Prof Alan Cameron – UK NSC GBS Screening policy and review

What I want to do is to present the UK National Screening Committee GBS screening policy, and review the audit that we've been doing at the Royal College with their commission by the National Screening Committee and then I'm going to be followed by Andrew Thomson, who chairs our College guideline, who's going to present the position regarding the Green Top guideline.

Both of us are here with some trepidation, especially following Phil's excellent lecture. So we're present to the policy as it stands at the moment, but obviously the discussion is going to open up a few other areas.

So the UK NSC'S current policy, and this is the current policy position as listed here, came out in 2012 and it stated that the routine screening for early onset GBS carriage in late pregnancy for all pregnant women is currently not recommended in the UK. And they considered that there was insufficient evidence that the benefits gained of screening from all women in late pregnancy and treating those women with confirmed GBS carriage with intravenous antibiotics during labour outweighs harm. And the next review scheduled for this year and next year and there's currently a literature review being scoped and commissioned at this present time by the National Screening Committee.

So what's the rationale for the UK NSC policy position? Well I think I have to say that we don't really understand which babies - and I think we've clearly been presented with that today, these tragedies that we heard from Alison - we don't really know which babies are going to be affected by early onset GBS amongst the thousands who are GBS carriers in late pregnancy. And in other screening programmes those with an initial screen positive result, often go on to have a second screen to see who should receive treatment. So it's a little bit different from what we've heard so far. And the number of women needed to treat (the NNT) is likely to be high and I know there's been some work from people in the audience here today in order to prevent one case of early onset GBS.

Following on from this, is the rate of onset GBS disease does seem to be similar to rates in other countries where screening is recommended, although I confer with Phil that there has not been the drop in incidence that we had hoped may come when the Green Top Guideline came out. Most cases of early onset GBS and related deaths do occur in premature babies,

delivered before the suggested time period that we test for GBS, which is thirty-five to thirty-seven weeks. And in the British Paediatric Survey, one of the surveys, sixty percent, twenty-three of thirty-eight babies of neonatal deaths, were in fact in preterm babies, so it is a complex area. And I think screening and intrapartum antibiotics prophylaxis (IAP as Phil referred to earlier, and you'll see this abbreviation used throughout this talk) would not necessarily reduce the occurrence of late onset GBS disease.

So to follow on, the last slide as regards rationale for the UK's NSC's policy position is that screening may result in over detection and over treatment due to the fact GBS carriage can be transient and one systematic review found out that on average only approximately seventy percent of women, who test positive for GBS on antenatal screening after thirty-five weeks, also tested positive in labour. Five percent, who tested negative on antenatal screening, tested positive during labour. So we have this clinical conundrum. Current tests we have cannot distinguish between women at low and high risk of transmitting GBS to their babies. So there needs to be an awful lot more basic science work I think in this area.

So what are the views on limitations of antibiotics to prevent early onset GBS? Well there is a rationale for moderating the use of antibiotics amongst pregnant women with GBS carriage to prevent EOGBS disease in their baby and these are the reasons for this. The effectiveness of antibiotics isn't always certain and we've heard about antibiotic resistance becoming very widespread with erythromycin. And the long-term effects of antibiotic treatment during labour are probably unknown. There's a possibility that we could find increasing rates of other types of neonatal sepsis. There's obviously concern about antibiotics resistance, which we've heard. Allergic reactions I think should be considered cos that can happen during labour in a very small proportion of women I'll acknowledge that. And obviously if we're going to be giving iv therapy to a large percentage of women the whole concept of medicalisation of labour for other reasons, be it oxytocin or whatever, to add in iv antibiotics especially in low risk women, that's going to fall foul of a lot of people that are proposing much more return to non-medicalisation and natural childbirth.

So what we've done most recently and I'm very grateful to Carmen Tsang whose in the audience is look at an audit that was commissioned by the NSC called the RCOG GBS Audit. This was following on from the recommendations that we had. We did an RCOG led audit in 2014 and it reflects the recommendation as listed above. The aim of this audit was to investigate the use of the GTG36 that we've heard so much about, and we'll hear more of that from Andrew Thomson following this. To look at the use of it in obstetric units throughout the UK and examine the variation in preventative care for EOGBS and identify areas for improving guideline adherence and practice. So this was led by ourselves at the college in partnership with the London School of Hygiene & Tropical Medicine which is where Carmen Tsang is based and supported by the RCM and it was commissioned by the UK NSC.

So the components of this audit were these as listed - first of all we did a survey of NHS obstetric units in the UK, we did a survey of NHS MLUs in the UK, we reviewed the local protocols on prevention of EOGBS. We reviewed by patient information on GBS and we did analysis of routinely collected maternity data on neonatal GBS infection from HES data and from a project called the MIS data, and I'll come to that later. And we're currently looking at case vignettes on the impact of patient factors on clinical practice and obviously we wish to feed all this back to maternity units.

So the project team is large as you can see here. It's come from the RCOG and where I'm based, and I'm an obstetrician as well in Glasgow and with the London School led by the people here but Carmen Tsang really has done all the work on this and the advisers as you can see have come from a wide range of organisations and we had clinical reviewers and some clinical advisers on the case vignettes.

So the project was developed in October 2013, so 2 years ago, a pilot study was done in December of that year. The full audit started in February 2014 and the data collection went to September 2014, so just over a year ago. We published the first report in March of this year and the second and final report publication is anticipated for later this year/early next year. So I can only present some of it to you today.

