

Interactive technology aims to deliver evidence-based breast cancer education to health professionals in rural Australia

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Kevin Comlossy is a senior project officer at the National Breast and Ovarian Cancer Centre. Kevin has been working in health since 2006. She has lead the development of online cancer education programs for health professionals in rural and remote Australia and has a particular interest in using innovative technology to improve access to information. Kevin is currently part of a team delivering a national program to improve breast cancer care in rural areas of Australia.

Background

In Australia, approximately 30 per cent of women diagnosed with breast cancer live outside a major metropolitan city. In addition to their cancer diagnosis, these women face challenges such as geographic isolation and limited contact with specialist health care workers which may impede access to the full range of treatment options and support services.

Concurrently, only 10 per cent of physicians live outside of metropolitan areas, with the majority being generalists rather than specialist clinicians.¹ Rural health professionals often experience professional as well as geographical isolation, with disincentives to practicing in rural areas including reduced opportunities for education and mentoring as well as issues with workforce retention.^{1,2}

Rural health professionals have a vital role to play in both the provision of information and the delivery of best practice care for women in these areas diagnosed breast cancer. In order to provide breast cancer care, it is essential for rural health professionals to have access to evidence-based information about all aspects of breast cancer diagnosis and treatment, including the latest advances. However, obstacles often prevent rural health professionals from accessing traditional models of continuing education due to the often vast distances required to travel for education, difficulty in obtaining locum support to leave their communities, and on-call and outreach commitments.¹

Technology provides an opportunity to overcome barriers to ongoing education through the delivery of flexible and interactive training sessions for rural health professionals within their local communities. Over 95 per cent of non-metropolitan physicians have access to the Internet either at home, hospital or in their practice.¹

Extending information for rural health professionals is a project undertaken by National Breast and Ovarian Cancer Centre (NBOCC), which aims to provide rural health professionals with evidence-based breast cancer information utilising innovative technology. This is a project of the *Supporting Women in Rural Areas Diagnosed with Breast Cancer Program*, funded by the Australian Government and delivered collaboratively between NBOCC and Breast Cancer Network Australia.

Aim

To use innovative technology to increase access to professional development opportunities in breast cancer care for health professionals in rural Australia.

Methods

Technology

A multifaceted approach to delivering educational activities was undertaken utilising three types of technology. Activities comprised:

- **Self-administered online modules** aimed to provide education to rural health professionals which could be accessed in their own time. In order to do this, the three online modules are composed of expert lectures (including voiceover lectures and PowerPoint slides), resources (e.g. NBOCC guides, clinical

practice guidelines, consumer resources etc), online discussion forums, and evaluation surveys were developed online for health professional to access at no cost.

- **Satellite/web broadcasting** utilised established satellite broadcast networks of the Rural Health Education Foundation as well as simultaneous web-casting to deliver two programs on breast cancer care to large audiences of rural health professionals across Australia.
- **Live virtual classrooms** were delivered utilising innovative software called Elluminate. This software enables live sessions to be held with presenters and participants ‘attending’ the session from their own computers in the home or office. This dynamic learning environment promotes engagement and interaction between the presenter and participants. Live sessions were also recorded and available for web-streaming after the real-time event.

The chosen technology aimed to enable rural health professionals to access information on the full spectrum of care for women with breast cancer through the use of multiple learning modalities including self sufficient and interactive learning for health professionals working in rural areas who would otherwise have to travel long distances to access continuing education opportunities. Access to the ‘live’ interactive sessions, including satellite/web broadcasts and virtual classrooms, are available online via web-streaming following initial implementation to enable ongoing access to the education activities.

Content

The educational content was developed using a systematic approach, commencing with the establishment of a Rural Health Professional Advisory Network (Advisory Network); members were invited to provide input to the project via online surveys, telephone conversations, and contribute expertise through presenting information, where possible. A needs analysis was conducted to assess the breast cancer education priorities for health professionals in rural and remote Australia through surveying the Advisory Network as well as rural general practitioners. The results from this analysis informed the selection of education topics.

