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Implementation and translation of guidelines - an implementation trial to improve adherence to a prostate cancer guideline

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NHMRC Partnership Project 1011474 co-funded by the Prostate Cancer Foundation of Australia 2011 – 2015

Australian New Zealand Clinical Trials Registry (ANZCTR): ACTRN12611001251910

Clinician-Led Improvement in Cancer Care (CLICC) Research Team

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“Evidence based medicine needs to be complemented with evidence based implementation” Richard Grol¹

Effective implementation strategies

Several implementation strategies are effective in bringing about system wide and sustained change²⁻⁵ :

- clinical champions supporting change within their practices and settings
- system, structural and organisational support for system-wide changes (e.g. legislation, resources, mechanisms for communication and collaboration between health sectors)
- ongoing monitoring, evaluation and feedback of the changes as they are implemented

Background/clinical significance

- Radical prostatectomy is the most frequent procedure for locally advanced prostate cancer in Australia
- Following surgery it is estimated that between 20% and 50% of men are at “high risk” of experiencing progression or recurrence⁶⁻⁹
- Evidence from RCTs indicates adjuvant radiotherapy should be offered to men with certain disease features
- Currently less than 10% of care within NSW complies with recommended care 10 and this is consistent with levels in USA 11 and other parts of Australia 12-13

CLICC study aims

To trial an implementation strategy that harnesses NSW hospitals within the Agency for Clinical Innovation Urology Network to implement a clinical practice guideline for the management of men with high-risk prostate cancer:

Phase 1. Assess whether a clinician-led and locally tailored intervention increases evidence based care for patients at high risk after surgery – PRIMARY OUTCOME: referral to radiation oncology for discussion of adjuvant radiotherapy in line with guideline recommendation

Phase 2. Identify reasons why the intervention did or did not result in greater referral

CLICC study design

Phase 1: Prospective randomised cluster trial¹⁴

Phase 2: Before and after mixed-methods study

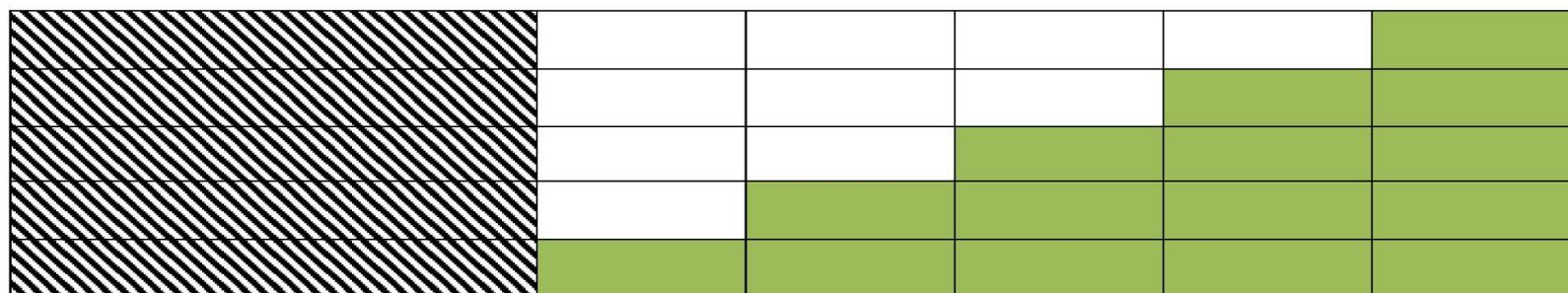
Sample: 9 NSW hospitals with:

- (i) Urology MDT
- (ii) Member of ACI Urology Network

N = 4 -10 Urologists that perform radical prostatectomy per hospital

Approximately 800 men with high-risk cancer prostate cancer will be included in the analysis

