Choosing Wisely
Australia
An initiative of NPS MedicineWise

INNOVATION FUND PROJECT
BETTER CARE VICTORIA

Choosing Wisely
Implementation Toolkit
Interventions

NPS MEDICINEWISE

CONTENTS

INTERVENTIONS

Ballarat Health Services – What they did

After the causes of their clinical problem were clearly identified, the next step for Hannah Ryan-West and her project working group at the Ballarat Health Services Choosing Wisely project was to match interventions to them.

The two main causes for the unnecessary testing of venous blood gases (VBG) in the Emergency Department (ED) were 1) system-based and 2) a lack of information.

System-based intervention

"For the first intervention we decided to remove the blood gas syringes from the IV [intravenous] trolleys to reduce the ease of access that enabled nurses to unnecessarily do the testing," says Ms Ryan-West, Choosing Wisely project officer.

"Instead, we created two blood gas stations that had fixed locations in the ED and couldn't be moved around," says Ms Ryan-West.

"So rather than grabbing a syringe from the IV trolley when putting a venous line in, making the syringes less accessible meant the nurses had to make a conscious decision to get a syringe to run a gas, rather than just grabbing it out with the blood tubes," she says.

Information intervention

The second intervention that addressed the lack of information involved developing a clinical guideline on VBG testing in the ED.

The clinical guideline was then published as a poster and placed next to the two blood gas stations which contained the syringes, one next to the gas machine, and smaller-sized versions in each patient bay, so that all nurses had good access to the information about what to do.

Staff were given notification prior to the clinical guideline implementation and then education on the clinical guideline was shared using electronic sources, education sessions and posters in areas highly frequented by ED staff.

What are interventions?

Interventions are activities and actions that:

- 💬 help address the causes of your health service's clinical problem

- 💬 can lead to changes in healthcare that diminish the clinical problem.

They can be regarded as being like treatments that reduce symptoms of a chronic condition.

Many interventions are available to choose from for both clinicians and patients and consumers. Examples include:

- 💬 audit and feedback, education outreach and clinical decision support (CDS)

- 💬 decision aids and factsheets.

The specific interventions are explained in detail in the 'What to do' section below.

Why are interventions important?

Clearly you need to do something to achieve continuous improvement to healthcare in your health service - otherwise the clinical problem will continue or even get worse.

But which interventions should you choose? Consider the following:

Q. Should your Choosing Wisely project implement the same interventions another health service has implemented, because it successfully reduced the same clinical problem your health service is facing?

Yes and No. Learning from the experiences of other health services is recommended.
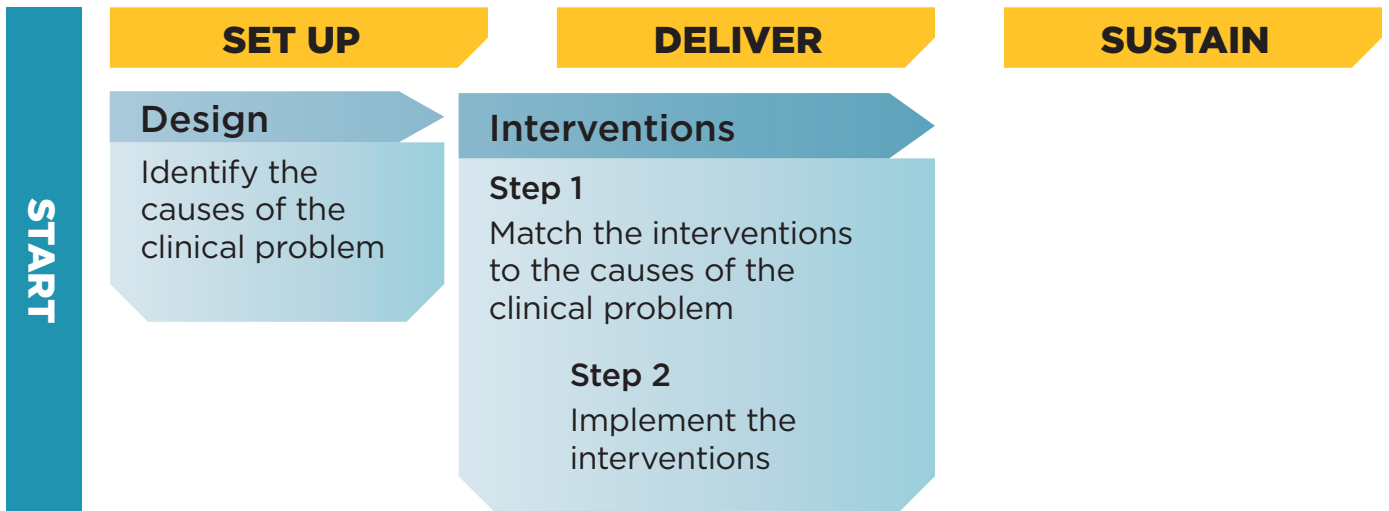
But don't just follow in their footsteps. Each health service can be different.

