



# Safety Information 001/20

13 January 2020

## Use of linen in radiological procedures - potential artefact

### Distributed to:

- Chief Executives
- Directors of Clinical Governance
- Director Regulation & Compliance Unit

### We recommend you also inform:

- Radiology Networks
- Radiology Heads of Departments / Units
- Angiogram suites
- Nurse/Midwifery Unit Managers
- Nursing/Midwifery Staff
- Directors of Nursing and Midwifery
- Directors Allied Health
- Relevant Allied Health staff
- Managers of Linen Services

### Expert Reference Group

#### Content reviewed by:

- HealthShare NSW
- Clinical Excellence Commission

#### Consultation:

- Agency Clinical Innovation

### HealthShare NSW

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Email:  
[HSNSW-patientsafety@health.nsw.gov.au](mailto:HSNSW-patientsafety@health.nsw.gov.au)

Internet Website:  
<https://www.health.nsw.gov.au/sabs/Pages/default.aspx>

Intranet Website  
<http://internal.health.nsw.gov.au/quality/sabs/>

### Review date

June 2020

### Blue blankets

Concerns were raised to HealthShare NSW regarding the use of blue synthetic blankets during x-ray procedures, including mobile x-ray, general x-ray, fluoroscopy and angiography as they may result in artefacts presenting in the image. These artefacts may be interpreted as pathology and may impact patient clinical assessment and outcomes.

The use of any blankets and bed linen during imaging may result in artefact in images. However, the previously used white blankets had a noticeable 'cross hatched' pattern which allowed clinicians to detect the presence of the blanket while reviewing and reporting on images. The blue blankets do not have any distinguishing features to alert to their presence.

### Linen Radio Frequency Identification Device (RFID) tags

It has been identified that the RFID tags in some patient gowns, pillow cases, and sheets also have the potential to result in artefact during imaging.

### Testing and assessment

Testing was undertaken to investigate the use of blue synthetic blankets during radiological procedures compared to the use of white cotton blankets.

The testing confirmed that the blue blanket was more likely to present a non-uniform image, particularly at the point where blanket fold lines appeared. This makes it difficult to delineate the synthetic blue blanket artefact from the underlying patient pathology. The level of artefact increased with multiple layers or folds in the blanket.

This has the potential to result in clinical errors and compromised patient outcomes.

### Action

Blue synthetic blankets will be removed as an order item for all imaging departments across NSW Health. White cotton blankets will be offered as an alternative interim solution to be used in imaging departments as required.

As blue synthetic blankets are used and returned to HealthShare NSW Linen Services from radiology departments, these will be replaced with white cotton blankets through the normal ordering processes via Linenweb.

Due to the increased risk in Radiology departments, their linen supplies are being addressed in the first instance whilst a longer term solution is sourced.

### Clinical recommendations

- Where possible, remove or minimise linen from imaging field during any radiological procedure, including mobile x-ray, general x-ray, fluoroscopy and angiography
- If blankets or covers are required, do not use blue blankets and ensure minimal folds, bunching or creasing of the covering to reduce artefact

**For any questions regarding this change, contact: Customer Service Team, Linen Services on 1300 477 546 or [HSNSW-LinenOrders@health.nsw.gov.au](mailto:HSNSW-LinenOrders@health.nsw.gov.au) . Alternatively contact: Deborah O'Toole, Manager, Linen Customer Relationships m: 0402 251 333 [deborah.otoole@health.nsw.gov.au](mailto:deborah.otoole@health.nsw.gov.au)**

### Suggested actions by Local Health Districts/Networks

1. Forward information to appropriate areas for information and action.
2. Ensure a system is in place to document actions taken.