**PROCUREMENT OF RADIOTHERAPY AND DIAGNOSTIC EQUIPMENT, BELGRADE**

**(PROCUREMENT NO. IOP/36-2019/RD)**

**CLARIFICATION NO. 7**

Issued on July 23, 2020

LOT 2 Item 1 Open bore 3T MRI Scanner

1.           In technical specification item 1.2. it is required: „Tunnel bore diameter in isocenter – min. 70 cm“. Do You accept this requirement to be changed to “Tunnel bore diameter in isocenter – min. 69 cm”?

We as distributor of respectable manufacturer of MRI systems are unable to submit an offer. For sure 1 cm does not make any change or decrease in diagnostic quality, on the other hand this will increase number of potential bidders.

Answer: Yes, this variation is acceptable.

2.           In technical specification item 1.3. it is required: „- DSV, for spheric volume with diameter of 50 cm: not bigger then 3.5 ppm “. Do You accept this requirement to be changed to “- DSV, for spheric volume with diameter of 50 cm: not bigger then 4 ppm”?

We as distributor of respectable manufacturer of MRI systems are unable to submit an offer. For sure it makes no difference if requirement is 3,5 or 4,0 ppm as water/fat separation is only possible up to homogeneity of 2 ppm so no imaging is possible in this sphere. Therefore this kind of requirement that has no backing in actual clinical need, and can only lead to reduction in competition and openness of procurement.

Answer: Yes, it is acceptable.

3.           In technical specification item 1.4. it is required: „ Magnet length including covers: no longer than 210 cm “. It is unclear what You require with this requirement. Does this mean that entire Gantry length? If so please explain why this is important. Or, is this entire bore length, which then makes more sense?

Answer: Under item 1.4 we defined magnet length including covers. It is preferable that magnet length including covers is as short as possible due to patient comfort (claustrophobic patients).

4.           In technical specification item 2.2. it is required: Maximum power of gradient amplifier, min. 1.6MW “. Do You accept this requirement to be changed to “Maximum power of gradient amplifier, min. 160 kW”?

We as distributor of respectable manufacturer of MRI systems are unable to submit an offer. Anyway gradient power is not decisive factor in image quality. Other vendors like one we are representing goes for different ways to enable better image quality. This kind of requirement that has no backing in actual clinical need, and can only lead to reduction in competition and openness of procurement.

Answer: Change is not acceptable.

Gradient amplifier power defined under 2.2 directly relates with gradient performance defined under 2.1. Gradient amplifier represents the “engine” of the gradient system. A High power amplifier is required to achieve and maximally utilize gradient performance (amplitude and slew rate) without any compromise. There are vendors on the market who can offer the latest generation 3T systems with power of gradient amplifier higher then requested 1.6 MW.

5.           In technical specification item 3.2. it is required: “Number of physical coil elements that can be simultaneously connected during one exam, minimum 146”. Do You accept this requirement to be changed to “Number of physical coil elements that can be simultaneously connected during one exam, minimum 128”?

We as distributor of respectable manufacturer of MRI systems are unable to submit an offer. Anyway there is no clinical value on connecting any more elements than those that can fit in Field of View and acquired. This kind of requirement that has no backing in actual clinical need, and can only lead to reduction in competition and openness of procurement.

Answer: Yes, it is acceptable (already answered in previous questions)

6.           In technical specification item 3.3. it is required: “The resolution of the signal receiver is not less than 32 bits”. Do You accept this requirement to be changed to “The resolution of the signal receiver is not less than 16 bits”?

We as distributor of respectable manufacturer of MRI systems are unable to submit an offer. Anyway there is no clinical value on acquiring more than 16 bits as rest is only noise and not valuable signal. This kind of requirement that has no backing in actual clinical need, and can only lead to reduction in competition and openness of procurement.

Answer: Change is not acceptable.

The resolution of the signal receiver of 32 bits is today’s standard. Comparing to 16 bits receiver, 32 bits has ability to store more information about image (as much as double information), hence providing better SNR and image resolution. Almost all vendors have signal receiver with 32 bits on their new generation 3T MR systems as well as even on 1.5T systems

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7.           In technical specification item 4.7. it is required: “Separate, dedicated multi-channel coil for the imaging of shoulder, with minimum of 16 coil elements, flex coil is not acceptable “. Do You accept this requirement to be changed to Separate, dedicated multi-channel coil for the imaging of shoulder, with minimum of 16 coil elements”?

We as distributor of respectable manufacturer of MRI systems are unable to submit an offer. Flex coils are proven technology, two major MRI manufacturers offer them. Also flexible coils have advantage over rigid ones. Rigid coils have certain size, therefore it might happen that either patient can’t fit to it, or more often that there is no contact between coil and patient body. That leads to significant reduction of SNR (signal to noise ratio). Flex coil can be put on any patient, no matter size coil elements are right on the skin and SNR is on top level. Therefore this kind of requirement that has no backing in actual clinical need, and can only lead to reduction in competition and openness of procurement.

