An Audit of Step Down Discharge Plan in Patients Attending Our Paediatric Observation and Assessment Unit (POAU) at Wythenshawe Hospital with Asthma/ Viral Induced Wheeze

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Asthma is one of the most common long-term conditions in the UK1, affecting almost 1.1 million children2.

No parameter defines the appropriate discharge time following an admission with acute asthma. Patients should be clinically stable, and be on medical therapy compatible with home management, requiring β2 agonist at a maximum of four hourly intervals3.

Although various national guidelines exist regarding childhood asthma management, in practice there are differences regarding the step-down process, prior to discharging patients. Regional practice is to discharge children home on 5-6 puff of Salbutamol inhaler 4 hourly.

Aim: To review if we could safely discharge children who are requiring 10 puffs of salbutamol without requiring step down to six puffs, thereby reducing admission duration and associated costs.

Methods: All children above the age of two years, presenting to our POAU with an acute episode of wheeze or exacerbation of Asthma over a three-month period were included, using data from patient records.

Results: From our cohort of 41 children, 9 were excluded, either due to no notes available (2) or diagnosis of lower respiratory tract infection (7).

On admission, of the 32 children:

- 2 initially needed salbutamol or Atrovent nebulisers.
- 18 children were stable and discharged on 6 puffs of salbutamol. Of these, 2 required subsequent admission for nebulisers
- 12 received 10 puffs of salbutamol. Of these, 2 required nebulisers after being established on 10 puffs and 10 children were stepped down to 6 puffs.

Conclusion: Our pilot study demonstrated a large proportion of children could be safely discharged prior to inhaler stepdown to 6 puffs in hospital.

Of the 6/32 who required nebulisers at any point, they remained stable after subsequent stepdown to 10 puffs and could have been safely discharged prior to stepdown to 6 puffs.