

## **BID DOCUMENT**

**(e - Procurement)**

### **HEMODIALYSIS UNIT (PPP MODEL)**

**Department of Nephrology IMS, BHU, Varanasi**



**Issued On:**

**20-03-2017**

**Institute of Medical Science**

**BANARAS HINDU UNIVERSITY**

**VARANASI-221005**

**REQUEST FOR QUALIFICATION (RFQ) CUM REQUEST FOR PROPOSAL (RFP)  
For Selection of Hemodialysis Unit Service Provider in Sir Sunder Lal Hospital, Banaras  
Hindu University Varanasi, Uttar Pradesh.**

Banaras Hindu University, Varanasi invites tender **(in two Bid System)** for installation & operation of a round the clock (24x7x365) Hemodialysis facility having a brand new state of art **TDMS Hemodialysis Machines** in the Department of Nephrology in the premises of BHU. Reputed experienced and financially sound agencies/ firms / parties / institutions interested in ‘Public Private Partnership’ model are requested to submit their offers in **sealed envelopes** on terms and conditions given in the prescribed Tender form:-

<b>Name of the Equipment</b>	<b>Earnest Money in the form of DD in favor of The Registrar, BHU, payable at Varanasi</b>	<b>Tender Fee in the form of DD in favor of The Registrar, BHU, payable at Varanasi</b>
<b>20 Bedded Hemodialysis Unit and RO Plant (as per specifications)</b>	<b>Rs. 2.5 Lakhs</b>	<b>-</b>

**Conditional tenders shall not be considered and shall be rejected.** The Committee nominated by the Vice-Chancellor, BHU would have the right to accept or reject any tender fully or any part of it, without assigning any reason. No correspondence in this regard shall be entertained.

1. Tenders shall be submitted in TWO Separate Sealed Envelopes along with the specifications as mentioned.

**(A) Technical Bid:**

- a) Earnest Money **Rs. 2, 50,000.00**\_(Rupees Two lakhs and fifty thousand only) in form of demand draft drawn in favor of **The Registrar – BHU, Varanasi**, payable at Varanasi.
- b) Experience details, Technical details, relevant literature, product catalogue or any other information about the offered Hemodialysis Machines, RO Plant, Reuse Machine, other equipments and consumables.
- c) Tender form duly signed and stamped by Authorized Signatory of the bidder in all respect.

**(B) Financial Bid:**

Minimum rates for following procedures to be quoted- Hemodialysis (reuse and single use separately), Plasmapheresis, Hemodiafiltration, femoral catheter (with introducer needle and guide wire), Double lumen catheter kit (with suture and dressing). Out of the rate quoted 80% shall be share of the second party. The remaining 20% shall be distributed among the Department of Nephrology, S. S Hospital, I.M.S. and University in the ratio of 60%, 10%, 10% and 20% respectively.

2. Tenders shall be submitted in two **sealed** envelopes (along with the E-Tender) separately marked A) '**technical bid**' and (B) '**financial bid**' kept in a sealed cover, otherwise tenders will not be considered and shall be rejected.

Financial Bid shall be opened among the bidders on being qualified in the Technical Bid, technical terms and conditions, technical specifications of Hemodialysis machines, Reuse machine, RO Plant with storage tank and pipelines, others equipments and consumables required in dialysis unit etc. should be included in technical bid (Annexure IV). Financial rates of the procedures (to be performed in Hemodialysis Unit) and financial terms and conditions to be

submitted in financial bid. Financial bids shall be opened only of those tenders who shall qualify technical bid.

Technical specifications of **Hemodialysis machines, RO Plant other equipments and consumables** are enclosed in Tender document (**Annexure V**).

2. The specifications of the Hemodialysis unit and other equipments to be installed and consumables to be used shall not be in any way of lower specification / configuration as mentioned in the tender otherwise the selection of the Bidder shall stand cancelled.

**Time schedule**

<b>Published Date</b>	<b>01-04-2017 (04:00 PM)</b>
<b>Bid Document Download Start Date</b>	<b>01-04-2017 (04:00 PM)</b>
<b>Clarification Start Date</b>	<b>01-04-2017 (04:00 PM)</b>
<b>Clarification End Date</b>	<b>04-04-2017 (05:00 PM)</b>
<b>Pre bid meeting</b>	<b>NA</b>
<b>Bid Submission Start Date</b>	<b>05-04-2017 (11:00 AM)</b>
<b>Bid Document Download End Date</b>	<b>24-04-2017 (05:00 PM)</b>
<b>Bid Submission End Date</b>	<b>24-04-2017 (05:00 PM)</b>
<b>Bid Opening Date</b>	<b>26-04-2017 (11:30 AM)</b>

## **Address For Communication**

For bid submission purposes only, the Purchaser's address is **Department of Nephrology,IMS BHU, Varanasi.**

Attention : **Dr. Shivendra Singh**  
Street Address : **Department of Nephrology, IMS BHU, Varanasi.**  
City : **Varanasi**  
ZIP/Postal Code : **221005**  
Country : **India**  
Telephone : **05422309342**  
**91-9415224504**  
Facsimile number : **91-542-2367568**  
Electronic mail address : [ssshivendrabhu@gmail.com](mailto:ssshivendrabhu@gmail.com)

The deadline for bid submission is:

Date : **24 Apr, 2017**  
Time : **05:00 PM**

The bid opening shall take place at: **Medical Superintendant ,Sir Sundarlal Hospital BHU, Varanasi**

Street Address : **Banaras Hindu University, Varanasi**  
Floor/ Room number : **Medical Superintendant**  
City : **Varanasi**  
Country : **India**  
Date : **26 Apr, 2017**  
Time : **11:30 AM**

## **BIDDERS QUALIFICATION:**

- 1) Bidders shall have experience of minimum 5 years in the relevant field.
- 2) The Annual turnover of the bidders shall be at least 5 crore in last 3 years preceding the year of commissioning in running such facility. Copy of the last 3 year balance sheets with markings to prove the turnover should be provided.

**3) Non Blacklist:** The Bidder should not have been barred or blacklisted by the Government of India, Government of Uttar Pradesh or by any State Governments in India /PSU for breach of Contractual Conditions as on bid submission date and should not be involved in any pending /ongoing CBI Litigations since 3 years.. Also, the bidder should not have been convicted/charge-sheeted in any criminal case in respect to the nature of work involved in the contract with any of the State Government or Union Government for any quality or other reason against patient welfare. The bidder should not have been indicted / charge/ penalized financially on account of non performance or poor performance by any govt institution/ PSU / autonomous body. The University shall have power to cancel the bid or/and terminate the agreement on discovery of such facts at any time.

- 4) Any bidder is already doing PPP project or already awarded tender for dialysis have to submit the satisfactory letter from the last Institute.