So the first report looks like this and you can obtain it from the Royal College website, the link is as listed here. And this was essentially the survey of NHS obstetric units in the UK and we had results from 161 of the 190 eligible units. This also contains the analysis of the routinely collected maternity data from hospitals episodes, the so-called hes data, from NHS funded hospital care in England. So that's just English data. And then we have a college project of the MIS project, which includes eight NHS providers as part of our MIS pilot project - we linked to some data from that group of hospitals who have
a fairly comprehensive data set and we've used them for a variety of audits in the past.

In terms of the GTG, I don't wish to go through this again. These are these five salient risk factors and Andrew will be mentioning this. Phil's been through each one in some detail in his talk. But these are the five risk factors that currently are recommended for intrapartum antibiotic prophylaxis as the GTG and the NSC recommendations. So I'll not go through these as that's been done already and I'm sure will be done in the next talk.

So what did we find in the survey of the obstetric units. Well thankfully, we found more than 90% of units reported that they had a written protocol for prevention of EOGBS disease and providing written information on GBS to patients, so I think that's good. Less than 5% of units actually reported that they offer universal screening for GBS carriage to all pregnant women, so quite a small figure but it is still happening in some units. And overall the adherence to the RCOG recommendations has remained stable since the first RCOG audit on this in 2007. However there are some discrepancies and I think they're worth

mentioning. Specially with regard to the reported practice and the College guidelines. For example, swab based testing for GBS in pregnant women with risk factors and clinical indications for GBS specific IAP goes on contrary to the guidance, so that does happen. And responses believe it or not midwives and obstetricians don't seem to agree. Responses from obstetricians and midwives working in the same unit, quite different. So it is a confusing picture.

So just to echo this. Almost 100% reported use of written protocol for prevention of EOGBS and well over 90% reported provision of written information for GBS to patients, so this is good. And here's the winner as you can see here - 37.5% cited the GBSS as a source of information on GBS infection compared with 36.8% (so very close but GBSS just wins the day) citing the College guidelines, so very close as you can see. And as I said, less than 5%, the figure is actually 3.7% of units reported offering universal screening for GBS carriage to all pregnant women.

Other findings of note are that 55.9%, so 56% of units reported offering selective swab based testing to pregnant women guided by risk factors or maternal request. So that's obviously from the College guideline. And almost 100% - 97.4 to be precise - units reported adherence to the College advice on GBS specific IAP compared with just over 80% of units for broad spectrum IAP. And in over 40% of units where GBS specific IAP was reported to be offered, they also reported that IAP was offered to women with preterm prelabour rupture of the membranes, that controversial area that Phil has alluded to. And this is an indication obviously that has not been to now supported by the RCOG guideline. And 15% of units reported offering IAP to women with preterm i.e. less than 37 weeks labour, so preterm labour and intact membranes. Again an indication that is not supported in the College guideline but is going on in 15% of obstetric units.

When we looked at the HES data we found some pretty large estimates as you can see. These are much larger than I think we've heard presented this morning. An estimate of 1.2 to 1.4 cases of EOGBS per 1,000 live births. And potentially I think this is an overestimation due to coding of suspected but unconfirmed cases in the HES records. In our own project, the MIS data in the MIS audit that we do, the data fields on GBS were very poorly completed and I think this reflects the confusion around this condition. And there is certainly potential to improve the completeness and range of data fields about group B Strep given the much higher completeness up to 100% of many other data fields. So it's the GBS one that was particularly poorly filled out. And I think the UK maternity and perinatal audit, which we've submitted a bid for and think will be coming to this college, has a huge potential for giving us really important data to fill this data vacuum. We need data to change practice, as you all know.

So the recommendations from this first report are those listed here. That medical directors should ensure that local guidelines on the prevention of EOGBS disease and written

information on GBS is provided to patients in obstetric units are reviewed regularly, reflect national guidelines and are fit for purpose. And that we should review practice on preventing EOGBS and other neonatal infections, that should be regularly undertaken in all obstetric units to ensure high-quality and consistent care. And that guidance on non-GBS-specific indications for prophylaxis (for example the use of broad-spectrum antibiotics) should continue, supported only by evidence. And national guidelines, including those published by the RCOG, must be clear, coherent and consistent with other guidance. And you've seen that we have some discrepancy at the present time. And inconsistencies in practice or knowledge about EOGBS prevention among staff in the same unit or the provider should be challenged, and education and communication between all staff improved.

And we certainly feel that more evidence is needed about the care received by women to refine national policy in the prevention of EOGBS, to standardise local guidelines and to ultimately reduce the incidence of this disease, which is why we're all here today.

The forthcoming results in the second report, they're not out yet, we're looking at them at present, are the survey of the NHS MLUs. At the moment we've only got valid survey responses from just over half of the eligible units, so that's a bit disappointing. And we see that pregnant women with confirmed GBS carriage are accepted to some of these units, which against guidance. And GBS specific IAP is available in some alongside midwifery units. And we're also reviewing local protocols on prevention and we've reviewed the protocols from nearly 80% of eligible providers, and 30% of these have shown evidence of being reviewed at least every 3 years. So not a high percentage. 81% of the protocols stated they recommended a GBS specific IAP regime. As regards the patient information on GBS, we've looked at 33 patient information leaflets and 58% of them did not reference any clinical evidence or national guidelines. Very disappointing. And 53% cited the GBSS as an alternative source of information. So lots to discuss. I'm going to finish at this point and no doubt there'll be questions after the next session.

Thank you very much.