to similar symptoms in the past with or without associated pregnancies, should be asked and recorded.

- The relation of symptoms [abdominal distension, loss of appetite and loss of weight] to manifestations of the malignancy or the treatment plan should be recorded.



**3. Systemic review.**

Certain information about other systems especially **important in the diagnosis and treatment** of the gynecologic conditions. It must be relevant to your case [not for the sake of asking or reviewing all the systems].

- **Gastrointestinal.** Relevant symptoms include nausea, indigestion, frequency and quality of defecation (including recent changes), rectal bleeding, and fecal incontinence.

- **Urinary.** Changes in frequency or volume of flow, color of urine, pain, discomfort, and incontinence should be recorded.

- **Endocrine and metabolic.** A history of diabetes, tolerance to heat or cold, recent weight fluctuation, and change in dietary habits should be noted.

- **Cardiovascular and respiratory.** Does the patient have cough, dyspnea, exercise intolerance, or chest pain?

- **Hematological.** Has the patient experienced spontaneous bruising or bleeding? Is there a history a history of thromboembolic disease?

**4. Past Obstetrics History.**

The pregnancy history should be recorded with the following information for each pregnancy, when known: year of birth, obstetrician, place of delivery, birth weight, mode of delivery, sex and complications of pregnancy. The patient's parity is summarized using two digits to indicate the number of term pregnancies, twin and abortions [spontaneous and induced], and currently living children. For examples: Para 3 + 1(A) would indicate that there were three term pregnancies, with one abortion and now three living children. Para 2 (twin) means she had 1 set of twin.

**5. Past Gynaecological History.**

When was the Pap smear last performed and what was the result.? Any previous gynaecological history such as miscarriage, subfertility, gynaecological surgery, etc.? Is there any prior episode of gynaecologic illness or sexually transmitted disease? Additional specific question regarding bleeding, pain, appetite, discharge, fever, and well-being may be asked.

Have she ever use any contraceptive methods and compliances. A combined oral contraceptive pills is protective against ovarian cancer but a contraindication for endometrial cancer. History of intrauterine device is a risk of having ectopic pregnancy and pelvic inflammatory diseases.

**6. Menstrual History.**

The approximate date (first day of the last cycle of the last normal menstrual period LNMP). The normal interval and duration of menses are recorded, any other associated symptoms (pre-menstrual syndrome).

The age at menarche, usual menstrual interval, and usual duration of flow may be recorded in the following manner: 12 x 28 x 5, indicating that the menarche at age of 12, at an interval of 28 days, and the flow lasting for 5 days.

**7. Sexual History [if warranted] e.g. infertility case.**

A more detail history is elicited if it is related to her current problem. Three questions are asked to screen for sexual dysfunction: Are you sexually active? Are you reasonably satisfied with your relationship? Is your partner satisfied?



**8. Past Medical & Surgical History.**

Current medical conditions and past illnesses that required hospitalization should be ascertained. All previous operations should be listed and duration of hospital stay and any complications. A history of transfusions or administration of blood products should be elicited and any reaction.

**9. Drug History.**

Patients should be asked specially about reactions to antibiotics, analgesics, and anesthetics. Allergies and hypersensitivities are critical.

Current medications, the dose of each currently used drug should be recorded. How is the compliance to the treatment?

**10. Family History.**

It gives clues to possible predisposition to certain illness as a wide variety of conditions that are genetically transmitted. Family history of ovarian, breast, colonic cancer in her first-degree relative is significantly important to her current problem in ovarian cancer.

**11. Social history.**

Alcohol, tobacco, and drug use should be recorded. Exercise, hobbies and occupation should be noted. Some hobbies and occupation may need to be modified after the operation.

House conditions, financial and social support should also be obtained.

At completion of history taking, it is important to summarize the history in one or two sentences before proceeding to examination to alert the examiner or the lecturer to the salient features.

**Example of the summary:**

1. Madam HFL, is a 45 year old Chinese accountant, nulliparous presented with slow growing suprapubic swelling for the past two years, admitted yesterday for further management.

2. Madam GSK, is a 25 year old Malay, teacher, Para 2 presented with heavy and prolonged menstrual flow for 2 weeks was admitted 3 days ago for further assessment. It was associated with symptomatic anaemia and progressive abdominal swelling.



