Austin Bowel Cancer Consortium: changing culture in bowel cancer care

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THE AUSTIN BOWEL CANCER CONSORTIUM focused on managing bowel cancer. This disease exemplifies many cancer care challenges, with multiple episodes of care, a range of treatment settings, involvement of various specialists and other practitioners over months to years, and a heavy psychological burden for patients.

Treatment options have expanded to include adjuvant chemotherapy or radiotherapy in addition to surgery.[1-4] Effective palliative treatment of metastatic disease is also now available.[4-6] More recently, we have seen expanding roles for the cancer nurse and allied health professionals. Management concepts now embrace the multidisciplinary cancer team.

Addressing the problem

The consortium's goal was to identify drivers of the clinical decision-making process so as to inform a continuous practice improvement (CPI) approach to the use of evidence.

Our study used a well-accepted social research method known as action research.[7] A feature of action research is that the researchers are also the participants. As knowledge is progressively gained, this is used to develop new understandings and strategies within the project through plan–do–study–act cycles.

The approach covered investigating clinician work culture, creating an effective multidisciplinary team, integrating medical and surgical disciplines, identifying best practice, identifying consumer concerns and enhancing their input, and creating solutions that span multiple episodes of care. Such multifaceted approaches to system change in cancer care have generally been more effective than approaches that focus on a single strategy.[8]

Our approach was largely qualitative and was not designed to show that evidence-based care leads to improvement in survival or other patient outcomes. Rather, it focused on how to better understand the cancer care system, and the key lessons reflect this.

Program participants

Institutions

The project was undertaken from 2000 to 2002 and involved three hospitals covering the metropolitan (Austin

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ABSTRACT

- The Austin Bowel Cancer Consortium aimed to identify drivers of clinical decision-making so as to inform a continuous practice improvement approach to the use of evidence.

- Strategies for engaging clinicians included a direct clinician–clinician approach, gaining the support of opinion leaders and using the clinicians' desire for patient outcome data.

- Interviews with clinicians identified barriers to using evidence in practice. These included poor integration of medical and surgical disciplines, different learning styles, negative attitudes to guidelines and pathways, and no consensus as to what is an effective multidisciplinary team.

- A clinical implementation group provided a forum for interaction between disciplines. The group agreed on management pathways covering the continuum of care and developed decision-support software for use in the clinic.

- Interviews with patients and carers highlighted psychosocial and communication difficulties and prompted greater clinician awareness. Consumers developed patient information resources with minimal assistance from project staff.

- The clinical encounter is the prime site for change for putting evidence into practice, rather than trying to change individual clinicians.

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and Repatriation Medical Centre, ARMC), regional (Bendigo Health Care Group, BHCG) and private (Warringal Hospital) settings. Doctors and patients were recruited from these institutions. The consortium also included the North East Valley Division of General Practice, the Health Issues Centre (consumer input) and social science researchers from Swinburne University of Technology (clinician interviews and research methods). All consortium members were represented on the project governance group.

Participating professionals

Healthcare professionals participating in the project included specialist doctors involved in colorectal cancer, such as colorectal and general surgeons, medical and radiation oncologists and palliative care physicians. Reimbursement for time spent on the project was available (but was seldom claimed).

The implementation group, which worked on pathways and decision support, was chaired by a colorectal surgeon and included representatives of each relevant discipline, surgeons from BHCG and the private sector, and consumer representatives.

1: A prompt to consider psychosocial issues when informing a patient of a diagnosis of colorectal cancer*

Patient interview
- Take family history and personal history of cancer
- Take psychosocial history
- Assess need for counselling
- Assess coping strategies and mechanisms

Breaking bad news
- Give bad news in a quiet, private place, with a support person if the patient wishes
- Allow enough uninterrupted time in the initial meeting
- Assess the individual's understanding
- Provide information simply and honestly
- Avoid the notion that "nothing can be done"
- Arrange a time to review the situation

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* This is an example of the types of prompts included in the software developed to provide rapid access to evidence and decision support.

Participating consumers

Participating doctors identified patients with colorectal cancer, who were then approached to participate in the project. Patient and carer expenses were reimbursed.

Investigations and interventions

Work culture analysis and survey feedback

All 25 clinicians managing patients with colorectal cancer, and some hospital and project managers, completed initial semi-structured interviews. Questions covered knowledge of and attitudes towards evidence-based medicine (EBM), clinical pathways, guidelines and deviation from guidelines, multidisciplinary care, general work culture, and differences between public and private care.

At project completion, nine of the doctors who had been most actively involved, along with four managers, were again interviewed, and all participating clinicians were surveyed to self-report changes in attitude after involvement in the project.

Consumer involvement and interviews

Thirty-three patients diagnosed with colorectal cancer and nine carers completed semi-structured interviews. Questions covered experiences of care, satisfaction with services, provision and clarity of information, seeking of information from other sources, and knowledge of EBM and guidelines. Twelve consumers also participated in consumer reference groups and two joined the implementation group.

