

Soft loans to be granted by Government of the Republic of Austria



**PROJECT PROPOSAL TO RENEW AND INSTALLATION OF  
MEDICAL INSTRUMENTS, EQUIPMENTS AND TO PREPARE  
HUMAN RESOURCES OF GENERAL HOSPITAL FOR STATE SPECIAL  
SERVANTS**



ULAN BATOR, MONGOLIA

2017

**Soft loans to be granted by Government of the Republic of Austria**

**Project proposal to renew and installation of medical instruments,  
equipments and to prepare human resources  
of Civil Servant General Hospital**

**Ulan Bator, Mongolia  
30, November, 2016**

**Project proposal to renew and installation of medical instruments, equipments and to prepare human resources of Civil Servant General Hospital**

**CHAPTER**

- 1. INTRODUCTION**
- 2. SUMMARY**
- 3. NEEDS AND REQUIREMENTS OF THE PROJECT IMPLEMENTATION**
- 4. EQUIPMENT AND DEVICES TO BE DELIVERED IN A WITHIN PROJECT FRAME**

## **ONE.INTRODUCTION**

The project to renew and installation instruments and equipment of Civil Servant General Hospital and to prepare human resources is the significant project to improve health care service quality to the service related population, and sufficiency train healthcare professionals.

### **Objective**

Improving diagnostics and management capacity of Civil Servant General Hospital, would progress quality and sufficiency of health care service for related population.

### ***Purpose***

- Improvement of diagnostics and management capacity in Civil Servant General Hospital will lead in Mongolia, would have the opportunity to reduce load of other Central Hospitals, to prevent any diseases, to reduce a mortality rate and to provide conditions for improving health quality statistics.
- It will improve medical aid and service quality, provide favorable conditions to reduce waiting and delay and make contribution for implementing the targeted programs in medical sector.
- Within a framework of the project, conditions to install new equipment, to maintain and equip rooms that meet special requirements shall be created.
- Doctors and specialists shall be specialized by training for equipment utilization.

### ***Project background***

The Civil Servant General Hospital shall be constructed and designated as means of a medical center that renders basic and some professional medical services for over 250 thousand people such as total urban and rural civil servants, their family members, veterans, who work for Border Protection, Police, Judicial Decision Enforcement authorities, General Authority of Archive, Justice authorities, National Center for Intellectual Property and State Registration, Foreign Immigration office, Court, Prosecutor's office, Intelligence Agency, Emergency authority, National Corruption Agency and Customs (under the authority of the Ministry of Justice and Domestic Affairs) and residents of the Chingeltei district; and its activities shall be implemented periodically.

**The aforementioned center shall render principal and other directional aids and services in two ways: stationary and ambulatory.**

- Basic professional assistance and service: internal medicine, neurology, children, gynecology, surgery, trauma, dental, orthopedic and infection diseases.
- Other health assistances and services: rehabilitation, traditional medicine, skin and allergy, ophthalmology, ENT (Ear, Nose, Throat), emergency medicine, health care service during the disasters and emergency circumstances, pathanatomical examine and service.

### **For diagnostics:**

**X-ray diagnostics:** X-ray, Ultrasound, Computer Tomography (CT), Magnetic-resonance tomography (MRI), endoscope, Dopplerography (Doppler ultrasonography)

**Laboratory diagnostics:** Clinical hematology, Biochemistry, Immunology, Bacteriology, Histopathology

Prevention and Public health care services shall be provided for all urban and rural units. Annually 7500-8000 clients/patients shall hospitalize and admit in specialized sections (such as internal medicine, neurology department, surgery, trauma, children, gynecology and cancer) in this hospital, and surgery treatment shall be rendered to 2000-2500 patients.

Also there is capacity of 15 outpatient clinic service for basic and specialized professional cabinet, 8 diagnostic units. This hospital can provide central laboratory analyze for about 300 per day, for about 10000 people per year.

Upon protocol No.122 by Government of Mongolia from 03 Nov 2012, Civil Servant General Hospital and Central hospital for Defense and Law Enforcement servants have unified and had been running complex activities (2013-2016). Civil Servant General Hospital has been restored and reestablished under Protocol No.68 by Government of Mongolia from 31 Aug 2016 and it has started its operation in new building with a space floor of 21 000 square meter.

Regarding to unification with Central hospital for Defense and Law Enforcement servants in recent 3 years, there is no equipment renovation, lifetime of most equipment are expired, some equipment and spare parts stopped to manufacture, they are technologically outdated. In respect with that, it is impossible to satisfy daily normal activities.

Within a framework of the project, it needs to provide equipment and new advanced modern technology that are necessarily required for running medical service, to install devices and equipment of the project and to fit rooms and cabinets that meet special requirements.

It should get to involve physicians and nurses in training for equipment use.

