

GAP program to reduce stillbirths in Australia

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Summary

*This proposal focusses on the Senate Select Committee Report's Recommendation 15, calling for a **reduction in stillbirths by 20% in 3 years**. It is intended to be complementary to ongoing Australian research initiatives, and is based on evidence that fetal growth restriction is a common antecedent of stillbirth but often not recognised, and that better recognition reduces the risk of stillbirth.*

We propose to address this challenge through national implementation of the Growth Assessment Protocol (GAP), a comprehensive, co-ordinated program which has contributed to reducing stillbirth rates in England by 23%, and which is now also being implemented nationally in New Zealand following successful pilots there. The initiative will build on the increasing use of customised charts in Australia, and already available evidence of significant improvements in identifying pregnancies at risk.

Background

The Perinatal Institute is a UK based, multidisciplinary, internationally active, not-for-profit organisation with the mission to improve the quality and safety of maternity care. In our submission to the Australian Senate Enquiry [1] and subsequent oral testimony [2] summarised in their final Report [3], we outlined the background and progress of our award-winning stillbirth prevention program GAP (Growth Assessment Protocol). GAP includes on-site training, e-learning, risk assessment and surveillance algorithm, customised charts and referral protocols, audit of SGA detection and false positive rates, and case review of missed cases, together with ongoing help desk support.

GAP in the UK

Implementation of GAP improves antenatal detection of pregnancies at risk due to fetal growth restriction, which is the single most important risk factor for stillbirth [4]. Uptake of the program in the UK has grown gradually over the last 8 years, starting in our home region, West Midlands, and extending to cover England, Scotland, Wales and Northern Ireland, reaching the current uptake level of 81% of all hospitals in the NHS (www.perinatal.org.uk/gap-uptake.aspx).

The program has led to a 2 to 3 fold increase in antenatal detection of small babies, allowing clinicians to instigate further investigations to help identify those fetuses that are truly at risk and need timely delivery. In 2015, we undertook an NHS funded, intensive GAP project in three Northern England regions (SaBiNE - Saving Babies in the North of England [5]), an area which had high stillbirth rates. The program had funding for designated professionals to be seconded for short periods to help with implementation. The intervention resulted in significant increases in antenatal referral and detection of small babies, and a significant drop in stillbirth rates to below that of the rest of England [5].

In 2016, we aligned GAP to the 'Fetal Growth Surveillance' Element of the new NHS England 'Saving Babies Lives' Care Bundle, which also includes elements for smoking cessation, reduced fetal movement and intrapartum surveillance. Although all elements are important for prevention, the most significant findings in the NHS England commissioned independent evaluation [6] were a 20% reduction in stillbirths and a near 60% improved SGA detection rate associated with use of growth charts and serial ultrasound. Almost all hospitals reporting SGA data (15/17, 88%) were units in the GAP program.

Overall since 2011, GAP has been associated with a year-on-year reduction in stillbirths in England to their lowest ever levels [7]. This represents by 2017 (latest figures from the Office of National Statistics) a 1.23/1000 or 23% drop compared to the previous 10-year average, thereby fulfilling - three years early - our Health Secretary's initial target of a 20% reduction in stillbirths by 2020 [8].

