Cooperation mechanisms and the role of the SEE Regional Development Centers in promoting a harmonized approach to blood and blood products management

1Olivia Ligia Burta, 2Andrei Rosin, 3Simona Parvu, 2Corina Posea, 2Adriana Necula
1SEE RHC on Blood Safety, Oradea,
2National Institute of Transfusion Medicine, Bucharest
3Romanian Ministry of Health
THE WORK-SHOP
INCREASING BLOOD AVAILABILITY AND
PROVIDING THE HIGHEST DONOR AND PATIENT
SAFETY IN TRANSFUSION THERAPY IN
EMERGENCY SPECIAL CIRCUMSTANCES

Proposals:
- National evaluation (based on further model) → Regional (SEE) evaluation → SEE strategy
- Legislation – uniformity at SEEHN level (import/export regulations, transfusion security)
- Sequential designation of Responsible Persons → well-defined responsibilities
- Design of an alert platform
- Training sessions – specialized staff (physicians, nurses…) at both national and SEE level
- Simulation exercises – at national and SEEHN level
- Major coordination by RHC-SEEHN Blood Safety
Blood Collection Management in Romanian Transfusion Network
based on common circumstances → emergency situations and special circumstances

- Presentation design

  - SEE - harmonized approach to blood and blood products management (certain features: separation rate, no of performed tests, staff number/category)
  
  - The questionnaire designed for framing each blood establishment → country → SEE region, based on “Romanian exercise”
  
  - Applied poll – about perception of blood donation in common/special circumstances
  
  - SWOT approach
  
  - Conclusions - future SEE policy/strategy
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<table>
<thead>
<tr>
<th>Year</th>
<th>TB collected units</th>
<th>RBCs</th>
<th>Separation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>351,381</td>
<td>233,595</td>
<td>66.4%</td>
</tr>
<tr>
<td>2009</td>
<td>390,501</td>
<td>272,725</td>
<td>69.8%</td>
</tr>
<tr>
<td>2010</td>
<td>400,285</td>
<td>277,699</td>
<td>69.9%</td>
</tr>
<tr>
<td>2011</td>
<td>398,993</td>
<td>312,740</td>
<td>78.4%</td>
</tr>
<tr>
<td>2012</td>
<td>399,848</td>
<td>338,274</td>
<td>84.6%</td>
</tr>
<tr>
<td>2013</td>
<td>428,140</td>
<td>391,922</td>
<td>91.54%</td>
</tr>
</tbody>
</table>

Separation rate (p < 0.001). Source: Annual BTCs Activity Reports
<table>
<thead>
<tr>
<th>year</th>
<th>Ag HBs</th>
<th>Ag/Ab HIV ½</th>
<th>Ag/Ac HCV</th>
<th>Ac HTLV I/II</th>
<th>syphilis</th>
<th>bacteriologic control</th>
<th>immune-hematology</th>
<th>hematology, biochemistry</th>
<th>total n° of laboratory tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>405,780</td>
<td>384,428</td>
<td>396,783</td>
<td>345,142</td>
<td>395,142</td>
<td>35,448</td>
<td>384,428</td>
<td>1,631,109</td>
<td>3,978,260</td>
</tr>
<tr>
<td>2009</td>
<td>437,871</td>
<td>417,934</td>
<td>426,898</td>
<td>405,869</td>
<td>435,976</td>
<td>34,596</td>
<td>577,258</td>
<td>1,476,628</td>
<td>4,513,030</td>
</tr>
<tr>
<td>2010</td>
<td>439,778</td>
<td>406,581</td>
<td>435,646</td>
<td>410,572</td>
<td>441,719</td>
<td>27,504</td>
<td>1,347,243</td>
<td>1,500,119</td>
<td>9,547,245</td>
</tr>
<tr>
<td>2011</td>
<td>434,277</td>
<td>418,217</td>
<td>432,661</td>
<td>409,663</td>
<td>440,896</td>
<td>27,479</td>
<td>5,928,183</td>
<td>1,670,743</td>
<td>9,762,119</td>
</tr>
<tr>
<td>2012</td>
<td>432,509</td>
<td>406,064</td>
<td>428,299</td>
<td><strong>412,170</strong></td>
<td><strong>431,663</strong></td>
<td>30,810</td>
<td><strong>5,794,613</strong></td>
<td>1,593,489</td>
<td><strong>9,529,617</strong></td>
</tr>
<tr>
<td>2013</td>
<td>435,532</td>
<td>448,288</td>
<td>436.772</td>
<td><strong>433,442</strong></td>
<td><strong>441,733</strong></td>
<td>31,635</td>
<td><strong>6,523,442</strong></td>
<td>1,267,049</td>
<td><strong>10,017,893</strong></td>
</tr>
</tbody>
</table>

