

Lost Instrument: Imaging in the Operating Room

Purpose

To provide medical imaging technologists with a procedure to select the appropriate medical imaging (MI) equipment to locate lost instruments following a surgical count discrepancy for a patient in the operating room (OR).

Site Applicability

This procedure is applicable to all Medical Imaging (MI) departments within Fraser Health (FH), Providence Health Care (PHC), Provincial Health Services Authority (PHSA) and Vancouver Coastal Health (VCH).

Practice Level

Profession	Responsibilities
Technologist	Use correct imaging equipment
Radiologist	Available for consult with the surgeon

Need to Know

Radiography is the modality of choice over fluoroscopy.

Radiography	Fluoroscopy/Radioscopy (e.g. C-Arm)
Creates a single high quality projection image	Creates images in real-time
Better resolution: superiorly distinguish small foreign object boundaries	Lower quality resolution: unable to distinguish small foreign object boundaries as well as radiography.
Ability to adjust the radiographic imaging technical factors to optimize the contrast between the foreign object and surrounding tissue.	Radioscopy does not allow fine adjustments of radioscopic imaging technical factors

Procedure

Prior to performing imaging for a lost instrument, the radiographer will ensure:

- The requesting provider is an [authorized individual](#).
Note: In addition to physicians, RNs may initiate requests for imaging of lost instruments in the OR in VCH.
- Exam is appropriate
- Mobile radiography and C-Arm equipment are appropriately deployed

Radiography for imaging a lost instrument is used in all situations with the exception of the following where fluoroscopy (e.g. C-Arm) may be used.

- The surgeon is already using a C-Arm that is currently in position and draped to avoid contamination of an open sterile field and reduce risk to patient.
- All mobile radiography units in the department are out of service.
- The object in question is large, with a high density (<5mm in size and metallic)

Radiographers:

1. Select appropriate imaging system
2. Acquire an appropriate image (either AP or Lateral) with a DR mobile machine, of the area in question
3. Send image(s) to the picture archiving system (PACS)
4. Call radiologist to provide a 'preliminary report', when required
5. Perform additional imaging when requested by the radiologist
6. If the physician requires an extra view, the initial view should be checked with a radiologist prior to acquiring a second view
7. Document name of radiologist consulted for image review
8. Complete the examination details in the radiography information system (RIS) and the Picture Archiving System (PACS) as per the department processes

References

The College of Physicians & Surgeons of BC, Diagnostic Accreditation Program.

<https://www.cpsbc.ca/accredited-facilities/dap/accreditation-standards-DI>

Health Canada. Safety Code 35: Safety Procedures for the Installation, Use and Control of X-ray Equipment in Large Medical Radiological Facilities <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-35-safety-procedures-installation-use-control-equipment-large-medical-radiological-facilities-safety-code.html>

College of Registered Nurses of British Columbia. "Scope of Practice for Nurse Practitioners: Standards, Limits and Conditions." [Section 6 restricted activities \(bccnm.ca\)](https://www.bccnm.ca/section-6-restricted-activities)

Health Professions Act; NURSES (REGISTERED) AND NURSE PRACTITIONERS REGULATION

BC Bylaws: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/284_2008

Surgical Count Discrepancy and RN initiated Radiography Requests (X-rays) for Count Reconciliation.

<http://shop.healthcarebc.ca/vch/VCHDSTs/D-00-12-30391.pdf>

Definitions

“Mobile” means use of a mobile x-ray machine

“Radiographic Equipment” means Diagnostic X-ray equipment that implements a technique in which the information contained in the X-ray pattern is obtained, recorded and optionally processed

“Radioscopic Equipment” means Diagnostic X-ray equipment that implements a technique in which continuous or periodic sequences of X-ray patterns are produced and simultaneously and continuously displayed in the form of visible images. Fluoroscopic equipment is another commonly used term and includes radio fluoroscopy, fluoroscopy, and C-Arm equipment

PROCEDURE

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