## **5) FRAUD AND CORRUPT PRACTICES**

**a.** The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the bidding process and subsequent to the issue of the LOI and during the subsistence of the Agreement. Notwithstanding anything to the contrary contained herein, or in the Letter of Award or the Agreement, the Authority may reject a bid, withdraw the LOI, or terminate the Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder or Operator, as the case may be, if it determines that the Bidder or Operator, as the case may be, has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, collusive practice, coercive practice, undesirable practice or restrictive practice in the bidding process. In such an event, the Authority shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, , without prejudice to any other right or remedy that may be available to the Authority under the Bidding Documents and/ or the Agreement, or otherwise.

**b.** Without prejudice to the rights of the Authority under Clause 5 herein above and the rights and remedies which the Authority may have under the LOI or the

Agreement, or otherwise if a Bidder or Operator, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, collusive practice, undesirable practice or restrictive practice during the Bidding process, or after the issue of the LOI or the execution of the Agreement, such bidder shall be disqualified.

c. For the purposes of this Clause 5, the following terms shall have the meaning hereinafter respectively assigned to them.

**5.1. “corrupt practice”** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the bidding process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly, with the bidding process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the bidding process); engaging in any manner whatsoever, whether during the bidding process or after the issue of the LOI or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOI or the Agreement, who at any time has been or is a legal, financial or technical adviser of the Authority in relation to any matter concerning the Project.

**5.2. “Fraudulent practice”** means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding process;

**5.3. “Coercive practices”** means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person’s participation or action in the Bidding process;

**5.4. “Collusive Practices”** means a scheme or arrangement between two or more Operators, with or without the knowledge of Authority, designed to influence the action of any party in the Bidding process

**5.5. “Undesirable practice”** means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding process; or (ii) having a Conflict of Interest; and 6. “Restrictive practice” means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding process

**TERMS AND CONDITIONS**  
**For installation and operation of HEMODIALYSIS UNIT**

**1. INTRODUCTION**

- This ‘Public Private Partnership’ represents the agreement between Banaras Hindu University (hereby ‘First Party’) and a private party, to be selected from the bidders, on the basis of an open online tender as per Government of India specified procedure (hereby ‘Second Party’) for the provision of services concerning 24x7x365(/366) hours (hereby ‘round the clock’) Hemodialysis facility (hereby ‘facility’) at the premises of the Sir Sunderlal Hospital (SSH), BHU. This arrangement is intended to provide a framework for establishing a cooperative and productive working relationship between *the First party and the Second party*. Selection shall be done looking into overall merit of the project proposal and not on any single criteria alone. In nutshell, *the First Party* would provide the space for installation of the said facility and high-level Clinical expertise (both as per pre-designated and mutually agreed upon terms & conditions), in order to achieve the under-mentioned ‘goals’ and ‘objectives’ while the *Second Party* would be obliged to bear all other expenses and damages, if any. This agreement defines the terms and conditions under which *the First Party* and the *Second Party* will interact with each other. It is anticipated that this arrangement will result in more efficient operations and improved utilization of resources.

**2. STATEMENT OF PURPOSE**

In view of the exponential expansion of services at the Sir Sunderlal Hospital (hereby ‘SSH’), provision of 24x7x365(/366) Hemodialysis facility seems to be an essential component. The proposed Hemodialysis unit at the SSH under a Public-Private Partnership Program (hereby ‘PPP’) will provide *the First Party* and *SSH* with the Hemodialysis facility. The prime mandate of the *facility* would be twofold:



- a) To provide un-interrupted services to patients presenting/being referred to SSH/Trauma Centre for treatment.
- b) To provide facility for training and research/clinical in the field of ‘Hemodialysis’, to the Department of Nephrology (hereby ‘department’) and to all other relevant units/sections/departments of this *First Party*, through the Department of Nephrology.

### **3. AGREEMENT OF TASKS, PERMISSIONS AND COMPETANCIES**

**3.1** The *Second Party* shall provide *round the clock* un-interrupted Hemodialysis services to patients presenting/being referred to it from the *SSH/ Trauma Center* by the University Consultants for treatment. The *facility* will include Hemodialysis, Hemodiafiltration, SLED, Plasmapheresis, temporary vascular access, living up to the cause and quality of a level I SSH a tertiary care teaching hospital. The academic aspect of Hemodialysis, SLED, Plasmapheresis, Hemodiafiltration, vascular access (i.e. teaching, training, research, and organization of academic activities like conferences, CME, symposia, seminar etc., academic publications in books, journals and conferences and, collaboration with any other academic body/unit/department/section/faculty for the purpose) would however be the prerogative of the *First Party*.

**3.2** Please be informed that all data generated in the proposed center shall be the ‘Intellectual property’ of the *First Party* only.

**3.3** The technical features and specifications of Hemodialysis Unit, to be installed by the *second party*, shall NOT be of lower configuration as mentioned in the Tender document, otherwise the agreement shall be cancelled. Please be informed that if any of the points in the technical specifications (provided as a part of this document in Annexure VI) is manipulated/ over sighted or neglected in the technical bid and, the

same is proven after the installation of the *facility*, the Second Party shall take expeditiously suitable measures to rectify such discrepancy entirely at its own cost. The *First Party* shall bear no responsibility what so ever and the extra expenditure would show no where against the *first party* liabilities.

**3.4** The University reserves the right to assess the viability and suitability of each financial bid in terms of the reasonability of rates and the revenue share percentage (of the private party) of Hemodialysis, Plasmapheresis, Hemodiafiltration and Vascular access quoted. No representation shall be entertained on the decision made by the University in this regard.

**3.5** Approved bidder shall install state-of-the art NEW Hemodialysis Machines, RO Plant with accessories, Resuse Machine and other Equipments and consumables(as per Annexure I) with all accessories and facilities necessary for optimum functioning within 21 days from the date of signing of the agreement/MOU and handing over the present Hemodialysis Unit. For delayed installation beyond the aforesaid period a penalty of Rs.20,000/- per week shall be levied. If the *facility* is not made available to the *First Party* within 30 days from the expiry of the scheduled time period of installation, the order would stand automatically cancelled and security deposit shall stand forfeited.

**3.6** The agreement shall be valid initially for a period of seven years from the date of commissioning of the *facility*. It could be revoked by the First Party at any time on three months' notice on account of violation of rules, regulations, terms and conditions of the agreement by the Second Party, after providing due opportunity of hearing to the Second Party. The Second party if wishes can quit the services on three

months' notice. Periodical inspection for performance and observance of terms & conditions including functioning of Hemodialysis unit, patient care facilities, stock maintenance, record maintenance etc. shall be carried out every month by a joint committee with representatives of both parties, appointed by the *First Party*. The rates of Hemodialysis, Plasmapheresis, Hemodiafiltration, vascular access and any new procedure added may be reviewed only after an initial period of one year. The *First Party* (on recommendation of the '*department*') shall issue an annual 'Certificate of Performance' to the *Second Party*, based on which a further **extension of 2 years may be given to the *Second Party*. Suitable clause may be proposed by the *First Party* at that time if and when such need arises, and the incumbent *second party* shall have the 'right of first refusal'**.

