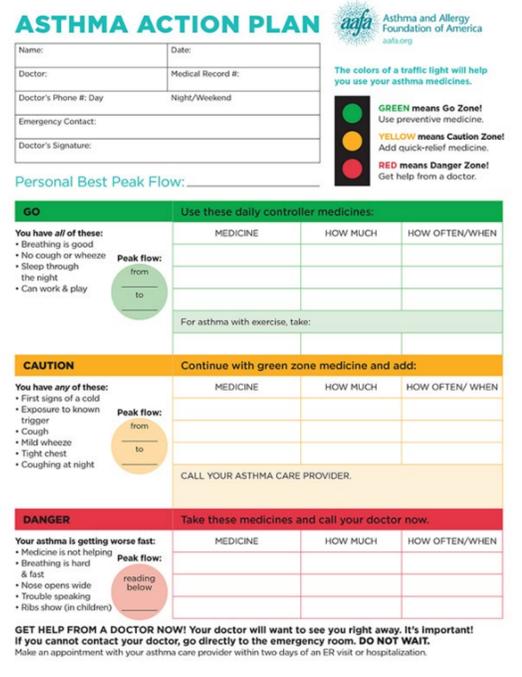


## Introduction

Asthma causes 1.8 million emergency department visits, 440,000 hospital readmissions, and about 3,500 deaths annually in the United States. Hospital admissions are costly and disrupt work, school, and relationships with family and friends. These disruptions to daily life impact vital childhood learning and can affect the way pediatric patients develop emotionally and socially into puberty and adolescence. Understanding what barriers hinder asthma management is the start of promoting the highest quality of care possible. Patients that manage care effectively enhance their physical health and independence for the rest of their lives.

## Background

- The symptoms of asthma can include chest pain/tightness, dyspnea (difficulty in breathing), and wheezing, often varying from patient to patient.
- Status asthmaticus is a medical emergency that is an acute attack that cannot be controlled by conventional interventions. Patients hospitalized often require high-flow oxygen delivery, intensive bronchodilator treatments, and possible intubation.
- Asthmatic patients need to use rescue (or quick relief) and long-term maintenance medications. Patients are taught that their rescue medications are for acute attacks and that their maintenance drugs are used for long-term symptom suppression.
- Peak flow monitoring uses a handheld device in which patients can monitor their severity level throughout the day by forcefully exhaling into it. It is used alongside an asthma action plan, which will give specific instructions on what medications and actions to take based on a predetermined value.



## Methods

- A systemic review of the literature was performed to identify factors that influence the medical adherence of pediatric asthma patients
- The search databases that were used were the Cumulative Index of Nursing and Allied Health Literature (CINAHL) Plus and PubMed
- A Boolean search in CINAHL was conducted with keywords: adherence, asthma, and quality of life
- The PubMed search used the following keywords: asthma, medical treatment, barriers and primary care
- The article searches were limited to full texts and those published between 2012 - 2021
- Articles that were excluded were either not related to pediatric asthma or did not address factors regarding asthma treatment compliance.



## Results

### Providers and Patients Have Different Goals of Care

- The provider's goal is to minimize the need for emergency services by maintaining compliance to the treat plan
- Providers tend to focus on reducing time loss at school, preventing exacerbations and preventing hospital readmissions
- The strongest factor of patient adherence was found to be a strong, interconnected relationship with the patient where trust is developed

### Patient as the Family Member: Identifying Family Roles

- The goal is to limit interruptions to daily life while respecting the family dynamics that already exist
- A mother's trust in providers results in child adherence but does not predict it for the future
- Fathers were found to be less intensively involved in daily care and management of asthma but more likely to influence strong family coping regarding the diagnosis
- Children who trust their providers were seen to have higher adherence rates that will last through development

### Patient as Individual: Factors That Decrease Adherence

- The goal is to let asthmatic children experience a healthy development without the distraction of an asthma care plan
- Patients perceive their asthma care as unnecessary, hard to work into daily life and are worried about side effects
- Patients are also focused on their daily activities in comparison to strictly following their care plan

## Discussion

Patients who have strong, connected relationships with their health care providers have higher adherence to treatment. This reduces the need for recurrent readmissions. Asthma is a chronic condition that requires a lot of trust in medical professionals when providing education, medications, and action plans.

Pediatric patients are unique because of the fact they are not done completing their stages of emotional and physical development. The challenge for nurses is to incorporate treatment care into daily life while promoting childhood development.

Nurses can assist family members in identifying roles and responsibilities when taking care of asthmatic children. Since asthma is often diagnosed within childhood, allowing patients to be responsible for their care not only promotes independence but establishes healthy habits for their long-term care. But while nurses should consider long-term goals, a short-term care goal for children would be considering what assistance they need. While parents need to be involved as advocates for their children, the lack of correlation between parental trust and pediatric self-care paints a different picture of how family roles can influence. Family should be included in the care plan and teaching but not be the sole providers of it. Nurses need to work with family members to determine what type of role would benefit their child the most while promoting their independence. This long-term patient resiliency and understanding of care will improve the quality of care for that child's lifetime.

The nurse's role is to assume the role of a mediator for these patients. To help all the players in a pediatric patient's care that they ultimately have the same goal – to allow the child to develop without the burden of their asthma. Parents who recognize that their child's provider wants them to go to school and play and stay out of the hospital as much as they do can start to build that trust. Similarly, children who recognize that their providers also want them to have a healthy childhood lays the foundation of trust and treatment adherence.



## Conclusion

Pediatric asthma remains an understood chronic condition that still results in severe complications that cause the patient to be readmitted to hospitals throughout childhood and development. The role nurses play in pediatric asthma care and management needs to be expanded beyond the role of an educator and caretaker. By working with providers, patients, and their family members, nurses can help to connect similar goals. Trust can be developed by having family members realize that their child's provider wants to keep their loved one out of the hospital and have a normal childhood. For each player involved, the optimal goal is a typical childhood where the child can fully develop without being burdened by their asthma.

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