AUDITING REPORT

Current institutional and organisational framework of the Moldovan transplantation system

Component I: Strengthening of the legislative and institutional framework

↳ *Mandatory Result 1: The overall Moldovan legislation related to transplant of human organs, tissues, and cells is in compliance with EU and international standards and norms*

Sub-component 1.1: Assessment of the current legislative and institutional framework

Activity 1.1.2 Auditing of the institutional system

Dr Marie THUONG - FRANCE – 4 MARS 2014

SUMMARY

This twinning project is financed by the European Union and implemented by a French-Spanish Consortium

1. CONTEXT

Moldova is a small country (area of 33 843 km^2) on the eastern border of the European Union, located between Romania and Ukraine. Moldova has *3,5* million inhabitants - the next Moldovan census of the resident population is planned this year. Since the independence from the Soviet Union gained in 1991, severe economic hardship and war seriously limited the government's ability to fund the extensive inherited soviet health system. Moldova is one of the poorest country in geographical Europe. However, in 2004, the Moldovan government introduced mandatory (social) health insurance (MHI) covering nowadays about 85% of the population. Up to 94% of the population are Orthodox Christians. In 1995, the country was admitted to the Council of Europe.

Moldova has developed transplantations since 1982. The main source of organ donation till 2008 was donation after cardiac death, which is no longer performed. The Moldavian Parliament adopted the Law No.42-XVI of 6 March 2008 on transplantation of organ, tissues and cells of human origin, after the Law No 473-XVI of 26 June 1999. The national Transplant Agency was installed in 2010 subordinated to the Ministry of Health. The new Law introduced the possibility of organ and tissue for transplantation purpose, issued from brain-dead donors (BDD) and to later extend donation after circulatory death (DCD). Moldavia applies the *opt out* or *presumed consent* system, the approach of the next of kin is intended, when possible.

2. METHODS - DOCUMENTATION, PROTOCOLS

In order to conduct an assessment of the organization and procedures of the transplant system, the main existing institutional key persons were met. Thus, the 5 day-audit (24th to 28th February 2014) was based on visits and meetings with professionals from the Transplant Agency, authorised transplant centres (kidney and liver), authorised centres for organ procurement, laboratories and operating rooms involved in the process of organ transplantation ; they were planned by the twinning organisers. Interprets were present all along the visits. Useful informations necessary for implementing the following activities, were gathered thanks to Dr Patricia Sanchez Rico, Resident Twinning Adviser, Aliona Cojocaru, Assistant of the EU twinning project, with the collaboration of Dr Igor Codreanu- Director and Grigore Romanciuc- Vice Director of the Transplant Agency.

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The agenda was as followed:

Date	People met and organisation
24/02/2014	**Spitalul Clinic Municipal „Sfânta Treime" (Holy Trinity):** - dl **Simion Terente**-Hospital Director, - dl **Gheorghe Străjescu**- Vice Director-general surgery. - dna **Cornelia Gutu-Bahov**-Head of the ICU, transplant coordinator, - dl **Radu Avădănii** – transplant coordinator **Spitalul Clinic Republican** - Moldave Transplant Agency: - dl **Igor Codreanu**- Director, Transplant Agency, - dl **Grigore Romanciuc**-Vice Director, Transplant Agency.
25/02/2014	**Spitalul Clinic Republican:** - dl **Sergiu Popa**-Hospital Director, - dl **Sergiu Ungureanu**-Vice Director general surgery; - dl **Adrian Tănase**-MD, PhD, Chief of the department of urology, hemodialysis and kidney transplantation - dl **Adrian Hotineanu**- Head of the department hepatobiliopancreatic surgery – liver transplantation, - dna **Natalia Taran** - Gastroenterologist, follow-up liver transplant; - dna **Elena Moraru**-Head of ICU (post surgery of transplantation) **Cardiologic Institute:** - dl **Aurel Grosu**-PhD medical sciences, chaiman of the board of experts of the Ministry of Health-Independent living donor approval Commission
26/02/2014	**Centrul Naţional Ştiinţifico-Practic de Medicină Urgentă (Emergency)** : - dl **Gheorghe Ciobanu**-Hospital Director, - dl **Liviu Vovc**-Vice Director ,Asistenţă Consultativă şi Metodică, - dl **Sergiu Şandru** - Director – anaesthesiology and ICU, - dl **Alexandru Klim**-Chief of ICU, - dl **Vitalie Pivovarcic**- Transplant Coordinator, ICU physician**,** - dl **Eugen Niguleanu**-Chief of Stroke unit, - dl **Igor Crivorucica**- Transplant coordinator, neurologist.
27/02/2014	**Spitalul Clinic Republican:** - dna **Ina Zotov** - Nephrologist, follow-up of kidney transplantation - dna **Vera Sali** – HLA laboratory and virology
28/02/2014	**Spitalul Clinic Republican:** - dl. **Maxim Stasiuc**-Surgeon MD- Head of surgery block unit - dl **Igor Codreanu**- Director, Transplant Agency, - dl **Grigore Romanciuc**-Vice Director, Transplant Agency.