Psychosocial working group

In response to issues raised at interviews, a psychosocial working group was formed to bring clinicians and consumers together, along with social scientists and project staff. This group explored evidence around communication and relationship-building between clinicians and patients, how psychosocial needs of patients and relationship-building

skills of clinicians influence the uptake of EBM, and how best to include psychosocial issues in guidelines and pathways. All agreed that strategies to improve the use of evidence must take account of psychosocial issues, including factors that create the right conditions or psychological space for the clinical relationship to develop optimally.

Translating national guidelines to local management pathways

An implementation group adopted the *NHMRC Colorectal Cancer Guidelines*[4] as the basis for evidence. The group allowed for cross-discipline analysis of research evidence, with input cutting across the usual specialist boundaries. From the guidelines, 12 pathways were developed. These encouraged adherence to what was seen as best practice and sought reasons for variance. In addition, the group decided what patient data to collect for both the project and their specific interests.

At the study institutions there was no agreed standard format for describing findings at surgical operation and communicating these findings to the pathologist. A proforma was developed for surgeons to detail operative findings to assist pathologists in cancer staging.

Information tools designed for use in the clinic

The inability to rapidly access evidence in the clinic was seen by clinicians as a major barrier to adopting EBM. To address this, software was developed (for both personal computers and personal digital assistants) to allow data collection and monitoring of pathway adherence, and to provide clinical decision support, based on the NHMRC guidelines. Psychosocial prompts were included at key points, such as at diagnosis of malignancy (Box 1).

The program results

Clinician work culture

Initial interviews with the 25 clinicians[9] highlighted several issues:
- a tendency to work within their own craft groups;
- differing models of training (master/apprentice, scientific/research, peer agreement, learning from experience). Craft groups tended to have their own model or mix of models (eg, master/apprentice model in surgery);
- tension around the nature of the primary task: to treat colorectal cancer, or to treat the patient with colorectal cancer. This was expressed also as tension between clinical and research focus or private and public system care;
- an opinion (expressed by all specialists) that experienced specialists do not need to refer to guidelines;
- a wariness of guidelines and clinical pathways as devaluing clinical experience;
- differing views on the best multidisciplinary care model, varying from an informal network of clinicians to a formal integrated team including nursing and allied healthcare services.

Follow-up interviews with nine clinicians identified a positive response to the software that had been developed, heightened recognition of the patient as a person, and a recognition of the need for a more integrated treatment system across disciplines with inclusion of cancer support nurses.

Clinician survey results

Survey forms were sent to 35 doctors. Replies were received from 30 (86%; 20 ARMC, 10 BHCG).

Attitudes after participation in the project were more positive for up to 50% of the doctors surveyed. Few doctors had more negative attitudes after participation (Box 2).

Several clinicians commented that they already had such a positive attitude before the project that this could not be improved on. Thus, the survey probably underestimated positive attitude change. This might explain the discrepancy between only six clinicians reporting more positive attitude towards the psychosocial needs of patients and other observed evidence, including follow-up clinician interviews reporting heightened awareness of the patient as a person, and support from clinicians for inclusion of prompts to consider psychosocial issues at key points of the pathways.

Twenty-seven clinicians agreed the software that was developed reflected best practice and current information, and 20 considered that the software, along with feedback of data and variance, would potentially benefit patient management. Just under half the doctors considered the software useful in their own practice, but more than three-quarters considered that nurses or junior medical staff would benefit from it.

Differences in healthcare settings

ARMC and BHCG

At the initial interviews, similar views were expressed by BHCG and ARMC clinicians. However, at completion, BHCG clinicians tended to report less favourable changes in attitudes as a result of involvement in the project. For example, more positive attitudes to multidisciplinary care were reported by 9 of 20 ARMC clinicians compared with 2 of 10 BHCG clinicians, and more positive attitudes to clinical pathways were reported by 12/20 at ARMC compared with 2/10 at BHCG.

Three important possible reasons for these differences are failure to engage BHCG clinicians (especially surgeons) during the tendering and project design stages; less intensive involvement of BHCG clinicians because project activity tended to focus on the ARMC site; and that, for much of the project, there was no medical or radiation oncologist practising at BHCG, so it was not possible to establish a local multidisciplinary team.

In retrospect, more effort should have been made to include BHCG clinicians at an early stage and to encourage more active involvement to foster "ownership" of the project.

Public and private

The intention was that the project would be implemented in both the public and private systems. However, the actual extent of involvement of the private sector was limited. This was partly because the private system is in fact two systems: the private rooms of the clinician where patients are seen and management decisions made, and the private hospital, which functions as a provider of beds, nursing staff and operating theatres and has little influence over medical practice.

