

Lives could be saved by removing age restrictions on rotavirus vaccination

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A study published in this week's *PLOS Medicine*, which suggests that the additional children's lives saved by removing the age restrictions for rotavirus vaccination in low- and middle-income countries would be much greater than any extra deaths from vaccine-associated complications (namely, intussusception—a form of bowel obstruction), has informed policy regarding the age restrictions for this vaccine.

Hundreds of thousands of infants world-wide have been vaccinated against rotavirus (which causes vomiting and diarrhea and can kill young children) but this vaccine can slightly increase the risk of intussusception, with some countries reporting a risk of 1-4 additional cases per 100,000 vaccinated infants. As older infants have a higher risk of naturally occurring intussusception, the World Health Organization previously decided that the course of rotavirus vaccination should be initiated before the age of 15 weeks and completed before the age of 32 weeks. In poorer countries, where access to health facilities is more difficult, this age restriction could exclude many eligible infants from being vaccinated against rotavirus because of delays in the [vaccination program](#).

In a modelling study, the authors from the [Centers for Disease Control and Prevention](#) and the London School of Hygiene and Tropical Medicine analysed the benefits and risks of rotavirus vaccination if the age restrictions were removed, and the [rotavirus vaccine](#) given to children alongside other routine childhood immunizations.

Using their model, the authors found that that in low-and low-middle income countries, keeping the age restrictions would prevent 155,800 rotavirus deaths, while potentially causing 253 deaths from intussusception. However, lifting the age restrictions would prevent 203,000 rotavirus deaths while potentially causing 547 intussusception deaths. Overall, the authors found that lifting the age restriction would result in an additional 47,200

deaths from rotavirus prevented versus 294 intussusception deaths caused, translating to 154 deaths prevented for every death caused by complications of the vaccine.

Experts from the World Health Organization reviewed the results from this study and while still encouraging timely vaccination, the [World Health Organization](#) no longer universally recommends age restrictions and supports removing age restrictions in settings where the benefits outweigh the risks.

The authors say: "Our analysis suggests that in low- and middle-income countries the additional lives saved by removing age restrictions for rotavirus vaccination would far outnumber the potential excess [vaccine](#)-associated intussusception deaths."

The authors continue: "Age restriction policies will ultimately be decided at country level, but this analysis has shown a clear case for a change in policy that will be particularly instrumental for saving lives in settings where mortality from rotavirus is high and delays in timing of vaccination are common."

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