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Documentation and protocols are available on the website of the Transplant Agency (http://www.transplant.md)

- Law of Republic of Moldova No 42-XVI, 06-03-2008 on transplant of human organs, tissues and cells: revision ongoing including precisions on hematopoietic stem cells, organ export.
- Government Decision No 386, 14-05-2010: establishment of the Agency of Transplant
- Order of Ministry of Health No 234, 24-03-2011: organisation and performance of human tissues, organs and cells procurement and transplant activities
  - Common Organ Allocation Rules (annex 5)
  - Specific Organ Allocation Rules (annex 6)
  - Instructions on Organizing the Activity of the Transplant Coordinator (annex 8)
- Order of Ministry of Health No 260, 05-04-2011: approval of the "Brain Death" standardised clinical Protocol
- Order of Ministry of Health No 357, 05-05-2011: approval of healthcare institutions to authorise the human tissues, organs and cells procurement and/or transplant activities
- Order of Ministry of Health No 493, 16-06-2011: preparing the kidney, liver and heart transplant waiting list
- Order of Ministry of Health No 527, 27-06-2011 and No 1498, 19-12-2013: authorisation of healthcare institutions to perform tissues, organs and cells procurement, preservation and transplant activities
- Order of Ministry of Health No 885, 18-11-2011: approval of the documents for the Independent Endorsement Commission to accept or refuse the procurement of organs, tissues or cells from a living donor
- Order of Ministry of Health No 309, 30-03-2012: approval of the "Maintenance of the potential donor in brain death" standardised clinical protocol
- Order of Ministry of Health No 18, 08-02-2013: launch of the Automated Information System TRANSPLANT
- Order of Ministry of Health No 1325, 31-10-2013: approval of the "Kidney Transplant Potential living donor" standardised clinical protocol
- Annual report of activity 2013

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3. NATIONAL TRANSPLANT AGENCY OF MOLDOVA

Created in November 2010 (order No 725), the scope of the Agency is very wide and huge, responsible for the overall organisation-supervision-evaluation-promotion of organ, tissue and cells transplantation at the national level. We can find in the annual report of the activity 2013, all the actions accomplished this year reflecting the importance of the dynamism developed by the Agency (http://www.transplant.md).

The Agency is located at the Republican hospital. The personnel are composed of 8 persons full-time and 5 on part-time. Most of them are medical specialists or biologist. Administrative personnel include an assistant, a jurist, persons responsible of the IT tools and registers, and also an economic and financial department.

The annual budget allocated for 2013 was 1, 436 million lei (77 000 €) covering personnel salaries.

The Agency has developed large and efficient international collaboration through a partnership easily understood with Romania and France, and through its regular attendance and participation to the actions and European projects carried out by the Council of Europe.

For 2014, the Ministry of Health will provide a national budget to the centres to cover the cost of 20 kidney and 10 liver transplantations, on the basis of 25 000 € per kidney procedure and 70 000 € per liver transplantation.

In 2012, 4 living kidney transplantations have been performed (1 in 2011) (Newsletter, Council of Europe). In 2013, there were 10 living kidney transplantations and 3 living liver transplantations. Note that, the tissue procurement activity in 2013 was: skin 27 m^2, cornea 63, bones 50, nerves 22, tendon-ligament 8, cartilage 4 (annual report 2013).

4. PATIENTS on DIALYSIS

The epidemiology of diabetes mellitus or of chronic kidney disease, which enable to evaluate the need of kidney transplantation, was not discussed. Currently, 450 patients are registered on a dialysis program (prevalence of around 100 pmp versus 720 pmp in 2010 in France). Among them, 26 candidates to transplantation are registered on the national kidney waiting list (WL). Eight dialysis centres cover the needs on the Moldovan territory: 5 are located in Chisinau; one centre is private. Few children (4-5) have access to the dialysis, paediatric transplantations are not performed.

