TECHMED HEALTH

CT Sterile Drape

The Worlds First Sterile Drape

The Problem

Infection Due to Interventional Procedures

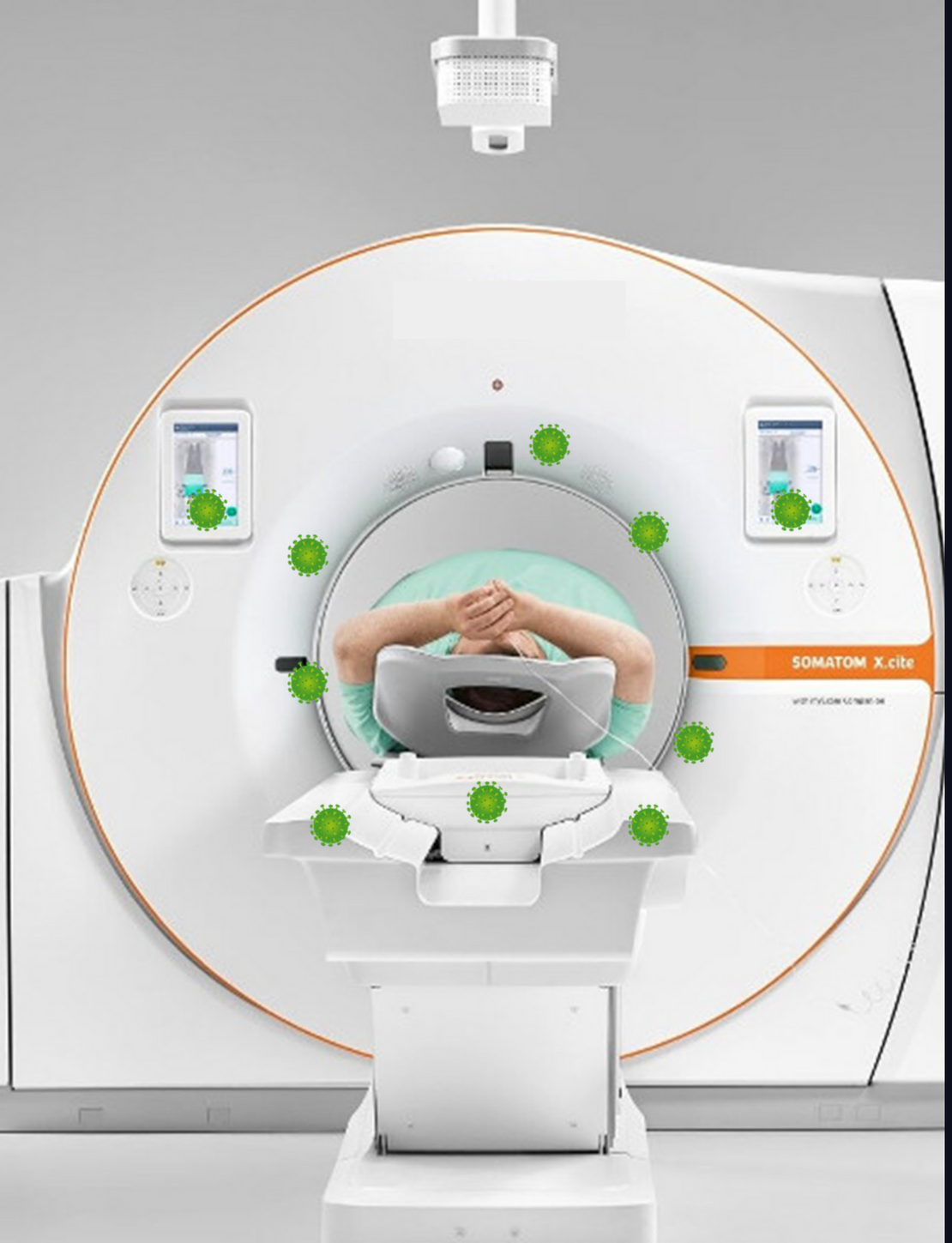
Insertion site infection after an interventional procedure is one of the major causes of Healthcare-associated infections in Interventional Radiology.

