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

Mary Haines, Director
Implementation Research Group, Sax Institute

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

**Sax Institute:** Bea Brown, Mary Haines, Amanda Dominello, Jane Bois, Cyra Patel

**Cancer Council NSW:** Dianne O’Connell, David Smith

**University of Sydney:** Jane Young, Andrew Kneebone

**Prostate Cancer Foundation of Australia:** Miranda Xhilaga

**Agency for Clinical Innovation:** Andrew Brooks, Violeta Sutherland, Donald MacLellan
“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 change\textsuperscript{2-5}:

- 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 recurrence\textsuperscript{6-9}

• 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 \textsuperscript{10} and this is consistent with levels in USA \textsuperscript{11} and other parts of Australia \textsuperscript{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 trial\textsuperscript{14}

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

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**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

We are here

Intervention design & piloting

Pre-intervention survey

Baseline Medical Audit

Intervention Rollout

Audit & Feedback

Post intervention survey

Interviews with Clinical Leaders

Interviews with Urologists

End of study Medical Audit

Policy Forum

Finish June 2016

Study Write up
In accordance with best practice in implementation research\textsuperscript{15-17} 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

**Literature review**
Components of interventions that have been successfully used in the implementation of clinical practice guidelines

**Iterative workshops**
- Urology Network Members (N=25)
- Interviews with nursing and radiation oncology staff

**National survey of urologists to explore current knowledge, attitudes and practice**
- Urologist members of Urological Society of Australia New Zealand (N=157), 45% response rate

**Semi-structured interviews to identify site specific barriers and needs**
- Cancer Care Nurse Coordinators (N=7)
- Radiation Oncologists (N=9)
- Urologist Clinical Leaders (N=9)

**Consumer Feedback**
- Urology Network Consumer Representatives: What patients want from their urologist at prostate cancer diagnosis (N=15)

**Consultation with Cancer Care Action Advisory Group**
- Evaluate feasibility with policy agencies – June 2013
Intervention elements

- Automatic flagging of cases for discussion at MDT meetings
- Individual, hospital, study level referral patterns and treatment uptake
- Video presentation
- Clinical leader
- Summary of guideline and evidence
- Patient-Urologist discussion guide - BEFORE and AFTER surgery
- Automated flagging of cases for discussion at MDT meetings
- Opinion Leaders
- Printed Materials
- Audit & Feedback
- Automated Systems
- Patient-Urologist discussion guide - BEFORE and AFTER surgery
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Printed Materials

Opinion Leaders

Audit & Feedback

Automated Systems
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
References

References