## KEY POINTS OF OBSTETRICS EXAMINATION

1. Routine measurements (weight, height, urine for glucose and albumin).

2. Vital signs (blood pressure, pulse rate and respiratory rate).

3. Relevant systemic examinations (signs of anaemia, dental, thyroid gland, breast, heart and lungs).

4. Abdominal examination (Pregnant uterus).

   a) Exposure and positioning.

   b) Inspection.

   c) Palpation (soft, fundal height & measurement, fundal grip, lateral grip, pelvic grip and engagement).

   d) Percussion (Fluid thrill in polyhydramnious).

   e) Auscultation (Use Pinard or Daptone).

5. Vaginal examination (if appropriate).

6. Summary of the examination findings.

## Obstetrics Examination

The examiner must always remember that a pregnant woman is still an entire person and you need to examine her thoroughly. If you have difficulty to clerk the patient, you may need an interpreter. Try to use clear and simple terms [layman terms] that is understandable to the patient, explain the need to perform a general physical examination, to measure her blood pressure, examine her abdomen to assess fetal growth and performs a urinalysis.

The obstetrics examination includes a general examination, abdominal examination and a pelvic examination if indicated. General examination is to detect certain signs that have an impact on the management of the current pregnancy.

**Before examining the patient:**

1. Always ask permission from the patient that you would like to examine her.

2. Have a chaperone if the examiner is a male.

3. Ensure the patient is comfortable when performing the examination.

4. Ask the patient to lie flat using one pillow usually (may need 2 pillows) with arms by her side, but may be in 45 degrees if the patient is in respiratory distress due to grossly distended abdomen in multiple pregnancy and polyhydramnious.

5. Ensure an adequate exposure of the abdomen from bra line to the pubic hairline.



**General examination:**

The examination must be systematic and thorough though you are examining an obstetrics patient. A complete physical examination provides an overall health status of the patient and gives an opportunity to detect any unrecognized signs that you may have missed out.

It is a routine to measure height and weight in obstetrics. The height of a woman may provide a first indication of a small pelvis. A short stature of less than 145 cm may indicate a small pelvis. A booking weight and weight gain throughout the pregnancy should be recorded. As a general guide, weight of less than 40 kg is considered underweight and more than 80 kg is overweight. An average weight gain of about 0.55 kg, 0.45 kg and 0.35 kg per week in the first, second and third trimester respectively is acceptable. Excessive weight gain may be an earlier sign of gestational diabetes, macrosomia or pre-eclampsia.

Then check for the vital signs such as blood pressure, pulse rate and respiratory rate. Blood pressure should be taken lying and sitting position in a patient who is on anti-hypertensive drugs to detect postural hypotension.

**Examine the system that is of more relevance to your case.**

- Look for signs of anaemia such as pallor in conjunctiva and mucosal membrane.

- Look at the teeth, any dental carries which require referral to dental clinic.

- In the neck, examine the thyroid however some degree of enlargement is normal in pregnancy.

- Breast examination is performed to exclude any lumps and to note the nipples. In any case of inverted nipple, advice the patient to evert them to ensure that she is able to breastfeed her child.

- Examination of the heart should be made in particular listen to the heart murmurs and lung to exclude any pathologic conditions. Ejection systolic murmur may be normal in pregnancy (hyperdynamic circulation).

- In the lower limb, look for any oedema and test for reflexes especially in pre-eclampsia.

**Before you proceed to examine the abdomen, always ask yourself and look for the findings:**

1. Is the fundal height corresponded to her date, smaller or larger?
2. How many fetuses inside the uterus?
3. What is the lie and presentation?
4. Is the presentation has been engaged?
5. Where is the fetal back?
6. How was the liquor and estimated fetal weight?

**Abdominal examination:**

Ask the patient's permission for you to uncover her abdomen from the xiphisternum to the pubic hairline, ensuring adequate exposure while allowing for patient modesty. Abdominal wall relaxation is maximised by the patient resting ber arms alongside her abdomen, rather than behind her head. The patient's legs may also be slightly flexed at the hips to aid relaxation if necessary (in those who are so tense np). Whichever part of the body or system the examiner is examining, he should always use



the same routine: The examiner should start with inspection, palpation, percussion (if necessary) and auscultation. Always ask for her permission whenever you touching her although you had already ask for her permission earlier.