### ***Project outcomes:***

- It shall be a complex hospital with hospital designated solutions, flow and new updated equipment that fully meet the structural and operational requirements of MNS 5095:2013 for this Hospital.
- Improving diagnostics and treatment capacity of Civil Servant General Hospital places at leading position in Mongolia, reduces loads of other central hospitals, prevent from diseases, reduces mortality rates, and provides improving conditions of health quality statistics.
- It has planned to construct 6 air pressure laminar flow and vacuum surgery blocks that meet applicable international technology standards in section B of the hospital. Functioning at professional level of state central hospital and medical centers using this technology shall make renovation for surgery service, its quality and safety shall be completely secured, modern standards shall be satisfied.
- Introducing modern advanced technology such as 1.5Tesla Magnetic resonance imaging (MRI) and 128 sliced Computer Tomography (CT) would have the opportunity to make qualitative diagnostics, to reduce occasion to go abroad for making such kinds of diagnostics and to make definite contribution to retard currency flow that is going out.
- Developing in way of reducing ineffective expenses of resources in way of unnecessary hospitalization, some micro surgeries, endoscope surgery, dialyze therapy, biopsy and some diagnostics, organizing 'Outpatient treatment stationary' for day time therapy, would meet worldwide tendency for refusing hospitalization, therefore and would improve medical and economic effectiveness and profits.

- This Hospital shall run mobile border group for prevention in order to enlarge public health care service, to provide material base, to conduct prevention examination of the population according to definite plan and graphics, especially get remote unit, branch and local authority involved in exams, to render required assistance and service if necessary, to conduct health training and give necessary training and recommendations.
- To urgent surgery assistance for adults in Chingeltei district.
- To construct and run trauma first aid service for residents in appropriate areas and territory
- To render health care service for children by ambulatory and hospitalization.
- To render urology and cancer service by ambulatory and hospitalization, therefore to conduct some cancer operations.
- To collaborate with professional medical center and hospitalize patients with some occupational diseases. (20 beds under agreements)
- Rendering the abovementioned assistances and services would improve sufficiency, reduce clients' waiting and delay, increase satisfactions and reduce loads of other Health centers.
- Within a framework of the project, labor conditions to install new equipment and to maintain rooms and cabinets with special requirements shall be provided.

### ***Total cost of the project and financing resources***

Total cost of the project is amounted to 7,206,374 euros (1 euro costs MNT 2 620 as rate of Mongol bank as of Dec 01, 2016) or MNT 18,880,700.000. Financing for the said project shall be funded with resources of loan/aid that is approved under the Financial Cooperation Agreement between Government of the Republic of Austria and Government of Mongolia in order to spend this financing for medical sector.

## **TWO. SUMMARY**

<b>Project name</b>	Project proposal to renew and installation of medical instruments, equipments and to prepare human resources of Civil Servant General Hospital		
<b>Implementing organization: Relevant agency</b>	The Ministry of Justice and Home Affairs	<b>Relevant Organization</b>	The Ministry of Justice and Home Affairs Civil Servant General Hospital
<b>Project duration</b>	One year		
<b>Project budget</b>	<b>7.000.000 euro</b>		
<b>Funding</b>	Funding will be used for purchase, installation, of necessary equipment, refurbishing of rooms, training of operation and human resource capacity building		

### Project summary

<b>General information</b>	Project proposal to renew and installation of medical instruments, equipment's and to prepare human resources of Civil Servant General Hospital
<b>Project goals</b>	<p><b>Objectives:</b></p> <p><b>Objective</b> Improving diagnostics and management capacity of Civil Servant General Hospital, would progress quality and sufficiency of health care service for related population.</p> <p><b>Purpose</b></p> <ul style="list-style-type: none"> <li>• Improvement of diagnostics and management capacity in Civil Servant General Hospital will became one of the leading hospital in Mongolia, would have the opportunity to reduce load of other Central Hospitals, to prevent any diseases, to reduce a mortality rate and to provide conditions for improving health quality statistics.</li> <li>• It will improve medical aid and service quality, provide favorable conditions to reduce waiting and delay and make contribution for implementing the targeted programs in medical sector.</li> <li>• Within a framework of the project, conditions to install new equipment, to maintain and equip rooms that meet special requirements shall be created.</li> <li>• Doctors and specialists shall be specialized by training for equipment utilization.</li> </ul>
<b>Project outcomes</b>	<ul style="list-style-type: none"> <li>- It shall be a complex hospital with hospital designated solutions, flow and new updated equipment that fully meet the structural and operational requirements of MNS 5095:2013 for this Hospital.</li> <li>- Improving diagnostics and treatment capacity of Civil Servant General Hospital places at leading position in Mongolia, reduces loads of other central hospitals, prevent from diseases, reduces mortality rates, and provides improving conditions of health quality statistics.</li> <li>- It has planned to construct 6 air pressure laminar flow and vacuum surgery blocks that meet applicable international technology standards in section B of the hospital. Functioning at professional level of state central hospital and medical centers using this technology shall make renovation for surgery service, its quality and safety shall be completely secured, modern standards shall be satisfied.</li> <li>- Introducing modern advanced technology such as 1.5Tesla Magnetic resonance imaging (MRI) and 128 sliced Computer Tomography (CT) would have the opportunity to make qualitative diagnostics, to reduce occasion to go abroad for making such kinds of diagnostics and to make definite contribution to retard currency flow that is going out.</li> <li>- Developing in way of reducing ineffective expenses of</li> </ul>

