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# Paeds with a Wheeze: Nurse Led Patient Flow Improvement

Initiative Type

Service Improvement

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Deliver

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## Summary

Wheeze is one of the most common emergency department presentations for pre-school aged children (greater than 1 year, but less than 5 years). The typical treatment regime involves an intensive 'burst' of salbutamol (Ventolin) via a spacer and mask, followed by an admission to the Children's Short Stay Unit where the aim is to gradually stretch the interval between salbutamol

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doses to 3-hourly before discharge home. This is guided by regular, repeated assessments by a doctor or nurse practitioner. When there is a surge in presentations to the emergency department, it becomes problematic for the treating clinician to perform these assessments in a timely fashion as they are concurrently managing several other children in the emergency department. This leads to medication delays, in some cases patient deterioration, staff and carer frustration, and challenges to patient flow. Nurse Led Stretching of Inhaled Salbutamol is a pathway that optimises registered nurse's scope of practice to perform detailed respiratory assessments on children presenting with a wheezing illness to determine when the next dose of salbutamol should be administered. This facilitates doctors and nurse practitioners to remain on the floor seeing acute, undifferentiated patients.

### Key dates

Jul 2021

Jun 2023

### Implementation sites

The Prince Charles Hospital

### Partnerships

Metro North HHS, Metro South HHS, QAS

## Key Contacts

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## **Aim**

To determine if a Nurse Led Stretching of Inhaled Salbutamol pathway reduces length of stay in pre-school aged children presenting to The Prince Charles Hospital Children's Emergency Department with an acute wheezing illness who are subsequently admitted to the Children's Short Stay Unit on a salbutamol weaning treatment plan. It is hypothesised that there will be a significant reduction in the Short Stay Unit length of stay in children who were admitted after the introduction of the pathway (the intervention), in comparison to a similar group of patients admitted prior to the commencement of the pathway who received standard management.

## **Benefits**

The project evaluates whether a Nurse Led Stretching of Inhaled Salbutamol pathway reduces length of stay for pre-school aged children with an acute wheezing illness admitted to the Short Stay Unit. This low-cost simple clinical initiative can make a positive difference to patient flow and provides the evidence required to embed the practice in the project's setting and facilitate the establishment of a program that could be promoted to other paediatric acute care services.

## **Background**

Nurse Led Stretching of Inhaled Salbutamol is a process by which registered nurses perform a detailed respiratory assessment on a child diagnosed with 'Pre-School Wheeze', to determine when the next dose of salbutamol should be administered. It makes effective use of a specific skill and knowledge set (respiratory assessment, acute wheeze and administration of salbutamol) that registered nurses already possess as part of their professional competency and standards working in the Children's Services. For this reason, Nurse Led Stretching of Inhaled Salbutamol is not an advanced practice nursing role, nor does it meet the definition for advanced practice nursing within Australia.

## **Solutions Implemented**

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The Nurse Led Stretching of Inhaled Salbutamol pathway performed by registered nurses allows for doctors and nurse practitioners to remain on the floor seeing acute, undifferentiated patients.

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