Session content was developed and presented by breast cancer specialists and incorporated the use of NBOCC clinical practice guidelines, case studies and practical information for the management of breast cancer. Advice was sought from rural health professionals regarding incentives for participation and subsequently accreditation from professional colleges was successfully secured for all activities.

Promotion and recruitment

Health professionals were recruited to participate in all education activities using a variety of mechanisms. With the target audience being general practitioners and nurses working in rural areas, recruitment activities largely focused on these health professionals. Participant registration was monitored through online databases which collected demographic information and participation in all activities was tracked. Technical support, where required, was provided by collaborator organisations.

Evaluation

Evaluation was a key component of this project to assess feasibility and acceptability of the delivery technology and the impact of the education on participants’ knowledge and clinical practice and to identify additional areas of interest for rural health professionals in breast cancer care. Online evaluation surveys were developed and incorporated into delivery platforms for completion prior to education sessions and immediately following sessions, with a final survey emailed to participants six to eight weeks after completion of education sessions.

Results

The following activities were successfully delivered:

- Three online modules:
 - Breast cancer diagnosis—what now? presented by Dr Geoffrey Beadle and Dr Tony Green
 - Breast cancer treatment—managing the impact, presented by Dr Jane Turner
 - Breast cancer treatment is over—what’s next? presented by Dr Julie Thompson

- Two satellite broadcasts:
 - DCIS: Is it cancer, doctor?
 - Secondary breast cancer: Finding breast cancer outside the breast
- Nine virtual classroom sessions on three topics, with five sessions remaining:
 - Breast cancer in the family
 - Following breast cancer treatment: the role of the primary care team
 - When breast cancer has progressed: the role of the general practitioner.

Overall, evaluation results show high levels of user demand for all of the education sessions, regardless of delivery mode. Free responses from participants to post-session surveys are encouraging:

Good probably doesn't accurately describe the session. Far outranks a teleconference.

Very good, participating in a good quality education [session], and not having to travel 100kms.

This is a great way to encourage further education, would be happy to participate in future education sessions.

Evaluation results in key areas demonstrate the success of the education activities, as highlighted in the sample results:

- **Acceptability, access to and suitability of the delivery technology.** Respondents to the post-session survey for the online module *Breast cancer diagnosis—what now?* indicated that their experience using the technology was good (88 per cent on a three point scale). Eighty-four per cent of these respondents indicated that they were confident using online technology and 96 per cent of respondents indicated that they would participate in another online education session. Comments from respondents to the education delivered via virtual classroom were also positive:

That was fun and educational at the same time. This is a great opportunity especially when you are so isolated (remote) as most education sessions are held in major cities, making it hard to get to as well as expensive. I would love to participate in more of these sessions.

A useful update on current practice. I am much better placed to counsel patients on the rationale for their treatments.

- **Relevance to clinical practice.** The majority of respondents to the post-satellite broadcast / web-cast education activities indicated a high level of relevance ('very relevant') for both programs (64 per cent for *Secondary breast cancer: finding breast cancer outside the breast* and 67.5 per cent for *DCIS: Is it cancer, doctor?*).

The majority of respondents (85.7 per cent) indicated that the DCIS program '*fully met*' their learning needs. The secondary breast cancer program had similar response results to this question, with 78.6 per cent of respondents indicating that their learning needs were '*fully met*'.

- **Impact on learning and clinical practice.** Learning objectives for all activities were utilised to measure the impact of the education on learning and clinical practice. Results from the pre-session and post-sessions surveys show improved confidence against all learning objectives and all activities.

Conclusion

The effective utilisation of technology promotes access to quality accredited education opportunities for health professionals in rural areas without the need to travel. Better access to continuing professional education for health professionals has the potential to improve the provision of care for women with breast cancer in rural areas of Australia.

References

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