The incidence of such infections is 4.3/100 interventional procedures.

In the majority of cases, a causative organism is not identified.

Patel IJ, Davidson JC, Nikolic B, et al.; Standards of Practice Committee of the Society of Interventional Radiology. Addendum of newer anticoagulants to the SIR consensus guideline. J Vasc Interv Radiol. 2013;24(5):641–645

Sertic, M., Parkes, L., Mattiassi, S., Pritzker, K., Gardam, M., & Murphy, K. (2019). The efficacy of computed tomography-guided percutaneous spine biopsies in determining a causative organism in cases of suspected infection: a systematic review. Canadian Association of Radiologists Journal, 70(1), 96-103.



CT Scanner Environment

- More than 50 patients per day are scanned
- Patients touch multiple areas of the scanner during their procedure
- Patients are mostly sick and carry a lot of diseases through touch and breathing
- Due to workflow and high patient throughput, scanners are not cleaned properly between patients
- Handwashing by HCP is not 100% either and thus cross-contamination occurs between patients and staff

- During CT Interventional procedures, the operator can inadvertently touch infected surfaces and cross-infect the current patient

- Devices can also touch infected surfaces and when inserted into the patient act as a transmission route to cross-infect the patient

- The laser guide light can be obscured by current drapes making it difficult for the operator to place devices in the correct pace and orientation increasing time

- Clean up of CT gantries after the procedure ends is very time-consuming and is not always optimal with risk to staff

Breach of Sterility During Procedures

Organisms Transmission

Direct Contact

- Ebola
- Hepatitis B
- Hepatitis C
- HIV
- Herpes simplex
- Rabies
- Varicella-zoster
- Bacillus anthracis

Indirect Contact

- Ebola, norovirus,
- Respiratory syncytial virus,
- Varicella-zoster virus
- Clostridium difficile
- Methicillin-resistant
- Staphylococcus aureus,
- Pseudomonas aeruginosa
- Vancomycin-resistant
- Enterococcus species

Droplet

- Ebola
- Adenovirus
- Influenza
- Rhinovirus
- Severe acute respiratory syndrome coronavirus
- Bordettela pertussis
- Group A streptococci
- Mycoplasma pneumonia
- Neisseria meningitidis
- Staphylococcus aureus