The Republican hospital is the most important dialysis centre with 214 patients on haemodialysis in 2013; 19 of them are registered on the WL. ***The equipment of the centre is composed of 24 very out-of-date monitors*** **(Fresenius®).**

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5. AUTHORISED CENTRES for procurement and transplantation, TRANSPLANT COORDINATORS

Authorization of the centres is under the responsibility of the national Agency, approved by order (No 527 and No 1498) of the Ministry of Health. The transplant Agency organises regular meetings with the transplant coordinators (1 per month) and transplant teams (1 every 3 months).

JICA program is a big event expected this year. The Japan International Cooperation Agency (JICA) signed an agreement with the government of Moldova for the first time on the 27th June 2013, to improve its medical structure. During the project term between 2013 and 2016, *JICA will provide new equipment with training on the use of the equipment and the maintenance*. 5 of the tertiary care hospitals in Chisinau will be equipped with CTscan, MRI, equipment for ICU-ventilators, EEGs, transcranial Doppler, hemodynamic monitoring.

a. Procurement centres and transplant coordinators

Four centres, all in Chisinau, are authorised for organ (and tissue) procurement:

- Republican hospital
- National Scientific Practical Centre of Emergency Medicine
- Institute of Neurology and Neurosurgery (not visited centre)
- Municipal Clinical Hospital "Holy Trinity"

(4 centres are authorised for tissue procurement only: Forensic Centre, Institute of Mother and Child, Institute Cotaga, Traumatology and Orthopedics Hospital; this last one is also a tissue bank).

Twelve transplant coordinators have been appointed, 7 of them are actually active. *The annex 8 of the order No 234* specifies the missions and the organisation to be developed by the local coordinators.

Except for the Republican hospital, the patient profile admitted in these hospitals suggests a substantial potential of BDD, particularly for the Emergency and Neurologic hospitals. The incidence of traffic-road accidents is still high in Moldova (road deaths/pmp: 83 in Moldava versus 56 in France, 41 in Spain, 44 in Germany: (http://ec.europa.eu/transport/road_safety/specialist/statistics/index_en.htm). Neurosurgery units are present in 3 hospitals. With the next program of surgery of the Republican hospital, there will be 4 centres with neurosurgery.

In the 2 visited ICUs (Republican and Emergency hospitals), the medical equipment is antique dating from the Soviet era, particularly at the Emergency hospital. There is an urgent need of modern medical

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equipment in ICUs for basic and routine practice, the JICA program is welcome. All the professionals met in the ICU complained of the lack of basic equipment and also of unavailable medications (*i.e.* noradrenaline, desmopressin…) or of the frequent lack of reagents to perform laboratory tests.

It is important to establish procedures of registration of routine medications which is the responsibility of the national Medication Agency: this should be solved soon.

During the discussions, the transplant coordinators unanimously express the need to **update the 2 protocols on the brain death diagnosis (order No 260) and on the maintenance of the potential donor (order No309).** For the brain death diagnosis protocol, mandatory tests rely upon 2 EEGs and 2 transcranial Doppler. Some precisions are needed for the good understanding of the ICU physicians in charge of the patient. A working group will meet on 3th March for the purpose of modifications of the protocol. Thus, a revised document with commentaries has been produced and transmitted to Dr. P Sánchez. The same initiative should be undertaken for the protocol of the donor maintenance: precisions are needed about the vasopressors to be used, the hemodynamic monitoring, fluid management and medications, laboratory tests in case of heart transplantation, according to the international guidelines.

They all ask for training courses on brain death diagnosis and management, as well as on the approach of the next of kin.

An evaluation of the training needs (locally and abroad) of the ICU physicians and transplant coordinators will be carried out in a next mission.

They also evoked financial aspects to be considered about the workload induced by the potential donor management, even if the process does not lead to an effective procurement. The transplant Agency is working on the definition of possible criteria. The criteria usually applied are: 1 – the diagnosis of brain death is done, the question is *with or without ancillary tests*, 2- there is no obvious evidence of contra-indications to donation, 3- the transplant coordinator or the Transplant Agency has been contacted in *real time*. The lump sum allocated could be 22 500 lei (1100 €) per donor.

