



ASA POSITION STATEMENT | SEX DETERMINATION BY ULTRASOUND IN THE FIRST TRIMESTER

Endorsements: N/A

Statement

Fetal sex assessment can vary in accuracy in the first trimester. While the female external genitalia are typically identifiable as a caudal notch and the male genitalia present as a cranial notch,² or more recently as the anogenital distance,^{5,6} there are settings where this differentiation is either not possible or misleading. Evidence identifies that there can be significant error in sex determination that varies across 11-14 weeks gestation age.¹⁻⁴

Definitions: N/A

Background

This statement provides guidance for sonographer practise in sex determination with ultrasound in the first trimester. It provides evidence-based guidance for sonographers, some of whom are under increasing pressure to perform this assessment. Sex determination may be requested in the first trimester when there is a clinical (medical) indication, or for social reasons. Because of the potential inaccuracy,¹⁻⁴ patients requiring a high degree of accuracy in the first trimester should be counselled to seek alternative methods of sex determination.² Sonographers may choose to decline to perform this assessment if there is no clinical indication.

Clinical indications may include:

- To assist in the assessment of chorionicity in multiple pregnancy.¹
- For X-linked diseases, such as haemophilia and Duchenne muscular dystrophy.²
- Congenital adrenal hyperplasia.²

Discussion

- Sex determination by ultrasound prior to 12 weeks should be discouraged.³
- Sex determination in the first trimester requires the sonographer to gain informed verbal consent from the patient, after giving the following information:
 1. The patient should be informed that first trimester sex determination by ultrasound is not 100% accurate. Sonographers should state that errors exist with early predictions.¹⁻⁴
 2. Sonographers should explain that there will be an opportunity for assessing the sex with more accuracy at a later gestational age.
- Incorrect sex determination by ultrasound has potential for psychological implications.⁴
- Incorrect sex determination can potentially have medico-legal implications.⁴

Recommendations

- Sex determination required for clinical indications should be performed using best practice clinical criteria.^{2,5,6}
- Non-invasive prenatal testing (NIPT) or chorionic villus sampling (CVS) have a greater accuracy for sex identification.²
- Sex determination in first trimester for social reasons may be performed at the discretion of the sonographer with assurance and verbal consent from the patient that they are informed of the potential inaccuracy at this early stage.
- Sonographers are under no obligation to provide sex determination in first trimester ultrasounds for social reasons.
- Sonographers should ensure any sex determination practise is in accordance with their departmental policies and procedures.



References

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