NICE National Institute for Health and Care Excellence

2019 surveillance of intrapartum care for healthy women and babies (NICE guideline CG190)

Surveillance report

Published: 27 February 2019

www.nice.org.uk

Contents

Surveillance decision

We propose to update the guideline on intrapartum care for healthy women and babies. The update will focus on risks associated with epidural, the woman's position in the second stage of labour, intrapartum interventions to reduce perineal trauma, risks associated with active management, route of administration of oxytocin during active management, delayed cord clamping and management of postpartum haemorrhage.

The following table gives an overview of how evidence identified in surveillance might affect each area of the guideline, including any proposed new areas.

Section of the guideline	New evidence identified	Impact
Place of birth	Yes	No
Care throughout labour	Yes	No
Latent first stage of labour	Yes	No
Initial assessment	Yes	No
Ongoing assessment	No	No
General principles for transfer of care	No	No
Care in established labour	Yes	No
Pain relief in labour: non-regional	Yes	No
Pain relief in labour: regional analgesia	Yes	Yes
Monitoring during labour	Yes	No
Pre-labour rupture of membranes at term	No	No
First stage of labour	Yes	No
Second stage of labour	Yes	Yes
Third stage of labour	Yes	Yes
Care of the newborn baby	Yes	No
Care of the woman after birth	Yes	No

Areas not covered in the guideline		
Use of ultrasound during instrumental delivery	Yes	No
Routine antibiotic prophylaxis with episiotomy or perineal tears	Yes	No
Prophylactic antibiotics for operative vaginal delivery	Yes	No
Fundal pressure	Yes	No
Tranexamic acid for the prevention of postpartum haemorrhage	Yes	No

Reasons for the decision

This section provides a summary of the areas that will be updated and the reasons for the decision to update.

Pain relief in labour: regional analgesia

New evidence was identified on the risks associated with epidural. Findings suggest that there is no longer an association of epidural with more assisted vaginal birth, but it is associated with the following side effects: increased risk of hypotension, motor blockade, fever, urinary retention and oxytocin augmentation. This is not in line with recommendation 1.9.2 in the guideline, which currently states that there is an increased chance of vaginal instrumental birth with epidural and it does not mention the side effects listed in the new evidence. Taking into account the new evidence, it is proposed that the guideline should be updated in this area.

Second stage of labour

The woman's position and pushing during the second stage of labour

New evidence was identified on the mother's position during the second stage of labour. Currently, recommendation 1.13.9 in the guideline recommends discouraging the woman from lying supine or semi-supine in the second stage of labour and encouraging her to adopt any position that she finds comfortable. Two Cochrane reviews have been updated since the guideline was published, with results indicating that the optimal position of the

woman during the second stage of labour is dependent on whether she has an epidural. For women without epidural, there was some indication that upright positions were associated with a reduction in episiotomies and fewer abnormal fetal heart rate problems. For women with epidural, findings suggest that upright positions significantly increase the chance of operative births (driven by an increase in caesarean sections). In light of the new evidence, it is proposed that the guideline section on maternal position in the second stage of labour is reviewed.

Intrapartum interventions to reduce perineal trauma

New evidence was identified on the effectiveness of different interventions to reduce perineal trauma in the second stage of labour. Results from a Cochrane review suggest that perineal massage may be associated with higher rates of intact perineum and fewer incidences of third- and fourth-degree tears. However no effect was found on perineal trauma requiring suturing or second-degree tears. Currently, recommendation 1.13.12 in the guideline states to not perform perineal massage in the second stage of labour. As the new evidence highlights some potential benefits to perineal massage, it is proposed that this recommendation is reviewed.

Third stage of labour

Route of administration of oxytocin during active management of the third stage of labour

Results from a large UK-based randomised controlled trial indicated that compared to the intramuscular route, intravenous administration of oxytocin (as part of active management) is associated with significantly lower rates of severe postpartum haemorrhage, the need for blood transfusion and admission to a high dependency unit. Currently, recommendation 1.14.13 in the guideline recommends intramuscular administration of oxytocin. Therefore it is proposed that this recommendation is reviewed considering the new findings.

Active management of the third stage of labour

Results from an updated Cochrane review indicated that there are some side effects associated with active management that are not mentioned in the guideline, these being: increased maternal diastolic blood pressure, after-pains, use of analgesia from birth up to discharge from the labour ward and more women returning to hospital with bleeding.

Currently, recommendation 1.14.7 in the guideline references nausea and vomiting but may need to be updated in view of the other side effects highlighted in the review.