Answer: Change is not acceptable.

From clinical perspective, dedicated, rigid coils are always better for joints positioning and scanning. Due to anatomical shape, they can be positioned very close to the joint (in this case shoulder which is very specific and difficult to scan anatomy) making higher SNR and better image quality. There is no coil elements overlapping issues like it could happened with flex coils. Also positioning of flex coil for shoulder scanning is time consuming, while rigid dedicated coil you can easy position. Generally, flex coils can be used also but as alternative solution. However, two flex coils, different sizes are already requested under point 4.5. for imaging of smaller joints and has to be offered. Almost all vendors can offer the latest generation 3T systems with dedicated (rigid) coil for shoulder.

8.           In technical specification item 4.8. it is required: „ Separate, dedicated multi-channel coil for the high resolution imaging and spetroscopy examinations of breast, with minimum of 16 coil elements“. Do You accept this requirement to be changed to “Separate, dedicated multi-channel coil for the high resolution imaging and spetroscopy examinations of breast, with minimum of 8 coil elements”?

We as distributor of respectable manufacturer of MRI systems are unable to submit an offer.

Answer: Change is not acceptable.

Customer is University oncology center. Breast examinations are one of the most important, performed every day (diffusion, contrast enhanced and spectroscopy imaging). For such complexity studies it is important to have coil with higher density of coil elements, which means minimum 16 elements. Customer already use on existing MR system such coil which provides excellent SNR, image quality and faster exams. Almost all vendors can offer the latest generation 3T systems with dedicated breast coil with minimum 16 elements.

9.           In technical specification item 4.9. it is required: „ Separate, dedicated multi-channel coil only for breast biopsy procedures, with minimum of 4 coil elements“. Do You accept this requirement to be changed to “Separate, dedicated multi-channel coil only for breast biopsy procedures, with minimum of 4 coil elements or biopsy set for coil under item 4.8”?

We can’t understand clinical need for two coils. Please explain that Your intention is to scan patient with one coil for more than 20 minutes and then when You actually find a lesion, tell her: “now you need to get up so we change the coil than we scan you again to find a lesion and perform biopsy!!!” And biopsy is performed with coil of only 4 elements, suddenly image quality is not important? Therefore this kind of requirement that has no backing in actual clinical need, and can only lead to reduction in competition and openness of procurement.

Answer: Change is not acceptable.

Due to high patient frequency and work organization, it is important for customer to have two separated coils. In our workflow, regular scanning and diagnostic MR breast imaging procedures are separated from MR guided biopsy procedures. Almost all vendors can offer the latest generation 3T systems with two separated breast coils (one for diagnostic purpose and one for biopsy procedures)

10.         In technical specification item 6.2. it is required: “Two (2) Color LCD monitors with resolution not less then 1.3MP with diagonal size not less then 19“”. Do You accept this requirement to be changed to “Two (2) Color LCD monitors with resolution not less then 1.3MP with diagonal size not less then 19“ or one display with resolution not less then 2MP with diagonal size not less then 24“”?

We, as distributor of respectable manufacturer of MRI systems, are unable to submit an offer. Manufacturers decide on philosophy how to create user interface and what kind of monitor is needed in order to display in best manner required data. Therefore this kind of requirement that has no backing in actual clinical need, and can only lead to reduction in competition and openness of procurement.

Answer: Yes, it is acceptable (already answered in previous questions)

11. Technical Specification with Price Shedule\_Lot\_2\_Diagnostic Equipment.xlsx - tab DW, ID 3, row 1.40:

What is considered under DICOM connection: ""DICOM-Send"" from PACS and all other modalities?

Does this mean that the unit needs to be capable of receiving DICOM images from PACS servers and other modalities? Modalities are DICOM-Sending the images to the unit?

What is considered by DICOM Qeury / Retrieve from PACS from one or more PACS? Should the unit be capable of querying one or more PACS servers and retrieving DICOM images?

Answer: The unit needs to be able to receive images from PACS and other modalities. The modalities are sending the images via DICOM protocol to the unit.

The unit needs to be able to query one or more PACS stations and retrieve the images.

12. Tech. Spec with Price Shedule\_Lot\_2\_Diagnostic Equip.xlsx - tab MAMMO, ID4, row 3.4:

Is it, in order to make it more clear, allowed to offer “motorized and manual compression” instead of “automatic and manual compression”, as it doesn’t change the asked functionality of the System.

