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WHO recommendation on midwife-led continuity of care during pregnancy

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Recommendation

Midwife-led continuity-of-care models, in which a known midwife or small group of known midwives supports a woman throughout the antenatal, intrapartum and postnatal continuum, are recommended for pregnant women in settings with well functioning midwifery programmes.

(Context-specific recommendation)

Publication history

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Remarks

- MLCC models are models of care in which a known and trusted midwife (caseload midwifery), or small group of known midwives (team midwifery), supports a woman throughout the antenatal, intrapartum and postnatal period, to facilitate a healthy pregnancy and childbirth, and healthy parenting practices.
- MLCC models are complex interventions and it is unclear whether the pathway of influence producing these positive effects is the continuity of care, the midwifery philosophy of care or both. The midwifery philosophy inherent in MLCC models may or may not be enacted in standard midwife practice in other models of care.

- Policy-makers in settings without well functioning midwife programmes should consider implementing this model only after successfully scaling up of the number and quality of practising midwives. In addition, stakeholders may wish to consider ways of providing continuous care through other care providers, because women value continuity of care.
- The panel noted that with this model of care it is important to monitor resource use, and provider burnout and workload, to determine whether caseload or team care models are more sustainable in individual settings.
- MLCC requires that well trained midwives are available in sufficient numbers for each woman to see one or only a small group of midwives throughout pregnancy and during childbirth. This model may therefore require a shift in resources to ensure that the health system has access to a sufficient number of midwives with reasonable caseloads.
- The introduction of MLCC may lead to a shift in the roles and responsibilities of midwives as well as other health-care professionals who have previously been responsible for antenatal and postnatal care. Where this is the case, implementation is likely to be more effective if all relevant stakeholders are consulted and human resources departments are involved. In some settings, government-level consultation with professional organizations could also aid implementation processes.
- The need for additional one-off or continuing training and education should be assessed, and should be provided where necessary.

Background

Midwives are the primary providers of care in many ANC settings (1). In MLCC models, a known and trusted midwife (caseload midwifery), or small group of known midwives (team midwifery), supports a woman throughout the antenatal, intrapartum and postnatal period, to facilitate a healthy pregnancy and childbirth, and healthy parenting practices (2). The MLCC model includes: continuity of care; monitoring the physical, psychological, spiritual and social well-being of the woman and family throughout the childbearing cycle; providing the woman with individualized education, counselling and ANC; attendance during labour, birth and the immediate postpartum period by a known midwife; ongoing support during the postnatal period; minimizing unnecessary technological interventions; and identifying, referring and coordinating care for women who require obstetric or other specialist attention (3). Thus, the MLCC model exists within a multidisciplinary network in which consultation and referral to other care providers occurs when necessary. The MLCC model is usually aimed at providing care to healthy women with uncomplicated pregnancies.

Methods

The ANC recommendations are intended to inform the development of relevant health-care policies and clinical protocols. These recommendations were developed in accordance with the methods described in the *WHO handbook for guideline development* (4). In summary, the process included: identification of priority questions and outcomes, retrieval of evidence, assessment and synthesis of the evidence, formulation of recommendations, and planning for the implementation, dissemination, impact evaluation and updating of the guideline.

The quality of the scientific evidence underpinning the recommendations was graded using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) (5) and Confidence in the Evidence from Reviews of Qualitative research (GRADE-CERQual) (6) approaches, for quantitative and qualitative evidence, respectively. Up-to-date systematic reviews were used to prepare evidence profiles for priority questions. The DECIDE (Developing and Evaluating Communication Strategies to support Informed Decisions and Practice based on Evidence) (7) framework, an evidence-to-decision tool that includes intervention effects, values, resources, equity, acceptability and feasibility criteria, was used to guide the formulation and approval of recommendations by the Guideline Development Group (GDG) – an international group of experts assembled for the purpose of developing this guideline – at three Technical Consultations between October 2015 and March 2016.

To ensure that each recommendation is correctly understood and applied in practice, the context of all context-specific recommendations is clearly stated within each recommendation, and the contributing experts provided additional remarks where needed.

In accordance with WHO guideline development standards, these recommendations will be reviewed and updated following the identification of new evidence, with major reviews and updates at least every five years.

Further information on procedures for developing this recommendation are available here.

Recommendation question

For this recommendation, we aimed to answer the following question:

- Should a MLCC model of care be recommended for pregnant women to improve quality of care?

Evidence summary

The evidence on the effects of MLCC models of care was derived from a Cochrane review that included 15 trials involving 17 674 women, in which pregnant women were randomized to receive ANC either by MLCC models or by other models of

care (2). All the studies included were conducted in public health systems in HICs (Australia, Canada, Ireland and the United Kingdom) and 14 out of 15 contributed data. Eight trials compared an MLCC model with a shared care model, three trials compared MLCC with medical-led care, and three compared MLCC with “standard care” (mixed-care options, including midwife-led non-continuous care, medical-led, and shared care). Some MLCC models included routine visits to an obstetrician and/or family doctor. Eight trials included women with “low-risk” pregnancies only; six also included women with “high-risk” pregnancies. Four trials evaluated one-to-one (caseload) MLCC and 10 trials evaluated team MLCC. Caseload sizes for one-to-one models ranged from 32 to 45 pregnant women per midwife per year. Levels of continuity of care were measured (as the proportion of births attended to by a known carer), and were in the ranges of 63–98% for MLCC and 0–21% for other models. A random effects model was used in all meta-analyses.