	<p>resources in way of unnecessary hospitalization, some micro surgeries, endoscope surgery, dialyze therapy, biopsy and some diagnostics, organizing 'Outpatient treatment stationary' for day time therapy, would meet worldwide tendency for refusing hospitalization, therefore and would improve medical and economic effectiveness and profits.</p> <ul style="list-style-type: none"> <li>- This Hospital shall run mobile border group for prevention in order to enlarge public health care service, to provide material base, to conduct prevention examination of the population according to definite plan and graphics, especially get remote unit, branch and local authority involved in exams, to render required assistance and service if necessary, to conduct health training and give necessary training and recommendations.</li> <li>- To urgent surgery assistance for adults in Chingeltei district.</li> <li>- To construct and run trauma first aid service for residents in appropriate areas and territory</li> <li>- To render health care service for children by ambulatory and hospitalization.</li> <li>- To render urology and cancer service by ambulatory and hospitalization, therefore to conduct some cancer operations.</li> <li>- To collaborate with professional medical center and hospitalize patients with some occupational diseases. (20 beds under agreements)</li> <li>- Rendering the abovementioned assistances and services would improve sufficiency, reduce clients' waiting and delay, increase satisfactions and reduce loads of other Health centers.</li> <li>- Within a framework of the project, labor conditions to install new equipment and to maintain rooms and cabinets with special requirements shall be provided.</li> </ul>
<p><b>Project plan</b></p>	<p><b>Phase 1:</b> Project concept note will be developed by 1<sup>st</sup> of December, 2016</p> <p><b>Phase 2:</b> Project will be implemented until 3 quarter of 2017. B block of the Hospital is expected to commissioning by July 2017.</p> <p>It is required that vacuum isolated surgery rooms and sterilization and disinfection rooms should be built in while construction is undertaking. As for other equipment, it can be purchased after construction is finished.</p> <p>Within the project framework, training on installation, operation of the equipment as well as maintenance and purchase of new equipment and on other relevant subjects will be organized for hospital personnel.</p>



### **THREE. PROJECT JUSTIFICATION AND DEMAND**

#### **Justification and demand of health for the population of Mongolia**

Regarding to health for population in Health Law of Mongolia, Government says that "... emphasize health for population under auspice of the Government, deliver the health care equally and accessibly to population ..." which is adhered. In the Law, it is said that while implementing the above policy "... to deliver health care and services which is based on updated and traditional medicine of humane, philanthropic and scientific achievement, attainment and acknowledgment to population; when rendering the hospital care and services, health organization deliver public health care and services like top priority ensuring as independent and openness" the principle is pursued.

In Mongolia, there were 3100 health organizations totally in 2014, but 3244 in 2015 or increased by 4.6% and 1811 of health organizations or 55.8% deliver the health care services. Health organizations including 13 tertiary hospitals and centers; 5 regional diagnostic and treatment centers; 16 province hospitals; 12 district hospitals and medical centers; 6 rural hospitals; 39 inter-Sum hospitals; 272 Sum medical centers; 218 Family Health center; 224 private hospitals; 1006 outpatient clinics conduct its operation and deliver the health care and services to population, but prevalence of non-infectious disease among the population has been rising in contrast with sufficiency of inpatient beds is not adequate.

In 2015, morbidity rate is 7649.5 per 10 000 population. However, the incidence of the five leading causes of population morbidity are stratified, respiratory system disease which was the number one or 1462.8, digestive diseases was second or 1202.8, cardiovascular disease of 931.2 or third, urological disease of 783.7 or fourth and injury and poisoning of 534.6 or fifth. Compared to 2014, respiratory and gastrointestinal diseases still dominate the morbidity pattern through the urological, cardiovascular and neurology systems like nephritis, pneumonia, viral hepatitis, and hypertension and peripheral nervous system diseases. Therefore, cardiovascular system disease which was the number one reason to death since 1995 has now fallen to fifth, in contrast to a sharp increase in numbers of deaths from injury and cancer. Mortality rate of cancer is 14.8 men and 11.6 women per 10000 population or 24.6% by 2015. 75.6% of population who have diagnosis of cancer is detected at final or 3-4<sup>th</sup> phase and 85.2% of mortality lived in period of until a year after cancer diagnosis.

