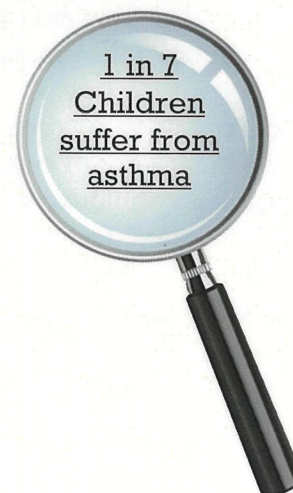


ASTHMA MANAGEMENT

In New Zealand, over 460,000 people take medication for asthma. This includes an estimated **1 in 7 children and 1 in 9 adults**.

For children, asthma is one of the **most common** causes of hospital admissions. In 2011, **69** people died from asthma in New Zealand (Asthma and Respiratory Foundation, 2016).

Although currently there is no cure for asthma, there are many things you can do to manage your condition so that it doesn't impact on your life too much. Within the emergency department and medical centres, health professionals aim to educate patients on the importance of using a spacer in the prevention and treatment of asthma attacks.



My Research Question

'In children who have a mild to moderate acute asthma exacerbation, does education on the use of a spacer from health professionals decrease their recovery time from the exacerbation and improve their management of the disease?'

RESEARCH SHOWS

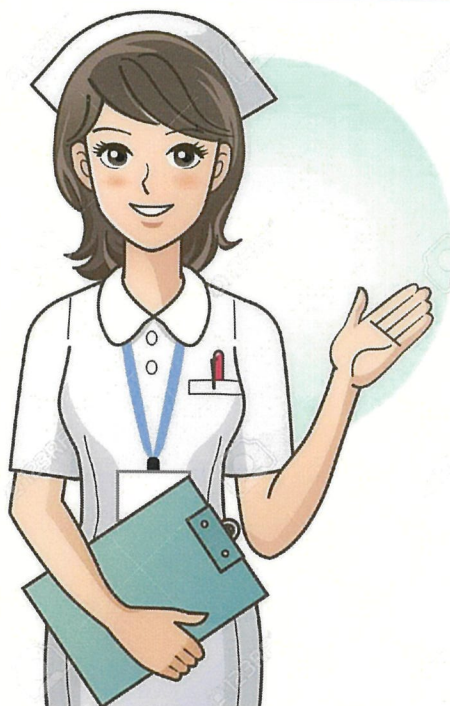
Asthma suggests nurses administer a MDI (metered-dose inhaler) used along with a spacer, as the most efficient treatment for mild to moderate asthma exacerbations in children (Global Initiative for Asthma, 2015).

A study found that by educating young children and adolescents on the correct use of the spacer and other asthma management techniques considerably **reduced the number of visits** to the emergency department (Guevara, Wolf, Grum & Clark, 2003).

Patient education is a critical factor in the use and misuse of the MDI. If nurses dedicate enough time towards teaching the correct use of spacers this can improve asthma management, especially in children (Fink & Rubin, 2005)

The spacer is a **small, portable, and cheap** device children and families are easily able to have at home and use on a daily basis along with their personal MDI (Breuer, Shoseyov, Kerem, & Brooks, 2015).

NURSING RECCOMENDATIONS



- The nurse should guide the child to spray the MDI once into the spacer **immediately** followed by a slow 3-5 second **deep** inhalation from the mouth piece or mask of the spacer, this should then be followed by the child holding their breathe for 10 seconds.
- Additional information for the child or caregiver should include rinsing the plastic spacer once a month with a low concentration dishwashing detergent (Farrel & Dempsey, 2014).
- These **simple and effective** treatment techniques will significantly improve the effectiveness of the asthma medication. It is important for nurses to teach this important education to allow patients to live a normal active healthy life style any other child does.

Author: Holly

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Rationale

I chose to display my evidence-based research in the form of a poster as the most effective way to distribute my information. A poster, being relatively easy to construct, is an effective way to present information at a forum. A poster is also a useful way to catch the attention of the directed audience using colours and short direct sentences (Gignon, Idris, Manaouil, & Ganry, 2012).

In regards to my topic and particular clinical setting, a poster is a common and simple way that health information is displayed in the waiting rooms of emergency departments and medical centres. These clinical areas are where a child suffering from an asthma attack or asthma symptoms is most likely to seek medical attention. These areas are crucial for patient education to occur as a primary or preventative factor.

I also wanted to use my evidence-based research to benefit the audience and patient group identified in the study. I have achieved this by clearly displaying nursing recommendations on the poster and re-wording this information to be easily interpreted and more likely to be read by the public. If I was to distribute this evidence in the means of a submission I do not think this would be as effective in benefiting the patient group and turning my nursing recommendations into action (McNally, Wright, Scherb, & Gaspar, 2010).

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PICOT Category	Information relating to question	Explanation
Population	Children (18 years old or under) presenting to the emergency department with acute mild or moderate asthma exacerbations	This age group predominantly presents itself to ED with exacerbations, so it is important to improve the disease management of this age group
Exposure	First we will investigate how a spacer affects the efficacy of treatment of an exacerbation in a child and compare this to a nebulizer, I will then consider the nursing implications for practice to improve treatment and management by improving nursing knowledge about patient education and the use of the spacer in the emergency department.	I will search for articles that include a comparison of the spacer with other devices used in the treatment of exacerbations to see if this decreased the duration of stay in ED and improved patient/caregiver knowledge about asthma management.
Comparison/control	Children not treated with the use of a spacer in the emergency department, children treated with the nebulizer	I am interested in how other devices (specifically the nebuliser) compare in the treatment of exacerbations and the overall asthma management
Outcome	Implications for practice will focus on the use of the best device for asthma treatment and management and educate nurses on this to create more effective nursing care of asthma exacerbations	I want to explore how the spacer device improves asthma management for children under the age of 18 and discuss the intervention outcomes suggesting the most effective implications for best practice.
Time	There is no timeframe in this PECOT question	Although an exacerbation is usually treated within a few hours, improved management of the asthma will become apparent within a varied timeframe

NOTE: PECOT table developed from Schneider & Whitehead (2013).

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