Delayed cord clamping

New evidence suggests that volume of placental transfusion was similar in babies that were given straight to the mother compared to being held at vagina level for 2-minutes. The guideline does not currently make any recommendations on where the baby should be held during the delay in cord clamping. Further advice was sought from topic experts on what is standard practice in the UK. Feedback suggests that both practices are used, however it was noted that holding the baby at vagina level was difficult and may result in low compliance of delayed cord clamping. It was agreed that recommendations in this area would be beneficial and that the guideline should be updated in light of the new evidence.

Management of postpartum haemorrhage

Results from a Cochrane review found that tranexamic acid given 1 to 3 hours after birth may be effective at reducing risk of maternal death from bleeding, maternal deaths from all causes and blood loss of more than 500 ml. Currently, recommendation 1.14.34 in the guideline only recommends tranexamic acid as treatment for significant continuing postpartum haemorrhage, rather than as a first-line treatment. As the new evidence suggests that tranexamic acid is more effective when given as early as possible in the event of postpartum haemorrhage, it is proposed this area of the guideline is reviewed.

For further details and a summary of all evidence identified in surveillance, see appendix A.

Overview of 2018 surveillance methods

NICE's surveillance team checked whether recommendations in intrapartum care for healthy women and babies (NICE guideline CG190) remain up to date.

The surveillance process consisted of:

- Feedback from topic experts via a questionnaire.
- A search for new or updated Cochrane reviews and national policy.
- Examining related NICE guidance and quality standards and NIHR signals.
- A search for ongoing research.
- Examining the NICE event tracker for relevant ongoing and published events.
- Literature searches to identify relevant evidence.
- Assessing the new evidence against current recommendations to determine whether or not to update sections of the guideline, or the whole guideline.
- Consulting on the decision with stakeholders, except if we propose to update and replace the whole guideline.
- Considering comments received during consultation and making any necessary changes to the proposal.

For further details about the process and the possible update decisions that are available, see ensuring that published guidelines are current and accurate in developing NICE guidelines: the manual.

Evidence considered in surveillance

Search and selection strategy

We searched for new evidence related to the whole guideline.

We found 104 studies in a search for randomised controlled trials, systematic reviews and

qualitative studies published between 10 February 2014 and 3 October 2018.

We also included 4 studies identified in comments received during consultation on the 2019 surveillance review.

From all sources, we considered 108 studies to be relevant to the guideline.

See appendix A for details of all evidence considered, and references.

Selecting relevant studies

Due to the large number of studies identified in the initial search, the following strategies were taken to ensure only relevant studies were selected:

- Any evidence originating from non-OECD countries were excluded unless they were deemed to be applicable to a UK setting.
- For evidence relating to pain relief interventions, studies were only included if they reported pain score items.
- Single studies already taken into account in a Cochrane review were excluded.

Ongoing research

We checked for relevant ongoing research; of the ongoing studies identified, 5 studies were assessed as having the potential to change recommendations; therefore we plan to check the publication status regularly, and evaluate the impact of the results on current recommendations as quickly as possible. These studies are:

- A study comparing three medicines used for the active management of the third stage of labour (to help deliver the placenta after your baby has been born)
- High or low dose Syntocinon for delay in labour
- Comparing second-line tests in labour to assess fetal well-being
- The POOL study: establishing the safety of waterbirth for mothers and babies
- ANODE: Prophylactic antibiotics for the prevention of infection following operative delivery

- World maternal antifibrinolytic trial-2

Intelligence gathered during surveillance

Views of topic experts

We considered the views of topic experts, including those who helped to develop the guideline. For this surveillance review, topic experts completed a questionnaire about developments in evidence, policy and services related to the NICE guideline.

We sent questionnaires to 16 topic experts and received 4 responses. The topic experts were recruited to the NICE Centre for Guidelines Expert Advisers Panel to represent their specialty.

Two of the experts felt that the guideline is in need of update, whereas 2 did not. Areas identified for update included the cardiotocography (CTG) classification tables and definitions of normal progression of labour. One expert highlighted that the CTG classification tables in the NICE guideline may be too complicated for use and those provided by the International Federation of Gynaecology and Obstetrics (FIGO) are preferred by clinicians. The expert called for the tables in the NICE guideline to be simplified, highlighting that CTG misinterpretation is a large factor in intrapartum care problems. In light of these concerns and to reduce the risk of CTG misinterpretation, we will amend the tables accordingly (see editorial and factual inaccuracies).

The new evidence highlighted by topic experts around progression of normal birth was not in scope for the guideline as it was related to induction of labour and caesarean section.