The population of Mongolia reached 3 million 57.7 thousand at the end of the year 2015. Children under 15 years possess 29.3 percent and aged 0-4 children occupy highest percent within total population. Morbidity for respiratory, digestive, infection disease and urologic diseases are higher among children and teenagers. The under-five mortality rate of 86.4 percent causes from diseases and 13.1 percent from accidents and injuries. Mortality rate is higher in prenatal diseases, respiratory disease, birth defect, anomaly and chromosome abnormality separately.

48.6 percent of the population is men and 64.9 years of healthy life expectancy for men or shorter than women by 9.4 years. Compared to other countries in the world,

variance of average life expectancy is 2.5 fold and men mortality rate is higher than women by 1.6 fold. Study shows the men's mortality causes, there are 33 percent in cardiovascular disease, 19.4 percent in cancer and 25 percent in others, as well as aged up to 55 men's death occur in traffic injury highly in Ulaanbaatar.

Therefore, prevalence of HIV/AIDS indicates a high risk among men. National Center of Infectious Disease reports the registration of 14 incidents for HIV in first six months of this year or 79.3 percent of registered vectors are men. Also, survey from Social Health Institute indicated that 49.4 percent of total men smokes, 37.5 percent of them drinks alcohol, 21 percent was overweighted due to movement deficiency, 30.5% is overpressure and 55.8 become object of violence for the flesh.

On the other hand, infertility rate of men is increasing, WHO reports that 15 percent of total couples had infertility, therefore 40 percent for women and 40 percent for men, remained 20 percent causes from both. The factor of infertility for men is aspermatogenic orchitis caused by testicle injury. So, it shows that reproductive men prevent against the accident and injury and take great attention on their health since childhood.

For any country, core goal of health sector exist on improvement the health of the population. In period of recent 20 years, changes such as drugs against viruses, biotechnology, laboratory, X-ray image, implant, surgery, information technology and social health care occur, though demand of health is not provided adequately. While being economic deficiency and potential resource limit, enhancing health organizations is necessary to mobilize all the internal reserves, distribute it reasonably, allocate and conduct health and economic efficient ideas, technology and project in practice. For that reason, this hospital should be renovated during historical change as followings:

- According to the standard "Central Hospital Structure and its activity MNS 5095:2013", the hospital delivers the care service in internal medicine, neurological, gynecological, surgery, traumatology, rehabilitation-traditional medicine as ambulatory, stationary and public health care continually.
- Scope of total population getting the care service in this hospital is about 75000 or 58.9 percent of their families and 64 percent is children. Thus, health care is offered to children newly in outpatient and inpatient section with 20 beds separately.
- The hospital deliver cancer care services in outpatient and inpatient clinic make some kind of surgeries for cancer and conduct the preventive activities among staff on collaboration with subordinated entities.
- In view of serving population or 70.9 percent is male staff, care services in urology, andrology to be delivered and contributed to accessibility of services significantly. Therefore, among scope of serving men the survey will be conducted, the cause of the disease determined and set out activities to reduce it cooperating with subordinated entities.

## **Demand of Health for the population in city**

The populations in Mongolia reach at 3 million. 64.2 percent of total population including migrants as university students, transients and unregistered citizens live in only Ulaanbaatar. Incidentally, the necessity to improve the accessibility and quality of hospital care, optimize the residence, density and morbidity of population is faced.

District hospitals in Ulaanbaatar contain 9.7 percent of total inpatient beds; the number of inpatients is 86.4 thousand in 2013, but reaches at 93.4 thousand in 2015 by an increase of 7.0 thousand or possesses 17.1 percent of total inpatients nationally.

The number of population serving in ambulatory is 2.3 million in 2013, 2.4 million in 2014 and reached at 2.5 million in 2015. However, preventive examination in ambulatory occupy 43.7 percent in 2013, 40.5 percent in 2014 and 39.3 percent in 2015 or reduced by 4.4 percent totally.

Thus, the hospital located in center of city or Chingeltei district is demanded to partake the overwork and contribute to provision of hospital services. Specially, taking into account of inequitable and inadequate health care in traumatology and surgery, the contribution to its service solution would be made. For example,

- The hospital delivered the emergency in surgery to adults in Chingeltei district previous period of 2012 and will being rendered further.
- For scope of population in residential territory, primary care terminal for traumatology would be established. Hence, priority of health care, services and overwork would be decreased and accessibility improved.
- However, district hospitals would make updated advanced diagnosis by MRI and Computer Tomography.

