

**Maria Linda Cabrera, MD,
Todd McDiarmid, MD**
Moses Cone Family Medicine
Residency Program,
Greensboro, NC

Leslie Mackler, MLS
Greensboro AHEC Librarian,
Moses Cone Hospital,
Greensboro, NC

FAST TRACK

**Strict bed rest
for women with
preeclampsia does
not lower rates
of preterm birth
or NICU admission**

Does bed rest for preeclampsia improve neonatal outcomes?

Evidence-based answer

No. Strict bed rest in the hospital for pregnant women with preeclampsia does not appear to lower rates of perinatal mortality, neonatal mortality, or neonatal morbidity, including preterm birth, endotracheal intubations, or neonatal

intensive care unit (NICU) admissions (strength of recommendation: **B**, based on 2 randomized controlled trials [RCT] and extrapolations from 2 RCTs of pregnant patients with nonproteinuric hypertension).

Clinical commentary

Changing long-standing practices is always a challenge

We've said goodbye to magnesium for preterm labor, and now it looks like bed rest for preeclampsia is not far behind. Changing long-standing practices in response to stronger evidence-based information is always a challenge, especially when we've been relying on long-standing expert opinion or anecdotal evidence. Following these recommendations will be another

challenge for us, even though we consider the relationship we have with our obstetrical nurses and physicians to be a good one.

Our plan to introduce these modifications will follow previous successful plans; the member of our group with the most "capital" in Obstetrics can bring others on board.

Ronald Januchowski, MD
Spartanburg Regional Medical Center,
Spartanburg, SC

Evidence summary

Ten percent of preeclampsia occurs in pregnancies at less than 34 weeks of gestation. Traditionally, physicians often recommended bed rest to preterm, preeclamptic patients in the belief that it would improve neonatal outcomes.

RCTs find no difference between bed rest and *ad lib* movement

A single-center RCT investigated bed rest treatment for 105 patients with preeclampsia and gestational ages between 26 to 38 weeks. Patients were assigned

to either strict bed rest with bathroom privileges in the hospital until delivery, or to bed rest with the ability to move freely around the hospital. Outcome assessors were not blinded to patient treatment allocation. There was no statistical difference between the 2 groups in perinatal or neonatal mortality, or in the neonatal morbidities of preterm births, endotracheal intubations, or NICU admissions.¹

Similarly, a small, unblinded RCT of 40 preeclamptic patients treated in the hospital with strict bed confinement or

without restrictions found no significant difference in fetal or perinatal mortality.² No power calculations were reported for detecting differences in neonatal outcome rates in either of these studies.

Studies in nonproteinuric hypertension were no different

In addition to the studies in patients with preeclampsia, 2 RCTs measured neonatal outcomes with bed rest compared with normal activity in pregnancies complicated by nonproteinuric hypertension. These studies also found that bed rest did not improve neonatal outcomes.

The first trial was a multicenter RCT involving 218 patients between 28 to 38 weeks gestation with nonproteinuric hypertension (blood pressure >140/90 mm Hg). The patients were randomized to 2 groups: bed rest in the hospital but allowed to move around the ward, and normal activity at home without restrictions. The outcomes were measured by masked assessors. There were no statistical differences in perinatal or neonatal mortality, or in the neonatal morbidities of preterm birth, newborns small for their gestational age, or NICU admissions between the 2 groups.³

A second RCT of 135 nonproteinuric but hypertensive pregnant patients with diastolic blood pressures between 90 and 109 mm Hg also demonstrated no difference between patients treated with bed rest and sedation or normal ac-

tivity in fetal or neonatal outcomes.⁴

Recommendations from others

An American College of Obstetrics and Gynecology practice bulletin on diagnosis and management of preeclampsia and eclampsia does not mention bed rest.⁵ The Canadian Hypertension Society Consensus Conference in 1997 stated that a “policy of hospital admission and strict bed rest is not advised for gestational hypertension with or without proteinuria.”⁶ ■

References

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