3.7 The *second party* shall arrange a 3<sup>rd</sup> party insurance policy or similar existing scheme in the market, to cover all the patients, subjected to Hemodialysis procedure, against any mishap at Hemodialysis centre. Conforming to the provision of the 'Consumer Protection Act (1986)' shall be the sole and absolute responsibility of the *Second Party* and the *First Party* will share no liability in this regard. Privacy and other ethical values of patients under treatment shall have to be maintained in individual cases by the *Second Party*.

3.8 The *Second Party* shall abide by all the guidelines issued by the Government of India and the *First Party* from time to time during the lease period.

3.9 The *Second Party* status, as a whole or in part, is non-transferable and, the awarded *Second Party* shall not sell or transfer by any mode whatsoever any proprietary right or entrust any other party to run the Hemodialysis Unit.

**3.10** In case the Hemodialysis facility is extended to other Department on demand through the IMS the '*department*' would offer reasonable co-operation, to the best of its ability (within the framework of available resources). It would however be the responsibility of the *second party* to collaborate with the concerned department in managing the patients. The Hemodialysis/Plasmapheresis/CRRT etc facility extended to other departments shall be subject to the same terms and conditions of the MoU.

**3.11** If Hemodialysis procedure is not carried out by the second party to the patients up to the standard/quality as advised by the Department the procedure charge will be refunded to the patients and First party share of minimum 20%/as decided in the contract on recommendation by the Department will be paid by Second Party on its own.

**3.12** The Hemodialysis procedure (Hemodialysis, Hemodiafiltration, Plasmapheresis, SLED etc) is life saving procedure and Department has full right to decide modality, mode, duration of treatment and type of consumables as per requirement and benefit of the patient. All the consumables to be used in the Hemodialysis unit only after the consent of the Department. Second Party is obliged to provide the services as desired by the Department in the existing contract period. Failing such compliance will be considered breach of contract and liable for suitable action

**3.13** The Hemodialysis procedure is life saving treatment procedure and modification, up gradation, newer modalities in terms of patient management and need of consumables are likely in future. The SSH is teaching and training tertiary care hospital and Second Party is obliged to

comply with the Department for such changes and modifications. Failing such changes and modifications according to need of patient management as desired by the Department will be considered as breach of contract and liable for suitable action.

**3.14** When the First party starts Hospital Management Information System (HIMS) the patients' data available in Hemodialysis unit would have to be made accessible to these systems by the Second Party.

**3.15** The *Second party* will have to do 20 (twenty) numbers of FREE cases (noncumulative) per month for indigent class of persons after sanction of the Director (IMS)/Medical Superintendent (SSH)/*Head of the Department (Nephrology)*.

**3.16** The breakdown of machine should not be more than 48 hours. If so penalty of 1000/ rupees per day will be imposed after 48 hours per nonfunctioning machine (except in special circumstances on discretion of department after satisfactory explanation by second party)

#### **4. INSTALLATION AND OPERATION OF THE FACILITY**

4.1 Adequate built up space for installation of Hemodialysis Unit would be provided by the *first party* in the premises of SSH. Initially there will be provision for sixteen seronegative HD, three seropositive HD and one Hemodiafiltration machine which will be increased in future on availability of space. The *second party* shall be solely responsible for the additional civil work at the allocated space as per its specifications with no liability on the part of the *first party*. All the civil, electrical, air-conditioning

provisions attracting cost shall be the responsibility of the *second party*. The first party shall not be responsible for any loss / damage to machine or property due to natural calamity or otherwise.

4.2 The space with all the renovations, modifications by the *second party* shall remain the property of the *first party*, after expiry of agreement/MOU period. All expenses on account of electricity, maintenance of premises and the equipments or any other expenses incurred in day to day running of Hemodialysis Unit shall be borne by the *second party*.

4.3 The security arrangement and cleanliness of the equipments & house-keeping of the *facility* shall be sole responsibility of the *second party*.

4.4 The *second party* will have to procure a suitable stand-by source of power (UPS backup for RO Plant and Hemodialysis Unit), capable of catering the power requirement of Hemodialysis unit with all accessories and *facility* as such, so that services remain available un-interrupted round the clock.

4.5 The electrical and water charges for operation of the machines shall be borne by the second party.

4.6 At all instances, where the identity of the *facility* is concerned, the name of the *department* and *First Party* shall precede that of the *second party*.

4.7 The *second party shall* follow the guide line of Director of Health Services Govt. of India in running the Hemodialysis Unit.

## **5.HUMAN RESOURCE**

5.1 The technical staff, recruited by the *second party*, should have the qualification specified by the *first party* (**Annexure V**), any deviation from the same would be taken as a breach in agreement and be liable for suitable actions.

5.2 The staff of *second party* would ensure good medical practice and high ethical values towards patients under overall control of the *department*. The Second party will appoint all the staff in the unit after consent by the department. The department will have full right to refuse the staff appointed by second party if found inefficient, non compliant or indulged in unethical practice with immediate effect. The second party shall replace such staff at earliest.

5.3 There shall be complete written information about the staff appointed by the second party to the Department. There should be dress code with I Card for the staff appointed. Second party will bear all the financial responsibilities of the staff appointed by them. The First party shall not be responsible to such staff for the salary, service conditions etc. and shall not be treated staff of the first party in any respect.

## **6. ACCOUNTING PROCEDURE / REVENUE COMPUTATION**

**6.1** The Hemodialysis facility will have to offer professional ambience, uncompromising clinical quality at an acceptable cost and superior service in minimal waiting time. The Hemodialysis facility will have to function for patient care round the clock (i.e 24x7x365 days a year) .

**6.2** The Hemodialysis procedure (all modalities) and vascular accesses charges, both from patients of SSH/Trauma Center shall be collected by the University on AR-1 Receipts of Banaras Hindu University / Bank Receipt. Service Tax or GST/similar taxes at applicable rates will be charged additionally.

**6.3** The share of revenue of the First Party shall not be less than 20% of the Hemodialysis procedure (all modalities/procedures) and vascular access. The respective share of generated revenue would be bifurcated through a ESCROW ACCOUNT in a scheduled bank situated within the SSH and the share of Second Party will be paid on monthly basis after recommendation of satisfactory services by the department.

**6.4** The Hemodialysis procedure and vascular access of bonafide BHU staff and their

dependents, as well as bonafide Students (both to be verified by the head of the department) shall be done free of cost initially. There would be arrangement to reimburse the charges by the First *party*.

**6.5** *Second party* shall provide a Bank Guarantee of Rs.30 Lakh as ‘performance security’ in favor of Registrar, BHU (as per the annexure II).

**6.6** The *First Party* intends to establish a ‘Joint Monitoring Committee’ consisting of members from both parties for day-to-day monitoring of the working of center. The committee shall be chaired by the *head of the department*.