## **Government's Sector Strategies and Policies**

According to the resolution #55 approved by minister of health on 24 February, 2014, Health Sector Whitepaper on its care development implementing through 2014 and 2023 was formulated. In whitepaper, the hospital provide the potential to give the updated health care and services promptness, appropriately, safely and securely for Mongolians, it is indicated:

- citizens get the safe and appropriate health care in case of required, diagnose the disease at early, prevent from the chronic illness
- The hospital care will be delivered due to standard efficiently, appropriately, safely and securely.

Due to the resolution #A/258 by Minister of health on 4 July, 2015, "Health Organization Licence Strategy 2016-2017" was approved. On this strategy, specific licence will be given priority to health organization which delivers its care service to citizens in distant areas where the health care is not solved by local government.

Government Policy on Public Health approved by the resolution #81 on 8 November, 2001 of the Parliament includes:

- Support the official and in official trainings for strengthening the public health education for population
- Diagnose leading non-infectious diseases in mortality rate at early, prevent it and support hospital care
- Widening preventive examination, and introduce the methods to detect hereditary disorder, cardiovascular disease, nervous system disease and cancer at early time in practice and treat completely

### **Comparison to the operation and overwork of identical health organization located in same territory**

The number of inpatients reached at 720.1 thousand per 10000 in 2014 and increased to 7649,5. Leading reasons in inpatient morbidity are respiratory, digestive, urology, cardiovascular and nervous system disorders alternately and nephritis, pneumonia, hepatitis, hypertension, peripheral nervous system disorders are dominated among population.

The hospital located at the territory of 4<sup>th</sup> micro district in Chingeltei district of Ulaanbaatar is compared to District Hospital.

District hospital has 227 beds inpatient section, deliver the care service in emergency, ambulatory, intensive care treatment, children, gastrointestinal, neurology, rehabilitation and traditional treatment. By now, there are no private hospital hospitalized and tertiary hospital in this territory.

In period to 2013, the residents in this district got the emergency care service of surgery at Special Public Staff Hospital, but at “Nomuun” hospital located in Bayangol district after its close-down. By 2016, about 1350 people got emergency care service of surgery, over 40 percent of them for taking out appendix and gallbladder.

Non-decrease of incommunicable disease among the population is raising the overwork of hospitalization in public hospitals. In case of inadequate beds in hospitals customers wait for beds, lose the time, grow the number of patients under control and excess the workload of a physician. Here from, the right of customer to get care service is not carried out. In particular,

Web site of MOH declares Hospital Care Service Delay. Taking Cancer Center from Specific Center of Chingeltei district as an example, by April, 2016

- In Chingeltei District Hospital, Care Service Delay lists totally 94 customers in neurological inpatient section or 44 customers for 1-3 days, 39 customers for 4-6 days and 11 customers for 7-14 days.
- Cancer center had delay of 343 customers in ambulatory, 242 customers in inpatient section, increased by 81 in ambulatory and 11 customers for ultra-ray therapy.

### **Scope of population to serve**

The hospital would deliver the care service to totally over 130 thousand people including total urban and rural civil servants, their family members, veterans, who work for Border Protection, Police, Judicial Decision Enforcement authorities, General Authority of Archive, Justice authorities, National Center for Intellectual Property and State Registration, Foreign Immigration office, Court, Prosecutor's office, Intelligence Agency, Emergency authority, National Corruption Agency and Customs (under the authority of the Ministry of Justice and Domestic Affairs) and surgery care to over 110 thousand citizens.

Scope of staff in Law enforcement and military force include 27000 working staff or 21.3%, 75000 their families or 58.9%, 8200 veterans or 6.4% and 17000 their families or 13.4% separately.

62,2% of Working staff are in metropolitan center, 37.8% in rural area and 70,9% is men, 29,1% is women, 85,8% is married, 14,2% is singleness.

By ages, 19,7% is under 25 years, 25,5% for 26-30 years, 18,8% for 31-35 years, 15.3% for 36-40 years, 10.5% for 41-45 years, 4.5% for 46-50 years and 5.7% for up to 51 years. For working environment, 20850 or 91.5% is in normal, but 3410 or 8.5% in non-normal condition. By the first 9 months of 2014 and 2016, temporary invalidity is about 7.7 percent on average, 17 staff quit a job by reason of health cases.

71,3% of veterans live in metropolitan, 28,7% in rural area or 64,5% for male, 35,5% for female, 94,0% is married, 6,0% is singleness.

By ages, 47.8% is under 60 years, 30.1% for 61-70 years and 12.1% for up to 70 years.

For Chingeltei district, the population is 154819 or possesses 11.1% of metropolitan residents by the first half of 2016. From these, there are aged 0-1 children of 8387, aged 1-5 children of 19668, reproductive women of 43381, aged people up to 60 years of 9665 and totally 107 thousand people to whom surgery care is delivered in this hospital.

