Planning birth in and admission to a midwife-led unit: development of a GAIN evidence-based guideline

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Abstract

Background. Women with a straightforward pregnancy are encouraged to plan their birth in any of the following birth settings: home, freestanding midwifery unit, alongside midwifery unit or an obstetric unit (NICE, 2014). Most recently published maternity strategies internationally, within the UK, and in particular, the *Strategy for maternity care in Northern Ireland 2012-2018* (DHSSPS, 2012), place a strong emphasis on the normalisation of pregnancy and birth as a means of improving outcomes and experiences for mothers and babies. However, women and maternity care professionals require guidelines to assist them in their decision-making in planning their place of birth.

Aim. The aim of this paper is to outline the process involved in the development of evidence-based guidelines for the admission to midwife-led units (MLUs) through collaboration with key maternity care stakeholders including: HoMs, midwives, consultant obstetricians, consultant anaesthetists from the Health and Social Care Trusts, a GP, midwifery advisor, a representative from the Public Health Agency, Northern Ireland (NI) Practice and Education Council, a workplace union, and service users from a range of women's and parent groups.

Method. Following approval from the RQIA's (Regulation and Quality Improvement Authority) GAIN Operational Committee to fund the project, requests for nominations to join the Guideline Development Group (GDG) were sent to the maternity care stakeholders and organisations, as well as women's and parent groups across NI. In total, 35 individuals became members of the GDG participating on the working or steering group, with a small number of participants taking part in both groups. The process included 12 meetings of the GDG between February 2014 and July 2015, with a specific remit to review and critically appraise relevant, up-to-date evidence relating to planning birth and the admission of a woman at the point of labour to either an alongside midwife-led unit (AMU) or freestanding midwife-led unit (FMU). The criteria were informed by the evidence and expert opinion, and made following robust inclusive discussion and challenge. Peer review was undertaken by two professors of midwifery, an obstetrician and a midwife lecturer.

Outcomes. The process outcome was an evidence-based guideline for admission to midwife-led units, including the specific criteria for planning birth within MLUs, AMUs and FMUs.

Implications for practice. The development of this evidence-based guideline will enable women and maternity care professionals in their decision to plan an MLU birth. MLUs utilising this guideline may have an increased number of women accessing their services and, therefore, will require regular review to ensure adequate midwifery staffing levels.

Key words: Midwife-led care, midwife-led units, admission criteria, straightforward pregnancy, low risk, evidence-based practice, normal labour and birth, evidence-based midwifery

Introduction

UK maternity strategies, including the *Strategy for maternity care in Northern Ireland 2012-2018* (DHSSPS, 2012), place a strong emphasis on the normalisation of pregnancy and birth as a means of improving outcomes and experiences for mothers and babies. Recent intrapartum care guidelines and an intrapartum care quality standard from NICE (2015; 2014) also highlight the importance of women with low risk of complications during labour being given the choice to birth in any of the four different birth settings; these include: home, two types of midwife-led unit (MLU) – freestanding midwife-led unit (FMU) and alongside unit (AMU) – or an obstetric unit (OU).

Subsequently, there has been ongoing provision of a network of MLUs throughout Northern Ireland (NI), latterly supported by the Maternity Strategy Implementation Group (MSIG). Currently, there are eight MLUs in NI, five AMU and three FMUs. The network of MLUs has expanded from the first AMU opened in the Southern Health and Social Care Trust in 2001 to the most recent AMU, which opened in January 2014, with plans for further MLUs to be developed across NI.

Background

Childbirth is a physiological normal life event which for 'the vast majority of women is a safe event' (DHSSPS, 2012: 7). Planning to birth in an MLU is, therefore, appropriate for most women who have a straightforward pregnancy. Midwife-led care, the model of care within MLUs, has been reported to have no increased risk in comparison to consultant-led care (Begley et al, 2011; Sandall et al, 2010; Begley et al, 2009). Evidence from several clinical trials indicate that women randomised to midwife-led care are significantly less likely to have interventions during childbirth than those who birth in an OU; these may include: amniotomy, instrumental birth, augmentation of labour, epidural or opiate analgesia (Hollowell et al, 2015; Devane et al, 2010; Hodnett et al, 2010; Sandall et al, 2010). In addition, low-risk births

planned in the non-obstetric unit settings result in reduced risk of neonatal unit admission (Hollowell et al, 2011). Midwife-led care also has economic benefits (Devane et al, 2010), as well as social and health benefits for the woman and her family (NICE, 2014; Renfrew et al, 2014; Sandall et al, 2013; Tracy et al, 2013; Tracy et al, 2005).