**Credibility and eligibility of second party would have to be proved along with necessary documents like –**

- 1) Self Attested copy of certificate of incorporation, issued by appropriate authority registration certificate of partnership firm/limited liability partnership (LLP).
- 2) Self attested copy of the PAN allotment.
- 3) Self Attested copy of TIN/service tax registration.
- 4) Self attested copies of any quality certification held. Eg. ISO.
- 5) Status: whether Proprietary / Partnership firm / Pvt. Ltd. etc.
- 6) List & addresses along with contact land line and mobile phone no. of Partners / Directors/proprietors.
- 7) Name, address and contact no. of the auditors of company/firm/LLP.
- 8) Solvency certificate issued by the banker of the firm/company/LLP.
- 9) Copy of resolution of Board of Directors / Partners expressing interest to bid in present project.
- 10) Details of existing other business / PPP of the firm on the letter head.
- 11) Memorandum and Articles of Association / Partnership agreement related to the party.
- 12) Name, address / phone no. of Authorized Signatory with written approval of the board / partner of bidding firm.
- 13) Attested copy of audited balance sheet and profit and loss account in support of annual turnover of the last three years preceding the year of commissioning i.e. 2013-14, 2014-15, 2015-16.
- 14) Certification of experience of running such/or similar facility for 5 years or more. Give



details of experience as below :

- a) Date of establishing Hemodialysis centre, with total no. years of operation, [configuration, model and make of the machine run (refurbished/new)]. The name & address of the institution where this model is running. Name, address and contact no. of the management head of that institution and concerned nephrologist.
- b) Financial Turnover : FY 2013-14, FY 2014-15, FY2015-16
- c) No. of Hemodialysis procedures (Hemodialysis, Hemodiafiltration, Plasmapheresis, SLED) conducted in last 3 years :

Year	Hemodialysis	Hemodiafiltration	Plasmapheresis	SLED
2013-14				
2014-15				
2015-16				

## **7. DISPUTE RESOLUTION CLAUSE**

7.1 In the event of any question, dispute or difference whatsoever arising between the parties to this Agreement out of or relating to the construction, meaning, scope, operation or effect of this Agreement or the validity of the breach thereof shall be referred to an Arbitrator to be appointed by the Vice Chancellor of the University. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable and the award made there under shall be final and binding upon the parties hereto, subject to legal remedies available under the Law.

7.2 Further any matter of dispute shall be put on trial in the local court at Varanasi.

**TABLE**

<b>S.No.</b>	<b>Procedure</b>	<b>Charges (Rs)</b>
<b>1</b>	<b>Hemodialysis (single use)</b>	
<b>2</b>	<b>Hemodialysis (reuse)</b>	
<b>3</b>	<b>Hemodiafiltration</b>	
<b>4</b>	<b>Plasmapheresis</b>	
<b>5</b>	<b>Femoral catheter (with guide wire, introducer needle, dressing kit, local anesthesia, 5 ml &amp; 10 ml dispovan)</b>	
<b>6</b>	<b>Double lumen kit (with suture, heparin, cap, mask, gloves, dressing kit, local anesthesia, 5 ml &amp; 10 ml dispovan)</b>	

**ANNEXURE I**

Form No. ....

**BANARAS HINDU UNIVERSITY**

**OFFICE OF THE REGISTRAR**

Reference No. BHU/...../...../

Dated: .....

**TENDER FORM**

**FOR Hemodialysis Unit (PPP model)**

1- Name and full address of Tenderer .....

.....

.....

2- Address to: The Registrar, Banaras Hindu University, Varanasi – 221005

3- Reference: Tender Notice No. .... / BHU / 2016-017 dated .....

4- Tender fee Rs. \_\_\_\_\_ deposited vide demand draft no. .... dated  
..... of ..... (Name and address of  
Banker)

5- We ..... (Name of Firm) agree to abide by all the terms & conditions  
as mentioned in (i) Tender Notice No. .... dated .....

6- All tender documents are complete in all respect and have been duly signed.

7- We have enclosed Earnest Money Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) in form of demand  
draft no. .... dated ..... of ..... (Name of  
Banker) in favour of The Registrar, BHU, Varanasi.

**Signature of tenderer with rubber stamp**

**ANNEXURE II**

**FORMAT OF BANK GUARANTEE FORM**

1. This guarantee should be furnished by a Nationalized Bank / Scheduled Bank, authorized by RBI to issue a Bank Guarantee.
2. The bank guarantee should be furnished on stamp paper of Rs. \_\_\_\_\_
3. The stamp paper should have been purchased in the Name of the Bank executing the Guarantee.
4. In the case of foreign bidder the B.G. may be furnished by an international reputed bank acceptable to the PURCHASE countersigned by any National / Scheduled Bank in India authorized by Reserved Bank of India.

-----  
DATE

BANK GUARANTEE NO.:

Ref.: .....

To

Banaras Hindu University

Varanasi

Dear Sirs,

In accordance with your 'Invitation to Bid' under your Tender No. ....

M/s: ..... herein after called the *second party*,  
with the following Directions on their Board of Directors / partners of the firm.

1. .... 2. ....

3. .... 4. ....

agree for the contract.

As an irrevocable Bank Guarantee for an amount of Rs. .... (in words and figures)  
valid for ..... days from ..... is required to submitted by the  
Contractor/Supplier which amount is liable to be forfeited by the purchaser in the event of

1) the withdrawal or revision of the offer by the Bidder as a condition within the validity period.

- 2) non-acceptance of the Letter of Intent / Purchase order by the bidder when issued within the validity period.
- 3) failure to furnish the valid contract performance guarantee by the bidder within one month from the receipt of the purchase order and
- 4) on the happening of any contingencies mentioned in the bid document.

We, the ..... Bank at ..... having our Head office at ..... (Local address) Guarantee and undertake to pay immediately on first demand by Banaras Hindu University at the amount of .....(in figure and words) without any reservation, protest, demur and recourse. Any such demand made by the Purchaser shall be conclusive and binding on the Bank irrespective of any dispute or difference raised by the purchaser.

The guarantee shall be irrevocable and shall remain valid up to .....

(This date should be 6 months after execution of the order). If any further extension of this guarantee is required the same shall be extended to such required period (not exceeding one year) on receiving instruction from M/s. .... On whose behalf this guarantee is issued. In witness whereof the Bank, through its authorized officer has set its hand and stamp on this ..... day of ..... at ..... witness ..... (Signature)

WITNESS

(Signature) .....

Name in (Block letters)

Designation .....

(Staff Code No.) .....

(Bank's common seal)

Attorney as per power of Attorney No.

Official address:

Date:

**ANNEXURE III**

**UNDERTAKING**

We solemnly affirm that the technicians deployed by our firm

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do possess the requisite qualification of Diploma (Dialysis technician) and are competent to run the hemodialysis machines and its accessories. Any consequent loss / damage to the machine or the patient due to improper handling of the equipments will be solely our responsibility and the Banaras Hindu University shall in no way held responsible for it.