- Municipal Clinical Hospital "Holy Trinity"

The capacity of this hospital is 589 beds. *Renovation of the ICU is in progress*: the new capacity will be 24 beds. The temporary ICU was not visited. During the mission of French experts in February 2012, the ICU was composed of 4 rooms, clean but old units of 4 beds each. The annual volume of ICU admissions is 2 300 with short length of stay (2-3 days) and a 2%-mortality rate, statistics compatible with a post-surgery ICU profile. Two local transplant coordinators are appointed, both are

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ICU physicians. One coordinator has followed a training course in France in 2012 (Nantes).

Actually, the first *utilized* BDD, 67-year old, has been successfully retrieved on the 7th February 2014 in this centre: 1 kidney has been transplanted, the other was discarded because of the donor age and/or vascular abnormalities, the liver was steatosic. The coordinator met 8 times the family (2 children). In February 2014, they could detect 4 potential donors; besides, 56 corneas have been retrieved (on 63 retrieved at the national level) and 28 were transplanted between March and December 2013.

A demand of the acquisition of PICCO devices for the BDD monitoring was expressed. The rationale of this need is actually weak, particularly at this moment.

- National Scientific Practical Centre of Emergency Medicine

This hospital has a capacity of 600 beds with 70 000 admissions/year; there are 70 beds of Neurology including 30 beds for stroke patients, 80 of Neurosurgery. They receive traumatic patients of all the country transported by road – no air transport; the distances are 280 km long and 180 km large at the maximum. The emergency department is very old but efficient. A CTscan (16 channels) is available 24 hours/7days.

Two local transplant coordinators are nominated: one is working in the general ICU, one in the stroke ICU. For coordination duties, they receive a supplement of 60% of their basic salary.

- The existing general ICU is a 24 bed-unit without any single room. A total of 23 intensivists are employed; on daytime, 4 permanent are present (rhythm of work of 24H on duty, 2 days rest) and 4 residents with a ratio of 1/6 patients, 1 nurse/3 patients. The visit of the unit leads to the same evidence of basic equipment, which is missing, and very antique for the existing one. They are also waiting for the equipment offered by the JICA program. *A new building is under construction dedicated to the ICUs with 36 beds planned for next December.* The architecture and disposition of this new structure is not yet clearly designed. A total of 2 083 admissions are realised per year, the mean length of stay is 2,6 days, the mean mortality ICU rate is 27%.

- Stroke ICU is a 12 bed-unit (closely linked to the 30 beds of Neurology at the 7th floor): on daytime, 2 doctors and 2 residents are on duty and after 4 pm, 1 doctor with 1 resident are present. This is the optimal structure for the detection of a potential donor but none of the patients is under mechanical ventilation, nor monitored. The numeric EEG and the transcranial Doppler (new devices) are located there. An out-of-date ventilator is supposed to be used in case of potential donor. The number of patients in severe coma is about 1-2 per month. A total of 418 admissions is realised per year, the mean length of stay is 3,4 days, the mean mortality rate in this unit is 1,6%.

Because of the more suitable environment, the admission of a potential donor should, theoretically, be organised in the general ICU. This point has to be solved once the new ICU building will open.

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b. Transplant centre: Republican Hospital

This University Hospital is the main hospital in Moldova and historically, the single centre involved in the transplantation activity. Although this centre has obtained the authorisation for organ procurement, the main patient recruitment (scheduled surgery) in the existing ICU is not designed for this activity.

Republican hospital is a 770 bed-hospital, built in 1977. *A new building will open soon in March 2014* with 16 operating theatres, 2 recovery rooms (20 beds each), a 37 bed-ICU dedicated to the entire surgical activity, including kidney and liver transplantations. The project of cardiac transplantation is foreseen. Currently, there are 45 beds distributed on 5 ICUs: cardiologic ICU-12 beds, septic ICU-6 beds, emergency ICU- 6 beds, ICU of hepatology-6 beds and 15 beds in the post-surgery ICU.

b.1. Kidney transplantation

- Transplantation activity

During the period {1982-1999}, 227 kidney transplantations have been performed, mainly from deceased donors. For the period {2000-2004}, 21 kidney transplantations were registered, with 15 with living donors (personal data – Pr. Tanase). The activity seems to be completely stopped between 2005 and 2010.

