

NHS England Saving Babies' Lives Care Bundle

Element 2 - progress in GAP units, December 2017



Background

- The Growth Assessment Protocol (GAP) was rolled out from 2009 (regionally) and 2013 (nationally).
- GAP is in use in 124 of 159 (78%) Trusts and Health Boards in England, Wales, Scotland and Northern Ireland, with implementation in another 14 in progress (www.perinatal.org.uk/gap-uptake.aspx)
- GAP includes customised GROW charts for plotting fundal height and estimated fetal weight (EFW). A total of 482,792 charts have been produced in GAP units in England over the last 12 months (Q3 2016-Q2 2017).

Information relevant to NHSE Care Bundle Element 2 audit indicators

Indicators 1-3: Training and algorithm for high and low risk according to early pregnancy risk assessment

- All Trusts receive general and 'train the trainers' training through on-site or regional workshops, with additional free workshops held fortnightly at the Perinatal Institute.
- Training is further supported by e-learning (theory and practice modules) with 33,000 individual user accounts in the UK, with requirement for certification and annual update
- Protocols were aligned initially with RCOG algorithm (2013), then NHS England Care Bundle (2015)
- The proportion of 'high risk' as per early pregnancy assessment is 21.3% - although we do not have data as to which algorithm is being used. For a regional perspective, see Table 1.

Risk factors according to NHSE algorithm	Prevalence %	Cumulative %
Previous stillbirth	0.3	0.3
Previous SGA baby	6.3	6.5
Pre-existing hypertension	6.2	12.4
Pre-existing diabetes	0.7	13.1
Maternal age 40+	3.2	15.6
Body mass index 35+	8.1	21.8
Drug misuse	1.1	22.6
Smoker 10+ cigarettes/day	9.6	29.5
Smoker 1-9 cigarettes/day	8.7	36.2

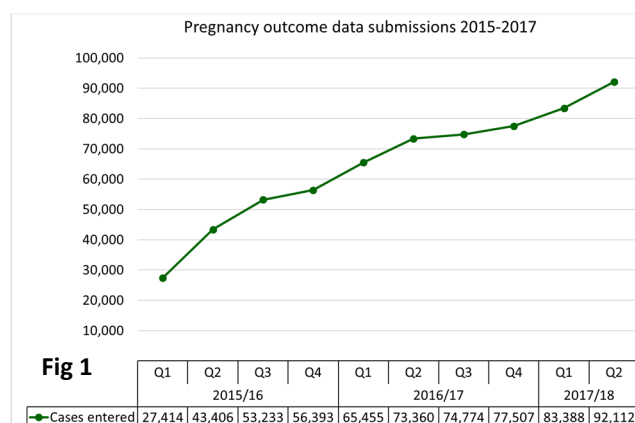
Table 1. Prevalence of risk factors requiring serial ultrasound assessment according to new NHSE algorithm, n=146,774 ¹

The table shows the main risk factors recorded at the beginning of pregnancy, West Midlands 2010-13. Cumulative prevalence of one or more risk factors according to the NHSE algorithm was 22.6% without, and 36.2% with smoking. This is consistent with anecdotal evidence that variables including smoking or BMI 35-40 are often not considered an indication for serial scanning.

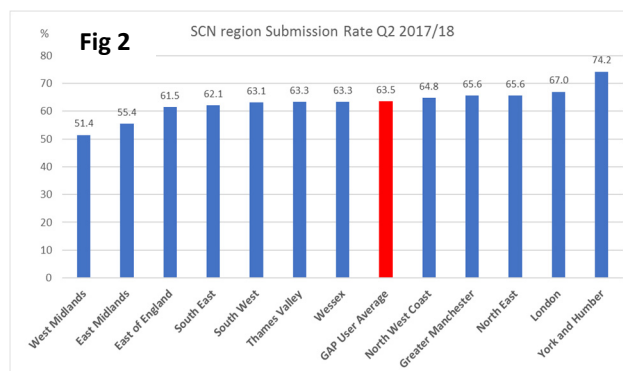
¹Francis A, Giddings S, Turner S, Gardosi J. Prevalence of risk factors requiring serial ultrasound assessment of fetal growth according to new NHS England algorithm BJOG:2016; 123: S2:8-9

Indicator 4: A. Ongoing audit; B. SGA rate; C. Antenatal detection & false positive rate

A. Audit: GROW's post-delivery page generates birthweight centiles and local reports of SGA and detection rates. Submission rates have increased across the UK (Fig 1) with currently over 75% of Trusts submitting data regularly, with an average ascertainment of 91% across all reporting units.



