MBRRACE-UK Topic Proposal Form

Guidance on completing each section of this form is provided in the form of prompt questions. *These are not intended to be comprehensive* but to allow an opportunity to provide the MBRRACE-UK programme team and their Independent Advisory Group with an overview of the rational supporting your proposal.

Completed forms should be submitted electronically to mbrrace-uk@npeu.ox.ac.uk by 31st December 2014.

Topic Title	Maternal Pelvic Floor Trauma and Relation to Mode of Delivery
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1. Overview of the Proposed Topic

Provide a summary of the essential features of the proposed topic; including aims, objectives, and opportunities for quality improvement if this topic is selected.

Maximum response 200 words

There is significant opportunity for quality improvement in this area, which has been ignored for far too long. Recent advancements in non-invasive diagnosis imaging technology have shown that even after non-instrumental vaginal deliveries, obstetric anal sphincter tear (OASI) rates appear to exceed 10%, and may be as high as 40-60% after forceps.[1-3] In addition to this, there is the much less recognised trauma to the levator ani, which occurs in 15-30% of all vaginal deliveries[4] and has a significant effect on maternal pelvic floor dysfunction. The greatest maternal morbidity relates to pelvic organ prolapse, stress urinary incontinence, fecal/anal incontinence, voiding dysfunction, and sexual dysfunction due to dyspareunia and loss of vaginal tone.

Aim:
To identify the incidence and severity of maternal pelvic floor trauma and the relation to mode of delivery.

Objectives:
To explore the impact England's rising forceps rate is having on women's health.
To identify maternal characteristics and mode of delivery that are associated with increased risk.

Opportunities for Quality Improvement:

An expected significant reduction in maternal morbidity if forceps rates are reduced.
Ideally, imaging technology would be used to identify trauma in a specific group of women, but for the purposes of this confidential enquiry, hospital data on all degrees of lacerations and mode of delivery, plus data from NHS urogynecological surgeons' cases would be a good first step.

2. Background Information

2.1 Background and clinical context of the proposed topic. Include incidence / prevalence of the condition(s), its impact on the patient and family / carers; and its impact on the NHS and / or social care organisations.

Maximum response 250 words.

Vaginal birth is the single most important risk factor for the development of pelvic floor dysfunction,[5] and has a significant adverse impact on the lives of countless women. Yet it is the 'caesarean rate' alone that remains the primary perceived performance indicator of obstetric services.

NHS figures[6] show a 40% rate of perineal laceration during delivery, while RCOG estimates 85% of women who have a vaginal delivery will have some degree of perineal trauma, with 60-70% requiring suturing. For primiparous women, rates for 3rd and 4th degree tears in 2011-2012 were 4% following spontaneous vaginal delivery and 6.9% instrumental.

There is a serious lack of knowledge in the area of pelvic floor urogynaecological and imaging literature, and in antenatal care women are rarely informed of all birth risks – even those who are high risk for instrumental delivery. Continued efforts to reduce caesarean rates have led to increased forceps deliveries, including Kiellands rotational forceps, despite the risk of injury to women (and even death of babies).

<u>Impact</u>

There is both an ethical and financial impetus here.

'Women centred care' means women deserve to be fully informed of the health outcomes of all planned and actual modes of birth. Injured women can face years of physical discomfort, numerous pelvic floor surgeries (with no guaranteed outcomes), loss of earnings (or career) and psychological trauma.

The true costs of all births are essential to properly inform maternity care recommendations. In 2011, NICE guidance CG132 highlighted a cost difference between planned caesarean and planned vaginal delivery of just £84 once urinary incontinence (alone) was factored in. Yet the flawed perception remains that planned caesareans should be reduced on the basis of cost.

2.2 Relevant data. Are you aware of any other work on this topic? How will this study enhance or add to the body of work that has already been completed?

Maximum response 250 words.

A substantial body of work has been carried out in Australia, particularly over the past 10 years, with the advent of advanced imaging technology that can diagnose pelvic floor trauma. This study will add to that body of work, especially given England's comparatively high forceps rate.

