

| REF.                               |   |
|------------------------------------|---|
| Item: Multi-Slice CT 16 slice High |   |
| No.                                | Item Specifications   |
| <b>1</b>                           | <b>Technical Specifications</b>   |
| 1.1                                | 16-slice CT scanner utilizing the latest technology; coping with the high patient throughput. The system must provide high resolution images at low dose and implement the latest applications. |
| <b>1.2</b>                         | <b>Gantry:</b>  |
| 1.2.1                              | Gantry opening $\geq 70$ cm and higher will be rated  |
| 1.2.2                              | High speed of gantry rotation for 360° rotations  |
| 1.2.3                              | Capability of generating $\geq 16$ Slices per rotation  |
| 1.2.4                              | Focus to detector distance  |
| <b>1.3</b>                         | <b>Patient Table:</b>   |
| 1.3.1                              | Scan range $\geq 150$ cm and will be rated.   |
| 1.3.2                              | Patient weight $\geq 200$ kg and will be rated  |
| 1.3.3                              | Table vertical range will be evaluated  |
| 1.3.4                              | Minimum table height to be evaluated  |
| <b>1.4</b>                         | <b>Detector</b>   |
| 1.4.1                              | Solid state or ceramic, the same material of the high end system to optimize dose values will be highly evaluated   |
| 1.4.2                              | Total number of physical rows, $\geq 16$  |
| 1.4.3                              | Total number of elements/row  |
| 1.4.5                              | Slice Thickness to be as minimum as possible  |
| 1.4.6                              | Total detector width at isocenter   |
| <b>1.5</b>                         | <b>X-ray Generator:</b>   |
| 1.5.1                              | Actual generator power $\geq 40$ kW and will be rated. Equivalent power must be documented  |
| 1.5.2                              | kV range to be mentioned and will be rated (Protocols for pediatrics will be rated)   |
| 1.5.3                              | Any dose saving features should be mentioned and will be rated  |
| <b>1.6</b>                         | <b>X-ray Tube:</b>  |
| 1.6.1                              | Anode heat storage capacity $\geq 5$ MHU, the higher the better   |
| 1.6.2                              | Anode heat dissipation to be mentioned and higher will be rated   |
| 1.6.3                              | Focal point size (small and large) to be mentioned and will be rated  |
| <b>1.7</b>                         | <b>Dose Management:</b>   |
| 1.7.1                              | Dose-modulation technique   |
| 1.7.2                              | Pediatric-specific dose control   |
| 1.7.3                              | Any further features for dose saving should be mentioned and will be rated  |
| <b>1.8</b>                         | <b>Spiral Acquisition:</b>  |
| 1.8.1                              | Scan time $\leq 0.8$ sec and will be rated  |
| 1.8.2                              | Scan field of view as maximum as possible   |
| 1.8.3                              | Pitch factor up to 1.5 and will be rated.   |
| 1.8.4                              | At least 100 sec continuous spiral without cooling delay is mandatory   |
| 1.8.5                              | Reconstruction time per image, sec  |
| 1.8.6                              | Reconstruction time for localization scan, Real time  |
| <b>1.9</b>                         | <b>Operator console/computer:</b>   |
| 1.9.1                              | Fast and multi-tasking with user-friendly interface, please mention CPU bits & RAM (at least 16)  |
| 1.9.2                              | Storage capacity of $\geq 200,000$ images 512x512 resolution un-compressed.   |
| 1.9.3                              | 19" high resolution LCD monitor   |
| 1.9.4                              | Reconstruction rate: 512x512 must be mentioned and will be rated.   |
| 1.9.5                              | Iterative reconstruction for dose reduction without affecting the image quality   |
| 1.9.6                              | Direct generation of sagittal, coronal, oblique or double oblique reconstructed images directly from CT raw data as part of the CT protocol will be rated.                                      |

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|-------------|--|
| <b>1.10</b> | <b>CT applications:</b>  |
| 1.10.1      | Bolus tracking   |
| 1.10.2      | 3D reconstruction (VRT) with automatic bone removal.   |
| 1.10.3      | 3D package (surface & volume) MPR,MIP  |
| 1.10.4      | Real-time dose modulation based on one topogram  |
| 1.10.5      | Automatic organ based setting of scan parameters and recon ranges for faster and standardized workflow.            |
| 1.10.6      | Virtual endoscopy  |
| 1.10.7      | Advanced vessel analysis   |
| 1.10.8      | Metal Artifact reduction, please specify   |
| 1.10.9      | The main console must be DICOM 3.0 with the following licenses: print, storage, Q/R, Work list (life time license) |
| <b>1.11</b> | <b>Image Quality:</b>  |
| 1.11.1      | High contrast resolution (line pairs/cm) @ 2% MTF and 10% MTF should be mentioned and will be rated.               |
| 1.11.2      | Low contrast resolution for 20 cm CatPhan @ 5 mm or less @ 3 HU to be mentioned along with dose and will be rated. |
| <b>1.12</b> | <b>Upgradability</b>   |
| 1.12.1      | The system upgradable (software) to 32 slice per rotation in both axial and spiral modes will be evaluated         |
| <b>1.13</b> | <b>Independent Work-station</b>  |
| 1.13.1      | Lung Analysis  |
| 1.13.2      | Auto bone removal  |
| <b>2</b>    | <b>Supplied Accessories :</b>  |
| 2.1         | Full System UPS  |
| 2.2         | 2 Aprons, 2 Goggle, 2 thyroid  |
| 2.3         | Dry Imager   |
| 2.4         | Single head injector   |
| <b>3</b>    | Complete indoor site preparation for examination, equipment and control rooms                                      |
| <b>4</b>    | <b>Power input to be 380 VAC, 50Hz</b>   |