WHO recommendation on induction of labour for women with prelabour rupture of membranes at term

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Recommendation

Induction of labour is recommended for women with prelabour rupture of membranes at term.

(High-quality evidence, Strong recommendation)

Publication history

First published: February 2011

Updated: No updated planned

Assessed as up-to-date: February 2011

Remarks

Participants in the WHO technical consultation noted that in the trials included in the Cochrane review, induction of labour had been initiated within 24 hours of rupture of membranes. They also noted that oxytocin should be regarded as the first option for induction of labour in women with prelabour rupture of membranes.

Background

Induction of labour is defined as the process of artificially stimulating the uterus to start labour.(1) It is usually performed by administering oxytocin or prostaglandins to the pregnant woman or by manually rupturing the amniotic membranes. Over the past several decades, the incidence of labour induction for shortening the duration of pregnancy has continued to rise. In developed countries, the proportion of infants delivered at term following induction of labour can be as high as one in four deliveries. (2-4)

Over the years, various professional societies have recommended the use of induction of labour in circumstances in which the risks of waiting for the onset of spontaneous labour are judged by clinicians to be greater than the risks associated with shortening the duration of pregnancy by induction. These circumstances generally include gestational age of 41 completed weeks or more prelabour rupture of amniotic membranes, hypertensive disorders, maternal medical complications, fetal death, fetal growth restriction, chorioamnionitis, multiple pregnancy, vaginal bleeding and other complications.

Although currently available guidelines do not recommend this, induction of labour is increasingly being
used at the request of pregnant women to shorten the duration of pregnancy or to time the birth of the baby according to the convenience of the mother and/or health-care workers. (5, 6)

**Methods**

The recommendation was developed using standardized operating procedures in accordance with the process described in the “WHO handbook for guideline development”, guided by the GRADE approach. (7, 8) Outcomes used for this recommendation were aligned with the prioritized outcomes from the WHO recommendations on induction of labour (2011). (9)

A Cochrane systematic review was conducted, on induction of labour in women with prelabour rupture of membranes. (10) In the review, randomized controlled trials relevant to the key question were screened by review authors, and data on relevant outcomes and comparisons were extracted. Evidence profiles (in the form of GRADE tables) were prepared for comparisons of interest, including the assessment and judgments for each outcome, and the estimated risks.

WHO convened a Guideline Development Group (GDG) meeting on recommendations induction of labour in April 2010, where this recommendation was developed. The GDG comprised of a group of independent experts, who used the evidence profiles to assess evidence on effects on the pre-specified outcomes. GDG members discussed the balance between desirable and undesirable effects, overall quality of supporting evidence, values and preferences of stakeholders, resource requirements, cost-effectiveness, acceptability, feasibility and equity, to formulate the recommendation. Remarks were added to clarify the recommendation, and aid implementation.

**Recommendation question**

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

- in women with prelabour rupture of membranes at term (P), does induction of labour (I), compared to no intervention, (C), improve maternal and perinatal outcomes (O)?

**Evidence Summary**

The evidence related to induction of labour in women with prelabour rupture of membranes was obtained from a systematic review of 16 randomized controlled trials. (10) There were no major concerns related to the risk of bias in the trials, although for some of the priority outcomes the number of events was small.

Overall, induction of labour performed for the indication of prelabour rupture of membranes was not associated with increased caesarean section rates or other adverse outcomes. The risk related to the critical outcome of perinatal mortality was similar in both groups, but there were only 10 perinatal deaths in five trials included in the review (5870 participants, RR 0.46, 95% CI 0.13–1.66) (EB Table 1.4.1). There was a reduction in admissions to a neonatal intensive care unit with induction of labour (five trials, 5679 participants, RR 0.73, 95% CI 0.58 0.91) (EB Table 1.4.1). This effect was more evident when induction of labour was carried out with oxytocin (three trials, 2883 participants, RR 0.58; 95% CI 0.39–0.85) (EB Table 1.4.2) rather than with prostaglandins (three trials, 2796 participants, RR 0.87, 95% CI 0.73–1.03) (EB Table 1.4.3).
Implementation considerations

- The successful introduction of this recommendation into national programmes and health-care services depends on well-planned and participatory consensus-driven processes of adaptation and implementation. The adaptation and implementation processes may include the development or revision of existing national guidelines or protocols based on this recommendation.
- The recommendation should be adapted into a locally appropriate document that can meet the specific needs of each country and health service. Any changes should be made in an explicit and transparent manner.
- A set of interventions should be established to ensure that an enabling environment is created for the use of the recommendations (including, for example, the availability of induction agents and monitoring capacity), and that the behaviour of the healthcare practitioner changes towards the use of this evidence-based practice.
- In this process, the role of local professional societies is important and an all-inclusive and participatory process should be encouraged.

Research implications

The GDG identified that further research on the following high-priority questions is needed:

- What risks (for both the mother and the fetus) are associated with induction of labour and, in terms of those risks, how does induction of labour compare with elective caesarean section? What is the role of caesarean section in the management of women in whom induction of labour has failed?

Related Links

- WHO recommendations on induction of labour (2011) – full document and evidence tables
- Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice
- Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors (2nd ed)

Supporting systematic review


References


Citation


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