Maternal outcomes

Moderate-certainty evidence shows that MLCC compared with other models of care probably slightly increases the chance of a vaginal birth (12 trials, 16 687 participants; RR: 1.05, 95% CI: 1.03–1.07). MLCC may reduce caesarean sections (14 trials, 17 674 participants; RR: 0.92, 95% CI: 0.84–1.00), however, this evidence is of low certainty and includes the possibility of no effect. Low-certainty evidence suggests that MLCC models may be associated with lower rates of instrumental vaginal delivery than other models (13 trials, 17 501 participants; RR: 0.90, 95% CI: 0.83–0.97). Maternal satisfaction: The Cochrane review tabulated data on women’s satisfaction pertaining to various aspects of antenatal, intrapartum and postnatal care. A meta-analysis on satisfaction with ANC only was performed for the purposes of this guideline, the findings of which suggest that MLCC models may increase the proportion of women reporting high levels of satisfaction with the ANC compared with other models (4 trials, 5419 women; RR: 1.31, 95% CI: 1.11–1.54; low-certainty evidence).

Fetal and neonatal outcomes

Moderate-certainty evidence indicates that MLCC probably reduces the risk of preterm birth (8 trials, 13 338 participants; RR: 0.76, 95% CI: 0.64–0.91) and probably reduces perinatal mortality (defined in the review as fetal loss after 24 weeks of gestation and neonatal death) (13 trials, 17 561 women; RR: 0.84, 95% CI: 0.71–0.99). However, low-certainty evidence suggests that it may have little or no effect on low birth weight (7 trials, 11 458 women; RR: 0.96, 95% CI: 0.82–1.13). Evidence on other ANC guideline outcomes was not available in the review.

Additional considerations

Although the mechanism for the probable reduction in preterm birth and perinatal death is unclear, the GDG considered the consistency of the results and the absence of harm to be important.

Resources

In settings with well-functioning midwife programmes, a shift in resources may be necessary to ensure that the health system has sufficient midwives with reasonable caseloads. There may also be training costs associated with changing to an MLCC model. However, one study in the Cochrane review found that ANC provider costs were 20–25% lower with the MLCC model than other midwife-led care due to differences in staff costs (8).

Equity

Equitable coverage and improvements in the quality of midwifery practice are major challenges in many LMICs (1). MLCC models in any setting have the potential to help to address health inequalities, for example, by providing a more supportive setting for disadvantaged women to disclose information that may facilitate the identification of risk factors for poor outcomes, such as intimate partner violence.

Acceptability

Qualitative evidence synthesized from a wide variety of settings and contexts indicates that women welcome the opportunity to build supportive, caring relationships with a midwife or a small number of midwives during the maternity phase (high confidence in the evidence) and appreciate a consistent, unhurried, woman-centred approach during ANC visits (high confidence in the evidence) (9). Evidence from providers, mainly in HICs, indicates that they view MLCC as a way of achieving the authentic, supportive relationships that women desire (moderate confidence in the evidence). There is very little evidence on MLCC models from LMICs. However, indirect evidence from providers in these locations suggests that they would welcome the opportunity to use an MLCC model but feel they do not have the resources to do so (low confidence in the evidence).

Feasibility

Qualitative evidence from high-, medium- and low-resource settings highlights concerns among providers about potential staffing issues, e.g. for the delivery of caseload or one-to-one approaches (high confidence in the evidence) (10).

Further information and considerations related to this recommendation can be found in the WHO guidelines, available at:

<http://apps.who.int/iris/bitstream/10665/250796/8/9789241549912-websupplement-eng.pdf?ua=1>

Implementation considerations

- The successful introduction of evidence-based policies related to antenatal care into national programmes and health care services depends on well-planned and participatory consensus-driven processes of adaptation and implementation. These processes may include the development or revision of national guidelines or protocols based on this recommendation.
- The recommendation should be adapted into locally-appropriate documents and tools that are able to meet the specific needs of each country and health service. Modifications to the recommendation, where necessary, should be justified in an explicit and transparent manner.
- An enabling environment should be created for the use of this recommendation, including changes in the behaviour of health care practitioners to enable the use of evidence-based practices.
- Local professional societies may play important roles in this process and an all-inclusive and participatory process should be encouraged.
- Antenatal care models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women's experience of care. Taking this as a foundation, the GDG reviewed how ANC should be delivered in terms of both the timing and content of each of the ANC contacts, and arrived at a new model – the 2016 WHO ANC model – which replaces the previous four-visit focused ANC (FANC) model. For the purpose of developing this new ANC model, the ANC recommendations were mapped to the eight contacts based on the evidence supporting each recommendation and the optimal timing of delivery of the recommended interventions to achieve maximal impact.

Research implications

The GDG identified these priority questions related to this recommendation

- What is the pathway of influence of midwife-led continuity of care (MLCC)? Is it specifically the continuity, the provider–client relationship or the midwifery philosophy that leads to better health outcomes and maternal satisfaction? Can this effect be replicated with other cadres of health-care providers, e.g. auxiliary nurse midwives, nurses, family doctors, etc.? How can ANC in LMICs be structured to incorporate the active ingredients of MLCC, particularly in settings where the number of midwives is very limited?
- What are the effects, feasibility and resource implications of MLCC in LMICs? Which models are most feasible (i.e. caseload or team models)? Can a continuity model for group ANC be developed for settings where other MLCC models are not feasible?

Related links

WHO recommendations on antenatal care for a positive pregnancy experience

(2016) - full document and evidence tables

Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors

Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice

WHO Programmes: Sexual and Reproductive health

Maternal Health

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