



Kent

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NICE recommends progesterone to prevent early miscarriage

Jacqui Wise

Progesterone should be offered to women who experience bleeding in early pregnancy and have previously had a miscarriage, the National Institute for Health and Care Excellence (NICE) has recommended.¹

The new recommendation follows a Cochrane network meta-analysis of progestogens for preventing miscarriage. The committee found evidence of no benefit in women with early pregnancy bleeding but no previous miscarriage, nor in women with previous miscarriage but no early pregnancy bleeding in the current pregnancy. However, further research has been recommended in these two areas.

Miscarriage is a common complication of early pregnancy, affecting about 20% of all pregnancies. It can have serious consequences for patients, including psychological harm and mental health complications.

NICE states that its guideline uses the terms “woman” and “women,” which are based on the evidence used in its development, but that the recommendations also apply to people who do not identify as women but are pregnant or have given birth.

Gillian Leng, NICE’s chief executive, said, “The research evidence is clear that progesterone will not be able to prevent every miscarriage, and therefore our committee has called for more research to be carried out in this area. However, it will be of benefit to some women and, as an inexpensive treatment option, can be made available to women on the NHS from today.”

The updated guideline recommends offering vaginal micronised progesterone 400 mg twice a day to women with an intrauterine pregnancy confirmed by an ultrasound scan, if they have vaginal bleeding and have previously had a miscarriage. A scan is necessary to reduce the risk of patients with a pregnancy of unknown location or an ectopic pregnancy being given progesterone.

PRISM trial

An intrauterine pregnancy can be detected on an ultrasound scan as early as 4 weeks +4 days of gestation, whereas the fetal heartbeat may not be detected until 5 weeks + 5 days of gestation. To avoid delay in starting treatment the committee agreed that progesterone could be started before a fetal heartbeat is detected. If a fetal heartbeat is confirmed it is recommended that treatment with progesterone should continue until 16 weeks of pregnancy have been completed.

NICE said that there was no evidence of harm to the mother or baby from the use of progesterone, although the evidence was insufficient to rule out the possibility of rare events.

The PRISM trial, funded by the National Institute for Health Research and coordinated at the University of Birmingham in collaboration with Tommy’s National Centre for Miscarriage Research, was one of the main pieces of evidence NICE considered. The trial involved 4153 women in 48 hospitals around the UK. It found that although progesterone did not reduce the rate of miscarriage in participants with no previous miscarriage, there was a small reduction in miscarriage among those with one to two previous miscarriages, and a big reduction in miscarriage was seen among those with three or more previous miscarriages.²

Arri Coomarasamy, director of the Tommy’s centre who was involved in the PRISM trial, said, “Our research has shown that progesterone is a robust and effective treatment option, which could prevent 8450 miscarriages a year in the UK, but we know it’s not yet reaching everyone who might benefit.

“This new recommendation from NICE is an important step in tackling the current variation in miscarriage services across the country and preventing these losses wherever possible.”

- 1 Ectopic pregnancy and miscarriage: diagnosis and initial management. NICE guideline [NG126]. Updated 24 Nov 2021. <https://www.nice.org.uk/guidance/ng126>
- 2 Coomarasamy A, Devall AJ, Cheed V, et al. A randomized trial of progesterone in women with bleeding in early pregnancy. *N Engl J Med* 2019;380:1815-24. doi: 10.1056/NEJMoa1813730 PMID: 31067371

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