WHO recommendation on induction for women with severe pre-eclampsia at term

13 October 2011

Recommendation

In women with severe pre-eclampsia at term, a policy of early delivery is recommended. (low-quality evidence, strong recommendation)

Publication history

First published: October 2011

Updated: no update planned

Assessed as up-to-date: October 2011

Remarks

- The guideline development group considered that there is absence of clinical uncertainty over whether termination of pregnancy in women with severe pre-eclampsia at term is beneficial. Quality of evidence provided by the Hypitat trial (1) was further downgraded for indirectness.
- The guideline development group considered that, in women with pre-eclampsia at term, expectant management is associated with a substantial risk of further maternal and fetal complications and absence of substantial maternal and fetal benefits.
- In settings where gestational age is difficult to determine accurately, special attention should be paid to avoid iatrogenic prematurity in infants.
- The guideline development group considered that, if induction of labour is contraindicated due to maternal or fetal conditions, early delivery by caesarean section is recommended (as opposed to expectant management).

Background

Hypertensive disorders of pregnancy are an important cause of severe morbidity, long-term disability and death among both mothers and their babies. Worldwide, they account for approximately 14% of all maternal deaths, whereas in Latin America and the Caribbean, they contribute to approximately 22% of all maternal deaths.(2)
Among the hypertensive disorders that complicate pregnancy, pre-eclampsia and eclampsia stand out as major causes of maternal and perinatal mortality and morbidity. The majority of deaths due to pre-eclampsia and eclampsia are avoidable through the provision of timely and effective care to the women presenting with these complications.

Gestation is typically considered term at 37 weeks. Preterm labour comes with increased risks for the infant, with poorer overall odds of survival and increased risk of complications that affect quality of life.

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.(3, 4) Outcomes used for this recommendation were aligned with the prioritized outcomes from the WHO recommendations on prevention and treatment of pre-eclampsia eclampsia (2011).(5)

A systematic review of the literature regarding induction of labour vs expectant management of women at term with gestational hypertension or mild pre-eclampsia, and one multicentre randomized control trial was identified. (1) 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 for prevention and treatment of pre-eclampsia or eclampsia in April 2011, 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/s:

- in women with severe pre-eclampsia at term (P), does induction of labour (I) compared to expectant management (C), improve maternal and perinatal outcomes (O)?

Evidence Summary

In order to assess the differential effects of a policy of induction of labour versus expectant management for pre-eclampsia at term, a systematic review of literature was conducted. This review identified one multicentre RCT conducted in the Netherlands that had recruited a total of 756 women with mild pre-eclampsia or gestational hypertension after 36 weeks’ gestation. (1) When a policy of induction of labour (aim within 24 hours) was compared with expectant management, there was no case of eclampsia, maternal death or perinatal death recorded in both arms of the trial. There were also no statistically significant differences between the two comparison groups for the other critical (or proxy) outcomes addressed in the trial: pulmonary oedema (RR 0.20, 95% CI 0.01–4.17), HELLP syndrome (RR 0.37, 95% CI 0.12–1.14), admission of the mother to intensive care unit (RR 0.43, 95% CI 0.17–1.11), admission of the newborn to
neonatal intensive care unit (RR 1.26, 95% CI 0.50–3.15) and 5-minute Apgar score less than seven (RR 0.78, 95% CI 0.29–2.08) Nevertheless, a reduced risk of systolic and diastolic severe hypertension (respectively, ? 170 mmHg and ? 110 mmHg) was observed among women with mild pre-eclampsia submitted to expectant management at term (respectively, RR 0.60, 95% CI 0.38–0.95 and RR 0.56, 95% CI 0.36–0.87) (EB Table 51). This evidence is indirectly applied to women with severe pre-eclampsia, at term for supporting a policy of early delivery.

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 equipment and infrastructure to reliably assess gestational age), 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 2011 GDG did not identify any high-priority research questions on this intervention.

Related Links

- WHO recommendations on prevention and treatment of pre-eclampsia and eclampsia (2011) - full document and evidence tables (EB Table 51)
- Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice
- Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors

Supporting systematic review:


References

Citation


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