A study this year found that the reported (note, ***reported***) rate of severe perineal tears in England tripled from 1.8% to 5.9% between 2000 and 2012,[7] with tearing at second birth more likely with high birth weights, forceps delivery, shoulder dystocia, older women, women living in the least deprived communities and Asian women. The findings here can inform primiparous birth plans too:

"*The authors of the study recognise the risks associated with an elective caesarean, and decisions about subsequent mode of delivery in women who had a severe perineal tear in an earlier pregnancy must be weighed against the clinical and psychological impacts of severe perineal tearing… study shows that the relative risk of a repeat tear is a five-fold increase and the absolute risk of a repeat tear is about 7 in 100… Our results emphasise the need for clear national guidance for healthcare professionals on the optimal mode of delivery for women with a prior severe perineal tear so that they can be counselled appropriately.*"

Notably, BJOG says this study, which "*represents the **first piece of research** into the mode of delivery and recurrence rate in a pregnancy subsequent to a third or fourth degree perineal tear.*" Clearly, more research is needed.

2.3 Standards and guidelines. Are there any current standards relating to this topic. Please give details of any such measures existing for the care areas that can be assessed in this study. These might include, QoFs, CQUINS, NICE Quality Standards, QIPP activities etc.

Maximum response 250 words.

Most NHS guidance on this topic focuses on methods of repair rather than prevention, and recent NHS litigation data indicates that there are significant costs in addition to the actual NHS physiotherapy, counselling and surgical treatments. A cost of around £31million was recorded in 2012 for 10 years of pelvic floor damage claims,[8] and this is just the tip of the iceberg:

This year, my organisation was a Stakeholder for the Intrapartum care guidance CG190, of which NICE said "*the evidence now shows that midwife-led care is safer than hospital care for women having a straightforward, low risk, pregnancy.*"

However, NICE was *very* selective in how it approached comparisons of 'safety' for these women and their babies. For example, NICE admitted, "*Place of birth, but not mode of birth for review was prioritised for update in this guideline.*" And, "*The long term outcome of birth, including pelvic floor injury, was not prioritised for this guideline update.*" This is a real problem, and has a direct impact on all related measures of care listed above.

The health outcomes of HOW a woman gives birth are just as important as WHERE she gives give birth, and all – including 'healthy' – women deserve information about BOTH. The fact that NICE did not prioritise pelvic floor injury in such an influential guideline highlights the urgent need for greater research.

Highly relevant evidence is too readily ignored when it doesn't 'fit' with the direction policy makers want maternity care to head in (e.g. NICE excluded a very important Dutch study (Evers et al) that compared the outcomes of babies following 'low risk' midwifery and 'high risk' obstetrical care and concluded that the latter had better outcomes. It was considered the "*wrong population*" within the confines of the guidance scope).

2.4 Alignment with health policy direction. How does the project sit with current policies and political direction? How does it relate to current topics in the public arena? Is public interest formalised within

recognised organisations?

Maximum response 250 words

Current maternity care policies and political direction are unfortunately still primarily focussed on reducing caesarean rates (currently 25.5% in England; 10.7% elective and 14.8% emergency), despite evidence from countries with higher caesarean rates demonstrating lower stillbirth, maternal mortality rates and instrumental delivery rates than ours.

NHS data[6]shows a worrying trend in forceps rates, increasing to 6.8% from 3.3% just 10 years ago; while the vacuum rate dropped from 7% to 6%. This means a higher likelihood of increasing rates of major pelvic floor trauma (OASIS and levator ani tears), since eight studies (performed in Australia, the US, Hong Kong, Israel, the Netherlands and Ireland) show that forceps carries an odds ratio of about 5 for levator trauma compared to vacuum. With the ratio between forceps and vacuum shifting so substantially (from 33%/66% in 2003-04 to almost 55%/45% in 2013-14), mainly due to the perception that forceps is more likely to avoid a caesarean delivery, modelling from researchers at the University of Sydney would suggest an excess of between 15,000 and 20,000 major tears now (compared to 2003-04), ***per annum***. So that's as many as 100,000+ additional major tears that would not have occurred without the change in maternity forceps practice over the past 10 years.

