CHAMPIONING CHOOSING WISELY to reduce UNNECESSARY TESTS

Health services across Australia are championing the Choosing Wisely initiative to improve the safety and quality of healthcare for patients. The initiative encourages people to talk about unnecessary and possibly harmful medical tests, treatments and procedures. Austin Health, a Choosing Wisely champion health service, took a multidisciplinary, multifaceted approach to reduce unnecessary testing, improving patient care and hospital efficiencies.

## Background

Prior to the project, Austin Health identified that unnecessary tests were impacting the health service’s patients, staff and processes.

The unnecessary tests were increasing the risk of harm to patients and causing pain and emotional stress. They could lead to delays in discharge or treatment, which would extend a patient’s length of stay in hospital and, in turn, impact patient flow and access to other services.

For staff, processing the unnecessary tests and following up their results was causing an increase in workload and taking up pathology and radiology service capacity.

Root causes for the problem included variation in medical care, a lack of robust data to monitor and support best practice, and the common consumer perception that ‘more is better’ when it comes tests, treatments and procedures.

Choosing Wisely Australia, an initiative of NPS MedicineWise, was launched in 2015 with the goal of encouraging clinicians and consumers to have better conversations about what care is truly needed, avoiding unnecessary tests that may not be supported by evidence and may cause harm.

Austin Health became a Victorian Choosing Wisely champion health service and implemented a whole-of-hospital approach to reduce ordering of two tests: coagulation (blood clotting) studies and urine cultures.

Choosing Wisely champion hospital

**Lead** Austin Health

**Partner** Choosing Wisely Australia – NPS MedicineWise

**Duration** November 2016 – December 2017

**Key outcomes**

* Reduced coagulation studies testing by 37.8 per cent across the hospital and by 80.1 per cent in the ED
* Reduced urine culture testing by 28.6 per cent across the hospital and by 41.1 per cent in the ED
* Improved the appropriateness of coagulation testing, with eight of the 10 highest test-ordering hospital units showing reductions in orders with no clinical indication for testing or with indications that did not align with guidelines
* Saved $75 in pathology costs per patient by reducing orders of coagulation studies
* Saved almost $290 in pathology costs per patient by reducing orders of urine cultures
* Reduced CRP testing by 14.2 per cent across the hospital and by 65.7 per cent in the ED

## Key activity

Austin Health developed a topic selection tool to determine which areas needed to and could be addressed within the project timeframe, ultimately deciding on coagulation studies and urine cultures.

The health service implemented four behaviour change strategies in a staggered manner across the two topic areas:

* **quality and audit:**
  + for both topic areas, the 10 hospital units ordering the highest number of tests were sent details of their order volumes from the last 12 months before and after project intervention. This increased their awareness of their ordering levels and provided feedback on how their ordering practices were changing as a result of project activities
  + these hospital units also received information on clinical indications for patients for whom they had ordered tests so that clinicians could reflect on whether their ordering practices aligned with guidelines and best practice
  + for the coagulation studies project, Austin Health additionally assessed factors associated with over-ordering
* **policy and guidelines:**
  + guidelines for ordering coagulation studies and urine cultures were developed based on Choosing Wisely recommendations for the two topic areas
  + decision support flow charts reflecting the latest guidelines and best available evidence were created to help clinicians understand when ordering was clinically indicated
  + for the urine cultures project, three nursing policy documents were combined to create a single clinical procedure on collecting urine for testing
* **education and peer support:**
  + the guidelines for ordering the two types of tests were incorporated into the intern and medical student curriculum and presented during weekly junior staff education sessions
  + interactive posters with QR codes linking to ordering guidelines were used around the hospital



* + two 'grand round' presentations with medical case example discussions were held for all medical staff on end of life care and delivering the Choosing Wisely initiative in the emergency department (ED)
  + for the urine cultures project, an educational module including case studies, videos, quizzes and resources was developed for the Austin Health electronic learning system; leaflets educating patients on how to correctly collect their own urine samples were produced for the ED; and nursing education sessions were conducted
* **changes to the electronic test ordering system:**
  + pop-up messaging linking to ordering guidelines was incorporated into the electronic ordering system for both types of test
  + prior to the project, coagulation studies comprised four tests that were routinely ordered together. During the project, this grouped test ordering option was removed, encouraging clinicians to only order the individual tests they needed.

Austin Health also evaluated the barriers and enablers of implementing the Choosing Wisely initiative post-intervention through surveys and focus groups with nursing, pharmacy and allied health staff, senior and junior medical clinicians, and consumers.

## Outcomes

### Coagulation studies

* The number of coagulation studies ordered across the hospital per patient decreased by 37.8 per cent after project interventions were introduced.
* There was an 80.1 per cent reduction in coagulation studies ordered per patient presenting to the ED.
* Auditing revealed that of the 10 hospital units that ordered the highest number of tests, eight had reduced the number of tests ordered without clinical indication or with an indication that did not align with recommended guidelines. This suggested clinicians were now ordering in line with the latest evidence.
* The coagulation studies project saved $75 in pathology costs per patient, equating to more than $191,000 in total cost savings.

### Urine cultures

* There was a 28.6 per cent reduction in urine culture tests ordered per patient across the hospital.
* Ordering of urine tests also reduced by 41.1 per cent for ED presentations.
* Almost $290 in pathology costs were saved per patient in the urine cultures project, the equivalent of more than $459,000 in total cost savings.

### Other outcomes

* A smaller sub-project was conducted to examine the value of ordering urine cultures when a patient with no symptoms had febrile neutropenia (a fever while experiencing an abnormally low count of a type of white blood cell). The project found this did not align with best practice evidence so clinical practice was changed and urine cultures are no longer routinely ordered for these patients.
* C-reactive protein (CRP) tests, which indicate inflammation in the body, were examined as a secondary topic area. The project reduced CRP tests ordered per patient by 14.2 per cent across the hospital and by 65.7 per cent in ED presentations.
* More broadly, the project increased awareness of the Choosing Wisely concept of questioning unnecessary tests, treatments and procedures at Austin Health, leading to an increase in these important conversations among clinicians and between clinicians and patients.

## Key learnings

### Barriers and enablers analysis insights

* The majority of consumers surveyed felt informed, confident and actively engaged in their own health.
* They felt medical tests were warranted in almost all situations, and trusted health professionals and their decision-making processes.
* Consumers cited short appointments, concerns about taking up too much of the doctor’s time, and trust in the doctor’s judgement as potential barriers to raising the five questions Choosing Wisely recommends asking your healthcare provider before getting any test, treatment or procedure.
* Nursing and pharmacy staff believed more time with patients, more patient information, and clinician communication skills were the strongest factors driving Choosing Wisely conversations between patients and clinicians.
* Conversely, limited time and the belief that ‘the doctor knows best’ were considered the strongest barriers.
* Medical clinicians believed evidenced-based guidelines, increased education, and organisational support were the best strategies to help doctors reduce unnecessary testing.

### Other learnings

* Engaging senior clinicians and gaining support from the hospital executive can be key to successfully implementing Choosing Wisely in a health service.
* Engage the information technology team early during intervention development.
* Allow for multiple reviews of the ethics application when planning timelines.