CLICC intervention roll out

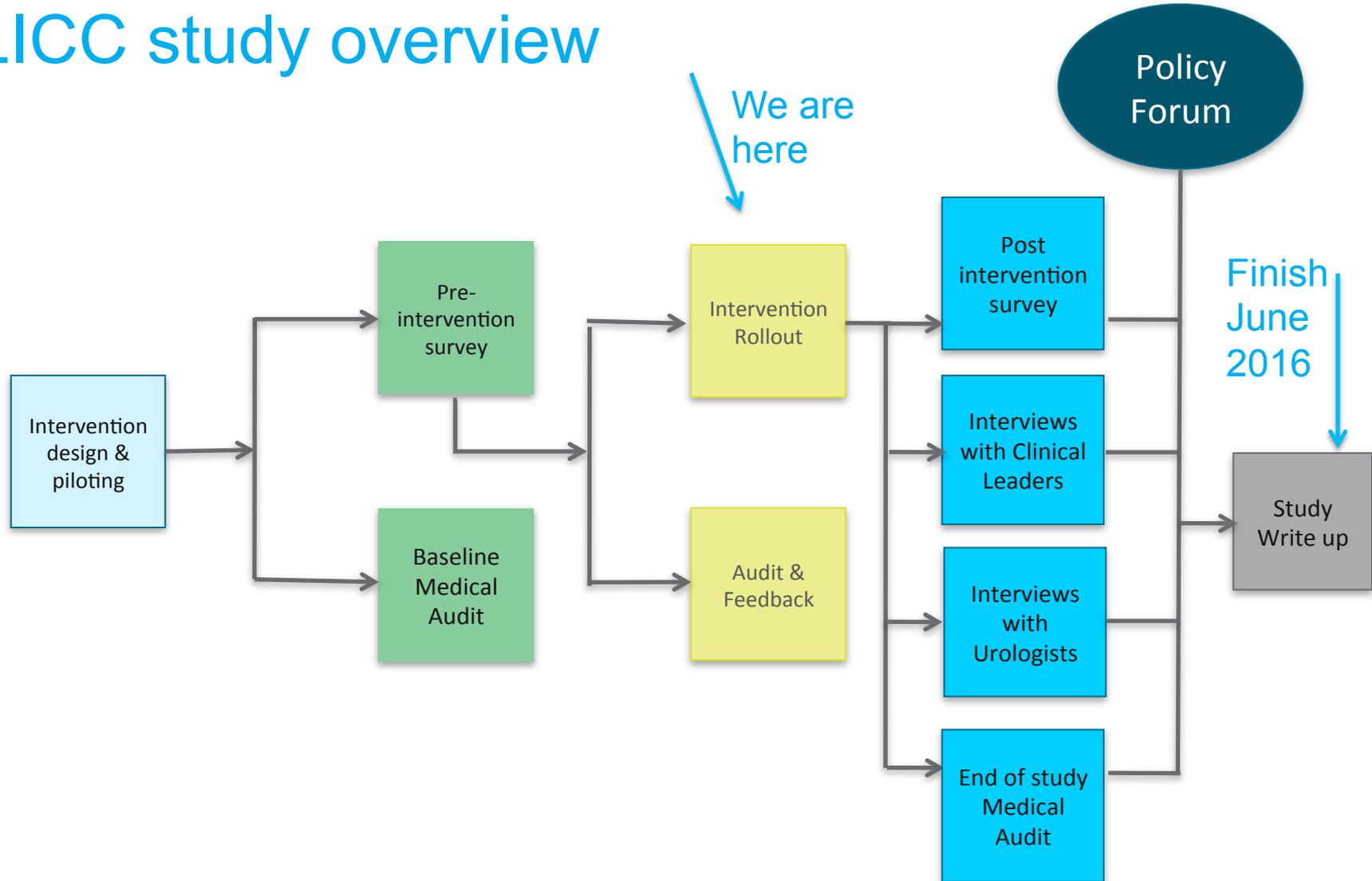


Period	Jan–Nov 2013*	Dec 2013	Feb/Mar 2014	Apr/May 2014	Jun/Jul 2014	Aug/Sep 2014
Hospitals						
Control	9	8	6	4	2	0
Intervention	0	1	3	5	7	9

Stepped Wedge Study Design: Staged rollout of intervention from December 2013 to September 2014. The solid shaded blocks represent introduction of the intervention over 5 steps. The intervention will be rolled out across the 9 hospitals in 2 month blocks. Patient medical records will be reviewed for a period of 12 months following the interactive education session. Therefore data collection will not be completed until September 2015.

*Control only monitoring not part of the intervention study.

