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A STUDY TO ASSESS THE EFFECT OF PARTOGRAPH USE ON OUTCOMES FOR WOMEN IN SPONTANEOUS LABOUR AT TERM AND THEIR BABIES

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A partograph is usually a pre-printed form, the aim of which is to provide a pictorial overview of labour progress and to alert health professionals to any problems with the mother or baby. It has been unclear whether a partograph should be used and, if so, which design of partograph is better for women and babies.

Following the update of its global recommendations on intrapartum care in 2018, the WHO initiated a process to revise the partograph in light of recent evidence, including a new understanding of the individual variability of the progress of labours resulting in good perinatal outcomes, and the fact that many women do not experience a labour that conforms to the average rate on which the partograph design was based. A large study and corresponding systematic reviews published in this journal and subsequent analysis failed to find evidence to support the use of a cervical dilatation rate of 1 cm/hour as a screening tool to predict adverse labour outcomes. The new WHO recommendations based on the emerging evidence on normal labour progression, as well as recommendations informed by the global shift towards improving experience of childbirth, necessitated the design of a new labour monitoring tool called the WHO Labour Care Guide. WHO has also published a corresponding user's manual to support healthcare providers on how to successfully use the new tool. The Labour Care Guide is distinct from previous partograph designs in its approach to labour duration, triggers for clinical interventions and its emphasis on respectful maternity care.

It is uncertain whether using a partograph has any effect on the number of women having a caesarean section or babies born with low Apgar scores (a score which measures the physical condition of the newborn, with a low score indicating poor condition) because

the quality of evidence is very low. Using a partograph may make little or no difference to length of labour (low-quality evidence), or the number of women who receive oxytocin to speed up their labour (moderate-quality evidence).

Objectives

- Determine the effectiveness and safety of partograph use on perinatal and maternal morbidity and mortality.
- Determine which partograph design is most effective for perinatal and maternal morbidity and mortality outcomes.

Research methodology

We included in this review all published, unpublished and ongoing randomised, quasi-randomised, and cluster-controlled trials that compared outcomes, as listed below, between partograph use and non-use. We included randomised controlled trials of different designs of partograph for secondary analysis. We included trials that used quasi-random allocations (e.g. alternation). We excluded studies reported in abstract form, without sufficient information on study methods or where results were not clear, only after an unsuccessful attempt to contact the study author for further information. We also excluded cross-over trials.

Types of participants

All women with singleton pregnancies and cephalic presentations, in spontaneous labour at term.

Types of interventions

We compared labour management using a partograph with labour management where no partograph was used. The two groups had to differ only in the partograph usage and not in other labour ward interventions, such as psychological support, early amniotomy or use of analgesia.

To meet the second objective, we included studies reporting comparisons between different designs of partograph.

These are complex interventions. The partograph will be used in a way dictated by the accompanying guidelines and this may influence outcomes. Therefore, wherever possible, we have contextualised trial findings by describing the associated clinical guidelines.

Result

We have included 11 studies, involving 9475 women in this review; three studies assessed partograph use versus no partograph, seven assessed different partograph designs, and one assessed partograph use versus labour scale. Risk of bias varied in all studies. It was infeasible to blind staff or women to the intervention. Two studies did not adequately conceal allocation. Loss to follow-up was low in all studies. We assessed the evidence for partograph use versus no partograph using the GRADE approach; downgrading decisions were due to study design, inconsistency, indirectness, and imprecision of effect estimates.

Most trials reported caesarean section rates and Apgar scores less than 7 at five minutes; all other outcomes were not consistently reported (e.g. duration of first stage of labour and maternal experience of childbirth).

Conclusion

Considerable research, knowledge synthesis, consultation, field testing and refinement have gone into the development of the Labour Care Guide. Much future research on its implementation and impact on labour care and outcomes, including women's experiences of care, is needed. We hope that this commentary on the fundamental concepts underpinning its development will reassure healthcare providers that use of the new tool will not detract from, but rather will augment, the purposes of the original partograph. Much has changed in how we provide evidence-based, respectful intrapartum care in the last 50 years, and we hope that the Labour Care Guide has responded to these advances and will encourage best practices that include the promotion of good quality, respectful and compassionate care for all women, newborns and their families.

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