Other sources of information

We considered all other correspondence received since the guideline was published. The National Maternity Review published a report on Better Births in February 2016 which was considered in this surveillance review. It contains recommendations to improve outcomes for maternity services and has led to the launch of the government's Maternity Transformation Programme which is currently underway in the NHS. We reviewed the report against the guideline recommendations and decided no impact is expected.

Views of stakeholders

Stakeholders are consulted on all surveillance reviews except if the whole guideline will be updated and replaced. Because this surveillance proposal was to update part of the guideline, we consulted with stakeholders.

Overall, 23 stakeholders commented: 5 represented charitable organisations, 5 represented trusts, 2 were commercial organisations, 1 was a government organisation, 5 were royal colleges, 2 were universities and 3 were professional bodies. Twenty stakeholders agreed with the decision to update the guideline and 3 did not state a response. Due to the large number of responses, only the main themes are summarised below. See appendix B for full details of stakeholders' comments and our responses.

- Intravenous oxytocin: a large number of stakeholders raised a concern about the practicalities of delivering intravenous oxytocin during active management of the third stage of labour. They highlighted that this delivery method is not suitable across all birth settings, particularly for home births and midwife-led units. We have acknowledged this concern and note that the applicability of the new evidence may be limited to births in obstetric units. We will pass on the comments to the developers for consideration during the guideline update.
- CTG classification table: many stakeholders were in agreement with the topic experts in the concerns raised around the usability of these tables. They agreed that the tables are too complicated for use and many use the equivalent information from the tables in FIGO guidance. In light of these concerns and to reduce the risk of CTG misinterpretation, we will amend the tables accordingly (see editorial and factorial inaccuracies).
- Uterotonic drugs: 2 stakeholders highlighted the emerging evidence on carbetocin as a replacement for oxytocin during active management of the third stage of labour, due to its temperature stable properties. An updated Cochrane review and a randomised controlled trial published after the literature search cut-off dates were highlighted and have been considered in this surveillance review (see appendix A for a summary of the findings). The new evidence indicates that carbetocin may be comparable to oxytocin in the prevention of postpartum haemorrhage, both in terms of clinical effectiveness and in minimal side effects. However, there is still some uncertainty in the evidence and we anticipate that an ongoing trial (IMox) in this area will provide more clarity. We are monitoring the progress of this trial and will consider the impact on recommendations when the results are available.

- Pushing in the second stage: we asked stakeholders for feedback on adherence to recommendation 1.9.9 in the guideline which advises that pushing should be delayed for at least 1 hour in women with regional analgesia, upon confirmation of full cervical dilation. We asked this to help interpret the impact of a new trial comparing the effect of immediate and delayed pushing during the second stage of labour on spontaneous vaginal birth. Results indicate that there were no differences between groups for rates of spontaneous vaginal delivery, neonatal morbidity or perineal lacerations. However, women who were instructed to push immediately had significantly lower rates of postpartum haemorrhage and shorter duration of the second stage. Eleven stakeholders responded to say that delayed pushing is standard practice in their organisation and they are not aware of any implementation issues with recommendation 1.9.9. After considering the new evidence, stakeholder feedback and after seeking further opinion from the topic experts, we have decided that the guideline will not be impacted at this point. Given that there are inconsistencies with previous studies, more research is required to confirm these findings and provide more evidence on the outcome of postpartum haemorrhage.

See ensuring that published guidelines are current and accurate in developing NICE guidelines: the manual for more details on our consultation processes.

Equalities

No equalities issues were identified during the surveillance process.

Editorial and factual inaccuracies

Editorial amendments

During surveillance of the guideline we identified the following points in the guideline that should be amended:

- The final bullet point in recommendation 1.10.15 which reads 'above 180 beats/minute', needs to be aligned with the previous bullet point as it is currently out of sync.

- Research recommendation 1 on models of midwifery-led care should be stood down. Continuity of care in maternity services is now a national policy in the UK following on from the National Maternity Review report Better Births and the subsequent Maternity Transformation Programme. It is no longer necessary to have a research recommendation in this area.

Refresh of recommendations

An amendment to tables 10 and 11 in the section on monitoring during labour is required. Feedback from topic experts and stakeholders indicated that the table contents are difficult to interpret and may be causing errors in practice. They advised that the tables provided in other national guidance are more user-friendly. In light of these concerns and to reduce the risk of CTG misinterpretation, we will amend the tables accordingly.

Overall decision

After considering all evidence and other intelligence and the impact on current recommendations, we decided that an update is necessary.

ISBN: 978-1-4731-3293-1