**Inspection:**

The abdomen is initially thoroughly inspected. The presence of an abdominal distension, which is consistent with the pregnancy, pigmentation (line nigra and striae gravidarum), striae albicans (previous abdominal distension), any scars (midline, pfannesteil, appendicetomy) or other skin lesions, are all noted. The position of the umbilicus is also noted. It is said to be centrally located when it is in between the xiphisternum and the pubic bone. The position of the umbilicus will help in estimation of the fundal height. Fetal movements may be observed (if there is no fetal movement, don't mention it – as it might mean the fetus is dead).

**Palpation:**

Usually starts with soft palpation with your palm and not the tip of your fingers. This is to elicit any contraction (irritability) and to gain rapport with the patient. Always look at the patient's face whenever you move your palm [if her face is grimace, it tells you that she is uncomfortable or in pain].

The fundal height is palpated with either the fingers of both hands, the radial/lateral border of left hand or the ulnar/medial border of the left hand. The ulnar border is preferable and more commonly used. The fundal height is related to the three main abdominal landmarks namely, the symphysis pubis, umbilicus and the xiphisternum. To

estimate the size of the uterus, the level of xiphisternum corresponded to 36 week, at the umbilicus it corresponded to 22 weeks and at the suprapubic bone it is about 12 weeks. You can arbitrarily divide the area above the umbilicus (24 weeks) to xiphisternum (36 weeks) into 3 giving each part to be corresponding to about 4 weeks i.e. 28, 32 weeks. The estimation using one finger as equivalent to 2 weeks should be discouraged as the size of the finger differs for different persons. Any discrepancy of more or less than 3 weeks is significant. Remember if the fundal height is more 34 weeks gestation, always feel for the subcostal space (to differentiate between the 34 or 38 and 36 or 40 weeks gestation).

An alternative assessment of fetal growth is provided by **serial** measurement of the symphysis fundal height. A tape measure is placed at the level of the uterine fundus and with the centimetre markings of the tape is obscured; the tape is placed in the midline over the abdomen / umbilicus to reach the superior aspect of the pubic bone. The symphysis –fundal height is recorded in centimetres and related to the known gestational age. Generally, the fundal height in centimetres corresponds to the gestation in weeks, the range being estimated as plus or minus two weeks.

Now palpate the fundus of the uterus (fundal grip) to find out the pole of the fetus whether it is the head or the buttock. The fetal lie is determined by gently but firmly compressing the abdomen, with both hands in the abdominal lumbar regions (lateral grip). Palpate laterally downwards to identify the lie, then go down toward the suprapubic and feel for another pole. A longitudinal, oblique or transverse lie will thus be detected.



The fetal presentation is identified by gently placing both hands on the mother's lower abdomen in the direction of the pubis (pelvic grip).

A hard cranium, soft buttocks or no presenting part may be felt. Should the presentation not be cephalic, the fetal head is identified by sequential ballotment over the mother's abdomen. If it is cephalic, check for the engagement of the presenting part. Engagement of the fetal head is determined by evaluating the extent of the head palpable per abdomen, described in terms of fifths of the fetal head. It may simply be described as being floating (5/5 palpable), engaged (1/5 or 2/5 palpable) or not engaged (3/5 or 4/5 palpable).

Then assess the liquor volume, if you feel that the liquor volume is excessive then proceed to do fluid thrill (you may need somebody to place the hand on the patient abdomen). The estimation of the fetal weight is determined by gestational age and experience of the examiner. As a guide, at 28, 32, 36 and at term weeks, the weight is 1 kg, 1.4 kg, 2.6 kg and 3.0 kg respectively.