## **Scope of Vulnerable and risky population**

Depend on not carrying out the health insurance appropriately in health system, people keep to receive some of care services with high payment. Specially, it is essential that deliverable accessibility of health care is increased to people such as old folks, disabilities and vulnerable people with occupational disease under labor hard condition

- The hospital delivers the diagnosis by MRI and 128 slice Computer Tomography /CT/ with discounted price under health insurance to population and citizens. Hence, it gives the opportunities to diagnose all the diseases at early time and treat the customers completely.
- While executing official duties, staff that were disabilities because of the accident, injury and poisoning will be involved in Health program formulated on cooperation with subordinated entities, examination and rehabilitative treatment without payment.
- Recent years, occupational disease related to prosper mining, energy power and construction vigorously and growing the number of entities which is tended to be increased. By the 2014, 9733 cases of occupational diseases were registered and

4756 cases from these are under intensive control. Here is survey that 67% of them for respiratory, 12% for nervous system, 11% for poisoning and 7% for otolaryngology are getting the treatment. Hence, insurers with occupational disease are possible to be hospitalized in internal department with 20 beds and get the treatment.

#### FOUR. REQUIRED PURSUES EQUIPMENTS FOR THE PROJECT

##### List of the pursues items for the project

No	Description	Unit	Quantity	Price for items	Total price
<b>I . Oxygen manufacture, Gas supply</b>					
1	Gas supply system	ea	1	566 200	566 200
<b>II.Surgery vacuum room /laminar system/</b>					
2	Surgery vacuum room	set	4	377 761	1 511 044
<b>III. Sterilizing equipment, washing</b>					
3	Sterilizing vacuum room	ea	1	375 000	375 000
4	Plasma sterilizer 150L (hydrogen dioxide- H2O2 )	ea	1	86 804	86 804
5	Steam sterilizer	ea	2	37 741	75 482
6	Dry heat sterilizer	ea	3	22 645	67 934
7	Washing decontamination equipment	ea	1	18 870	18 870
8	Surgical equipment washing machine	ea	1	49 063	49 063
9	Instrument preparation and packing	ea	1	12 832	12 832
10	Water distillation	ea	4	4 529	18 116
11	Washing machine	ea	2	22 645	45 289
13	Iron	ea	1	7 548	7 548
14	Steam iron	ea	2	566	1 132
<b>IV. Radiography</b>					
15	Digital Radiography and Fluoroscopy portable C-ARM	ea	1	94 360	94 360
16	Digital X-ray unit with R/F	ea	1	264 200	264 200
17	Digital X-ray unit DR /Ysio max/	ea	1	151 000	151 000
18	Dental panorama X ray system	ea	1	24 600	24 600
19	Mobile ultrasonography	ea	2	30 200	60 400
20	3D ultrasound system	ea	2	56 700	113 400
	- Abdomen				
	- Ob/Gyn				
	-Pediatric transedphagael				
21	Cardiac ultrasound system (Transthoracic,Transaezophagael Linear)	ea	1	75 500	75 500
	- Abdomen				
	- Pediatric transedphagael				
22	Endoscopy / olimpys /	Set	2	94 500	189 000
	1. Video processor-1				
	2. Gastrointestinal-Video processor- 1				
	3. Video-scope, Gastrointestinal-2				
	4. Video-scope, Colona-1				
	5. Video-scope,Bronchia-1				
	6. Endoscope washer				
	7. Endoscope ultrasound cleaner-1				
	8. Electrosurgical unit-1				
	9. Endoscopic accessories-1				