Sd.  
(Authorized Signatory of the firm)  
With rubber stamp

## Annexure IV:

### Equipment:

SL No.	Name of Equipment	Required No.
1	Haemodialysis Machine	19
2	Hemodiafiltration Machine	1
3	Dialyser reprocessor	2
4	Dialyses Chair/ Semi fouler ABS panel Bed	20
5	Defibrillater with ECG Machine	1
6	Emergency Patient Transfer Trolley	3
7	Ambu Bag	2
8	UPS for 30 Minutes back up.	
9	Water Treatment Plant-1500 litres / hour	1
10	Minor Surgical Tools- SET	2
11	Crash Cart	2
12	Digital Multi monitor	6
13	Weighing machines	4
14	Computer with printer	1
15	Bins as per waste management code	6
16	Dressing set	20/shift

### EQUIPMENT SPECIFICATIONS

**A. There will be a tolerance of 5% on all numerical values of all specified parameters.**

**B. Dialysis machine, RO System and consumables should be US FDA OR European CE approved**

**C. Blood tubing should be single use for all patients(reuse not permitted).**

**D. Single use dialyzer and blood tubing for seropositive patients.**

**E. Dialyzer should be FDA/European CE approved polysulfone or equivalent high flux dialyzers**

**F. Maximum use of dialyzer not more than 10 times/80% of bundle volume which ever is earlier.**

## **Hemodialysis area**

The Second party will be made available with the space for setting up the Hemodialysis unit and water at the input of the Space. The Second Party will provide the internal connections for electricity as well as Water –Treated as well as Non Treated. The HDU-SP will have to bear all the cost for Electricity connection, water supply as well as its consumption

The Hemodialysis area will have following features

- Areas for dialyzing seropositive should be separated from seronegative patients. These spaces would have independent drainage, independent water supply, independent air handling and separate personnel facilities.
- Air conditioning to achieve 70<sup>0</sup> F to 72<sup>0</sup> F temperatures and 55 to 60% humidity. Each machine area should be easily observed from the nursing station which will be included in this area.
- Facilities for non invasive blood pressure monitoring of all patients and ECG monitoring of selected patients are needed.
- Head end of each bed should have stable electricity supply (at least 3 outlet of 5/15 amps), oxygen and vacuum outlet, treated water inlet and drainage facilities.
- Nursing station should have enough space for adequate number of nurses/technicians depending on the number of dialysis machines.
- Cardiac resuscitation equipment and emergency medicines should be available.
- Two oxygen cylinders and two suction machines should be available.

## **Preparation work and storage area**

The preparation, work and storage areas should have the following:

- Independent area is needed for reprocessing the dialyzers. This should have a work bench with sink having side board & drainage. The work bench should be supplied with treated as well as untreated water which are separately marked. Two sinks for the work bench should be provided. The space should be sufficient for at least two persons working simultaneously.
- There should be two storage areas, one for storage of new supplies and one for reprocessed dialyzers. The principle of dry storage area is to be able to store 1 months supply of dialyzers, tubing, Haemodialysis concentrate solutions, IV fluids. However second party will ensure all time availability of items and



Hemodialysis should not suffer because of this. It should also have space for stationery, linen etc. The wet storage is for reprocessed dialyzers & tubing. The dry storage area should be separate from the wet storage.

- A clean room with a work bench is needed for preparation of sterile trays for dialysis Start-up kit & for preparation of injections & storage of emergency equipment.
- This area should have a designated place for keeping wheelchair /trolleys for transporting
- . Patients & weighing scale. There should be an area for dirty utility. This area should be located in such a way that personnel and material need not come from dirty utility to clean area of dialysis.

## **Haemodialysis Machine Specification**

### **Description of Function**

1.1 Haemodialysis is a method for removing waste products as well as free water from the blood when the kidneys are incapable of this (i.e. in renal failure). It is a form of dialysis and is therefore a renal replacement therapy.

### **2 Operational Requirements**

2.1 Machine should have facility for Acetate, Bicarbonate, Sequential dialysis (Isolated UF)

2.2 Upgradable to future software developments and can be linked with Patient Data Management System

2.3 The blood pump should run even in the absence of water or dialysate flow.

### **3 Technical Specifications**

3.1 Should have facility for conventional and High flux dialysis.

3.2 The Machine to have one bacterial filter (Pyrogen Filters) at the water inlet only. The filter to be replaced as recommended by the manufacturer.

3.3 Battery back-up for 20-30 minutes to run the machine with Extracorporeal circuit.

3.4 Should have Na, and UF profiling

3.5 Dialysate temperatures selectable between 35 degrees C to 39 deg. C

3.6 Variable conductivity setting between 12 to 15

- 3.7 Should have variable dialysate flow 200-800 ml/min.
- 3.8 Should have facility to show trends curve of all parameter for 15-20 minutes
- 3.9 Heparin pump with syringe sizes up to 20/30 ml with pump flow rate from 1-10 ml/hr( 0.1 ml increments)
- 3.10 Stroke pressure operated short term single needle dialysis
- 3.11 Ultra filtration 0.1 to 2.5 litres/hr. The in and out fluid circuit must be separated so that there is no chance of contamination in the event of membrane rupture.
- 3.12 Treatment parameter should be displayed by graph and digitally both
- 3.13 Should have integrated heat and chemical disinfection facility.
- 3.14 Should have accurate feedback control conductivity mixing technique.
- 3.15 Should have drain facility.
- 3.16 Should have accurate UF control by flow measurement technique.
- 3.17 Extra facilities like Blood Volume sensor, Bicarb Select technique and online clearance kt/V.
- 3.18 All important data should be pre-setted so that machine can be used anytime without feeding data every time
- 3.19 Should have automatic self test facility
- 3.20 Should have auto ON/OFF Facility
- 3.21 Should have Colour TFT/LCD Display with minimum 10” Screen.
- 3.22 Easy to service, troubles shoot and calibrate
- 3.23 Machine can be connected to computer to feed all data and trouble shoot whenever any problem
- 3.24 Blood pump rate from 20/30-500 ml/min adaptable to standard A-V bloodlines.
- 3.25 Ability to monitor pulse rate and NIBP with graphic and tabulated trends.
- 3.26 Audio visual alarms on limit violation of conductivity, blood leak, air leak, transmembrane pressure alarms,, Dialysis temperature alarm, dialysis can empty alarm, end of disinfection alarm, bypass alarm and blood pump stop alarm
- 3.27 TDMS facility must be present

**Alarm for reverse Ultrafiltration.**

Machine should have real time monitoring for clearance of adequacy of dialysis during treatment. Machine should have KT/V monitor and display clearance, plasma, sodium, current KT/V and time required to achieve target KT/V.

Machine should have mixing for Bicarb Solution using dry bicarbonate cartridge(optional).