**Percussion:**
Not usually practice in obstetrics (only check for fluid thrill in a case of polyhydramnious).

**Auscultation:**
Before you listen to the fetal heart, identify the fetal back and feel for the anterior shoulder. The fetal heart is best heard over the fetal back, particularly when listening with a pinard stethoscope. The fetal back is generally felt as a firm even mass on one side of the maternal abdomen. The hand held doppler instrument can be used to detect the fetal

heart by identifying the optimal sound direction by rotation of the transducer on the maternal abdomen. The fetal heart rate should be listened for either 15 or 20 seconds and then multiply by 4 or 3 is also acceptable. Listening for too long e.g. 1 minute would push the weight of the listener's head on the gravid abdomen causing discomfort and pain to the patient. A normal fetal heart rate is 110 –160 beats per minute.

After completing the examination, the mother is aided to rise from the supine position. The uterine size, lie, presentation, engagement, liquor volume, estimate fetal weight and fetal heart rate are recorded. The mother is reassured about the findings.

**Summary of the history and examination:**
Madam CNY is 26 years old woman, Gravida 3, Para 2 at 36 weeks period of amenorrhoea admitted to the ward 3 days ago for blood pressure stabilization otherwise the pregnancy is progressing normally.

**Steps on how to perform an obstetrics examination:**

**Introduction:**
It is a good ethic for the examiner to introduce himself or herself to the patient before performing an examination. This introduction will give the patient more confident and good rapport will be established. Ask permission and explain every step of the procedure to the patient.



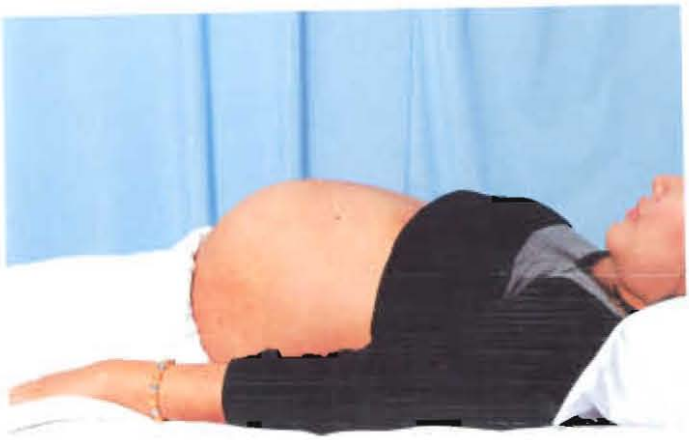

Figure 1: Positioning & exposure

**Position of the patient:**
Ask the patient lies supine on her back. Ensure that she is comfortable. Stand on the right side of the patient, facing her head, with your left hand nearest her.

**Good exposure:**
Obtain an adequate exposure of the abdomen before beginning. For patient modesty an adequate exposure is from the bra line to the pubic hairline.

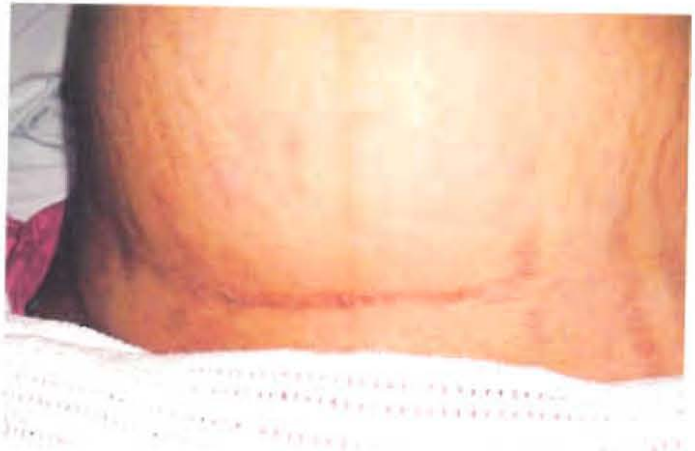

Figure 2: Linea nigra, striae gravidarum and scars

**Inspection:**

- Inspection of the abdomen is the first examination to be made.
- Notify any obvious abnormality of the contour of the abdomen.
- Inspect for the presence of linea nigra, striae gravidarum and striae albicans.
- Inspect for any surgical scars at the umbilicus, right iliac fossa and suprapubic area.
- Mention if there is any fetal movement seen. Otherwise be silent about it.