	10. Suction pump-1				
	11. Storage of endoscopes-1				
	12. UPS				
24	ECG machine with 12 electrodes	ea	5	3 020	15 100
26	Cardiac stress unit	ea	1	2 850	2 850
27	ECG monitor (24 hour holter )	ea	2	2 850	5 700
28	Body composition analysis machine.		1	11 322	11 322
29	EEG unit ambulatory /Nihon kohden/	ea	2	18 870	37 741
31	Duplex ultrasound	ea	1	20 758	20 758
32	ENG unit Electroneuromyogram	ea	1	24 532	24 532
33	Polysomnography /Nihon kohden/	ea	2	26 419	52 837
<b>V.Laboratory</b>					
34	Coagulometr /Open reactive system/	ea	1	52 837	52 837
35	Biochemical fully automatic analyzer /open reactive system/	ea	1	45 289	45 289
36	Hematological fully automatic analyzer	ea	1	22 645	22 645
37	Urine fully automatic analyzer	ea	1	24 532	24 532
38	Fully automatic ELISA analyzer (open reactive system)	ea	1	24 532	24 532
39	Electrolyte analyzer	ea	1	18 870	18 870
40	pH, electrolyte analyzer (Open reactive system)	ea	1	18 870	18 870
41	Lab refrigerator +2-+8	ea	6	755	4 529
42	Thermostat	ea	6	2 453	14 719
43	Based Centrifuge	ea	6	5 661	33 967
44	Micro centrifuge	ea	4	5 661	22 645
46	Water purifier with deionizer	ea	2	2 038	4 076
47	Water double distillatory	ea	2	4 529	9 058
48	Urine sediment analyzer /open reactive system/	ea	1	32 835	32 835
49	Laboratory drying cabinet (lab sterilization )	ea	2	5 661	11 322
50	Fully automatic microtomy	ea	1	21 135	21 135
51	Self stainer machine for histology	ea	1	11 322	11 322
52	Tissue DE hydrants machine	ea	1	16 983	16 983
53	Specimen preparation complex	set	1	7 548	7 548
54	luminescence microscopy	ea	1	6 793	6 793
55	Electron microscopy /lab/	ea	1	5 661	5 661
56	Autoclave 120l, steam	ea	2	7 548	15 096
57	PCR cabinet	ea	2	2 642	5 284
58	Biological safety cabinet class II type a1	ea	2	7 171	14 342
59	CO <sub>2</sub> incubator	ea	1	4 152	4 152
60	Laboratory Analytical Balancer	ea	2	7 548	15 096
61	Deep freezer -86	ea	4	18 870	75 482
62	Real time PCR	ea	2	30 193	60 386
63	ESR automatic analyzer	ea	2	22 645	45 289
64	VITEK	ea	1	28 306	28 306
65	BACTEK	ea	1	28 306	28 306
66	Immune electrophoresis analyzer	ea	1	15 096	15 096
67	Water bath for laboratory	ea	2	1 887	3 774
68	Laminar box	ea	5	2 642	13 209



69	Table with fume hood	ea	2	3 774	7 548
70	Incubator	ea	2	3 774	7 548
<b>VI. ICU</b>					
71	Defibrillator /complex/	ea	8	2 453	19 625
72	Defibrillator AED automat /set/	ea	11	2 642	29 061
73	Patient vital sign monitor, portable	ea	25	5 661	141 529
74	Patient vital sign monitor, ambulatory with the multi-function	ea	20	6 793	135 868
75	IV Infusion	ea	20	1 698	33 967
76	Syring pump	ea	30	3 019	90 578
77	Difficult intubation set with laryngoscope with bending Macintosh blade	ea	1	1 887	1 887
78	Blood freezer	ea	1	755	755
79	Drug freezer	ea	3	755	2 264
80	Deep Venous thrombosis prevention device	ea	2	1 887	3 774
81	IV infusion warmer	ea	2	1 887	3 774
82	ICU bed /automatic /	ea	20	1 510	30 193
83	Anesthesia machine with Kappnometry	ea	8	20 758	166 060
84	ICU machine	ea	15	18 870	283 057
85	Oxygen concentrator	ea	10	1 132	11 322
<b>VII.Surgical instruments, orthopedic, microsurgery</b>					
86	Skin stripper, skin recovery surgery instrument, set	Set	1	2 076	2 076
87	Musculoskeletal surgical instrument, set	Set	2	3 774	7 548
88	Joint replacement instrument, set / with trocar/	ea	2	45 289	90 578
89	Brain surgery instrument	ea	1	2 076	2 076
90	Spine surgery instruments, set	ea	1	3 774	3 774
91	Electrodriller	Set	5	1 887	9 435
92	Electro saw /instrument/	Set	5	1 887	9 435
93	Orthopedic surgical instruments, set /traumpunct/	ea	10	1 698	16 983
94	Skull surgical instrument, set	Set	1	1 698	1 698
95	Self-centering bone forceps /zimmer/	Set	1	1 887	1 887
96	Hohmann retractors	ea	1	377	377
97	Arthroscopy tour	set	1	94 352	94 352
	1. Power shaver system				
	2. Fluid management system				
	3. Gold light system				
	4. Video processor				
98	RF Ablation system	Ea	1	1 887	1 887
99	Arthroscopy hand instrument set	set	1	2 642	2 642
100	Laparoscopy tour	ea	2	75 482	150 964
101	Laparoscopy hand instrument set	Set	4	16 983	67 934
102	Abdominal surgery instrument, set	ea	10	1 321	13 209
103	Thoracic surgical instrument, set	Set	1	1 321	1 321
104	Gastrointestinal surgery instrument, set	Set	2	1 321	2 642
105	Liver, gall bladder surgical instrument, set	Set	2	1 321	2 642
106	Rectal surgery instrument, set	Set	2	1 321	2 642