CLICC study overview

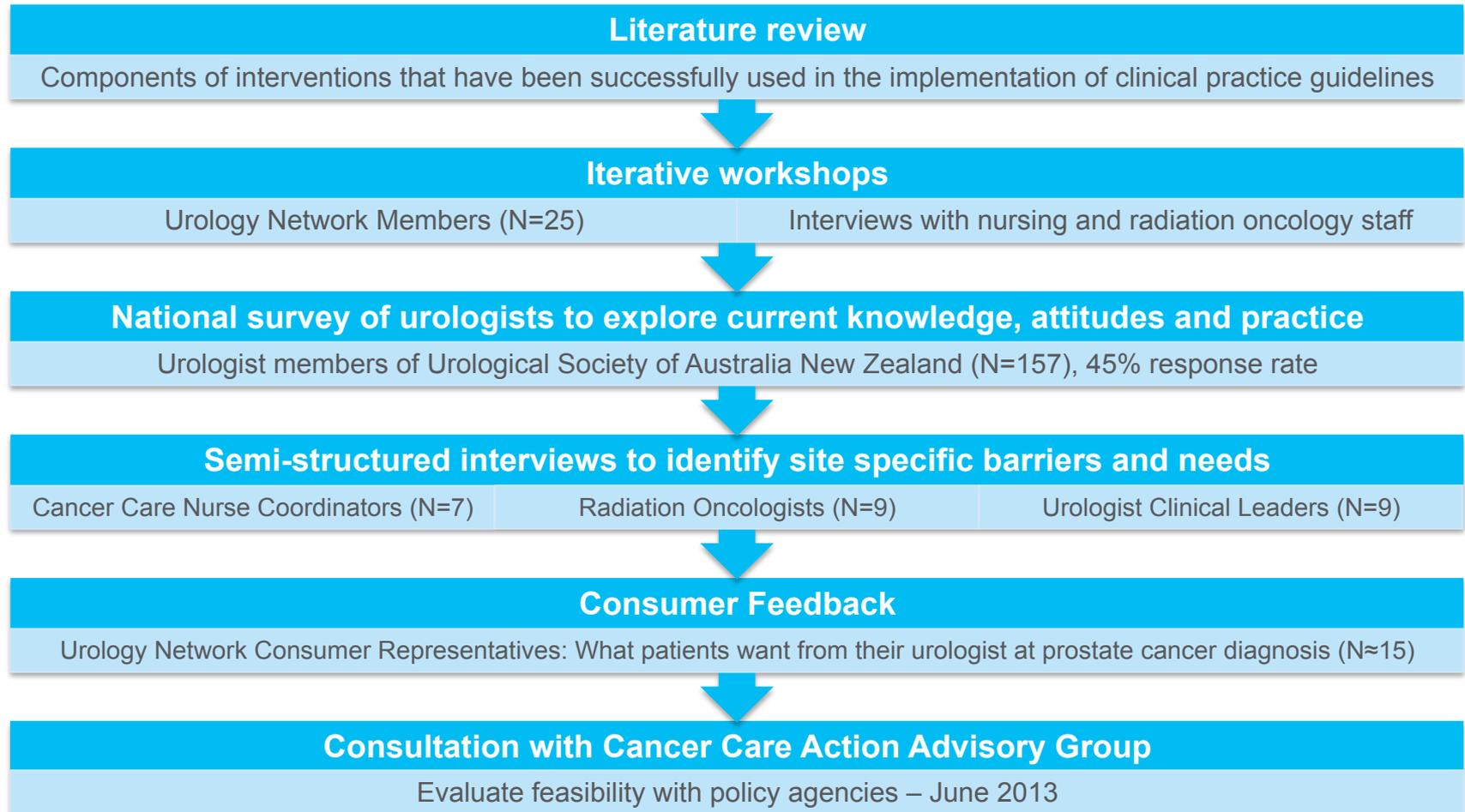


Implementation strategy development

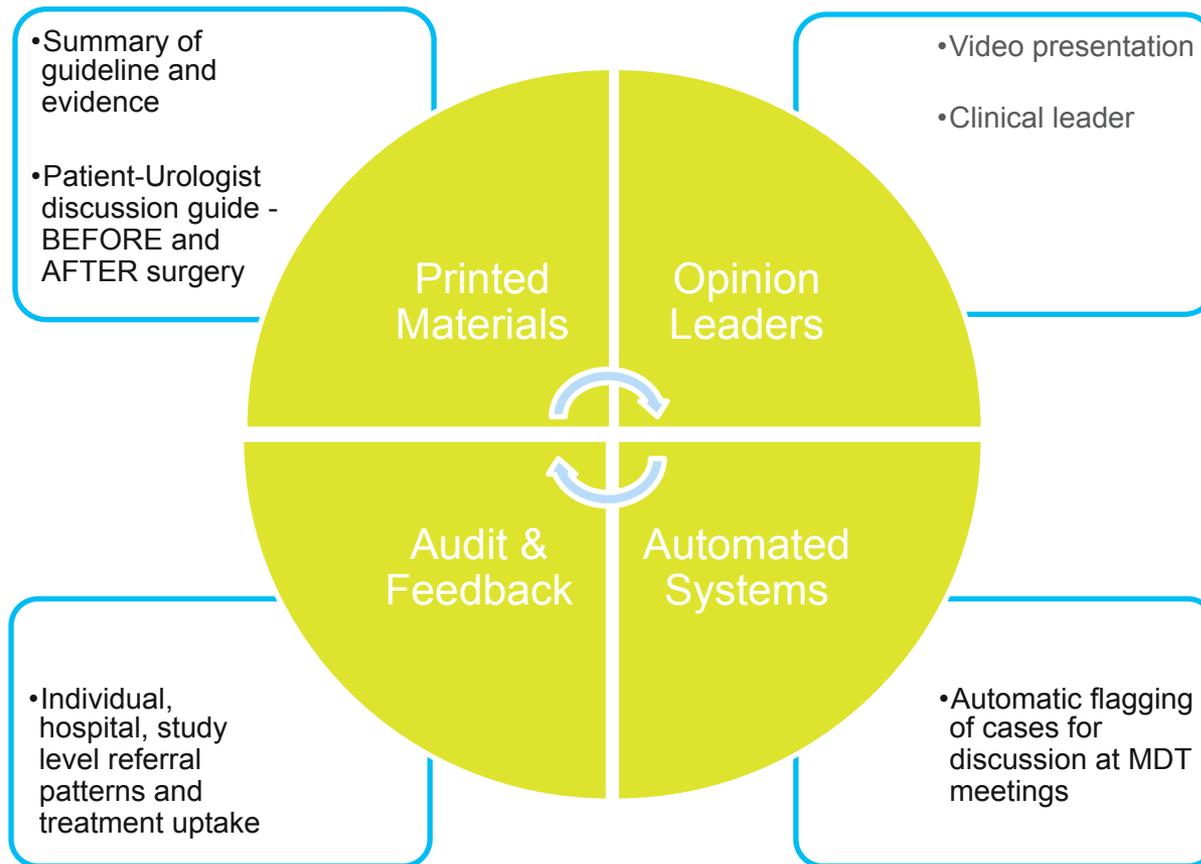
In accordance with best practice in implementation research¹⁵⁻¹⁷ we have developed a clinical guideline implementation strategy that:

- Addresses prospectively identified barriers
- Was designed following extensive consultation with clinicians
- Is locally tailored to each implementation site to take account of the organisational context

Intervention design methods



Intervention elements



Results to date

- Overall response rate 85% (N=40 urologists): 100% uptake in 5 out of 9 hospitals; >80% uptake in 3 hospitals
- Successful roll out of the implementation intervention elements in 9 hospitals across 8 local health districts with good uptake by hospitals, urologists, pathologists and multidisciplinary teams
- New process implemented to flag appropriate patients for discussion at Multidisciplinary Team (MDT) meetings

Learnings and next steps

- Involve clinicians in the development of guidelines
- Critical success factors based on team reflection
 - peer influence - clinical champions on the video, investigator team and within each hospital
 - listened and acted on clinician feedback in intervention design phase
 - system process changes that make it easy for participating clinicians
 - feedback reports generating discussion of clinical practice
- Capitalise on this implementation strategy, undertake a new implementation trial focused on another priority evidence-practice gap

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