It's recommended to tailor the solutions to the causes that have been identified for your health service's clinical problem.

A mismatch between the causes of your health service's clinical problem and the interventions you choose for them can have a negative impact on the success of your Choosing Wisely project. For example, if your clinical staff has a knowledge gap, just providing an audit and feedback intervention can limit your chances of success. Rather, at the very least, an education intervention for clinical staff is also recommended.

Interventions also need to be targeted to a specific audience. For example, a fact sheet might be more suited for consumers, whereas a lecture is more appropriate for clinicians. Both these interventions, as well as others, may be used to address the same clinical problem.

When to implement interventions?

START	SET UP	DELIVER	SUSTAIN
	Design	**Interventions**	
	Identify the causes of the clinical problem	**Step 1** Match the interventions to the causes of the clinical problem	
		Step 2 Implement the interventions	

🔸 Step 1 involves matching the interventions to the causes of the clinical problem. This starts after the design has been completed.

🔸 Step 2 involves implementing the interventions that have been chosen. This starts at the beginning of the deliver stage.

🔸 The interventions conclude at the end of the deliver stage.

Peninsula Health – What they did

Peninsula Health was thorough and clear about which interventions matched the causes for their Choosing Wisely project's clinical problem.

The project's goal was to ensure the ordering of CT scans for the lumbo-sacral spine in non-traumatic cases in the hospital ED according to the Royal Australian and New Zealand College of Radiologists (RANZCR) guidelines, says Carla van Waart, the Choosing Wisely project officer.

During the design they had found many reasons why the doctors were less likely to follow the RANZCR guidelines. Two findings that stood out were:

- 💬 having less experience due to less seniority

- 💬 patient expectations and demands to have imaging in general or a CT scan specifically done.

These reasons were grouped into themes that were allocated to categories of drivers of behaviour based on the *COM-B ('capability', 'opportunity', 'motivation' and 'behaviour') model*.

Interventions were then matched to them. Two examples were:

- 💬 Less experience due to less seniority was understood as a capability/psychology driver and education was selected as an intervention.

- 💬 Patient expectations and demands to have imaging in general or a CT scan specifically done was found to be an opportunity/social driver and enabler of an intervention, such as providing doctors with a decision-making aid.

What to do

Intervention	Description and Implementation	Causes addressed
Audit and feedback	Provides clinicians (doctors, nurses, etc.) with a summary of their performance for the clinical problem, over a specific period of time; for example, x-rays ordered for acute ankle injury. Audience: group (eg unit/department) or individual. For more information read: *Choosing Wisely Collaboration Implementation Toolkit Workshop 1* Intervention 1 – Audit and Feedback; Pages 21–23	💬 lack of awareness 💬 perception/reality mismatch, for example overestimating their performance or under-estimating the problem.
Clinical guidance/ guidelines development[1]	Development of new evidence-based clinical guidance/guidelines or adaptation of existing ones by clinical experts working in your health service. This may include influential leaders in development.	💬 lack of guidance 💬 fear of change due to 'no permission'.
Education[1]	Learning through: 💬 lectures from peers or clinical experts 💬 one's own experiences and problem-solving, such as in small interactive groups or one-to-one peer interactions discussing cases or evidence.	💬 lack of peer support 💬 lack of knowledge 💬 lack of skills.
Educational outreach (academic detailing, educational visits)	Facilitator trained on the clinical topic and causes of the clinical problem who meets (usually face to face, but also remotely via video) with clinicians, either as a group or individual, discussing cases or evidence. The facilitator can be an influential leader. For more information read: *Choosing Wisely Collaboration Implementation Toolkit Workshop 1* Intervention 2 – Educational outreach; Pages 24–25	💬 lack of knowledge 💬 lack of skills 💬 beliefs/attitudes acting as barriers (e.g. fear of change, negativity to change).

Intervention	Description and Implementation	Causes addressed
Clinical decision support	Interventions including: 🗨 alerts, prompts and reminders 🗨 use of electronic medication or test ordering (i.e. computerised physician order entry, order sets) 🗨 electronic decision support systems 🗨 sharing of patient information across settings (i.e. health information exchange) 🗨 clinical workflows/algorithms/pathways. For more information read: *Choosing Wisely Collaboration Implementation Toolkit Workshop 1* Intervention 3 – Clinical decision support; Pages 26–27	🗨 specific clinical decision(s) not being made at right time 🗨 specific clinical role not making specific clinical decision(s) 🗨 clinician cognitive burden.
Systems-based[1]	Creating the conditions for clinicians that makes tasks that change healthcare easier or harder to complete such as in the workplace or administration eg changes to order sets or formularies at a setting level.	🗨 opportunity for clinicians to reduce unnecessary healthcare is being missed due to conditions.
Patient and consumer-mediated	Engaging patients and consumers to make decisions and participate in healthcare through: 🗨 information; eg leaflets, factsheets about diagnosis/treatment of the condition, including lifestyle advice 🗨 activation; decision aids and action plans (similar to clinical decision support), physiological monitoring, self-evaluation 🗨 collaboration; communication with clinicians, social support. *Choosing Wisely Collaboration Implementation Toolkit Workshop 1* Intervention 4 – Patient mediated interventions; Pages 28–30	🗨 lack of knowledge 🗨 expectation of the healthcare even when it's unnecessary 🗨 adherence challenges 🗨 opportunity to make clinical decision(s) is being missed.

