

## PERINATAL EDUCATION PROGRAMME

### GENERAL EXAMINATION AT THE FIRST ANTENATAL CLINIC VISIT

#### SKILLS WORKSHOP 1-1

##### OBJECTIVES

When you have completed this skills workshop you should be able to:

1. Take an adequate history.
2. Perform a good general examination.
3. Test the patient's urine.
4. Perform and interpret a pregnancy test.

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## HISTORY TAKING

The purpose of taking a history is to assess the past and present medical problems in order to detect risk factors for the patient and her fetus.

### 1-1 A THE LAST NORMAL MENSTRUAL PERIOD (LMP).

Does she have a normal and regular menstrual cycle?  
When did she last have a NORMAL menstrual period?

It may be difficult to establish the LMP when she has an irregular cycle.

If the patient is uncertain of her dates, it is often helpful to relate the onset of pregnancy to some special event, e.g. Christmas, school holidays, etc. For example "How many periods have you had since your birthday?", or "How many periods had you missed before New Year?"

The expected date of delivery (EDD) must now be estimated as accurately as possible. A quick estimate can be made by taking the date of the LMP and adding 9 months and 1 week. Therefore, if the LMP was on 2-2-2004, the EDD will be on 9-11-2004. If the LMP is 27-10-2004, the EDD will be 3-8-2005.

### 1-1 B PAST OBSTETRIC HISTORY.

It is important to know how many pregnancies the patient has lost. Patients often forget about miscarriages and ectopic pregnancies, and may also not mention previous pregnancies from another husband or boyfriend. Questions which need to be asked are therefore:

1. HOW MANY TIMES HAVE YOU BEEN PREGNANT? Ask specifically about miscarriages and ectopic pregnancies.
2. HOW MANY CHILDREN DO YOU HAVE? This can bring to light the fact that she has had twins.
3. HOW MANY CHILDREN DO YOU HAVE WHO ARE ALIVE? If a child has died, one needs to know approximately at what age the child died, and the cause of death, e.g. "died at 15 months from diarrhoea". If the death occurred before delivery or during the neonatal period (first 28 days), information about the cause of death is of particular importance. Approximate birth weights of previous children, and the approximate period of gestation, if the infant was small or preterm, are useful. Low birth weight suggests either growth restriction or preterm delivery, and heavy infants should alert one to the possibility of maternal diabetes.
4. WERE YOU WELL DURING YOUR PREVIOUS PREGNANCIES? In addition, asking about any episodes of hospitalization can be helpful.
5. HOW LONG WERE YOU IN LABOUR? It is important to know if she has had a long labour, as this may indicate cephalopelvic disproportion.
6. THE TYPE OF DELIVERY is important. Any form of assisted delivery, including a caesarean section, suggests that there may have been cephalopelvic disproportion. The patient should always be asked if she knows the reason for having had a caesarean section. Information about the type of incision made in the uterus must be obtained from the hospital where the patient had her caesarean section. A history of impacted shoulders is important as it suggests that the infant was very large.
7. A RETAINED PLACENTA OR POSTPARTUM HAEMORRHAGE in previous pregnancies should be asked for specifically.

All these findings should be recorded briefly on the antenatal clinic record.

Figure 1-1 A: Recording past obstetric history.

HISTORY *						L = Live IUD = intra-uterine death END = early neonatal death LND = late neonatal death ID = infant death
Obstetric history						
Year	Gestation (weeks)	Delivery	Weight	Sex		Complications
98	40	N	3200	F	L	Gastroenteritis
98	36	C/S	2000	M	IUD	Cong. abnor.
03	38	N	2900	F	L	
Description of complications						

**1-1 C MEDICAL HISTORY.**

Patients must be specifically asked about diabetes, epilepsy, hypertension, renal disease, heart valve disease and tuberculosis. Also ask about any other illnesses which she may have had. Asking about allergies and medication often brings to light a problem which the patient may have forgotten, or thought not to be of significance. Always ask whether she has ever had an operation or has been admitted to hospital and, if so, where and why.