Airborne

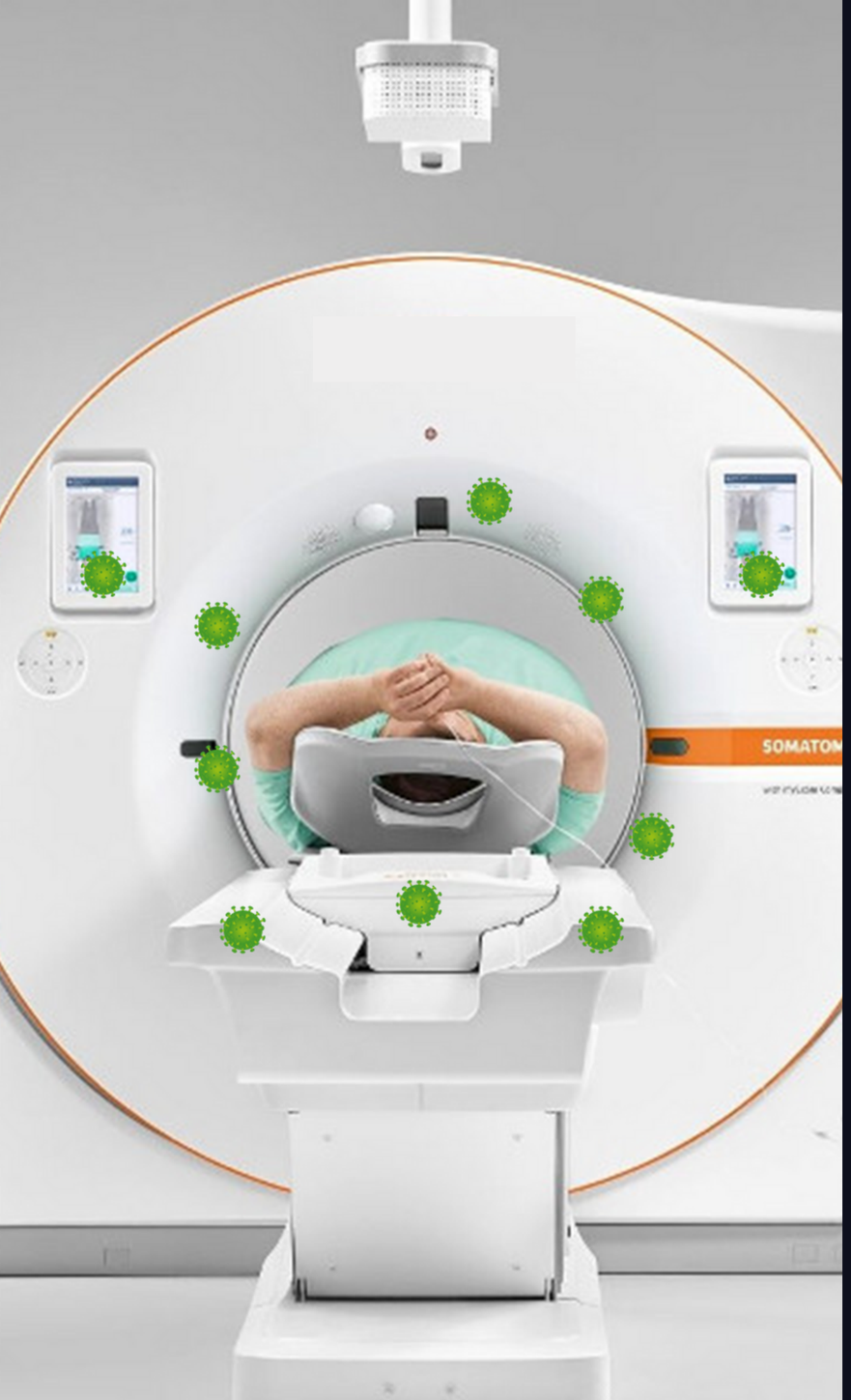
- Influenza
- Measles
- Norovirus
- Severe acute respiratory syndrome coronavirus
- Varicella-zoster virus
- Mycobacterium tuberculosis
- Aspergillus species

Amer, F., & Rosenthal, V. Infection Prevention and Control in the Radiology Department/Service.

The Solution

World's First Sterile Drape

- Unique design for use during CT Interventional procedures that use devices such as needles, wires, biopsy and drainage devices inserted into the body for minimally invasive treatment and diagnosis
- Keeps the operating field sterile to stop cross infection of the patient and to protect the CT gantry from ingress of body fluids during procedures
- USP allows laser guide light to be visualized during interventional procedures unlike other drapes in the market
- Product is designed to fit any CT gantry, and to be placed to create a fluid proof sterile barrier with unique folding design
- Absorbent surface and collection bag which can hold up to 1 liter of fluid



