Establishing competence for organ donation and liver transplantation: a global model

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Background

Global Activity in Organ Transplantation
2012 Estimates

<table>
<thead>
<tr>
<th>Organ</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney</td>
<td>77,818</td>
</tr>
<tr>
<td>Liver</td>
<td>23,986</td>
</tr>
<tr>
<td>Heart</td>
<td>5,935</td>
</tr>
<tr>
<td>Lung</td>
<td>4,359</td>
</tr>
<tr>
<td>Pancreas</td>
<td>2,423</td>
</tr>
<tr>
<td>Small bowel</td>
<td>169</td>
</tr>
</tbody>
</table>

≈ 114,690 solid organs reported to be transplanted in 2012
≈ 1.8% of increase over 2011
≤ 10% of global needs
42.3% of living kidney transplants and 18.2% of living liver transplants
World Health Organization targets

• In order to achieve national or sub-regional self-sufficiency in organ transplantation, it will be necessary to increase donations from deceased donors

• Some countries requested support from WHO and countries with successful deceased donor programs in formulating and enforcing legislation to stop commercial transplantation and increase access to transplantation
Promoting commitment to cadaveric donation and transplantation

• The excellent results obtained in transplantation made these procedures extremely interesting for most of the middle and low-income countries.

• International Cooperation projects may allow these countries to start building transplant programs and guaranteeing:
  • Accessibility
  • Safety
  • Quality
  • Traceability and transparency
Liver transplant activity in the world

- Liver transplantation is performed in 60 countries around the world (living donors in 39, deceased donors in 54)
- Only 90 countries implemented specific laws on organ donation and transplantation
- Organ traceability is mandatory in 42 countries
- 35 countries survey donor and recipient health status
The Hepatic Surgery and Liver Transplantation Unit in Pisa

- Tuscany is the region with the highest rate of deceased donation in Italy
- Regional referral centre for liver disease and transplantation
- Pisa is the second most active transplant centers in Italy and among the top ten in Europe

Use of Octogenarian Donors for Liver Transplantation: A Survival Analysis
Our International Cooperation commitment
THEBERA: Theodor Bilharz Research Institute (TBRI) – Cairo (Egypt) in the European Research Area (FP7)

Targets:

• To support the progress of TBRI as a leading, competitive, and multidisciplinary research center for liver disease management in the Mediterranean area

• To promote the activity of cadaveric liver transplantation

Middle and low-income countries have similar criticalities and priorities
Development of a solid organ transplantation program from deceased donors: a global model

• Brain death organ donation program
• Organization of the transplant center
• Evaluation and implementation of the structural, technological and organizational requirements
• Establishment of a quality control program
• Staff training
• Web and phone support 24/7
• Continued educational program
Implementing the right program in the right context

- Religious issues
- Economic issues
- Social issues
- Legal issues
- Cultural issues
- National health system
- Donation and transplantation
Setting a liver transplant program

Brain death donation program
- ICU networks
- ICU staff training
- Assessment of structural and technological requirements
- Logistic set-up

Organization of the transplant center activity
- Pre-transplant evaluation
- Transplant phase (ICU, floor)
- Post-transplant follow-up

Evaluation and implementation of structural and technological requirements
- OR
- ICU
- Floor
- Clinics

Quality control program
- ISO certification

Staff training
- Surgeons, Hepatologist, Immunologists, Transplant nurses, Transplant coordinators...

- Web/phone assistance 24/7

Continued education
- E-learning, meetings, conferences, M&M, clinical case scenario, on site training...
Our vision

Liver Transplantation

- Liver disease diagnosis
- Liver research
- Oncology
- Interventional radiology
- Radiology
- Infectious disease
- Financial support
- Liver pathology
- Liver surgery
- Quality and safety
- Organizational issue
Efforts of Tuscany and AOUP for the establishment of national transplant programs
“Change will not come if we wait for some other person or some other time. We are the ones we’ve been waiting for. We are the change that we seek.”
Barack Obama (US president)