

# Nearly half of women at risk of preterm birth do not receive cheap drug that could prevent millions of newborn deaths

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A major international study of more than 303 000 births in 29 low-income and middle-income countries has found that only half (52%) of women who are eligible to receive a simple, effective, low-cost treatment to prevent death and disability in their newborn babies are getting it.

The findings, published in *The Lancet*, highlight striking gaps in the practice of using antenatal (before birth) steroid injections—known to significantly reduce the risk of death, respiratory distress syndrome (a consequence of immature lung development), cerebroventricular haemorrhage (bleeding in the ventricles of the brain), and long-term complications such as cerebral palsy and poor motor skills—prior to preterm birth.

Use of antenatal corticosteroids was highly variable ranging from 16–20% of eligible [women](#) in Afghanistan, the Democratic Republic of Congo, Nepal, and Niger which have particularly high rates of neonatal deaths, to 91% in Jordan and 88% in the Occupied Palestinian territory. For more detailed findings by country see table 2 page 4.

An estimated 15 million babies (more than one in 10) are born prematurely every year. Around 1 million children die each year due to complications of preterm birth. Many survivors face a lifetime of disability, including learning disabilities and visual and hearing problems.

"Giving antenatal corticosteroids to women at risk of [preterm birth](#) is one of the most effective treatments for reducing newborn death and illness. More than three-quarters of premature babies could be saved with cost-effective interventions such as antenatal corticosteroids. This is particularly important in Africa and Asia where more than 60% of preterm deliveries occur and

where resources are scarce and it is difficult to provide expensive neonatal care", said study leader Dr Joshua Vogel from the Department of Reproductive Health and Research at WHO in Geneva.

Using data from the WHO Multicountry Survey on Maternal and Newborn Health (WHOMCS), the researchers looked at patterns of antenatal corticosteroid use in preterm births and tocolytic drugs (to delay delivery) in spontaneous preterm births among 303 842 births that took place in 359 hospitals in 29 countries.

The analysis showed that a substantial proportion of antenatal corticosteroid use occurred in women who delivered at gestational ages at which benefit is controversial (19% at 22 weeks, and 24% at 34 weeks). Of women most likely to benefit (who gave [birth](#) between 26 and 34 weeks gestation), only half (52%) received them.

Worryingly, almost half of women with uncomplicated, spontaneous preterm labour who were eligible for tocolytic drugs received no treatment, while more than a third received ineffective treatments such as bed rest, hydration, and magnesium sulphate. Moreover, the use of less effective or potentially harmful tocolytic drugs such as beta-agonists was common and exposed women and their babies to unnecessary risk.

Dr Vogel explained, "Ideally, women in preterm labour between 26 and 34 weeks' gestation should receive antenatal corticosteroids, yet only 52% of eligible women received them. For women in spontaneous preterm labour, using tocolytic drugs can delay delivery and allow more time for antenatal corticosteroids to work, but only 18% of eligible women received both treatments and 42% received neither."\*

The authors conclude by calling for the inclusion of corticosteroids (dexamethasone and/or betamethasone) on national essential medicines lists, alongside research evaluating the benefits and potential harms of changing prescribing practices to allow midwives to give these drugs.

Writing in a linked Comment, Stuart Dalziel, Caroline Crowther, and Jane Harding from The University of Auckland in New Zealand say, "Antenatal corticosteroids are not the panacea for preterm mortality in low-income and middle-income countries. Rather, the drugs should be included in a set of simple efficacious measures—family planning, access to antenatal care, antibiotic drugs for premature rupture of membranes, immediate and simple care for all babies, effective neonatal resuscitation, and kangaroo mother care...Future research should not focus on efficacy but on strategies to reduce barriers for appropriate use of [antenatal corticosteroids](#). The WHOMCS approach would allow monitoring of progress. Let us not wait another 40 years to translate evidence into global practice."

**More information:** *The Lancet*,  
[www.thelancet.com/journals/lan ...](http://www.thelancet.com/journals/lan...)  
[\(14\)60580-8/abstract](http://(14)60580-8/abstract)

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