Criteria for admission to MLU

Eligibility criteria are generally used as a screening tool for admission to MLUs. However, during a Short Term Scientific Mission funded by Co-Operation Science and Technology (COST) Action ISO907, Healy (2013) identified that as there were no national NI guidelines available, each MLU developed their own admission criteria to guide both maternity care professionals and women. In practice, this resulted in a lack of consistency across NI, as the differences in the criteria and their application impacted on women's planned place of birth. This may have led to some women being inappropriately refused admission to the MLU, admitted to an MLU or transferred unnecessarily to an OU. Midwives in NI also expressed the need for clear evidence-based guidelines (Healy, 2013), which would assist them and women in their decision-making when planning a place of birth.

There were 24,394 live births in NI during 2014 (Northern Ireland Statistics and Research Agency, 2015), with the total number of MLU births being 2960 – equating to 12.1% of births (derived from birth statistics requested from each MLU in 2014). This figure clearly indicates that MLUs and the benefits they afford mothers, babies and their families, are currently not being used to their full potential. Access to and utilisation of these important resources can be enhanced through the adoption of consistent evidence-based guidelines that have been developed using the knowledge and expertise of key stakeholders, including women and the multidisciplinary team from maternity services in NI.

Women are increasingly aware of MLUs in NI and are keen to access these high-quality services, with service users actively lobbying for their provision (NCT, 2011). Guidelines for the admission to MLUs can enhance policy and service delivery decision-making for planned place of birth.

In December 2013, an application for funding was made to the Guidelines and Audit Implementation Network (GAIN) to fund the development of regional evidence-based guidelines for admission criteria to MLUs.

Aim and objectives

The aim of the guideline is to provide evidence-based guidance for women and maternity care professionals, ensuring a consistent and individualised approach for women planning to birth in an MLU across NI. The guideline development process involved four key objectives. These are to:

- Review the current local, national and international evidence for criteria as applied to women seeking admission to MLUs and normal labour and birth care pathway.
- Develop a standardised guideline and care pathway based on the current evidence in conjunction with an expert panel of maternity care staff and service users.
- Disseminate guidelines to regional primary and secondary maternity care staff, MLUs and service users in NI.
- Develop and disseminate a user-friendly information leaflet relating to the criteria for admission to an MLU.

Method

Funding was approved and, with support from GAIN, a team of health professionals, lay representatives and technical experts known as the Guideline Development Group (GDG) was established, following requests for nominations from main stakeholder organisations. These included maternity service providers, women's and parent groups, for example: HoMs, midwives, consultant obstetricians, consultant anaesthetists from the Health and Social Care (HSC) Trusts, a GP, midwifery advisor, a representative from the Public Health Agency, NI Practice and Education Council, the RCM, Sure Start, Parenting NI and Mothers' Voice (an HSC maternity service liaison committee).

All members of the GDG completed new or arising conflicts of interest declaration forms. The basic steps in the process of guideline development were taken from *Advice for guideline development in Northern Ireland manual* (GAIN, 2014).

A total of 12 meetings were held between February 2014 and July 2015. During each meeting, clinical questions and clinical and economic evidence were tabled, reviewed and assessed against the criteria within the guideline. The wording of the criteria was informed by the relevant evidence and expert opinion, and was made following robust inclusive discussion and challenge.

At each meeting, every opportunity was given to encourage or facilitate all participants – in particular mothers – to voice any concerns or issues they felt needed to be addressed. As the guideline developed, updates were provided to the NI MSIG with its feedback further informing the guideline development.

From the outset, the GDG defined a straightforward pregnancy as 'a singleton pregnancy, in which the woman does not have any pre-existing condition impacting on her pregnancy, a recurrent complication of pregnancy or a complication in this pregnancy which would require on-going consultant input, has reached 37 weeks' gestation and ≤ term +15'.

In addition, a database search that included Medline, PubMed, Maternity and Infant Care Database and Cochrane databases was undertaken and back-chaining of reference lists from relevant papers and documents. An online search of departmental strategic and professional resources was also undertaken (see Table 1).

The GDG comprised two groups: a steering and working group. The working group focused on specific criteria and considered the relevant evidence. The agreed criteria and evidence was then reviewed by the steering group and further refinement took place. The guideline was developed as the result of an in-depth iterative process, which utilised expert professional, experiential knowledge and a range of robust evidence.