Answer :Yes, it is acceptable. The important feature of the asked system is the fact that it is not only manual compression, that sometimes is necessary, but in most cases, the operator will use motorized, as it is speeding and easing the procedure of positioning.

13. Tech. Spec with Price Shedule\_Lot\_2\_Diagnostic Equip.xlsx - tab MAMMO - ID4, row7.3:

Common Acquisition Station for the Operator, X-ray technician, usually have one diagnostic medical monitor for indication of the acquired breast image, and other information related to exact X-ray acquisition (projection, exposure parameters, etc.) that operator needs in order to accept the image as correct and successful. We assume that this is a typo with letter “s”, as it indicates the plural of monitors. Please, advise.

Answer: Yes, it is acceptable, as this was a typo.

14. Tech. Spec with Price Shedule\_Lot\_2\_Diagnostic Equip.xlsx - tab MAMMO - ID 4, row 8.2:

As this validation usually is not in the technical specifications, nor in any technical documentation issued by Manufacturer, will it be acceptable to provide an appropriate statement of Manufacturer about asked Validation?

Answer: Yes, it is acceptable.

15. Tech. Spec with Price Shedule\_Lot\_2\_Diagnostic Equip.xlsx - tab MAMMO - ID 4, row 8.4:

As this monitor’s purpose is to show an application for Patient Administration, we would like the Purchaser to explain from which personal or other computer this application will be shown the way the delivered LCD monitor will be connected to. This in order to understand necessary connections with the end user computer, as that computer is not in the scope of bidders offer.

Answer: Bidder should offer LCD monitor with VGA, DVI, HDMI or Display port and all cables

16. Tech. Spec with Price Shedule\_Lot\_2\_Diagnostic Equip.xlsx - tab MAMMO - ID 4, row 8.11:

We would like to understand the exact meaning of the word “support” in this request. Does it mean that Diagnostic Workstation should be PACS workstation, capable to provide diagnostics for other modalities US, CT, MRI, or Diagnostic Workstation should be capable to provide work from and within the PACS, as an application installed on the Diagnostic Workstation computer and connected to the end user network, or Diagnostic Workstation should be dedicated mammography workstation capable of performing diagnostic on all breast modalities – mammography, ultrasound and MRI, but not the CT?

Answer : The idea is to provide all modalities used for breast cancer detection on one reading station. So, the Diagnostic Workstation should be dedicated mammography workstation capable of performing diagnostic on all breast modalities – mammography, ultrasound and MRI, but not necessarily the CT images. Here, it is important that MRI diagnostics on the Diagnostic Workstation of the System is capable to both static and dynamic analyze of MRI exam (MIP, MPR, washout curve, etc.)

17. Technical questions for LOT 2:  
Item 3- Diagnostic workstation in client – server architecture, with server and 10 clients computer (workstations), with 2D, 3D basic and advanced visualization applications from different modalities MR, CT, X-ray system, ultrasound

Point 1.39. – requested: LCD high resolution monitor min. 2MP and diagonal size min. 24“, 2 pcs. for each client, 20 pcs in total plus one monitor min. 19” for administration for each client, 10 pcs, in total

Question: There are monitor vendors on the market who are producing bigger monitor whose screen can split in two smaller screens enabling functionality like two separated monitors at the same time saving the working space on the table. Is it acceptable for Purchaser to adopt this request as follows:  
“LCD high resolution monitor min. 2MP and diagonal size min. 24“, 2 pcs. for each client, 20 pcs in total or LCD high resolution monitor min. 8MP and diagonal size min. 31“, 1 pcs. for each client, 10 pcs in total plus one monitor min. 19” for administration for each client, 10 pcs in total”?  
 Answer: It is acceptable to offer solution suggested.

18. Technical questions for LOT 1:  
  
Item 4- Diagnostic workstations in client – server architecture, with server and 4 clients computer, with 2D, 3D basic and advanced visualization applications from different modalities MR, CT, X-ray system, ultrasound  
  
1. Point 1.16. – requested: LCD high resolution monitor 2MP min. 24“, 2 pcs. for each client, 8 pcs in total plus one monitor min. 19” for administration for each client, 4 pcs in total  
Question: There are monitor vendors on the market who are producing bigger monitor whose screen can split in two smaller screens enabling functionality like two separated monitors at the same time saving the working space on the table. Is it acceptable for Purchaser to adopt this requests follows:  
“LCD high resolution monitor min. 2MP and diagonal size min. 24“, 2 pcs. for each client, 8 pcs in total or LCD high resolution monitor min. 8MP and diagonal size min. 31“, 1 pcs. for each client, 4 pcs in total plus one monitor min. 19” for administration for each client, 4 pcs in total”?

Answer: It is acceptable to offer solution suggested.

Public Procurement Commission