Experiences & Challenges to Start Iranian National Rare Donor Program

Iranian Blood Transfusion Organization
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Experiences & Challenges to Start Iranian National Rare Donor Program

10 important steps to ensure success

- Packaging & Reliable Transportation
- Comprehensive Information Technology
- Engineering & Technical maintenance
- Facility and Environmental
- Public Relation Department Collaboration
- Employee Awareness and Communication between Regional blood center
- Accessibility to Rare anti-sera, Equipments & Consumables
- Technologist Education & Training in advanced Immunohematology
- Financial & Administrative support by Higher Management
- Situation analysis and justification of program
### Situation analysis, Demographic & Ethnic profile

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Persian</strong></td>
<td>51%</td>
<td>75000000</td>
<td></td>
</tr>
<tr>
<td><strong>Provinces</strong></td>
<td>31</td>
<td>2012</td>
<td></td>
</tr>
<tr>
<td><strong>Total number of blood donation</strong></td>
<td>1986992</td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td><strong>Per capita donation (1000)</strong></td>
<td>26.2%</td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td><strong>HIV (western blot)</strong></td>
<td>0.004%</td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td><strong>HBV (Neutralization)/(HBcAb)</strong></td>
<td>0.20%</td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td><strong>HCV (Riba)</strong></td>
<td>0.061%</td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td><strong>HTLV khorasan (western blot)</strong></td>
<td>0.18%</td>
<td>2010</td>
<td>2011</td>
</tr>
<tr>
<td><strong>RPR (FTA-ABS)</strong></td>
<td>0.001%</td>
<td>2010</td>
<td>2010</td>
</tr>
</tbody>
</table>

| **Azeri**              | 24%        |            |            |
| **Gilaki, mazandrai**  | 8%         |            |            |
| **Kurd**               | 7%         |            |            |
| **Arab**               | 3%         |            |            |
| **Lur**                | 2%         |            |            |
| **Baloch**             | 2%         |            |            |
| **Turkmen**            | 2%         |            |            |
| **Other**              | 1%         |            |            |
## Experiences & Challenges to Start Iranian National Rare Donor Program

<table>
<thead>
<tr>
<th>Blood Centers/Blood Donation Centers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of Blood Centers/Blood Donation Centers</td>
<td>218</td>
</tr>
<tr>
<td>Blood Donation Centers</td>
<td>127</td>
</tr>
<tr>
<td>Blood Collection &amp; Preparation Centers</td>
<td>37</td>
</tr>
<tr>
<td>Blood Centers</td>
<td>54</td>
</tr>
<tr>
<td>Provincial Centers</td>
<td>31</td>
</tr>
<tr>
<td>Regional &amp; Educational Centers</td>
<td>9</td>
</tr>
</tbody>
</table>

### Donations from

<table>
<thead>
<tr>
<th>New donors</th>
<th>Lapsed donors</th>
<th>Regular donors</th>
<th>Family Replacement donors</th>
<th>Paid donors</th>
<th>Autologous donors</th>
<th>Per request</th>
</tr>
</thead>
<tbody>
<tr>
<td>27%</td>
<td>23.7%</td>
<td>49.31%</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td>Per request</td>
</tr>
</tbody>
</table>

Volunteer Whole Blood | 100 %

Autologous | Per-request

Replacement | 0

Directed | 0
Experiences & Challenges to Start Iranian National Rare Donor Program

Financial & Administrative support by Higher Management

Willingness for allocation of sufficient budget for initial establishment and continuous improvement of rare donor services of Iranian National Rare Donor program
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Technologist Education & Training in advanced Immunohematology

Emphasis on continuous education, training and improving knowledge of technologists in special serology from various provincial blood donor centers

Promoting importance of services provided to patients with difficult samples by rare donor program resulting in prevention of transfusion related adverse effect

Concern for lack of experiences to use specific advanced special immunohematology procedures

Concern for technical and human errors in reporting test results

Need for contact and collaboration with international Immunohematology Reference Laboratory for technical help and testing confirmation
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Accessibility to Rare anti-sera, Equipments & Consumables

Access to expensive internationally accepted anti-sera

Availability of automated machines, supplies and consumables for glycerolization and deglycerolization of rare RBCs
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Employee Awareness and Communication between Regional blood center

Emphasis on employee awareness and effective communication between countries regional blood donor centers and IBTO’s IRL

Promoting employee awareness on importance of rare donor program

- Donor registration
- Donor interviewer
- Component preparation
- Component storage
- Packaging & shipment of collected rare blood
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Public Relation Department Collaboration

Selection of talented & people oriented employees
Continuous pleasant and good public relation skills by employees in rare blood donor program
Offering correct & complete answers to rare donor questions & concerns
Need to support rare donor moral feeling / how their blood can help patients
Continuous contact with rare blood donor to update personal information & help for retention of rare donor
Close collaboration between IBTO public relation department and IRL
Rare donor interview in local and national media for recognition of rare donors and public awareness
Meeting of rare donors, patients and surgical team in National & International blood donor days
Establishing a National Rare Blood Donor day
Facility and Environmental

Concern for access to sufficient storage area and good environmental condition
Sufficient number of -80°C standard freezer for longer blood storage
Empty back up freezer
Controlled access area
Temperature controlled environment (-18°C-22°C) by central heating and cooling system
Central 24 hour temperature control alert system for any electrical failure
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Engineering & Technical maintenance

Access to skilled technical person for maintenance of blood group automated machines, RBC processor machines, freezers, instruments and calibrated blood bank centrifuges

Availability of equipments and spare parts from country of origin
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Comprehensive Information Technology

Producing a comprehensive National Rare Donor software (Mak System) for rare donor personal information record and phenotype database archiving complete serologic test results blood inventory management
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Packaging & Reliable Transportation

Difficulty in transporting and delivery of requested rare blood to hospital
Large country with long distances
Lack of experienced private company for blood transportation
Delivery by Air and Land
(bureaucratic procedures /ticket purchase / cancelation of flights/ flight delays )