

# Use of inhaled corticosteroids on an intermittent or as-needed basis in pediatric asthma: a systematic review of the literature.

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## Abstract

**Objectives:** The aim of the present study was to summarize the principal findings of all available studies that have evaluated the use of ICS on an intermittent or as-needed basis as an add-on therapy to short-acting  $\beta$ 2-agonists (SABAs) or fast-acting  $\beta$ 2-agonists (FABAs), given alone or in addition to daily controller therapy, in pediatric asthmatic patients. **Methods:** Studies published by February 2021 that evaluate the use of ICS on an intermittent or as-needed basis as an add-on therapy to SABAs or FABAs given alone or in addition to daily controller therapy in pediatric asthma were identified. The quality of the studies was assessed using the Cochrane Risk of Bias and the AMSTAR 2 tools. **Results:** Of 294 references identified, 14 studies were included. The use of ICS on an intermittent or as-needed basis (as an add-on therapy to SABAs) has been shown to be more effective than treatment with SABA alone and to be similarly or less effective compared to regular daily ICS administration. Furthermore, strategies involving increasing the dose of ICS only when needed (as an add-on therapy to FABAs such as formoterol) and keeping it low during stable stages of the disease have been shown to be similarly or more effective than comparators. **Conclusion:** The use of ICS on an intermittent or as-needed basis as an add-on therapy to SABAs or FABAs, given alone or in addition to daily controller therapy in pediatric asthmatic patients, is an effective and well-tolerated treatment strategy.

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