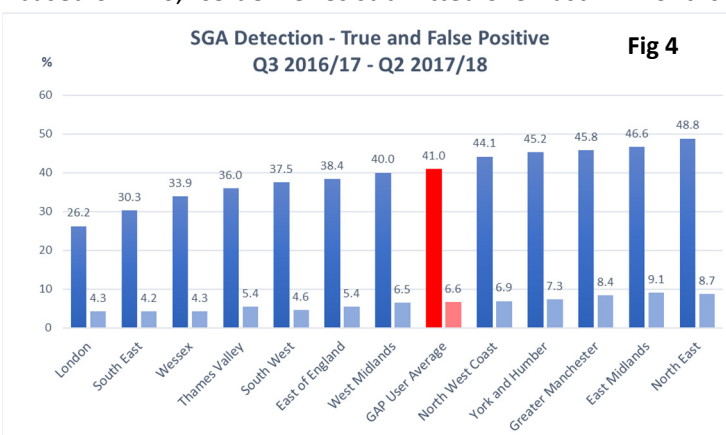
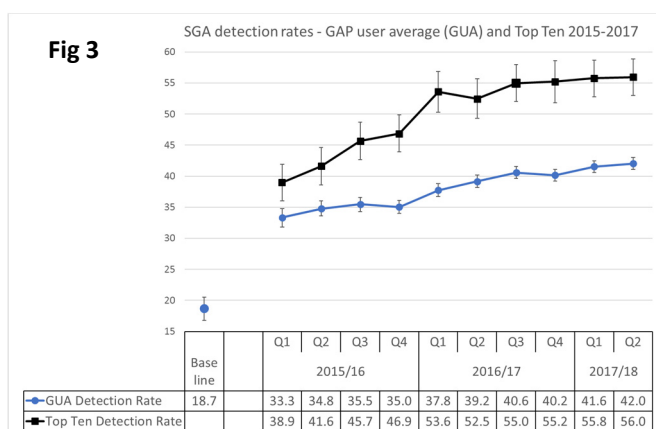
However lack of submission from some units brings the average GAP ascertainment rate by clinical network down (Fig 2): the GAP user average was 63.5%, and the submission rate in the 12 networks varied from 51.4% to 74.2%. It is expected that recording rates will improve as more maternity information systems are linked with GROW via the GAPplus service.



B. SGA rates: Average in England: 12.2%, ranging from 10.7% (Thames Valley) to 13.4% (East Midlands)

C1. Trend: There has been a steady increase in antenatal detection, from baseline of 18.7% to 42%, and the 'Top Ten' units reaching an average of 56%

C2. Regional variation: Fig 4 shows detection and false +ve rates for all 12 English networks and the GAP user average, based on 276,269 deliveries submitted over last 12 months

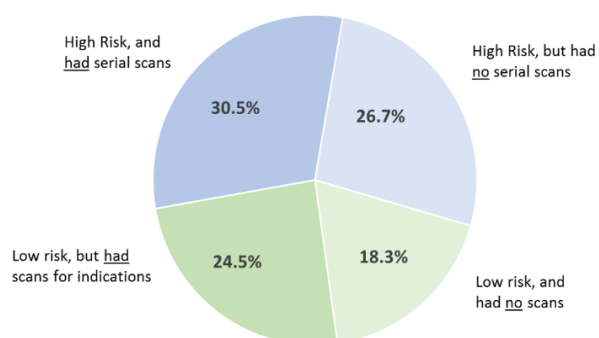


Indicator 5. Ongoing case note audit of missed cases

Missed case audit is now undertaken regularly in 64 (50%) of GAP units across the UK, with a total of 2977 cases entered to date using GAP-SCORE software which helps determine the reasons why SGA was missed. The main categories related to ultrasound scans, which were either not done despite being indicated, or were done but still failed to detect SGA (Fig 5).

This could in part be related to the fact that the average number of scans in high risk pregnancies was only 2.3, and average interval between last scan and delivery was 3 weeks.

Fig 5 2977 pregnancies with SGA at birth missed antenatally



Comment

- SGA detection rates have increased significantly; however, there is substantial variation across England which highlights the need for a standardised approach
- Ultrasound resources need to be enhanced and Trusts encouraged to follow national guidelines rather than compromising local protocols for monitoring growth in pregnancies at increased risk
- Quality assurance is also important, and audit tools are now available to assess accuracy of EFW
- Recording outcomes relating to fetal growth is important for postnatal and future care as well as audit
- Missed case audit is a powerful tool to improve understanding and address service gaps and deficiencies
- Clinical networks can have an important role in fostering competency in fetal growth surveillance