Potentially Eliminate Most Transmission and Post Operative Complications

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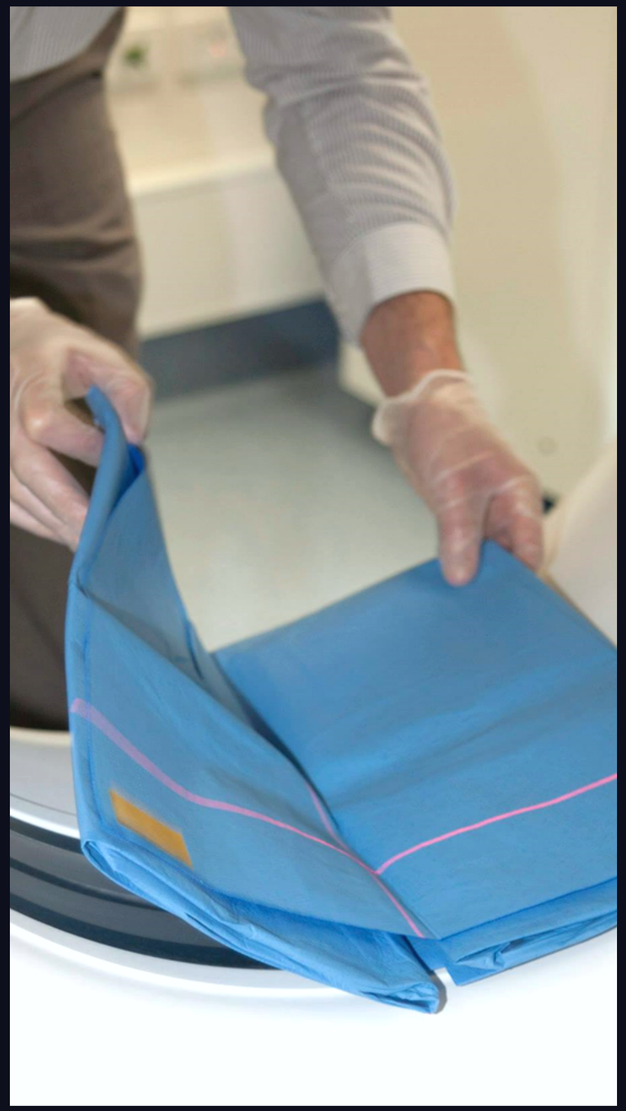
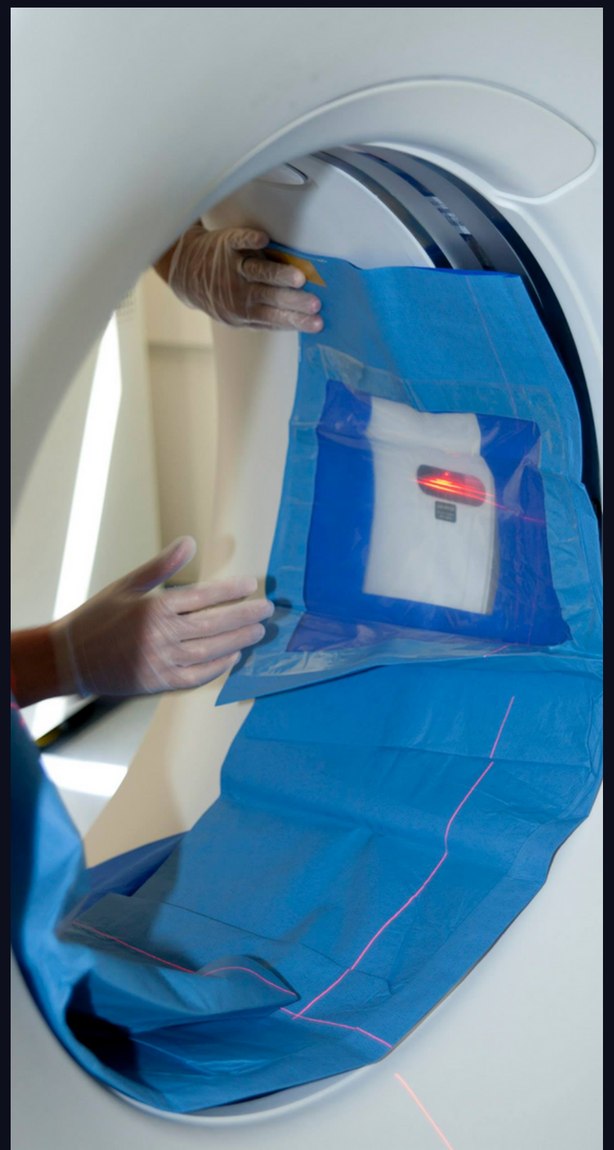
Drape Prevents Organisms Transmission





Single Person Installation

4-Step Approach

Can be used on Routine Imaging

- Save up to 15 minutes per patient on wiping down the gantry
- Save on time of radiographers and nurses with more than 4 hours of time wasting per day
- Increase throughput and revenue
- Reduce hours of cleaning time in multi-trauma patients with blood and contrast media
- Prevent further blood seeping on to the imaging detector which reduces downtime of the CT scanner


Safer Environment
Increase Revenue
Save Time
Increase Patient Throughput
Reduce Infections

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Thank You