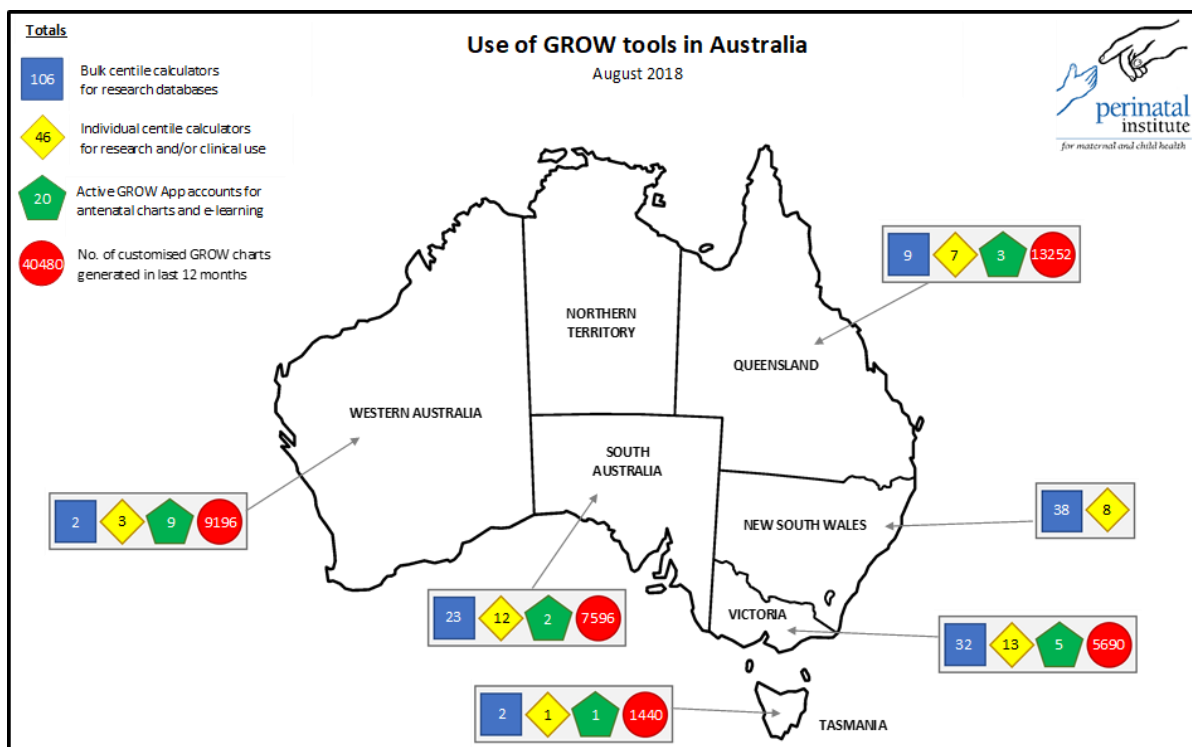
GAP in Australia

A similar drop in Australia would equate to about 370 fewer deaths per year. Apart from the unmeasurable value of lives saved, this would represent a saving of just under A\$ 20 Million per year, based on the Australian Stillbirth Foundation / PricewaterhouseCoopers' estimate of the direct and indirect cost of a stillbirth (A\$ 52,000 [Ref 9, p12]).

We have already adapted the growth chart software for Australian use, with multi-ethnic coefficients incl. for Aboriginal and Torres Strait Islander people, thus being able to adjust for normal variation in fetal growth and birthweight due to ethnic origin and maternal size. Customised charts predict each baby's intrauterine growth potential (GROW – gestation related optimal weight) and improve the distinction between constitutional and pathological smallness. Additional functionality being introduced this year is auto-plotting of measurements, decision-making support and the mother's own electronic chart. GROW furthermore generates its own database of pregnancy characteristics and outcomes which are captured during routine use, and can be used for ongoing audit, benchmarking and research.

Customised charts are recommended for the assessment of fetal growth as well as birthweight by the RCOG (UK) as well as RANZCOG in New Zealand, where pilots have already resulted in significant reductions in small for gestational age stillbirths and where - following endorsements by the NZ Ministry of Health and RANZCOG - GAP has last year been commissioned for national roll-out.

A number of hospitals and individual clinicians in Australia are already using GROW tools, generating just over 40,000 GROW charts annually (see map from our Senate Committee submission [1]),



and there is already published evidence of benefit from Adelaide [10] and Melbourne [11]. However, to be fully effective for stillbirth prevention, the program requires a more comprehensive implementation of all GAP elements – incl. training, e-learning & accreditation, clear protocols and rolling audit.

Thanks to economies of scale, a relatively modest level of funding would allow a co-ordinated initiative to make the GAP program available to all Australian hospitals, and help to work towards the target set by the Senators' Report. We are fortunate to have local collaborators who would assist with roll out and ongoing support of an intensive national training and implementation program that could commence immediately. We would want to work closely with Australian stakeholders and ensure that the program reflects and promotes best practice and evidence based management guidelines.

References

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