



Promoting Excellence In Ultrasound

Policies and Statements

D2

Guidelines For The Mid Trimester Obstetric Scan

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June 1991, Reaffirmed May 1996, Revised October 1999, July 2005

18-20 weeks is the most common time for performing this scan in an otherwise low risk pregnancy but examining the fetal anatomy may be appropriate at other times depending on the clinical situation.

The information gained aims to provide the patient and the doctor involved in her care with as much information as possible about the pregnancy in the safest and most cost-effective manner.

The limitations of ultrasound must be appreciated. Technical factors, such as fetal position and maternal obesity, may make full assessment impossible.

EQUIPMENT

Studies should be performed using high quality real time equipment. M mode should be available. The availability of Colour, Power and Spectral Doppler is advisable .

If state of the art equipment is not available both the patient and the referring doctor should be aware that the examination is less complete and the ability to detect fetal abnormality may be reduced.

COMMENT

Each department/practice should decide its own policy on making hard copy images available to the referring doctor and the patient.

THE EXAMINATION CHECKLIST

1. Fetal number
2. Fetal cardiac activity
3. Gestational age
4. Fetal anatomy, including detection of malformation

Head	- Falx	()
	- Cavum Septum Pellucidum	()
	- Skull Bones	()
	- Lateral Ventricles	()
	- Choroid Plexus	()
	- Cerebellum/Vermis	()
	- Nuchal thickness	()
	- Cisterna Magna	()
Face	- Orbits	()
	- Nose	()
	- Jaw	()

	- Lips	()
	- Profile	()
Diaphragm	- Right	()
	- Left	()
Heart	- FHMD	()
	- Position	()
	- Axis	()
	- 4 Chambers	()
	- Intraventricular Septum	()
	- Foramen Ovale	()
	- Mitral Valve	()
	- Tricuspid Valve	()
Great Vessels	- Left Ventricular Outflow Tract	()
	- Right Ventricular Outflow Tract	()
	- Aortic arch	()
	- Ductal Arch	()
Abdomen	- Stomach / Situs	()
	- Kidney (Left)	()
	(Right)	()
	- Bladder	()
	- Abdominal Wall	()
Spine	- Ossification Centres	
	Coronal	()
	Sagittal	()
	Axial	()
	- Skin Line	()
Extremities	- 12 Long bones	()
	- Hands/Fingers	()
	- Feet/Toes	()
	- Position of joints	()
Umbilical Cord	- Insertion	()
	- 3 Vessels	()
5. Amniotic Fluid Volume		()
6. Placenta	- Site	()
	- Clear of Os	()
	- Distance from internal os	() cm
	- Reaching/Covering os	()
7. Cervix	- Normal length	()
	- Open/Closed	()
8. Maternal anatomy	- Uterus	()
	- Adnexa	()

COMMENTS

GESTATIONAL AGE

This should be assessed by the biparietal diameter (BPD), head circumference (HC) and femur length (FL). Abdominal circumference (AC) is normally measured to check fetal proportions.

These values should be reported and a single gestational age assessment given. If the ultrasound due date differs from the menstrual date by more than 2 standard deviations, a revised estimated date of delivery (EDD) together with a predicted range should be given.

The biometry charts (see Policy and Statements D7 Statement on Normal Ultrasound Fetal Measurements) distributed by the Australasian Society for Ultrasound in Medicine (ASUM) are recommended.

FETAL ANATOMY INCLUDING THE DETECTION OF ABNORMALITIES

Each practice should develop a protocol on the procedure to be followed when an abnormality is detected. This protocol should include guidelines for the immediate care of the patient and how the referring doctor will be informed.

Careful evaluation of normal fetal anatomy according to the checklist should detect many major anatomical abnormalities.

It is important to remember that an apparently minor defect may be the only pointer to a major chromosomal abnormality.

Some structures may not be demonstrated because of maternal size, fetal position and other factors. Repositioning or rebooking the woman may be necessary to complete the examination.

If the assessment of fetal anatomy is limited, for whatever reason, the report should reflect the limitations of the scan.

SEX DETERMINATION

Determination of the sex of the fetus is rarely medically indicated. Care should be taken not to show the genitalia to those not wishing to know the sex of their fetus. If sex determination is requested this information should be provided based on positive identification of the external genitalia. Patients should be made aware that ultrasound assessment of fetal gender is not 100% accurate.

MULTIPLE PREGNANCY

1. Additional information required when a multiple pregnancy is diagnosed.
2. Ensure that the anatomy of each fetus is demonstrated.
3. Comparison of fetal size and amniotic fluid volume of each sac should be made.
4. Placental number, presence or absence of interposed membrane should be recorded.
5. An attempt should be made to confirm or determine chorionicity.
6. Identifying the sex of each fetus may assist in determining the chorionicity.

PLACENTAL LOCALISATION

The relationship between the lower margin of the placenta and the internal os should be determined. If the relationship between placental position and the internal os is still uncertain at the end of the scan, preferably with both a full and empty bladder, then a repeat scan at 34 weeks, or earlier if clinically indicated should be considered. Repeat scans should only be necessary in about 5% of all cases.

AMNIOTIC FLUID VOLUME

Qualitative evaluation of amniotic fluid is accurate when assessed by an experienced operator. It can be supplemented by quantitative evaluation of the 4 quadrant cumulative measurement of amniotic fluid or in cases of oligohydramnios, the depth of the deepest pocket of fluid.

MATERNAL ANATOMY

All pelvic masses should be documented, measured and where possible the organ of origin be determined and a short differential diagnosis given. If a pelvic mass is present the position and appearance of the maternal kidneys should be documented.

The cervix should be assessed.



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