**Palpation:**

- Before touching the abdomen, ask whether there is any pain.
- Begin palpating the abdomen by doing soft palpation as this will establish rapport and confidence of the patient towards her doctor.



- Soft palpation also to elicit any uterine contraction (irritability)
- During the palpation, determine whether the uterus is soft or irritable, any contraction felt, any tenderness or any fetal movement felt?

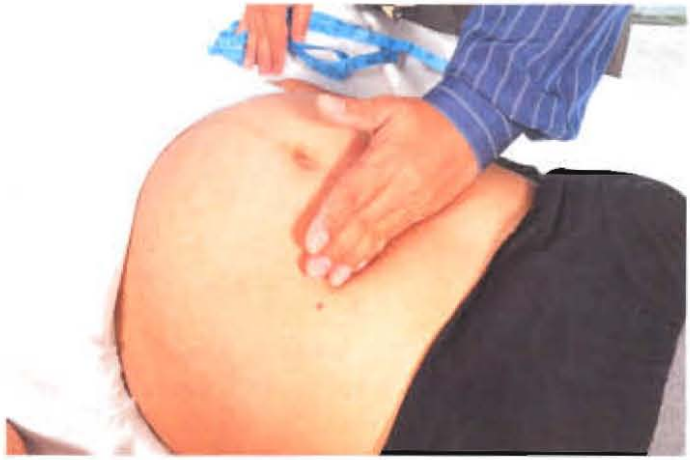

Figure 3: Identifying the uterine size

**To determine the nterine fundus.**

- The examiner should stands at the right side of the patient facing her head.
- The ulnar/medial aspect of the left hand is placed on the abdomen starting at the xiphisternum.
- The hand is then slowly moves downward until the uterine fundus is felt.
- The uterine fundus is then recorded in weeks [note in even numbers: 22, 24, 26, 28, 30, 32, 34, 36 and 38].

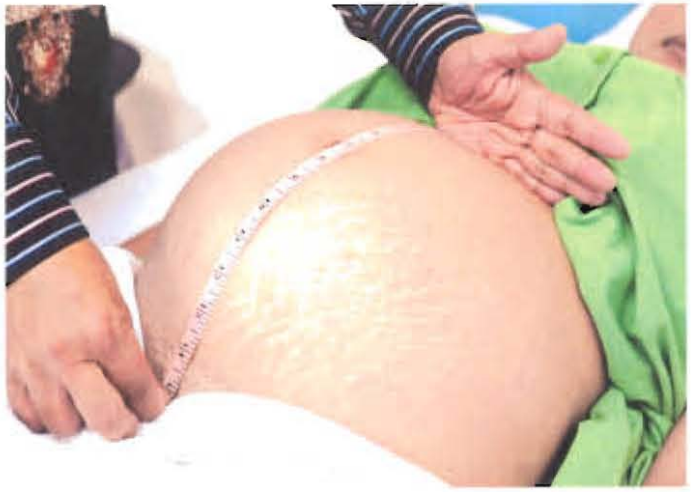

Figure 4: Measure the fuudal height

**Measuring the symphysis-fundal height.**

- After locating the uterine fundus, fix the end of your tape.
- Place a measuring tape with the inches unit facing up beginning at the level of the uterine fundus to the upper border of the symphysis pubis bone.
- Overturn the measuring tapes and record the distance in 'cm'. This is to avoid biaseness.
- The fundal height in centimeters is corresponded to the weeks of gestation.
- It must be a serial measurements.