**4. System Configuration Accessories, spares and consumables**  
SI Description

4.1 System as specified

#### **4. Environmental factors**

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 to 50deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%

#### **6. Power Supply**

##### **SI Description**

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up for the entire unit

#### **7. Standards, Safety and Training**

##### **SI Description**

7.1 Should be FDA or European CE(Notified Body) Certified product

7.2 Manufacturer/Supplier should have ISO certification for quality standards.

7.3 Shall comply with IEC 60601-2-16 SAFETY requirements of medical electric equipment part2- particular requirements for the safety of Haemodialysis equipment.

7.4 Comprehensive warranty for 2 years and 5 years AMC after warranty

7.5 Comprehensive training for lab staff and support services till familiarity with the system.

7.6 Should have local service facility .The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

#### **8 Documentation**

##### **SI Description**

8.1 User/Technical/Maintenance manuals to be supplied in English.

8.2 Certificate of calibration and inspection from factory with date of manufacturing.

8.3 List of Equipment available for providing calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.

8.4 List of important spare parts and accessories with their part number and costing.

8.5 Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out

## **Specification- Water Treatment Plant**

Equipment Specifications for Water Treatment System for Hemodialysis

### **1 Description of Function**

1.1 Water Treatment system is required to produce pure water for dialysis

### **2 Operational Requirements**

SI Description

2.1 The system should be sufficient for online operation of 20 machines with pure water capacity of 1500 litres per hour/capacity to run 20 machines round the clock with provision to increase capacity if number of machines increased.

### **3 Technical Specifications**

SI Description

3.1 The system should comprise of pre treatment modules such as sand filter, activated carbon filter, water softener, 5 micron particulate filter and deionizer before the reverse osmosis unit and post R.O Bacterial Filters (1 micron) and UV light Disinfection for yielding high purity water.

3.2 All pre treatment modules should have programmable back wash and regeneration facility. These stages should be designed to handle water flow of 1500-1800 litres/hour.

3.3 R.O. Unit should be compact in sleek cabinet, housing membrane, and high pressure pump and bypass mechanism. The control unit should be microprocessor/ microcontroller controlled. A 5 micron filter should protect the membrane.

3.4 The entire unit should have adequate monitoring of input and output water conductivity, feed water pressure and rejection flow rate

3.5 The system should have protection alarm against low feed water, high output conductivity and high temperature of pump motor.

3.6 The system should include online water distribution to 20 machines in loop so that the unused water may be fed back to R.O. Unit, thus saving on water rejection.

3.7 The system should have programmable disinfection /de-calcification facility using commonly available disinfection / decalcification chemicals.

3.8 The unit should have programmable and automatic rinsing/flushing facility, at regular intervals, when system is not in use, to prevent drying of filter media and R.O. Membrane.

3.9 The system should accept feed water with TDS up to 1500 mg/litre and hardness up to 1 dH with 0.5% rejection of TDS & hardness and 99% rejection of bacteria and endotoxins.

3.10 The water distribution loop, booster pump and storage water tank should be made up of stainless steel (preferable)/ Food Grade PVC. Storage water tank should have capacity of at least 5000 litres with water level controller, outlet valves and easy cleaning provisions.

3.11 PEX pipelines (preferably black) in the hemodialysis unit for treated RO water supply to the machines.

**3.11** Separate water supply and drainage to the seropositive and seronegative machines.

#### **4 System Configuration Accessories, spares and consumables**

##### **SI Description**

4.1 System as specified

4.2 The vendor should provide a system on a turnkey basis including all civil and electrical works including two booster pumps in parallel for providing water delivery. The vendor should inspect the site for this purpose.

4.3 The vendor should supply adequate filter cartridges, media or resins to last for at least 5 years. The vendor should visit the site and check the water quality.

#### **5 Environmental factors**

##### **SI Description**

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 - 50 deg C and relative humidity of 15-90%

5.2 The hospital will provide vacant space, water outlets and electrical points as specified by the Second party. Other plumbing works and civil works will have to be undertaken by the second party. Second party should ensure that there is no environmental damage of any kind takes place.

5.3 The unit shall be capable of operating continuously in ambient temperature of 10 -40 deg C and relative humidity of 15-90%

#### **6. Power Supply**

##### **SI Description**

6.1 Power input: 220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate Indian plugs and sockets.

#### **7. Standards, Safety and Training**

##### **SI Description**

7.1 Should be FDA , CE, BIS approved product

7.2 Output water quality should match AAMI(Association for the Advancement of Medical Instrumentation) standards for Haemodialysis Water.

7.3 The vendor should provide preventive maintenance which includes chemical checks, bacterial and pyrogen checks periodically during the warranty period.

7.4 Comprehensive warranty for 5 years and provision of AMC for next 5 years.

7.5 Should have local service facility .The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

#### **8 Documentation**

## SI Description

8.1 User/Technical/Maintenance manuals to be supplied in English.

8.2 Certificate of calibration and inspection.

8.3 List of Equipment available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.

8.4 List of important spares and accessories with their part number.

8.5 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

8.6 The water quality report on installation and every three months by NABL accredited laboratory.

## **Dialyser Reprocessor System**

1.1 Dialyzer re processors are systems which cleans the dialyzer for reuse and reduce overall dialysis expenses.

## 2 Operational Requirements

### SI Descriptions

2.1 Should have fully automatic operation. In built dedicated software should operate without external computer. Should have connectivity with other reprocessors or external computers, if needed.

2.2 Option of semiautomatic operation for customized cleaning.

2.3 4 station vacuum chamber venturi assembly up to 25 inches vacuum to run on RO reject water/ tap water or a positive pressure system.

## 3 Technical Specifications

### SI Description

- 3.1 Should be able to clean both high flux and low flux dialyzers and haemodiafilters
- 3.2 Should be safe for cellulose based and synthetic membranes.
- 3.3 Should be compatible with sterilants available in open market.
- 3.4 Should have LCD Screen and menu guided operations.
- 3.5 Should have 8-10 standard programs and facility of customized programs.
- 3.6 Water requirements - flow 3 litres/ minute and pressure 35-50 psi.
- 3.7 It should have regulators, pressure gauges to monitor pressures.
- 3.8 It should be able to measure the bundle volume.

#### 4 System Configuration Accessories, spares and consumables

##### SI Description

#### 4.1 System as specified

#### 5 Environmental factors

##### SI Description

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0- RFP- HDU-SP Part-III- Schedules to the Agreement Page. 23 50deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90% 5.3 Vendor should specify the water, electricity and civil work requirements for installation of the equipment.

## 6 Power Supply

### SI Description

6.1 Power input to be 220-240 VAC, 50Hz fitted with Indian plug

6.2 Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.

( Input 160- 260 V and output 220-240 V and 50 Hz)

## 7 Standards, Safety and Training

### SI Description

7.1 Should be FDA , CE,ISO Certified product

7.2 Manufacturer/Supplier should have ISO certification for quality standards.

7.3 Comprehensive warranty for 2 years and 5 years AMC after warranty

7.4 Comprehensive training for lab staff and support services till familiarity with the system. 7.5 Should have local service facility .The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

7.6 Manufacturer/Supplier should have ISO certification for quality standards.

## 8 Documentation

### SI Description

8.1 User/Technical/Maintenance manuals to be supplied in English.



8.2 Certificate of calibration and inspection.

8.3 List of Equipment available for providing calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.

8.4 Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.