Any abnormal findings in the medical history should be recorded, with a brief comment, on the antenatal record.

**1-1 D FAMILY PLANNING.**

The patient's family planning needs and wishes should be discussed at the first antenatal visit. She (and her consort) should be encouraged to plan the number and spacing of their children. The contraceptive methods used should also be in keeping with these plans. The patient's wishes should be respected. The outcome of these discussions should be recorded on the antenatal record.

Family planning is fully discussed in unit 14 of this PEP manual.

**EXAMINATION OF THE PATIENT**

**1-1 E GENERAL EXAMINATION.**

The following should be assessed:

1. HEIGHT - measured in cm. This does not require special equipment. A tape measure stuck to the wall, or a wall marked at centimetre intervals is adequate. The patient should not wear shoes when her height is measured.
2. WEIGHT - measured in kilograms. The patient should only wear light clothing while her weight (mass) is being measured. The scale should be periodically checked for accuracy, and if necessary re-calibrated.

Latest research indicates that poor weight gain, no weight gain or excessive weight gain during pregnancy is not important. Worldwide there is a swing away from weighing patients except at the first antenatal visit.

### 3. GENERAL APPEARANCE:

- (i) Is the patient thin or overweight?
- (ii) Is there evidence of recent weight loss?
- (iii) The presence of pallor, oedema, jaundice and enlarged lymph nodes should be specifically looked for.

#### 1-1 F EXAMINATION OF THE THYROID GLAND.

This can be difficult when the patient has a short, thick neck, or when she is obese. Look for an obviously enlarged thyroid gland (a goitre). The patient should be referred for further investigation when there is obvious enlargement of the thyroid, the thyroid feels nodular or a single nodule can be felt. A normal thyroid gland is usually slightly enlarged during pregnancy.

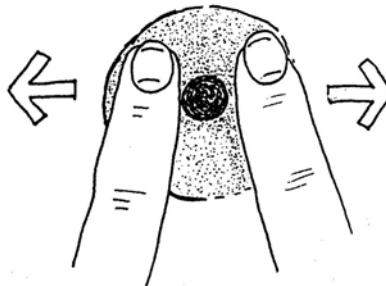
#### 1-1 G EXAMINATION OF THE BREASTS.

The patient must be undressed in order for the breasts to be examined properly. The breasts should be examined with the patient both sitting and lying on her back, with her hands above her head.

1. LOOK: There may be obvious gross abnormalities. Particularly look for any distortion of the breasts or nipples. The nipples should be specifically examined with regard to their position and deformity (if any), discharge, and whether or not they are inverted. Note any eczema of the areola.
2. FEEL: Feel for lumps, using the flat hand rather than the fingers.

HOFFMAN'S EXERCISES: When the nipples are flat or retracted, they may be corrected by placing the thumbs on either side of the base of the nipple and moving the thumbs towards the periphery of the areola. This is done in both vertical and horizontal directions. If the exercise is repeated several times per day throughout pregnancy, the nipple often becomes normal. If these exercises are needed, the patient should be taught to do them herself.

Figure 1-1 B: Hoffman's exercises.



#### 1-1 H EXAMINATION OF THE LYMPH NODES.

When the thyroid is examined, the neck should also be thoroughly examined for enlarged lymph nodes. The areas above the clavicles and behind the ears must be palpated. The axillae and inguinal areas should also be examined for enlarged lymph nodes.

Patients with AIDS usually have enlarged lymph nodes in all these areas.

#### 1-1 I EXAMINATION OF THE CHEST.

The patient must be undressed. Look for any of the following signs:

1. Any deformities or scars.
2. Any abnormality of the spine.
3. Any difficulty breathing (dyspnoea).

**1-1 J EXAMINATION OF THE CARDIOVASCULAR SYSTEM.**

1. PULSE: The rate is important. A rapid heart rate is almost always an indication that the patient is anxious or ill.
2. BLOOD PRESSURE: The correct method of measuring the blood pressure is fully described in skills workshop 3.

