Reply: Utility of a Mask with a Spacer to Deliver the Contents of a Metered Dose Inhaler

From the Authors:

We appreciate the letter by Tualzik and Chandrasekaran (p. 553) that details specific situations in which masks should be used with metered dose inhalers and spacers. We concur that there may be situations in which it may be appropriate for a child to use a metered dose inhaler with a spacer and mask, regardless of age (1). Effective use of an inhaler with spacer and mouthpiece requires coordination by an individual, wherein they must make a tight seal around the mouthpiece and control their breathing. This coordination may prove challenging for children at various ages and developmental stages. As such, certain circumstances may require a child, and even potentially an adult, to use an inhaler with a spacer and mask. It is possible that masks may be needed in certain populations after the age of 5 years, for example, among patients with intellectual disabilities or those who are sleeping. Importantly, no research has systematically defined these specific circumstances. The time has come for observational studies and clinical trials to evaluate the circumstances in which masks should routinely be used with inhalers and spacers to maximize the delivery of medication to the lungs. This additional research will enable masks to be best tailored to individual patients.

Tualzik and Chandrasekaran also raise the issue of rota halers. Rota halers are inhalation devices that require breath actuation, meaning that the medicine is released only when a person inhales. Rota halers are no longer available in the United States but continue to be used in other parts of the world. Also, other breath-activated devices are used in the United States, with some currently recommended for use in children 4 years and older. The availability of different devices in different geographies and with different practices make it even more clear that standardized recommendations are necessary to clarify with whom and when certain devices should be used. Further research will be required to make these evidence-based guidelines possible. In addition, directed efforts should be made to minimize confusion between inhalers, given that each type of inhaler requires different devices and techniques. The combination of evidence and effective implementation is critical to develop best practices and operationalize them to optimize the positive impact on asthma outcomes.

Author disclosures are available with the text of this letter at www.atsjournals.org.

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Reference

1 Volerman A, Balachandran U, Siros M, Akel M, Press VG. Mask use with spacers/valved holding chambers and metered dose inhalers among children with asthma. *Ann Am Thorac Soc* 2021;18:17–22.

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