

OxGRIP- Oxford Growth Restriction Identification Programme

Impaired placental function or 'growth restriction' accounts for >50% of stillbirths and has long term health consequences. One obvious manifestation is being 'small for gestational age' (SGA): antenatal detection of this in the UK, and Thames Valley region, is only 35% and is the subject of a national service improvement initiative (Saving Babies Lives, NHS England, 2016). Detection of these babies is possible using ultrasound, but this is expensive and there is a shortage of sonographers. Ad hoc usage is common and growth ultrasound rates differ widely between different units; national guidelines and initiatives such as GROW aim to target at risk pregnancies but are complex, controversial and require vastly increased use of ultrasound. Further, they have demonstrated only very limited benefit.

A further problem is that most SGA babies are not actually 'growth restricted' or at risk: they were simply meant to be small. Yet national guidelines advise induction of labour at

37 weeks. Yet more of a problem is that even currently unachieved detection of SGA babies will have a minor effect on stillbirth rates. This is because many 'growth restricted' babies are not small; they are merely smaller than they were meant to be or have late or less chronic placental malfunction. Current research suggests that assessment of growth velocity and fetal/placental blood flow may help identify these babies but this is not widely used. This all means that current recommendations increase both resource usage and obstetric intervention, yet fail to identify most at risk babies.

OxGRIP is a pilot service improvement implemented at the Oxford University Hospitals NHS Foundation Trust, developed and funded by the Oxford Academic Health Sciences Maternity Network and the OUHFT. It aims to reduce stillbirth whilst making best usage of resources, and restricting inequitable and ad hoc practice and obstetric intervention. The first women entered the project in May 2016.

Main components of the Programme

1. Structured screening for risk of growth restriction at the existing 20 weeks scan using a brief questionnaire and uterine artery Doppler, with booked serial growth scans according to this.
2. Additional growth scans restricted to a defined set of indications.
3. A routine 36 week growth scan for all, with additional assessment of both growth velocity and fetal/placental blood flow.
4. Senior assessment of all identified potentially at risk babies with intervention only according to a strict protocol
5. Strict audit and QA.

Fundamental Principles:

1. Structured and equitable usage of resources.
2. Improved detection of SGA babies.
3. Improved detection of growth restricted, non-SGA babies.
4. Restricted, structured intervention (usually induction of labour) for babies most at risk.

Achievements so far:

- Detection rate of SGA babies and breech presentation has increased.
- Induction rate has **not** gone up.
- A number of very high risk babies have been identified.
- Reasonable to infer that at least one stillbirth has been prevented within the first few weeks of the programme

The project has required a project manager, a 20% increase in the number of ultrasound scans (from a relatively low level) and 2 consultant-led ultrasound clinics for targeted fetal assessment. Implementation has been complex and challenging with, for instance, multiple guidelines changes, new ultrasound request forms and vetting of these, change management, staff training and methods for audit and QA. The project will run for 2 years, after which time its impact on resource usage, obstetric intervention, maternal satisfaction and perinatal mortality and morbidity will be assessed.

References:

- [NHS England: Saving Babies Lives Care Bundle](#)
- [Perinatal Institute: Growth Assessment Protocol](#)
- [RCOG: SGA Investigation and Management](#)
- [Oxford AHSN Maternity Clinical Network](#)