Table 1. Strategic and professional resources

American Nurse Midwifery Association (midwife.org)
Department of Health Social Services and Public Safety (dhsspsni.org.uk)
Guidelines and Audit Implementation Network (gain-ni.org)
National Institute for Health and Care Excellence (nice.org.uk)
Regulation and Quality Improvement Authority (rqia)
Royal College of Midwives (rcm.org.uk)
Royal College of Obstetricians and Gynaecologists (rcog.org.uk)
Scottish Intercollegiate Guideline Network (sign.ac.uk)

Maternity care service users and representatives
Maternity service users from a range of organisations were involved throughout the guideline process as core members of the GDG and also by providing feedback through social media, including Twitter and Facebook. Consultations with service users took place in four settings across NI.

A user-friendly information leaflet relating to the criteria for admission to an MLU was also developed in order that the guideline be available in an accessible format for women and their families.

An additional source of evidence, which further endorsed the positive birth experience of women planning birth in an MLU, was the '10,000 Voices' project (Public Health Agency, 2014). This qualitative research focused on women's birth experiences and reported highly positive findings, with women and their partners expressing a high level of satisfaction with care (Public Health Agency, 2014). This evidence supports MLUs in NI as a choice of setting in which women plan to give birth.

Peer review and awareness raising
During the development phase of the guideline, the GDG identified areas where there was a requirement for expert input on particular specialist topic areas. These topics were addressed by one of the expert GDG members who brought the additional evidence to the table for the group to discuss and agree.

Opportunities to raise awareness of the development of the guideline and its availability were sought at regional, national and international levels via presentations at conferences and workshops. This allowed for further discussion and refinement.

The guideline was also peer reviewed and informed by two professors of midwifery with expertise in the normalisation of labour and birth within MLU settings, an obstetrician and a midwifery lecturer.

GAIN guideline for admission to MLUs
This guideline was developed in order to assist women and maternity care providers in their decision-making with regard to place of birth for women with a straightforward singleton pregnancy at the point of labour. The consensus of the GDG was that at each point of care, all women should be assessed to ensure that they are receiving care from the most appropriate professional. If there is any uncertainty, multidisciplinary discussion is necessary with appropriate documentation. Further clarification and support with regard to their preferred place of birth should be made available for women from a senior midwife or SoM.

Introductory statement and definitions
An introductory statement and definition of terms was included at the beginning of the guideline (see Table 2) with explanatory notes (see Table 3) and additional midwifery practice recommendations which were referenced throughout the guideline using superscript sequential numbers for ease of use.

Format of guidelines
After much deliberation, it was agreed that the criteria would be presented in a two-box format: criteria for FMU and AMU; and criteria for AMU only. The language used should be inclusive in nature; that is focused on evidence-based criteria that seeks to make access to MLUs available to as many women as possible (see Table 4).

Table 2. Introductory statement

This guideline was developed predominantly for women with a straightforward singleton pregnancy at the point of labour. The GDG were clear that at each point of maternity care, all women should be assessed to ensure that they are receiving care from the most appropriate professional; that is, continue with midwife-led care (MLC), transfer to consultant-led care or transfer back to MLC; in particular, women who have been referred for investigation(s) or treatment which has resolved. If there is any uncertainty, multidisciplinary discussion is necessary with appropriate documentation.

Table 3. Explanatory notes for introductory statement

(1) Straightforward singleton pregnancy is one in which the woman does not have any pre-existing condition impacting on her pregnancy, a recurrent complication of pregnancy or a complication in this pregnancy which would require ongoing consultant input, has reached 37 weeks' gestation ≤ term +15.
(2) The Northern Ireland Normal Labour and Birth Care Pathway provides an evidence-based framework for normal labour and birth.
(3) It is the responsibility of the professional undertaking the assessment to document in the maternity care record the reasons for change of lead maternity care professional.
(4) FMU – freestanding midwife-led unit, AMU – alongside midwife-led unit (i.e. adjacent to consultant-led unit).