The correct method of measuring the blood pressure is described in skills workshop 3 of this PEP manual.

**TESTING THE PATIENT'S URINE**

Urine is most conveniently tested using reagent strips. Some strips will measure pH, glucose, ketones, protein and blood (e.g. Lenstrip-5) while others will also measure bilirubin, specific gravity, urobilinogen, nitrite and leucocytes (e.g. Multistix and Combi-9 Test). However, measuring blood and protein are most important and, therefore, only glucose and protein (e.g. Uristix) need to be measured in routine antenatal screening. This is the cheapest method. The cost can be reduced further by cutting the strips in two, longitudinally.

The strips should be kept in their containers, away from direct sunlight, and at a temperature of less than 30°C. A cool dry cupboard is satisfactory. The strips should only be removed from their containers one at a time immediately before use, and the container closed immediately.

**1-1 K PROCEDURE FOR TESTING URINE.**

1. The patient should pass a fresh specimen of urine. If the specimen is more than 1 hour old the test results may be unreliable.
2. The specimen should be collected in a clean, dry container.
3. Dip the reagent strip in the urine so that all the reagent areas are covered, and then remove it immediately. If the strip is left in the urine, the reagents dissolve out of the strip, giving a false reading.
4. Draw the edge of the reagent strip across the edge of the urine container to remove excess urine, and hold the strip horizontally.
5. Hold the strip close to the colour chart on the container label (but not touching it). It is important to compare the colours of the test strip with those on the chart at the correct times. Most of the test results are read between 30 and 60 seconds after dipping the strip in urine.

Lenstrip-5: All the tests are read after 30-60 seconds.

Multistix: The times for reading the individual tests are on the chart.

Combi-9: All the tests are read after 60 seconds.

6. After 2 minutes the colours on the reagent strips no longer give a reliable result.

The patient's urine should be tested at every antenatal visit, and the results recorded on the antenatal chart. Proteinuria of 1+ or more is abnormal while glycosuria must be investigated further (as described in unit 13-34).

**DOING A PREGNANCY TEST****1-1 L INDICATIONS FOR A PREGNANCY TEST.**

This test is usually done when a patient has missed one or more menstrual periods and when, on clinical examination, one is uncertain whether or not she is pregnant.

The test is based on the detection of human chorionic gonadotrophin in the patient's urine.

The earliest that the test can be expected to be positive is 10 days after conception. The test will be positive by the time a pregnant woman first misses her period. If the test is negative and the woman is not having her period yet, the test should be repeated after 48 hours.

*\*\*\* Modern pregnancy, tests which use reagent strips, are very accurate and become positive when the  $\beta$ -hCG concentration in the urine reaches 20 mIU/ml.*

#### **1-1 M STORAGE OF TEST "KIT".**

The test which is described in this unit is the U-TEST  $\beta$ -hCG STRIP FOIL. If another pregnancy test is used, the method of doing the test and reading the results must be carefully studied in the instruction booklet. All these kits can be stored at room temperature. However do not expose to direct sunlight, moisture or heat.

#### **1-1 N METHOD OF PERFORMING A PREGNANCY TEST.**

The patient should bring a fresh urine specimen.

1. Open the foil wrapper and remove the test strip.
2. Hold the blue end of the test strip so that the blue arrow points downwards. Dip the test strip into the urine, as far as the point of the arrow, for 5 seconds.
3. Place the test strip on a flat surface and read after 30 seconds. The result is not reliable if the test strip is read more than 10 minutes after it was dipped into the urine.

#### **1-1 O READING THE RESULT OF THE PREGNANCY TEST.**

1. **NEGATIVE** if only the control band nearest the upper blue part of the test strip becomes pink.
2. **POSITIVE** if two pink bands are visible. Between the control band and the blue part of the test strip another pink band is seen.
3. **UNCERTAIN** if no pink bands are seen. Either the test was not performed correctly or the test strip is damaged. Repeat the test with another test strip.