8.5 User list to be provided with performance certificate.

### **Equipment Specifications for Haemodialysis Bed.**

#### SI Description

1.1 Haemodialysis Bed is used for administrating dialysis to the patients comfortably.

## 2 Operational Requirements

#### SI Description

2.1 Should be ergonomically designed and comfortable to the patient

2.2 Should allow the patient to rest in full sitting position and lying position.

## 3 Technical Specifications

#### SI Description

3.1 Should have electronically controlled adjustments for back section, leg section and height.

3.2 Should have a patient hand set with controls for all positions.

- 3.3 Armrest should fold to allow side entry of the patient.
- 3.4 Head rest should be detachable and should have manual Trendelenburg facility.
- 3.5 Sheet cushion should be made of proper density foam and should have a smooth surface for easy hygiene and cleaning.
- 3.6 Frame should be made up of corrosion free galvanized steel with powder coating and should have four 150mm diameter swivelling castor two of which should be lockable
- 3.7 Should be able to withstand a maximum load of 150 Kg.
- 3.8 Should have facility for height adjustment.
- 3.9 Dimensions(approx.+/- 5 cm): Width 63 cm x Length 195 cm( fully stretched)x Adjustable Height( Min 56 cm; Max 78 cm from ground)
- 3.10 Rubber buffers are to be provided RFP- HDU-SP Part-III- Schedules to the Agreement Page. 25
- 3.11 Should have an option for manual operation of all controls
- 3.11 Should have a detachable drip stand and a tray table.

#### 4 System Configuration Accessories, spares and consumables

##### SI Description

4.1 System as specified-

#### 5 Environmental factors

##### SI Description

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40 deg C and relative humidity of 15-90%

## 6 Power Supply

### SI Description

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.( Input 160-260 V and output 220-240 V and 50 Hz)

## 7 Standards, Safety and Training SI Description

7.1 Should be FDA , CE, approved/certified product

7.2 Manufactures/Supplier should have ISO certificate to Quality Standard.

7.3 Comprehensive warranty for 2 years and 5 years AMC after warranty

7.4 Should have local service facility .The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

7.5 All electrical actuators and mechanisms should be housed inside the structure making the product safer

7.6 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

## **Minor Surgical Tools with Electrical Instrument Sterilizer.**

Complete set should include the following:

- ∑ Dressing Scissors 6, (sharp/blunt, curved)      ∑ Iris Scissors 4.5, straight
- ∑ Mayo Scissors 5,(straight)      ∑ Littauer Stitch Scissors 5,
- ∑ Gillies Dissecting Forceps (2) teeth (6),      ∑ Dissecting Forceps 5,block end
- ∑ Halstead Mosquito Artery Forceps 5, straight      ∑ Gillies Skin Hook 2
- ∑ Kilner Cat Paw Retractor 1      ∑ McDonald Dissector 1
- ∑ Volkmann Scoop, medium 1
- ∑ No.3 scalpel handle suitable for blades #10 - #15      ∑ Probe 1
- ∑ Fine grain leather instrument case 1
- ∑ Mayo Hegar Needle Holder 6, with TC inserts and gold plated handles

Made up of Medical Instrument Grade Stainless Steel. Manufactures name engraved and CE Certified. The metal should be lightweight surgical alloy, non-standing, corrosion free, nonrusting and should be able to withstand the temperature of autoclaving. It should be not light reflecting (surface should not be shiny) with a buff coating. It should not be brittle.

**Digital Multimeter** CE Marked. - Four Digits Display.

**UPS-** ISI Marked as suitable and approved models.

**Dressing Set** Each set should contain Two SS Bowl of Approx.300 ml, Cut Sheet-02 (Adequate size), Mosquito Artery Forceps 6”- 02

**Defibrillator with ECG Machine.**

1 Description of Function SI Description

1.1 Defibrillator is required for reviving the heart functions by providing selected quantum of electrical shocks with facility for monitoring vital parameters.

2 Operational Requirements SI Description

2.1 Defibrillator should be Bi- Phasic, light weight and latest model

2.2 Should monitor vital parameters and display them

2.3 Should print the ECG on thermal recorders.

2.4 Should work on Manual and Automated external defibrillation (AED) mode. Manual selection up to 200 J.

2.5 Should be capable of doing synchronised & a synchronized cardioversion

2.6 Can be operated from mains as well as battery

2.7 Should have defibrillator testing facility

Technical Specifications SI Description

- 3.1 Should be a Low Energy Biphasic defibrillator monitor with Recorder, having capability to arrest all arrhythmia within a maximum energy of 200 Joules
- 3.2 Should monitor ECG through paddles, pads and monitoring electrodes and Defibrillate through pads and paddles. Should have Automatic Lead switching to see patient ECG through paddles or leads
- 3.3 Should measure and compensate for chest impedance for a range of 25 to 1500hms
- 3.4 Should have a built in 50mm strip printer/ thermal recorder
- 3.5 Should have charging time of less than 3 seconds for maximum energy. Charging indicator should be included.
- 3.6 Should have bright electroluminescent display for viewing messages and ECG waveform of 4 seconds
- 3.7 Should have external paddles with paddles contact indicator – for good paddle contact. Both Adult and paediatric paddles should be available.
- 3.8 Should have event summary facility for recording and printing at least 250 events and 50 waveforms.
- 3.9 Should have a battery capable of use for at least 90 minutes or 30 discharges.
- 3.10 Should be capable of printing Reports on Event summary, configuration, self test, battery capacity etc
- 3.11 Should have facility for self test/check before use, and set up function.
- 3.12 Should have SP02 and NIBP integrated facility.

## 5 Environmental factors SI Description

5.1 The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%

5.2 The unit shall be capable of being stored continuously in ambient temperature of 0 - 50deg C and relative humidity of 15-90%

5.3 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

## 6 Power Supply SI Description

6.1 Power input to be 220-240VAC, 50Hz 6.2 Resettable overcurrent breaker shall be fitted for protection

## 7 Standards, Safety and Training SI Description

7.1 Should be FDA and CE approved product

7.2 Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms. (OR EQUIVALENT BIS Standard) 7.3 Drop Test-Withstands 1 meter drop to any edge, corner or surface.

7.4 Should conform to international test protocols on exposure to shock forces and to vibration forces. The standard should be documented.

7.5 Should meet IEC 529 Level-2 (IP2X) for enclosure protection solid foreign object ingress.

7.6 Should meet IEC 529 Level 3 (IP3X) (spraying water) for enclosure protection, water ingress. 7.7 Should have local service facility .The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

## **Emergency Patient Trolley**

### 1 Technical Specifications SI Description

1.1 Should have a three-section mattress base, made of X-Ray translucent high-pressure laminate. Includes facility to insert X-Ray Cassette from either the sides or the ends of the trolley.

