

Active Breathing Coordinator (ABC)

This technology was funded through the New Technology Funding and Evaluation Program (NTFEP). The NTFEP funds the introduction and evaluation of new technologies that:

- ✓ Are safe and effective
- ✓ Provide better health outcomes
- ✓ Provide value for money
- ✓ Provide greater access to care.

The evaluation findings will inform recommendations regarding the future use and/or investment of the technology within Queensland.



What is the technology?

The Active Breathing Coordinator (ABC) is a device that assists patients maintain a deep breath during radiation therapy treatment for breast and other cancers. One negative side effect of radiation therapy is that normal surrounding tissue and organs receive unnecessary radiation dose. In the instance of breast radiotherapy, it can be the heart and lung that is affected. During a deep breath, the heart moves away from the breast and chest wall thereby reducing the amount of heart tissue within the treatment area. Because the heart receives less radiation, the amount of damage to the heart is reduced and the long term health outcomes of these patients are improved.

What were the evaluation findings?



The average radiation dose received by the heart was reduced by 62% (down to 1.3 Gray)



The average radiation dose received by the main artery of the heart was reduced by 42% (down to an average maximum dose of 15.5 Gray).



ABC was well tolerated by patients and most were comfortable using the device.



During the evaluation, the ABC device was used more and more during radiation therapy treatment of some breast cancer.



Radiation Oncologists are expanding the use of ABC during radiation therapy for the treatment of other cancers which are affected by breathing motion.



Patients were excited that ABC was likely to improve their long term quality of life.

Where was it evaluated?

Radiation Therapy Services, Princess Alexandra Hospital

Want more information?

secretariat_hta@health.qld.gov.au