We found it difficult to successfully engage some of the clinicians predominantly engaged in private practice. In addition, changes in private hospital senior administrative staff during the project resulted in the private sector having successively less senior representation on the governance group.

Results of consumer interviews

The interviews of patients and carers highlighted a range of issues.[10] These included:

- a general appreciation of the efforts of healthcare staff;
- frequent poor communication (eg, breaking bad news in an insensitive way);
- inadequate information (eg, bowel management after surgery);
- not knowing what questions to ask, or being too afraid to ask;
- no awareness of the existence of NHMRC colorectal cancer consumer guidelines,[11] although all the consumers requested a copy when told of their existence.

Follow-up interviews indicated that most consumers gained support from meeting with peers and valued constructive dialogue with clinicians about system improvements.

The consumer reference groups produced a "patient pathway" for surgery, a set of questions to ask doctors, and resources for public education about warning signs for bowel cancer.

2: Clinician survey at project comletion: self-reported changes in attitude of doctors due to involvement in the project			
	More positive	No change	More negative
Multidisciplinary care (n = 26)	9 (35%)	17 (65%)	0
Clinical pathways (n = 30)	14 (47%)	11 (37%)	5 (16%)
Collection of patient data (n = 30)	15 (50%)	8 (27%)	7 (23%)
Analysis of variance in treatment (n = 24)	10 (42%)	13 (54%)	1 (4%)
Consumer perspective (n = 30)	15 (50%)	14 (47%)	1 (3%)
Psychosocial needs of the patient (n = 30)	6 (20%)	23 (77%)	1 (3%)
Cancer support nurse role (n = 30)	10 (34%)	20 (66%)	0

> ### 3: Do's and don'ts in pathways and decision support
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> **Do**
> - Effectively engage clinicians as a first step.
> - Encourage "ownership" of the evidence through local discussion and review, even if a national guideline is to be followed.
> - Seek wider clinician review and feedback at multiple steps.
> - Ensure the system is quick and easy to learn and use.
> - Ensure that decision support will be relevant to the audience.
> - Ensure the decision support information is current and is updated.
> - Ensure that there is provision for ongoing maintenance of any system, such as troubleshooting software and computer problems, control of data quality and provision of reports.
>
> **Don't**
> - Include too much information or collect too much data.
> - Add unacceptably to clinician workload.
> - Underestimate the time, frustration or cost of developing custom software. Try simple solutions initially, such as paper-based systems — perhaps with electronically scannable forms, as they may be adequate.
> - Assume doctors will directly enter data into a database.
> - Assume that doctors are familiar with computers or can be encouraged to use computers for only one aspect of their work.
> - Assume that personal digital assistants will be accepted — hardware solutions need to fit the interests, clinical practice and preferences of individual clinicians.

Key lessons[12]

There were five key lessons regarding the encounter between clinician and consumer, and the use of evidence and experience.

■ The clinical encounter (system-wide and involving both clinicians and consumers) should be the site of change for putting evidence into practice, rather than attempting to change individual clinicians.

■ Evidence is relevant to all involved in the clinical encounter. Consumer interviews highlighted the need for improved communication and provision of information. Feedback from consumers constitutes another source of evidence in the clinical encounter.

■ Clinical decisions are made on the basis of both evidence and experience.

■ Different clinical craft groups learn about evidence and how to incorporate it in practice in different ways, and these styles of learning influence work cultures. Styles of learning should be taken into account when designing change strategies (eg, the importance of engaging the senior "master" surgeon in a master/apprentice work culture).

■ Clinicians interpret and filter evidence through a series of work cultures. Knowledge of the patient as "person" also acts to filter the use of evidence.

Regarding enhancement of cross-disciplinary collaboration and development of strategies to increase use of evidence and CPI, we learned that:

■ Bowel cancer treatment has tended to be delivered in silos rather than through cross-discipline collaboration. Collaboration can be increased by forums and systems that increase familiarity with evidence from other disciplines.

■ The task of developing pathways and software together was an opportunity to foster cross-discipline collaboration. Clinicians can and will promote change given suitable support and assistance.

At the end of the project, a large proportion of clinicians reported more positive attitudes to pathways, patient data collection and identification of variance, as well as greater appreciation of the consumer perspective. A high proportion of clinicians supported the potential of software (a CPI strategy) to improve patient outcomes, but their own main interests were around data collection and identification of variance rather than decision support. Patient outcome data are a "carrot" to encourage participation in system change. These shifts in attitude are examples of "building capacity" in system change. We have shown that as the system learns then the system changes. This happens as the human members of the system increasingly are able to do something they could not do before.

We also learned that, for project design, there is a need to assess a system's capacity for change at the outset and match it to the project. This was highlighted by difficulties experienced in engaging the private system. Another important lesson is that key project participants should be involved as early as possible, preferably at the project design stage. Failure to get early engagement and ownership reduced success of the project at one site. Further tips on implementing pathways and decision support are presented in Box 3.

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