

APPENDIX 3M

LOT 13 SPECIFICATION

SPECIMEN CABINETS AND ASSOCIATED OPTIONS AND RELATED SERVICES

1. Introduction

- 1.1. This Lot is for the supply, installation and commissioning of digital specimen cabinet X-Ray systems; self-contained cabinets with a control console designed to contain surgical and biopsy specimens such as breast biopsy samples and Pathology samples.
- 1.2. The core product line within this Lot is a digital X-Ray specimen cabinet.
- 1.3. Product line(s) must be supplied with a minimum 7 year expected lifecycle under proper use and maintenance.

2. Digital X-Ray Specimen Cabinet

- 2.1. The cabinet must support relevant DICOM service classes. The DICOM conformance statement must be supplied. Any DICOM conformance claimed therein is assumed supplied and enabled.
- 2.2. The X-ray generator must be able to provide energies up to 25kVp (Peak Kilo voltage) for biopsy and up to 35kVp for surgery / pathology.
- 2.3. The cabinet must include automatic exposure control to optimise image quality.
- 2.4. The focal spot size of the X-ray tube must not affect spatial resolution.
- 2.5. The nominal spatial resolution shall be 10 line pairs/mm (contact imaging or with 1.4x magnification).
- 2.6. The cabinet must have a digital detector with a nominal active area of at least 3cm x 7cm.
- 2.7. The unit must have an emergency stop button which terminates the exposure in the unlikely event that the AEC fails to terminate the x-ray beam.
- 2.8. The unit must have a safety interlock which prevents an exposure from being initialised when the door or tray is open. This interlock must also terminate the beam if the door or tray is opened during an exposure.
- 2.9. The unit must have appropriate shielding such that the leakage radiation does not exceed 2.5µSv/hour (IPEM Report 89 - The Commissioning and Routine Testing of Mammographic X-Ray Systems, 2005).

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- 2.10. The digital detector ADC must have a resolution of at least 14bits.
- 2.11. The cabinet must be supplied complete with a display monitor and control console with a minimum 19" screen (measured diagonally corner to corner).
- 2.12. The control console must include functions to enable image optimisation and the on-screen measurement of the sample for surgery / pathology specimens.
- 2.13. The cabinet must be auto-calibrating.
- 2.14. The cabinet must include DICOM image export via an Ethernet port and optionally via wireless connectivity.
- 2.15. The cabinet, console and monitor offered MUST be suitable for use in a clinical environment and use UK specification mains power supplies.

3. Operating system Software

- 3.1. The system must be compliant with current NHS Data standards and protocols.
- 3.2. The operating system must be capable of supporting a suitable anti-virus application.
- 3.3. The operating system and storage devices must be capable to encryption to a suitable standard.

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