1.2 Should be able to X Ray the patient from positions along the entire length and width of the trolley.

1.3 Should have pneumatic step less adjustment for back section. Trendelenburg (app. 14Degree) and reverse Trendelenburg (app.7 Degree).

1.4 Should have hydraulic height adjustment approx. 535-905 mm, by means of a foot paddle on either side of the trolley.

1.5 Frame of the trolley should move with mattress base when foot section / back section are adjusted.

1.6 Frame should be made up of epoxy powder coated steel

1.7 Should have Central braking system with steering facility

1.8 Should be equipped with heavy duty castors diameter 150 mm



1.9 Should have bumpers at all the four corners of the trolley

1.10 Should have facility to fix IV rod at all the four corners and middle of mattress base frame. 1.11 Should have place for fixing 'B' Type Oxygen Cylinder

1.12 Mattress should be made of durable lectrolite material, should be antistatic, should be secured with self adhesive straps.

Product should be FDA/CE/ISI approved

Manufacturer should be ISO certified for quality standards.

Comprehensive warranty for 5 years and provision of AMC for next 5 years

### **Weighing Machines**

Adult Weighing Scale

Specification

- Sturdy digital platform weighing machine for adult and children.
- Zero adjustment facility should be there.
- Sensitivity: 100 g
- Range of weighing: 0-150kg
- The manufacturer shall have the valid manufacturing license and should have model approval by the legal metrological Deptt. and the weighing scale must be stamped by the by legal metrological Deptt. In case of distributor, the bidder

should have valid distributor and repair license from legal metrological Deptt,  
Govt. of UP. ISO 9001 certified manufacturer (certificate to be submitted).

## ANNEXURE V

### Staff Specifications:

S.No.	Staff Group	Particulars	Descriptions
1	<b>Contract Manager</b>  (1)	<b>Training</b>	Any graduate with PG Diploma in Finance / Materials Management / Marketing Management / CA with experience of 5 years in managing contracts / procurement functions / project management (dialysis unit experience preferable)
		<b>Job description</b>	1. To be involved in day to day management of inventory 2. Raising invoicing as per contract documentations 3. To address all the contract obligations 4. Day to Day liaison on contract clarifications with stakeholders.
		<b>Appraisal update</b>	Shall coordinate all internal as well as external audit and shall address all audit issues
		<b>Updating</b>	Shall keep himself updated on all financial asnd contracting obligations
2	<b>Dialysis Technician(Patient: Technician 4:1)</b>	<b>Training</b>	Have passed at least two year certificate course in dialysis technique (after 12th standard) certified by a Govt.authority with minimum two years experience of working in recognized/registered private hospital or Govt.hospital (experience certificate from concerned hospital and recommendation letter from concerned nephrologist)

3	<b>Dialysis assistant</b>  <b>(Patient: assistant 4:1)</b>	<b>Training</b>	Have passed at least two year certificate course in dialysis technique (after 12th standard) certified by a Govt.authority
4	<b>Staff Nurse (5:1)</b>	<b>Training</b>	GNM. Should be registered with the local Nursing Council.(6 months exposure in dialysis unit preferred)
5	<b>Biomedical Engineering Technician</b>  (1 Technician should be available for 24 hour on call services)	<b>Training</b>	Diploma in Biomedical/Electronics engineering/ Certified by Health Sector Skill Council/NCVT with at least 2 Years of experience in maintaining Dialysis Machines and associated RO Plants. Should have functional knowledge of Dialysis Machines working and troubleshooting
		<b>Job description</b>	Breakdown and preventive maintenance. Co-ordinating with the company engineers. Spares and accessories inventory management Co-ordinating with Technicians, Nurses and Doctors
		<b>Audit</b>	Should maintain equipment history including installation,maintenance and calibration history and monitor vendor performance as well as inventory levels of essential spares.
		<b>Up gradations</b>	Shall attend training at least once a year at vendor's premises and update on the latest development in dialysis machines as well as water treatment
6	<b>Dietician</b>	<b>Job description</b>	At least thrice per week (alternate day) visit in the dialysis unit to counsel and guide the patients regarding dietary management in collaboration with the doctors on duty.(dietary supplements to be advised only after consulting the consultants of the department)
7	<b>Sweepers both male</b>	<b>Job description</b>	As per the existing norms and standards of any critical care unit

	<p><b>and female at a time</b></p> <p><b>with round the clock</b></p> <p><b>service</b></p>		
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**Additional staff or increase in number of staff can be considered for smooth running of the unit by mutual consent with the department and second party.**

**Candidates with higher work experience would have added advantage.**

**Open interview shall be conducted by the *second party* in conjunction with the *department* for the recruitment of technicians and nurses. All candidates shall be assessed by a pre-interview written module (Multiple Choice Questions) of 15 minutes, to assess their knowledge about dialysis procedure and technique. This module would not however be for any kind of short listing and the marks obtained (by this module) would be presented for discretion of the selection committee (comprising of the *head/head's* nominee, *second party owner*).**

**Age of the candidate shall not be a bar for recruitment, as the university would like to have candidates with maximum work experience.**

**BANARAS HINDU UNIVERSITY**  
**Department of Nephrology**  
**Institute of Medical Science**  
VARANASI-221005

**Tender Notice**

**Ref: BHU/SSH/Nephro/2016-17/334**

**Dated: 20-03-2017**

Online tenders are hereby invited **in two cover system** from reputed service provider for

- **HEMODIALYSIS UNIT (PPP MODEL)**

Bidders can download complete set of bidding documents from e- procurement Platform <http://eprocure.gov.in/eprocure/app> from 01-04-2017 onwards. Bidders need to submit the bids online by uploading all the required documents through <http://eprocure.gov.in/eprocure/app>.

**Last Date/ Time for receipt of bids through e-procurement is: 24-04-2017 upto 05:00PM.** (Server time). Late bids shall not be accepted.

For further details regarding Tender Notification & Specifications please visit website: <http://eprocure.gov.in/eprocure/app> and [www.bhu.ac.in](http://www.bhu.ac.in).

**CRITICAL DATE SHEET**

<b>Published Date</b>	<b>01-04-2017 (04:00 PM)</b>
<b>Bid Document Download Start Date</b>	<b>01-04-2017 (04:00 PM)</b>
<b>Clarification Start Date</b>	<b>01-04-2017 (04:00 PM)</b>
<b>Clarification End Date</b>	<b>04-04-2017 (05:00 PM)</b>
<b>Pre bid meeting</b>	<b>NA</b>
<b>Bid Submission Start Date</b>	<b>05-04-2017 (11:00 AM)</b>
<b>Bid Document Download End Date</b>	<b>24-04-2017 (05:00 PM)</b>
<b>Bid Submission End Date</b>	<b>24-04-2017 (05:00 PM)</b>
<b>Bid Opening Date</b>	<b>26-04-2017 (11:30 AM)</b>

sd/-  
Registrar