More recently, 15 living kidney transplantations were performed: 1 in 2011, 4 in 2012 and **10 in 2013**, including 3 preemptive transplantations (Source : Newsletter-Council of Europe). **The 1st kidney transplantation from a BDD has been realised on the 7th February 2014**. Closed partnership exists with Pr JP Squifflet from Belgium and Pr L Rostaing from France. Pr Tanase explained that, in the past, they could perform 2 simultaneous transplantations. Currently, they are 2 on 20 urologists really involved in the activity *(2 additional surgeons are expected)*.

- Evaluation before transplantation and follow-up

One (or 2?) nephrologist trained at Bucharest is in charge of the evaluation of the living kidney donor (LKD) and the potential recipient. She also takes care of their follow-up. Medical results are directly transmitted to the Agency. Nowadays, she follows 19 LKD (mean of 5 years after donation), 41 transplanted patients with a functional graft (the oldest one has been transplanted in 1985). Two pairs for kidney living transplantation are under investigation: the donors could be a mother or a sister for one pair and 1 father for the other pair. Immunosuppressors are provided by the government, their dosage (ciclosporin, tacrolimus and sirolimus) is locally performed. ***The documents used for the assessment or follow-up of both LKD and recipient*** **were not discussed (because of a crowdy consultation).**

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- Independent commission for the approval of organ living donation (order No 885)

This commission is now operational. In place since 2012, 3 donors have been refused or still under investigation on a total of 20 auditions performed. Complementary requests are often motivated by financial resource questioning, mother or father's awareness in case of young donors or the need of an additional psychiatric evaluation. ***Some modifications of the Law are foreseen*** (see 1.1.1.).

- HLA laboratory – viral screening- dosage

The HLA laboratory is new with the acquisition in 2012 of modern equipment: the typing HLA A-B-Dr-Dq is performed, as well as the research of antibodies anti-HLA using the Luminex Single Antigen technique. Cross-matches are available in real time (even in the night). The biologist and technicians are not aware of what are the donor specific antibodies. Actually, there are still few requests for HLA tests. ***These aspects should be evaluated with the nephrologists during the next missions***.

The laboratory of virology has also acquired new equipment to test quantitative viremia for HBV and HCV (COBAS Ampliprep).

The dosage of ciclosporin, tacrolimus and sirolimus is performed (ABBOTT Ci8200).

- Histology laboratory

This point seems problematic without clear explanations. One pathologist is specialist in kidney histology. The direction proposes alternatives such as collaboration with the Oncologic Institute or an interpretation of the biopsies using a telemedicine system with Japanese pathologists, which is not very realistic.

b.2. Liver transplantation

The last liver transplantation with deceased donor was realized in 1997 and in 2001 with living donation. After a break of 12 years, the activity restarted in 2013 with 3 living donors. During our mission, a liver transplantation with living donor (friend relationship) has been performed on the 27th February. International collaborations exist with hepatic surgeon from Bucarest (Pr Popescu - moldavan origin), and France (Pr Rostaing and Pr Salame). Pr Adrian Hottineau plans to come in France next year.

The patients are followed together with the hepatologist (Dr N Taran). The candidates registered on the liver WL (N=13) are mostly post-viral cirrhosis (more hepatitis B than C) and few alcoholic cirrhosis; 5 patients have hepatocellular carcinoma; the mean MELD score is 20. Actually, there are 50

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patients more still under investigation. The aspect of anti-HBV and HCV treatment was not discussed.

b.3. Operating rooms

The new building with 16 operating rooms (OR) is finished, they will move next month. What will happen with the 15 (plus 3 for the emergencies) existing OR is not yet specified. Besides the new structure and high-tech equipment it will provide, there will be 2 recovery rooms. Patients are currently transferred in the ICU closed to the OR, if necessary or in their medical ward. A total of 17 000 surgeries per year are realised: open-heart cardiac surgery is available for adults and children using 3 extracorporeal circulation machines TERUMO®. In 2013, 100 of such surgeries have been performed. Laparoscopic abdominal surgery is routinely carried out.

Kidney from a living donor, is still retrieved by classic dorsal lumbotomy: it should be done by Laparoscopic surgery.

b.4. Post-surgery ICU

This 15 bed-unit dedicated to the post-surgery care is closed to the OR, ensuring the role of recovery room. Even if single rooms do not exist (2 to 4 bed-rooms), this ICU has a more recent equipment. They are 8 intensivists, 2 in the morning, 1 in the afternoon and 1 during night time; the ratio is 1 nurse for 3 patients. They perform 2400 admissions per year; 82% are post surgery patients with a mean length of stay of 2,3 days and a mortality rate of 3,1%. They are used to the management of the kidney recipients, protocols are available. ***They are less comfortable with the management of a living liver donor and a liver recipient and ask for some guidelines***. Documents were transmitted during the mission, especially useful for the next transplantation planned for the next day.

