WHO recommendation regarding strict bedrest in women with hypertension in pregnancy

29 October 2011

Recommendation

Strict bedrest is not recommended for improving pregnancy outcomes in women with hypertension (with or without proteinuria) in pregnancy.

(low-quality evidence, weak recommendation)

Publication history

First published: October 2011

Updated: no update planned

Assessed as up-to-date: October 2011

Remarks

- The guideline development group acknowledged that there may be situations in which different levels of rest, either at home or in hospital, may be indicated for individual women. The above recommendations do not cover advice regarding overall physical activity and manual or office work.
- Women may need to be hospitalized for reasons other than bedrest, such as for maternal and fetal surveillance. The guideline development group agreed that hospitalization for maternal and fetal surveillance is resource intensive and should be considered as a priority for research and future recommendations.

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.(1)

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

A Cochrane systematic review was conducted, on different degrees of bedrest in women with hypertension in pregnancy.(5) 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 pregnant women with hypertensive disorders of pregnancy (P), does rest or hospitalization (I) compared to maintaining normal activity (C), affect maternal and neonatal outcomes (O)?
- If so, is there a defined level of activity reduction to achieve a benefit?

Evidence Summary

Bedrest for treatment of hypertension in pregnancy
Evidence related to different degrees of bedrest for improving pregnancy outcomes in women with hypertension in pregnancy was extracted from one Cochrane systematic review of four RCT. The trials were relatively small, with a total of 449 women. Three of the trials were assessed by the Cochrane review authors to be of good quality. Two trials (145 women) compared strict bedrest with some rest in hospital for women with pre-eclampsia, while the other two (304 women) compared some bedrest in hospital with routine activity at home for nonproteinuric hypertension. When strict bedrest was compared with some rest in hospitalized women, there were no statistically significant differences in the critical outcomes of eclampsia (one trial, 105 women; RR 0.33, 95% CI 0.01–7.85), perinatal death (two trials, 145 women; RR 1.07, 95% CI 0.52–2.19) and admission to intensive care nursery (one trial, 105 women; RR 0.75, 95% CI 0.49–1.17) (EB Table 3). For the comparison between some rest in hospital and routine activity at home, there were also no statistically significant differences in the critical outcomes of perinatal death (one trial, 218 women; RR 1.96, 95% CI 0.18–21.34), admission to intensive care nursery (one trial, 218 women; RR 0.82, 95% CI 0.37–1.81) and pre-eclampsia (one trial, 218 women; RR 0.98, 95% CI 0.80–1.20) (EB Table 4).

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 ability to regularly monitor women with hypertensive disorders of pregnancy), 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 identified the following high-priority research question on this intervention:

- The benefits and potential harms of advice to rest at home or bedrest under clinical observation at a health-care facility to prevent or treat hypertensive disorders of pregnancy.

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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