Table 1: Interventions; descriptions, implementation, causes addressed, other uses

Sustain

Once the deliver stage has been completed, many interventions such as development of evidence-based clinical guidance may not continue. Others that have been fully integrated into clinical practice, such as a clinical decision support tool, may continue on.

To enable changes achieved to be sustained, consider the following:

- Use dashboards in the electronic medical record (EMR) to give feedback to clinicians and units.

- Keep staff engaged – create opportunities for staff to share their experiences of the project through staff presentations or newsletter.

- Find ways to engage new staff to implement the change or be champions; for example, have the interventions included as part of the orientation for new staff.

St Vincent's Hospital Melbourne – What they did

A multi-layered approach to interventions was adopted by the St Vincent's Hospital Melbourne Choosing Wisely Collaborative Project after it identified the causes of unnecessary observations and arterial blood gas (ABGs) testing for patients in the department of critical care medicine (DCCM) who were deemed 'ward ready'.

Foundation interventions

First and foremost, the project wanted to establish a foundation for all the other interventions. It selected two interventions to achieve this:

1. the development of a clinical guideline called the 'ward ready' standard

2. education about the guideline.

"We engaged a DCCM consultant who, together with other clinicians including nurses and doctors, developed the 'ward ready' standard during several workshops conducted over a two-week period," says Clare Hammer, continuous improvement coach at St Vincent's Hospital Melbourne.

"The standard states that 'ward ready' patients should receive four-hourly cardiovascular and respiratory observations and no ABG testing unless clinically indicated and documented," says Ms Hammer.

"The project clinical lead then provided education for staff to support implementation of the standard. This was relatively simple and completed over a two-week period, at various times such as the end of shifts or during nursing handovers."

Specific interventions

Then for the specific causes of the clinical problem, interventions were matched to them.

For the nurses' fear of repercussions due to missing patient deterioration, key staff in this clinical space were engaged by the project to demonstrate senior support, says Ms Hammer.

These included the deputy director of intensive care unit (ICU), ICU consultants, nursing unit manager (NUM) and general manager of specialty services.

Another cause, that 'we have always done it that way', which reflected the DCCM culture, was addressed by inviting frontline staff to attend workshops where they were invited to question and challenge the status quo, says Ms Hammer.

"Lastly, the assumption that ownership of the decision to reduce test frequency lies with medical staff was countered by the 'ward ready' standard including collaborative decision-making between the senior registrar, team leader and associated nurse unit manager regarding when a patient is 'ward ready'," she says.

Tools and Resources

Templates

- 💬 Intervention selection based on what drives achievement of the project aim

    Institute for Healthcare Improvement (IHI) – QI Essentials Toolkit
    (free access after you register)
    Driver diagram section for intervention selection; Pages 7–10

- 💬 Intervention selection based on categories of drivers behaviour

    COM-B ('capability', 'opportunity', 'motivation' and 'behaviour') model

- 💬 Implementation canvas

    Choosing Wisely Collaboration Implementation Toolkit Workshop 1

    Implementation canvas; Page 33
    Includes '*intervention selection*', as well as '*problem definition*' and '*change management*'.

- 💬 *Lanyard – regular*

- 💬 *Lanyard – medical student*

Further information

🗨 Understanding drivers of behaviour and how to match interventions to them

COM-B ('capability', 'opportunity', 'motivation' and 'behaviour') model

🗨 Matching interventions to specific causes

A detailed method for matching interventions to specific causes of the clinical problem is the Effective Practice and Organisation of Care (EPOC) taxonomy of health system interventions.

EPOC is divided into four domains: delivery, financial, governance and implementation strategies. Read about EPOC in the:

Choosing Wisely Collaboration Implementation Toolkit Workshop 1

How do you match the problem to the intervention? – Pages 21 and 22

🗨 Seminal paper

Summary of different categories of interventions and the rationale for them for changing healthcare.

Grol R. Personal paper. Beliefs and evidence in changing clinical practice. BMJ. 1997 Aug 16;315(7105):418–21

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2127297/pdf/9277610.pdf

Michie S, Johnston M, Abraham C, et al. Making psychological theory useful for implementing evidence based practice: a consensus approach. Qual Saf Health Care. 2005;14(1):26–33.

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1. Grol R. Personal paper. Beliefs and evidence in changing clinical practice. BMJ 1997;315:418-21. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2127297/pdf/9277610.pdf*

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