107	Anascopy set	Set	2	1 132	2 264
108	Urology surgical instrument, set	Set	1	2 076	2 076
109	Surgery ceiling head light	ea	6	1 887	11 322
110	Gynecology surgical instrument, set	Set	2	3 774	7 548
111	Neuro surgery microscopy	ea	1	56 611	56 611
112	Surgery table	ea	7	566	3 963
113	Surgery bed	ea	7	3 397	23 777
114	Surgery assistance table	ea	7	226	1 585
115	Lateral Light	ea	4	1 890	7 560
116	Surgery bed	ea	3	330	990
117	Electrocoagulation	ea	8	16 983	135 868
118	Harmonic scalpel G 11	ea	1	26 419	26 419
119	Orthopedic functional bed	ea	2	1 698	3 397
120	Lambotte bone holding clamp	Set	1	2 270	2 270
121	Blount knee retractors	Set	1	2 270	2 270
122	Benefit tibia retractors	Set	1	2 270	2 270
123	Bone set	Set	2	5 290	10 580
<b>VIII. Oral-Facial surgery, ENT, Ophthalmology</b>					
124	Portable dental treatment unit	ea	3	2 100	6 300
125	Dental treatment chair	ea	3	3 750	11 250
126	Matrix Mandible Plating System	Set	1	3 019	3 019
127	Maxillofacial surgery instrument	Set	1	950	950
128	Kepler surgery loupe with led light	Set	2	950	1 900
129	Ultrasonography /AB scan/	ea	1	2 650	2 650
130	Pachimetry	ea	1	7 550	7 550
131	Fundus camera	ea	1	15 100	15 100
132	Handpiece internal external cleaning	ea	1	6 795	6 795
133	OCT	ea	1	56 611	56 611
134	Slit lamp microscopy set /Goniolensy applanation tonometry , 90D lensy , 78D lensy /	Set	2	3 400	6 800
135	Auto refractometry	ea	1	460	460
136	Micro surgery endoscopy	ea	2	5 670	11 340
137	Microsurgery instruments Glaucoma cataract Ophthalmology surgery, set	Set	1	950	950
138	Electrocoagulation for eye	ea	1	9 450	9 450
139	Ophthalmoscopy	ea	4	340	1 359
140	Perimetry /Henson/	ea	1	2 270	2 270
141	Laser therapy equipment for ENT	ea	1	3 780	3 780
142	ENT scope /Welch allyn/	Set	1	18 870	18 870
143	Otoscope	ea	2	190	380
144	Speculum Ear	Set	1	3 780	3 780
145	ENT video flexible endoscopy	Set	1	10 950	10 950
146	Audiometer	ea	1	6 420	6 420
147	ENT surgery Electrocoagulation	ea	1	3 020	3 020
148	Tonsillectomy set	Set	1	2 270	2 270
149	Adinoidectomy instrument set	Set	1	3 780	3 780
150	Major NASAL instrument set	Set	1	3 780	3 780
151	EAR microsurgery instrument set	Set	1	2 270	2 270
152	Myringotomy set	set	1	4 530	4 530
153	Tracheostomy set	Set	1	4 530	4 530

<b>IX. Gynecology</b>					
154	Video-Hysteroscopy	Set	1	18 870	18 870
155	Gynecology examination instrument, set	Set	4	190	760
156	Gynecology surgery set	Set	2	4 160	8 320
157	Ultrasound, /transvaginal transducer/	ea	1	7 550	7 550
158	Gynecology examination delivery & operating table	ea	2	2 080	4 160
159	Gynecology examination table	Set	2	570	1 140
160	Loop electrosurgical Excision Procedure/ LLETZ -LEEP connector/v	Set	1	1 890	1 890
161	ABDOMINAL GYNECOLOGICAL SET (ADD BASIC LAP)	Set	1	3 020	3 020
162	CESAREAN SECTION SET	Set	1	2 460	2 460
163	DILATATION AND CURETTAGE SET	Set	1	3 020	3 020
164	VAGINAL HYSTERECTOMY SET	set	1	1 511	1 511
<b>X. Others</b>					
165	Freezer -70°	ea	2	4 550	9 100
166	Ambulance car	ea	1	45 300	45 300
167	Hospital washing system, set	Set	1	26 500	26 500
168	Vascular illuminator	ea	2	99	198
<b>XII. Training</b>					
169	Radiology professionals	per	6	6 600	39 600
170	Emergency professionals	per	6	6 600	39 600
171	Surgery, Orthopedic Trauma	per	6	6 600	39 600
172	Gynecology	per	1	6 600	6 600
173	Dental for implant	per	3	6 600	19 800
174	Health management	per	6	6 600	39 600
	<b>Sum</b>				<b>7 000 000</b>

**Total (EU) 1 euro=2649.64 2017.03.22**