For too long we have been looking at the wrong performance indicator – caesarean rates – when the incidence and severity of maternal and neonatal morbidity and mortality should be our primary focus. It is long overdue for maternal birth trauma to become a key performance indicator of maternity services.[9]

In 2013, a National Audit Office report said its "*vision is to help the nation spend wisely*" but with one of the main aims for maternity services being "*to encourage normality in births by reducing unnecessary interventions*", while "*offering choice in where and how women have their baby*", and with RCOG, the NCT and RCM condoning forceps delivery as part of the drive to increase "*normal birth*" rates[10] more research in this topic area is essential.

2.5 Key stakeholders. Which groups constitute the key stakeholders for this topic?

Please list.

All pregnant women and their families.
In particular, groups of women of advanced maternal age, primiparous**,** with suspected macrosomia, previous birth injury or family history of birth trauma/injury.

Also women for whom English is their second language, or who live in more deprived communities, as these may be less likely to have access to information on their birth choices, and may be more challenged when it comes to fighting for those choices – which so many women have to. Pelvic floor injury is devastating enough when it occurs following a very much wanted vaginal birth, but for those women who are refused their caesarean request in order to protect their pelvic floor, or who are happy to give birth vaginally but do not want forceps (and this happens anyway), these injuries are an even greater burden.

Advocacy for All (AFA)

APNI (perinatal mental health)
Association of Colorproctology (Colorectal surgeons)
Csections.org
Birth Trauma Association
Birth Trauma Canada
Erb's Palsy Group
Perinatal Illness-UK
Pyramid Of Antenatal Change
RCOG
RCM
RCN

3. Any other information you would like to add

Please add any further information you think would be useful in the assessment of your topic proposal. This may include the potential risks associated with this proposal.

Maximum response 250 words.

The vast majority of obstetrical tears are never even diagnosed during the intrapartum or 6-week postpartum period, and may not become symptomatic until many years in the future, and many women live with symptoms for years before even visiting their doctor, and so altogether this conveys a substantial future burden both on women and on the NHS that is for the most part being completely ignored in the design and delivery of maternity care and policies in the UK.

There is a fear that if women are fully informed about pelvic floor trauma then there could be an increase in requests for a caesarean birth, but my organisation maintains that fear of a rising caesarean rate cannot continue to justify hiding the truth. Research in this topic area is critical.

References

[1] 2004 Oberwalder et al. The association between late- onset fecal incontinence and obstetric anal sphincter defects.
[2] 2006 Andrews et al. Occult anal sphincter injuries- myth or reality?
[3] 2013 Guzman Rojas et al. Prevalence of anal sphincter injury in primiparous women.
[4] 2013 Dietz H. Pelvic Floor Trauma in Childbirth.
[5] 2003 DeLancey OL. The Appearance of Levator Ani Muscle Abnormalities in Magnetic Resonance Images After Vaginal Delivery
[6] NHS Maternity Statistics, England: 2012-13
[7] 2014 Edozien et al. Impact of third- and fourth-degree perineal tears at first birth on subsequent pregnancy outcomes: a cohort study.
http://www.bjog.org/details/news/6391801/New_study_examines_mode_of_delivery_following_a_perineal_tear_and_recurrence_rat.html
[8] 2014 Dietz et al. Maternal Birth Trauma should be a Key Performance Indicator of Maternity Services.
[9] Ten Years of Maternity Claims: An Analysis of NHSLA Data - October 2012 NHS Litigation Authority; Information Sheet 13 Perineal Trauma
[10] 2012 Weston N. Making sense of commissioning Maternity Services in England – some issues for

Clinical Commissioning Groups to consider.

The Maternal, Newborn and Infant Clinical Outcome Review programme, delivered by MBRRACE-UK, is commissioned by the Healthcare Quality Improvement Partnership (HQIP) on behalf of NHS England, NHS Wales, the Health and Social care division of the Scottish Government, the Northern Ireland Department of Health, Social Services and Public Safety (DHSSPS), the States of Jersey, Guernsey, and the Isle of Man.

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