Summary report: Reducing unnecessary prescribing in infant reflux

In 2018, Safer Care Victoria’s Paediatric Clinical Network partnered with the Royal Children’s Hospital (RCH) to lead a project targeting unnecessary prescribing of acid suppression therapy (AST) in infants. The resources piloted in the project aim to improve parent and clinician knowledge of the potential harms and benefits of ASTs in infants.

## Background

‘Do not routinely treat gastro-oesophageal reflux disease (GORD) in infants with acid suppression therapy’1 has been identified as a top five low value care (LVC) paediatric practice in Australia. LVC encompasses any practice that lacks evidence of efficacy, may cause harm or provides minimal benefit to the patient.2 Targeting LVC practices has become an increasing priority for the Australian healthcare system.

RESULTS AT A GLANCE

**Health services**

Three Victorian hospitals participated in the pilot representing a mix of metropolitan, regional, tertiary and non-tertiary services.

**Duration**

May 2018 to April 2020

**Project measures**

One outcome measure, four process measures

**Results**

21% decrease in AST prescriptions across the three hospitals

**Other outcomes**

* More parents advised to cease AST
* Improved parent knowledge that ASTs can cause harm
* Improved clinician capability and confidence to manage infants with gastro-oesophageal reflux

Infant gastro-oesophageal reflux (GOR) is a physiological process that can be characterised by vomiting or small ‘possets’. It’s common for infants to experience GOR and it tends to self-resolve as they get older, without the need for medical intervention.

ASTs are commonly prescribed to treat infant GOR. ASTs, such as proton pump inhibitors (PPIs) and histamine-2 receptor antagonists (H2RAs), have been shown to cause harm in infants. There is also strong evidence to show ASTs are ineffective in managing infant GOR, irritability or unsettled behaviours.3

The Health Services Research Unit at RCH submitted a project proposal to reduce unnecessary AST prescribing. The PCN recognised the value and agreed to fund a two-year improvement project.

## aim

To co-design and pilot a targeted intervention package to reduce unnecessary prescribing of AST for infant gastro-oesophageal reflux by 20 per cent in four Victorian hospitals by April 2020.

## improvement approach

The project design integrated research and improvement science methodologies to achieve the overall aim. Ethics approval was granted for the project from the RCH Human Research Ethics Committee.

Four hospitals were recruited to the project following an expression of interest. Parents and clinicians from each hospital participated in qualitative interviews in April and May 2019, focusing on understanding the behaviours contributing to unnecessary prescribing. The key findings informed the conversation at the co-design workshop in June 2019. Clinicians from each hospital and a consumer representative attended the workshop and developed a number of resources to target unnecessary prescribing and improve knowledge.

Three hospitals piloted the developed resources. Each hospital team used the improvement science methodology to test the resources, supported by SCV during the resource piloting phase and to apply improvement science.

Quantitative data was collected pre and post the resource pilot phase to determine the change in prescribing of ASTs.

## key improvements

#### Resources

* An education seminar to enhance clinician knowledge of GOR, and potential harms and benefits of ASTs.
* Verbal communication script and recorded role play scenarios to facilitate effective communication between clinicians and parents.
* Irritable infant assessment flowchart to assist clinicians with diagnosis journey.
* Three parent handouts:
  + *How do I know if my child has reflux?*
  + *How to stop reflux medications*
  + *Managing unsettled babies.*
* *Baby Business* booklet developed by the Murdoch Children’s Research Institute.
* Information handout for general practitioners.
* Posters to promote key messages.

The resources follow the clinical guidance provided by the updated RCH Clinical Practice Guidelines (CPGs):

* [Gastro-oesophageal reflux disease in infants](https://www.rch.org.au/clinicalguide/guideline_index/Gastrooesophageal_reflux_disease_in_infants/)
* [Unsettled or crying babies](https://www.rch.org.au/clinicalguide/guideline_index/Crying_Baby_Infant_Distress/)

## **Results**

The piloted resources were associated with:

* 46 per cent increase in the number of clinicians advising parents to cease ASTs
* positive reported change in clinical practice by clinicians
* an increase in parents’ and clinicians’ knowledge that ASTs can cause harm
* improved clinician self-reported capability and confidence to discuss with parents gastro-oesophageal reflux, potential harms of ASTs and alternative management strategies.

The project achieved its aim with a 21 per cent decrease in AST prescribing.

## Next steps

SCV is focused on promoting the resources to all hospitals in Victoria but also to primary care providers; specifically GPs and maternal and child health nurses.

## **Resources**

The resources are available at:

* [Safer Care Victoria](https://www.bettersafercare.vic.gov.au/paediatric-network/infant-reflux)
* [The Royal Children’s Hospital Health Services Research Unit](https://www.rch.org.au/hsru/research/Reducing_medications_in_infants/)

## References

1. PCHD. Paediatric and Child Health Division: Top 5 low-value practices and interventions. 2016 https://evolve.edu.au/published-lists/paediatrics-and-child-health-division (accessed May 2018).
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3. Van der Pol RJ, Smits MJ, van Wijk MP, Omari TI, Tabbers MM and Benninga MA. Efficacy of Proton-Pump Inhibitors in Children With Gastroesophageal Reflux Disease: A Systematic Review. Pediatrics 2011; 127(5):925-35.

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