

## First trimester screening and diagnostic tests: our experience at a DGH

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### Objective

The NHS Down's syndrome screening programme aims to offer all eligible women a screening test for Down's syndrome and to provide information for women so that they are able to exercise informed choice. Our aim is to audit our practice and detection rate of fetuses with T21, 13 and 18 at Epsom Hospital. Also to check whether we offer all eligible women a screening test for Down's syndrome which complies with the UKNSC Model of best practice. To improve the screening service, a core standard had been set, a detection rate of more than 90% of those undergoing combined screening and 75% of Quadruple screening. We aim to report our screening experience and standards of care in our hospital and to provide appropriate, accessible information in a range of formats for women so that they are able to make an informed choice about their screening options and pregnancy management.

### Methods

We conducted a retrospective study of all patients diagnosed with fetal T21, 18, 13 over a three year period, from April 2011 to April 2014, who were booked at Epsom General Hospital NHS Trust, UK. Using patient records, ultrasound scan reports and our electronic labour ward system Protos, we were able to determine the number of pregnancies where affected fetuses were detected within this time period and analyze our findings. We collated the data into a standardized proforma and then divided the data in subcategories according to our objectives.

### Results

During this period there were a total of 6,000 deliveries. There were 41 cases where the fetus was affected by a chromosomal abnormality and these included 22 cases of trisomy 21, 9 cases of trisomy 18, 4 cases of trisomy 13, 2 cases of monosomy X, 2 cases of triploidy 1 case of trisomy 13 and 18 and one case of translocation CHR1-3. There was one case where the PCR did not obtain a result. In our series there were 6 cases of trisomy 21 where the diagnosis of aneuploidy was made postnatally. In one of these cases the mother declined CVS and in another the mother declined ultrasound examination during the pregnancy.

### Conclusion

We are complying with NHS ENGLAND's initiatives in screening pathway development in line with UKNSC expectations. We must ensure that midwives and obstetric sonographers are supported to facilitate early booking for maternity care within primary and community care settings. In accordance with UKNSC standards and protocols we must ensure that all women receive information in an appropriate format about the screening tests for Down's syndrome as early as possible with at least 24 hours before being asked to make any decision. The information should be impartially presented and should include an explanation of the limitations of the screening test.