

New study ranks methods to induce labor on effectiveness and cost

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Researchers from the University of Liverpool's Institute of Translational Medicine and colleagues from The University of Bristol's School of Social and Community Medicine have conducted a review of the clinical and cost effectiveness of labour induction methods.

More than 150,000 [pregnant women](#) in England and Wales have their labours induced each year. Multiple pharmacological, non-pharmacological, mechanical and complementary methods are available to induce labour.

As the number of women facing induction increases, and as new evidence from trials emerges, it has become urgent to address questions about which methods of inducing labour are most effective, cost-effective, safe and acceptable to women.

Most successful method

As part of the review, estimates were produced for the different methods and these were compared using both direct comparisons of interventions within [randomized controlled trials](#) and indirect comparisons across trials based on common comparators.

In total the study examined 611 randomised controlled trials looking at induction of labour and found that the use of either a contraction-inducing medication (oxytocin), or artificial rupture of membranes

(amniotomy), or a labour inducing medication (vaginal misoprostol) were more successful than other methods in achieving vaginal delivery within 24 hours.

The review was conducted as part of the Health Technology Assessment (HTA) Programme funded by the National Institute for Health Research (NIHR) UK.

Best value to NHS

Head of Department of Women's and Children's Health, Professor Zarko Alfirovic, said: "In our [cost-effectiveness](#) analysis, the use of titrated low dose oral misoprostol or misoprostol tablet dissolved under the tongue, was found to be the best value for money to the NHS."

"Despite the large number of [trials](#) included in our analysis, there is still a considerable uncertainty in the ranking of various methods, particularly regarding their safety. We advocate further research to find better, safer and cheaper methods.

"We urge researchers to explore women's views of the labour induction process as part of any future study, report fully all safety outcomes, and measure the impact from the perspective of the mother and baby."

More information: Z Alfirovic et al. Methods to induce labour: a systematic review, network meta-analysis and cost-effectiveness analysis, *BJOG: An International Journal of Obstetrics & Gynaecology* (2016). [DOI: 10.1111/1471-0528.13981](https://doi.org/10.1111/1471-0528.13981)

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