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Nuclear Medicine Capital Equipment Specifications

Diagnostic SPECT/CT – CENTRAL ARKANSAS VETERANS HEALTHCARE SYSTEM VAMC – 598-B30007

Central Arkansas Veterans Healthcare System is requesting a diagnostic SPECT/CT. This equipment will be used to provide diagnostic quality CT images for soft tissue which includes – Octreoscans, Parathyroid scans, MIBG scans, I-131/I-123 scans, Liver scans with labeled red blood cells, infection imaging with labeled white blood cell scans, bone imaging in obese patients, low dose lung cancer screening, and other miscellaneous SPECT/CT uses.

Main Nuclear Medicine System

1. Dual Detector with Variable Angle
2. Large Field of View: minimum UFOV 50cm x 38cm
3. Table Weight Limit 500lbs
4. Energy Range Minimum 60-550keV
5. ~~CTAC Timing Resolution equal to or less than 0.5 Sec, multiple kVp, mA~~
6. ~~Iterative Reconstruction for CTAC~~
7. Hi Resolution Digital Gamma Detector - 3/8 crystal"
8. High Performance Dual Head Configuration
9. Our room size is limited therefore, please provide dimensions of the system H x D x W (in), as this will be important evaluation information.

CT Specifications

1. Number of simultaneously acquired CT slices - minimum 16
2. Field of View: minimum 50cm
3. Rotation time: minimum 0.5 seconds
4. mA available up to at least ~~500~~ 440 mA
5. Automatic Exposure Control (dose reduction software)
6. Iterative Reconstruction
7. Dose notification alert system
8. CTAC Timing Resolution equal to or less than 0.5 Sec, multiple kVp, mA
9. Iterative Reconstruction for SPECT which shall include 1)CTAC, and 2) Scatter Correction, and 3) Ordered Subset Expectation Maximization (OSEM) reconstruction algorithm."

Collimators

1. Low Energy High Resolution (LEHR) Collimators (x2) – to be used for General All Purposes Images
2. Medium Energy General Purpose Collimators (x2) – to be used for Octreo Scan, Indium imaging
3. High Energy General Purpose Collimators (x2)– to be used for I-131 imaging
4. Collimator Cart(s) – as required by vendor

Accessories/Additional Items:

1. ECG/Cardiac Gate
2. Flood Source/Holder

3. Four Quadrant Bar Phantom
4. Point Source/COR Source/Holder
5. Low Contrast CT Phantom/Holder
6. Scanner UPS
7. Main Disconnect Panel
8. Head Holder
9. Patient Arm Support
10. Patient Leg Rest
11. Patient Pallet Extender
12. Patient Table Multi-angle Pivot – to perform stand up images
13. CT Contrast Injector

Acquisition Workstation – *located in the control room*

1. Acquisition/Console Hardware
2. Minimum 19" LCD Monitor (quantity as required by vendor)
3. Keyboard/Mouse
4. Workstation UPS (as defined by vendors)
5. Hardware memory upgrade (ex: 24GB RAM)

Processing Workstation – *located in the control room – to mimics reading workstation configuration*

1. Acquisition/Console Hardware
2. Minimum 19" LCD Monitor (quantity as required by vendor)
3. Keyboard/Mouse
4. Workstation UPS (as defined by vendors)
5. Hardware memory upgrade (ex: 24GB RAM)

Reading Workstations – *(quantity 2 – one in nuclear medicine reading room and one in an office)*

1. Hardware
2. Diagnostic Color Dual Monitor - Minimum 19" LCD Monitor (quantity as required by vendor)
3. Keyboard/Mouse
4. Workstation UPS (as defined by vendors)
- ~~5. Supplemental In-room SPECT Acquisition Control~~
6. Professional Interpretation Workstation Hardware
7. Hardware memory upgrade (ex: 24GB RAM)

Software

1. Acquisition Software
2. DICOM 3.0 Compatible Worklist
3. SPECT/CT Processing
4. Nuclear Medicine Diagnostic Applications
5. SPECT/CT Fusion Applications
6. Software Licenses

Advanced Applications *(all applications to be included on the all processing and reading workstations)*

1. Whole Body SPECT Capability
2. Advanced Nuclear Cardiology SPECT/CT
3. Advanced Nuclear Cardiology Configuration/Hardware/Processing
4. SPECT/CT MPI Registration/QC Package (ex: Cedars QGS/QPS, Emory TB, 4DM)
- ~~5. Advanced Nuclear Oncology~~
- ~~6. Advanced Nuclear Neurology~~
- ~~7. Advanced Iterative Reconstruction/Processing for Nuclear Medicine/Nuclear Cardiology~~
8. Advanced Resolution Recovery
9. ½ time/dose Planar
10. ½ time/dose SPECT
11. Iterative Reconstruction/Processing for Nuclear Medicine including; Neurology, Cardiology, and Oncology

Training

1. Initial Onsite Applications Training (1 week) – to be used 1 week prior to Go-Live for technologists
2. Go-Live onsite Applications Training (1 week) – to be used for technologists
3. Go-Live onsite Applications Training (1 week) – to be used for Physicians
4. Follow-up Onsite Applications Training (1 week) – to be used with the first 9 months from Go-Live for technologists
5. Follow-up Onsite Applications Training (1 week) – to be used with the first 9 months from Go-Live for Physicians
6. Offsite Training for two technologists
7. Offsite Training Travel Package (Lodging/Meals/Transportation) for two technologist
8. Technical Biomedical Engineering Training for two Biomedical Engineering staff
9. Technical Biomedical Engineering Training Travel Package (Lodging/Meals/Transportation) for two Biomedical Engineering staff

Support and other Documentation to Provide:

1. Provide DICOM Conformance Statement
2. Provide completed Pre-procurement Assessment form (6550)
3. Provide information about your companies support structure during the warranty period (i.e. a listing of Field Service Engineer locations and availability, support 800 phone number(s), remote support, etc.)