

# SAFETY BULLETIN



**CPQR**  
Canadian Partnership for  
Quality Radiotherapy  
**PCQR**  
Partenariat canadien pour  
la qualité en radiothérapie

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## Brachytherapy non-metallic intrauterine tandem break in patient

**Target Audience:** Healthcare professionals (medical physicists, radiation therapists, radiation oncologists) involved in the preparation, delivery and administration of brachytherapy; leaders of radiation oncology departments; professional practice leaders.

**Key Issue:** Tandem break inside patient's uterus detected while performing reconstruction on MR image.

### Background Information

A cancer centre in Canada had a 6.0 cm, non-metallic, CT/MR compatible brachytherapy intrauterine tube tandem break inside a patient's uterus during a brachytherapy procedure. It was noticed that the tandem lumen in the MR image appeared dislocated and discontinuous. A marker inserted into the tandem also appeared to show signs of blood. The incident was submitted to the National System for Incident Reporting – Radiation Treatment (NSIR-RT) (Case ID 898895290) and the provincial agency involved requested dissemination to the Canadian radiotherapy community. CPQR agrees that the incident warrants dissemination to cancer programs across the country.

While the investigation into this incident is ongoing, and additional details may not be available for some time, CPQR is providing the following recommendations to help programs reduce the risk of such incidents occurring within their centres.

### Healthcare Professionals are advised to:

- Ensure that their medical physics checks align with the tests included in the [Technical Quality Control Guideline for Brachytherapy Remote Afterloaders](#), in particular mechanical integrity tests done quarterly or at the time of equipment replacement, or equivalent.
- Ensure that use and handling of brachytherapy equipment complies with manufacturer guidelines, in particular those pertaining to life expectancy, handling and sterilization.
- Conduct a visual inspection of equipment after sterilization.
- Report all incidents to their hospital incident reporting program and administration as per their hospital's policy. CPQR also encourages reporting to NSIR-RT.
- Report any concerns with intrauterine tube CT/MR brachytherapy tandems or other brachytherapy equipment to the manufacturer.

### Disclaimer

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