Successful intubations up with nasal high-flow therapy in neonates
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For neonates undergoing endotracheal intubation, nasal high-flow therapy improves the likelihood of successful intubation on the first attempt, according to a study published in the April 28 issue of the New England Journal of Medicine.

Kate A. Hodgson, M.B., B.S., from the Royal Women's Hospital in Melbourne, Australia, and colleagues conducted a randomized, controlled trial to compare nasal high-flow therapy to standard care among neonates undergoing oral endotracheal intubation. The primary outcome was successful intubation on the first attempt, without physiological instability in the infant.

The outcomes of 251 intubations in 202 infants were included in the primary intention-to-treat analysis: 124 and 127 intubations were assigned to the high-flow and standard-care groups, respectively. The researchers found that at the time of intubation, the infants had a median postmenstrual age of 27.9 weeks and median weight of 920 g. Overall, 50.0 and 31.5 percent of the high-flow and standard-care groups, respectively, achieved a successful intubation on the first attempt without physiological instability (adjusted risk difference, 17.6 percent; number needed to treat of six for one infant to benefit). Successful intubation on the first attempt regardless of physiological instability was achieved in 68.5 and 54.3 percent of intubations in the high-flow and standard-care groups, respectively.

"The use of high-flow therapy during oral endotracheal intubation led to a greater likelihood of successful intubation on the first attempt without physiological instability in the infant," the authors write.

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