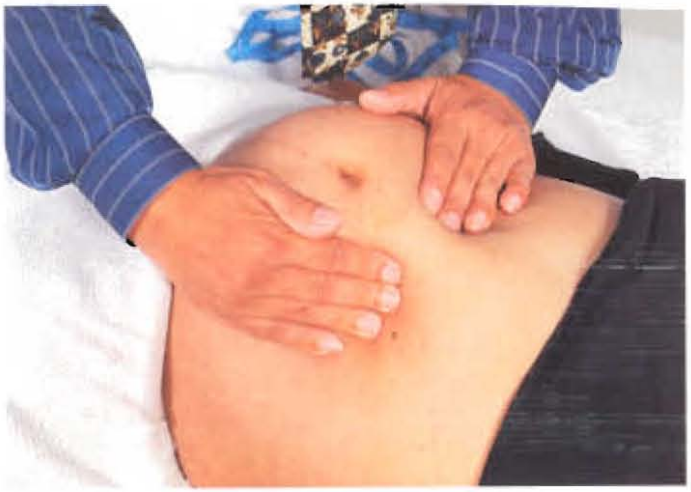

Figure 5: Palpating the fundus

**Fundal Grip:**

- Both hands are moved upward along the uterus and the **pole** in the fundus is palpated.
- Determine whether it is a buttock or head.
- The breech feels soft and more irregular in shape than the head.
- The breech is not as mobile as the head.
- The head feels hard and round in shape.
- The head is ballotable.
- The subcostal regions and the flanks should be palpated whether it is full or not.

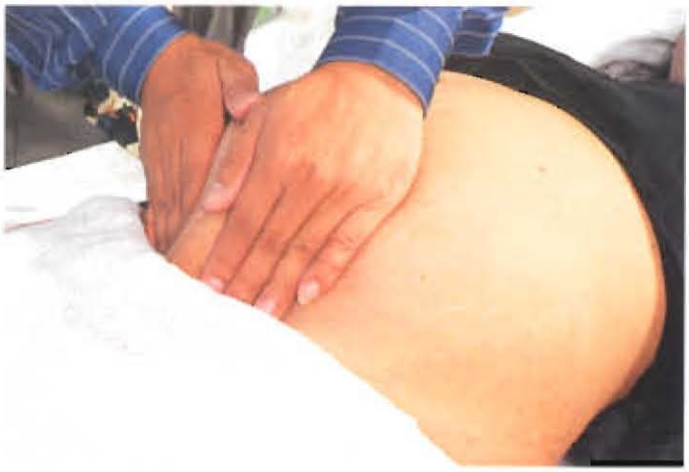

Figure 6: Pelvic grip

Pelvic grip is performed to determine the presentation and engagement.

**To determine the presentation:**

- Turn so that you face the patient's feet.
- Place your hands on each side of the uterus with fingers pointed towards the pelvic inlet.
- Grasp the lower segment between the fingers of both hands and feel the presenting part – i.e. head or breech.

**To determine for engagement:**

Try to move the presenting part from side to side to feel whether it is outside the pelvis and free (not engaged) or in the pelvis and fixed (engaged). Determine how many fifths the head is still palpable.

If there is a previous scar, check for scar tenderness.



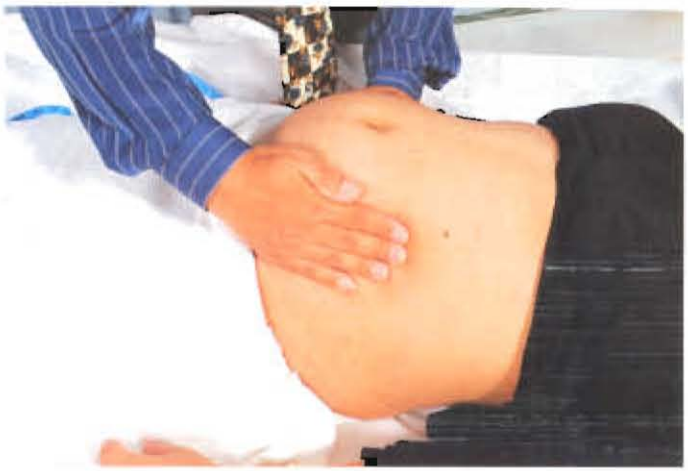

Figure 7: Lateral grip

- This is to determine the lie and where are the **fetal back** and the **fetal limbs.**
- Stands at the patient's side facing her head.
- The hands are placed on the sides of the abdomen, using one hand to steady the uterus while the other, palpate the fetus.
- Fetal back feels firmer and smoother and forms a gradual convex arch.
- Fetal limbs feel nodular and the fetus will often move them during palpation.

**During the palpation,** assess the amount of liquor, whether it is adequate, reduced, or excessive. If it is excessive proceed to perform the fluid thrill test (ask the patient to put his side of the hand over the distended abdomen). Then estimate for the fetal weight (EFW).