

Factors associated with effective Inhaler technique among children with moderate to severe asthma.

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Background & Objectives: To determine which individual and health care factors were associated with effective inhaler technique among urban children with persistent asthma.

Methods: The study included 130 parent-child dyads (from 5 pediatric clinic sites), aged 4-17 years, with persistent asthma, on inhaled corticosteroids daily for at least a year and having had received oral corticosteroids within the preceding year. Inhaler technique of each parent-child dyad was scored using a validated scoring system, which included 12 steps for the inhaler-spacer subset and 10 steps for the inhaler-spacer-mask group. Effective inhaler technique was defined as 'performing greater than 75% of steps correctly'.

ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



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RESULTS:

- Overall, 73.1% children showed effective inhaler technique.
- There was no statistical difference in insurance, race, sex, asthma control or specialty care between children with effective inhaler use versus misuse.
- Effective inhaler use was associated with younger age (8.9 versus 11.3 years, $p < 0.001$).
- Overall, adolescents (14-18 years) had 80% lower odds of effective inhaler technique than children (4-8 years of age).

Conclusion - Adolescents with persistent asthma were less likely to have effective inhaler technique than young children with the same.

Key message: It is usually the adolescents with persistent asthma who are likely to default on effective technique of using the inhaler medications.

EXPERT COMMENT

“Parental involvement in direct medical care begins to decrease with age, as children become more self-reliant. Physicians and pediatricians should spend greater time with the adolescents, reinforcing the correct technique of inhaler use since they are more prone to improper use which may lead to poorer asthma control.”

DR SURABHI CHANDRA
M.D (Pediatrics), Ex-Fellow (Pediatric Intensive Care)
Associate Professor
SRMS Institute of Medical Sciences, Bareilly

With warm regards,

DR MANINDER S
DHALIWAL

DR. PIYUSH GUPTA
IAP NATIONAL
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KUMAR
IAP PRESIDENT
ELECT 2021

Editor – Academic Pearls
pedpearls@gmail.com

DR G.V. BASAVARAJ
A
HON. SECRETARY GEN.
2021 - 22

DR BAKUL
JAYANT PAREKH
IAP PRESIDENT
2020

Reference

Reference : Volerman A, Fierstein J, Boon K, Kanaley M, Kan K, Vojta D, Gupta R. Factors associated with effective inhaler technique among children with moderate to severe asthma. Ann Allergy Asthma Immunol. 2019 Nov;123(5):511-512.e1. doi: 10.1016/j.anai.2019.08.017