

# Cost-utility analysis of planned early delivery or expectant management for late preterm pre-eclampsia (PHOENIX)

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## Publication

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## Abstract

**Aim:** There is currently limited evidence on the costs associated with late preterm pre-eclampsia beyond antenatal care and post-natal discharge from hospital. The aim of this analysis is to evaluate the 24-month cost-utility of planned delivery for women with late preterm pre-eclampsia at 34<sup>+0</sup>–36<sup>+6</sup> weeks' gestation compared to expectant management from an English National Health Service perspective using participant-level data from the PHOENIX trial.

**Methods:** Women between 34<sup>+0</sup> and 36<sup>+6</sup> weeks' gestation in 46 maternity units in England and Wales were individually randomised to planned delivery or expectant management. Resource use was collected from hospital records between randomisation and primary hospital discharge following birth. Women were followed up at 6 months and 24 months following birth and self-reported resource use for themselves and their infant(s) covering the previous 6 months. Women completed the EQ-5D 5L at randomisation and follow-up.

**Results:** A total of 450 women were randomised to planned delivery, 451 to expectant management: 187 and 170 women, respectively, had complete data at 24 months. Planned delivery resulted in a significantly lower mean cost per woman and infant(s) over 24 months (– £2711, 95% confidence interval (CI) – 4840 to – 637), with a mean incremental difference in QALYs of 0.019 (95% CI – 0.039 to 0.063). Short-term and 24-month infant costs were not significantly different between the intervention arms. There is a 99% probability that planned delivery is cost-effective at all thresholds below £37,000 per QALY gained.

**Conclusion:** There is a high probability that planned delivery is cost-effective compared to expectant management. These results need to be considered alongside clinical outcomes and in the wider context of maternity care.

**Trial registration:** ISRCTN registry ISRCTN01879376. Registered 25 November 2013.

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