

Asthma education reduces hospitalisations in children

Asthma education reduces the frequency of hospitalisation, and visits to emergency departments and clinics in children, a meta-analysis has found. Education involving both children and parents/guardians was more effective than that involving only children.

The investigators searched the Cochrane Library, PubMed and EMBASE for studies involving the provision of education for children with asthma from inception to July 2021. The frequency of hospitalisation and emergency department and routine or urgent clinic visits were the key outcomes.

A total of 15 studies, all longitudinal, published between 1991 and 2020, met the inclusion criteria. Ten of them had been conducted in the USA.

In the early studies, the most common teaching tools were face to face education sessions or handouts. In some of the later studies, videos and online courses were used.

Overall, compared with usual care, asthma education was associated with a:

- 54% lower risk of hospitalisation; risk ratio (RR) 0.46 (95% CI: 0.32-0.66)
- 31% lower risk of emergency department attendance; RR 0.69 (95% CI: 0.59-0.81)

Asthma education in hospital or outside the hospital setting reduced the risk of hospitalisation and emergency department visits.

However, only education in hospital was associated with a reduction in clinic visits (by 55%): RR 0.45 (95% CI: 0.22-0.92).

Education involving both children

and parents/guardians was associated with:

- Fewer hospitalisations; RR 0.38 (95% CI: 0.24-0.59)
- Fewer emergency department visits; RR 0.69 (95% CI: 0.57-0.83).

However, asthma education targeted at only children or parents/guardians did not result in a significant change in hospitalisations.

A limitation of this study is that the authors did not compare the effects of different teaching tools, their content or the frequency of educational programmes and the educators involved. Further research on this is needed, they say.

The study authors conclude: 'Asthma education is effective for controlling asthma; in particular, it is effective for reducing hospital admissions, emergency department visits and clinic visits.'

'Education involving both children and parents/guardians works better than that involving only children. The setting of asthma education has no significant impact on the effect, especially for hospitalisation and emergency department visits.'

DR PETER SAUL

Liu W-Y, Liduzi Jiesibieke Z, Tung T-H. Effect of asthma education on health outcomes in children: a systematic review. *Arch Dis Child* Epub ahead of print Published online first 23 February 2022

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