

RAH cancer patient's Radiotherapy dosing errors

Treatment: cancer patients given wrong dose
 Hundreds of cancer patients received the wrong dose of radiation treatment because hospital equipment was improperly set. The Royal Adelaide Hospital was last night scrambling to advise up to 720 cancer patients that they had received less radiation therapy than they were supposed to. In some cases, this amounted to a 5% reduction in the prescribed treatment. The mistake - which had the potential to be life-threatening for some patients, according to the Australian Medical Association - happened when one of the hospital's four linear accelerators was wrongly calibrated between 2004 and 2006. The hospital, while aware of the error, moved only yesterday to contact affected patients and inform them there would be a review of each of their cases.
 RAH management believed at the time that there had been a minimal impact on the effectiveness of treatment. Concerns have since been raised about their conclusion.
 SA Health chief executive Tony Sherbon said it was possible that cancer patients who had received treatment during that period had since died. "If you've got 720 cancer patients, invariably some have passed away, but we are not seeing any unexplained increases in cancer deaths," Dr Sherbon said. "I have no evidence before me now that any patient has suffered an adverse reaction at this stage."
 AMA South Australian branch president Peter Ford said it would be obvious that some cancers had been adequately treated - such as skin cancers - but treatment on internal organs was harder to quantify. "Organs are not visible and it may not be apparent until years later," Dr Ford said. "If you were treating a primary cancer in the prostate or breast then 5% may be of importance."
Weekend Australian, 26/7/08, p7; Adelaide Advertiser, 26/7/08, p11

It is disturbing but perhaps timely that this incident has come to light while the Cancer Clinical Network Radiotherapy Working Group is in the process of developing Key Performance Indicators. Consumers had assumed that technical safety and calibration procedures were well established. This has eroded confidence in existing quality assurance systems and is a wake-up call to assume nothing and question everything.

Questions

'Learning from mistakes to build a fail-proof system'

- How was the problem identified in July 2006?
- What error occurred? Was it the incorrect recalibration? How frequently are the machines checked? Did an error pass unnoticed in subsequent checks?
- What was done in July 2006 to identify and then rectify the error?
- Could a similar problem still occur again, either at the RAH or any other hospital in the private or public sector?
- Who monitors the 'Radiotherapy Quality Assurance' on a statewide or national level?

About the radiotherapy patients:

- How do you know which patients were treated on that particular linac machine?
- How will you (a) track down all those patients, (b) assess their outcomes in relation to the radiotherapy treatment and (c) check any subsequent cancer relapses?
- How can we restore confidence that effective quality and safety systems are now in place?

Draft Recommendations

Human error invariably contributes in situations such as this, but systems should be in place to ensure

- adequate training (to understand the technology, equipment and potential adverse consequences of any mistakes)

- adequate supervision,
- quality control monitoring systems
- with 'alert warnings' to flag 'out of range' as well as 'borderline' recordings
- independent verification systems
- 'Near-miss' and error reporting systems with change of culture so all incidents are reported straight away and are dealt with immediately..

Cancer Voices SA (CVSA) calls for

- refocussing attention to ensure uniform safety, quality and instrument performance procedures are in place across public and private cancer treatment facilities in South Australia, consistent with best practice procedures at the international level.
- Transparent reporting of regular maintenance and calibration checks should be included in a KPI dashboard and accessible to consumers.
- We need to learn – not only from this incident - but also ensure lessons from errors occurring elsewhere are heeded and incorporated into quality assurance checks.

Cancer Voices SA Executive, July 2008