Table 4. Admission to MLU criteria

Planned birth in any MLU (FMU and AMU (4)) for women with the following:	Planned birth in AMU only for women with the following:
1. Maternal age ≥16 years and ≤40 years 2. BMI at booking ≥18kg/m^2 & ≤35kg/m^2 (5) 3. Last recorded Hb≥100g/L 4. No more than four previous births 5. Assisted conception with Clomifene or similar 6. SROM ≤24hrs and no signs of infection 7. Women on Tier 1 of the SEHSCT *Integrated perinatal mental health care pathway* (Public Health Agency, 2012) (6a) 8. Threatened miscarriage, now resolved 9. Threatened preterm labour, now resolved 10. Suspected low lying placenta, now resolved 11. Medical condition that is not impacting on the pregnancy or the woman's health 12. Women who have required social services input and there is no related impact on the pregnancy or the woman's health 13. Previous congenital abnormality, with no evidence of reoccurrence 14. Non-significant (light) meconium in the absence of any other risk (6b) 15. Uncomplicated third-degree tear 16 Serum antibodies of no clinical significance 17. Women who have had previous cervical treatment, now term.	1. Maternal age <16 years or >40 years (6c) 2. BMI at booking ≥35 kg/m^2 and ≤40 kg/m^2 with good mobility 3. Last recorded Hb >85g/L (6d) 4. No more than five previous births (6e) 5. IVF pregnancy at term (excluding ovum donation and maternal age >40 years) 6. SROM >24hrs, in established labour & no signs of infection 7. Women on Tier 2 of the SEHSCT *Integrated perinatal mental health care pathway* (Public Health Agency, 2012) (6f) 8. Previous PPH, not requiring blood transfusion or surgical intervention 9. Previous extensive vaginal, cervical, or third-degree perineal trauma following individual assessment 10. Prostaglandin induction resulting in the onset of labour (6g) 11. Group B streptococcus positive in this pregnancy with no signs of infection (6h).

Discussion

Since 2001, the service provision of MLUs in NI has increased, although there are still geographical areas in which MLUs are not easily accessible by women. The Northern Ireland maternity strategy (DHSSPSNI, 2012) however, highlights the need for the provision of this service for all women with a straightforward pregnancy. In addition, Healy (2013) identified that there was a lack of consistency in the criteria applied across the MLUs. This resulted in inequality of access and limited use of MLUs across NI, which was further compounded by a need to raise public awareness of MLU provision in some areas.

An important output from this project was the development of a women's information leaflet for those planning to birth in an MLU in NI. This may help to raise the profile of MLUs among potential service users and provide a plain English summary version of the admission criteria information which signposts women to seek further advice from their local midwife.

Implementation of the guideline

During the development of the guideline and leaflet, the GDG stressed the importance of a proactive implementation plan, which would support effective access to, and utilisation of, the guideline in practice across MLUs in NI. A key step in this process was securing support of the chief nursing officer for the implementation of the GAIN guideline for admission to MLUs through the provision of education sessions for midwives in all HSC Trusts. The sessions are led by midwife education consultants from the Clinical Education Centre who have expertise in caring for women with straightforward pregnancies and experience in providing care within an MLU. This is an excellent opportunity for practising midwives to explore the criteria and their implementation further within a learning environment. In addition, the collaborative approach used with key stakeholders to develop the guideline ensured a level of awareness and ownership that aspired to increase the utilisation of this evidence-based guideline. Access to, and provision of, the GAIN guideline for admission to MLUs in NI for maternity care practitioners and the provision of the *Planning to give birth in a midwife-led unit in Northern Ireland* leaflet was facilitated by GAIN through the distribution of multiple laminated copies of the guideline and printed hard copies of the leaflet to all trusts.

The project outputs are available to access and download from the GAIN website (atgain-ni.org). GAIN guideline for admission to MLUs in Northern Ireland was developed around the same time as the new *Northern Ireland health and social care: maternity services – core pathway for antenatal care* (Public Health Agency, Northern Ireland Practice and Education Council for Nursing and Midwifery 2016). The GAIN guideline was signposted throughout the pathway document at appropriate intervals of antenatal care, for example at booking.

Dissemination

Following the official launch of the guideline, further opportunities to raise awareness of the evidence-based guideline and its availability for maternity care providers and users were taken via social media, presentations at conferences and workshops, regionally, nationally and internationally.

Copies of the guideline were disseminated to each clinical director of obstetrics and gynaecology and HoM in each HSC trust and also to GPs via the Royal College of General Practitioners. This has served to stimulate discussion and debate around this important evidence-based guideline, which aids midwives and service users in their decision-making when planning place of birth.

Recommendation

A thorough evaluation of the effectiveness of the GAIN guideline for admission to MLUs in NI and the women's leaflet *Planning to give birth in a midwife-led unit in Northern Ireland* should be undertaken within two years of its launch and preferably before February 2018. These documents also require review and updating in 2018, or sooner if pertinent new evidence emerges. The evaluation will assist with this process.

The *GAIN guideline for admission to midwife-led units in Northern Ireland* awareness sessions should remain a priority for continuing professional development under service level ggreements for all midwives across the five trust areas of NI.

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