6. REGISTERS

In June 2013, the IT tool " Sistemului Informational Automatizat Transplant – SIA Transplant " has been launched (order No 18). Legal aspects on data protection policy are under investigation (see 1.1.1. report).

The registers put in place concern:

- the national waiting list: at the moment of the mission, there were 26 patients registered on the kidney WL (6 new patients forthcoming), 13 on the liver WL;
- the declaration of transplantation is registered;
- the living donor register exists: 7 kidney- and 3 liver living donors are registered ;
- the donor and recipient codes are in place;
- the refusal register is not operational : the population is not aware of the presumed consent.

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The system is being established. ***The mechanisms set up with the teams for the data collection, the precise content of the collected data on the characterisation of donors (living or deceased), data of the recipient (before the transplantation, at the moment of the transplantation and the follow-up), and data on the follow-up of the living donor should be audited during the next missions.***

7. COMMUNICATION

The past is still there. Strategies should be thought to gain the public trust in the Moldovan medical care system. Healthcare professionals lack confidence also and need some reinsurance. Many efforts of communication have been developed addressed to the population but more tools of communication are needed. Actually, the design of the website of the transplant Agency is mostly directed to the healthcare professionals or institutions, ***specific spaces dedicated to the public information are needed***.

Two posters (one with the pope) are largely apparent in the hospitals. The donation day took place on the 22th October 2013. The liver living transplantation performed on the 27th February was largely broadcasted through the media with interviews of healthcare professionals.

8. CONCLUSIONS – RECOMMENDATIONS

All the pieces of the transplantation chain have been developed these past 4 years but they are not yet finalised. Organ, tissue and cells transplantation is considered as a high-tech activity, highly specialised with requirements of quality and safety standards, thus costly. This multidisciplinary activity implies a perfect interconnection between the multiple stakeholders involved: emergency ward, intensivists, coordinators, neurophysiologic physicians, radiologists, medical specialists, surgeons and biologists. ***The first evidence is a dramatic lack of resources (human, equipment, structures, financial...) but we have noted a real progress in 4 years.*** Many renovations of the structures are on going, the JICA program is a good opportunity for the acquisition of new equipment. The restart of the activity is difficult but the level of the activity achieved in 2013, even if on the basis of living donation, is a hallmark of the Moldovan dynamism. BDD activity will be a big challenge for the next years and ICUs on the front line could assume it under necessary pre-requisites.

Recommendations:

1. It is important to have procedures of registration of routine basic medications which is the responsibility of the national Medication Agency: this should be solved rapidly.
2. Priorities should be given to the launch of brain dead donor program :

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- Update the 2 protocols on the brain death diagnosis (order No 260) and on the maintenance of the potential donor (order No309)
- Missions of the hospital coordinators

3. An evaluation of the training needs (locally and abroad) of the ICU physicians and each coordinator will be carried out in a next mission.
4. To ensure the sustainability of procurement activities: define criteria to have a lump sum allocated for the management of all the potential donors even those whose organs are not retrieved.
5. The demand to acquire PICCO devices for the BDD monitoring was expressed. The rationale of this need is actually weak, particularly at this moment.
6. Kidney from a living donor, is still retrieved by classic dorsal lumbotomy: it should be done by laparoscopic surgery.
7. Some guidelines are needed on the management of a living liver donor and a liver recipient
8. The design of the website of the transplant Agency is mostly directed to the healthcare professionals or institutions, specific spaces dedicated to the information of the public at large are needed.

During this first mission, the aspects of the overall procurement and transplantation organisation were audited. Next specific missions should go further in more details: - on the protocols on living kidney donation, waiting list, allocation rules, - the assessment of the living donor and potential candidate to transplantation, - follow-up organisation for both living donor and recipient, - precise content of the registers, - HLA tests to be reviewed with the nephrologists, - the running of the laboratory of histology, - the new operating rooms of the republican hospital and the post-surgery care.
The liver activity should be considered as well with the same groundwork, when appropriate.

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Closing remark: *I would like to express all my gratitude to all the persons who took their precious time to receive me and make this audit possible. Thank you.*

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