Laboratory activity (p < 0.001). Source: Annual BTCs Activity Reports
<table>
<thead>
<tr>
<th>year/professional category</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>total n° of employees (national level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDs (Clinical Laboratory, General Medicine, Hematologists)</td>
<td>131.5</td>
<td>105.5</td>
<td>105.5</td>
<td>118.5</td>
<td>118.5</td>
<td>116</td>
<td>1,148.5</td>
</tr>
<tr>
<td>biologists, chemists..</td>
<td>96.5</td>
<td>89.5</td>
<td>89.5</td>
<td>86.5</td>
<td>86.5</td>
<td>86.5</td>
<td>1,102.5</td>
</tr>
<tr>
<td>nurses</td>
<td>603.5</td>
<td>633</td>
<td>633</td>
<td>557.5</td>
<td>557.5</td>
<td>553</td>
<td>1,098</td>
</tr>
<tr>
<td>lower health care staff</td>
<td>68</td>
<td>44</td>
<td>44</td>
<td>40.5</td>
<td>40.5</td>
<td>40.5</td>
<td>1,017.5</td>
</tr>
<tr>
<td>total n° of medical staff</td>
<td>899.5</td>
<td>872</td>
<td>872</td>
<td>803</td>
<td>803</td>
<td>796</td>
<td>1,007.5</td>
</tr>
</tbody>
</table>

Medical staff/categories; - Romanian Transfusion Network Source Annual BTCs Activity Reports
Blood Collection Management in Romanian Transfusion Network
based on common circumstances → emergency situations and special circumstances

– SEE - harmonized approach to blood and blood products management
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– SWOT approach

– Conclusions - future SEE policy/strategy
essential in gradual assessment of (BTC/country/SEE) the current situation and identifying the future strategy to promote blood donation as well as blood collection and blood products management, on both common and emergency situations/special circumstances.

“By honest completion of the questionnaire about annual activity reports data, staff data, material basis, financial data and population statistics, the characteristics of each SEE country will be objectively framed, offering a point of reference for future policies of making transfusion medicine more efficient and safe in any circumstance.”
Selections from the applied questionnaire, will be further displayed as well as the manner of interpretation (based on a predetermined evaluation scale) according to:

a. the national policy:
   A) short-,
   (B) medium-,
   (C) long-term strategy
   priority (1st, 2nd, 3rd), and

b. presence/number/efficiency, marked from 5 to 10.
1. PROMOTION OF BLOOD DONATION/DONORS

<table>
<thead>
<tr>
<th>RECRUITMENT/ SPECIFIC TOOLS</th>
<th>S</th>
<th>W</th>
<th>O</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>strategy</td>
<td>radio, TV, newspapers</td>
<td>video-clip, movies</td>
<td>posters, flyers</td>
<td>round-tables, conferences, scientific papers</td>
</tr>
<tr>
<td>promotion activities: ”face to face”</td>
<td>donors' associations</td>
<td>sociologic studies</td>
<td>institutions</td>
<td>Red Cross involvement</td>
</tr>
<tr>
<td>&quot;Bus&quot; (mobile) collection</td>
<td>personnel abilities/collaboration with institutions and media/volunteers</td>
<td>lack of personalized soft/lack of blood donation promotion training/no financial resources for blood donation promotion</td>
<td>Red Cross involvement/donors' health status monitor/collaboration local authority</td>
<td>undersized personnel/limited budget/population ageing</td>
</tr>
</tbody>
</table>

Part 1 – 75 questions
## 2. BLOOD DONATION/MARKETING FOR RETENTION

### Operational Marketing for Retention

<table>
<thead>
<tr>
<th>Time (minutes) spent by donor</th>
<th>Donors’ Proplyle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressability</td>
<td></td>
</tr>
<tr>
<td>Donors’ Satisfaction</td>
<td></td>
</tr>
</tbody>
</table>

### SWOT Analysis

<table>
<thead>
<tr>
<th>B: Supply Management</th>
<th>S: Strengths</th>
<th>W: Weaknesses</th>
<th>O: Opportunities</th>
<th>T: Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory established limits</td>
<td>Waiting time/undersized personnel/lack of training (communication skills)</td>
<td>Volunteers/donors’ associations/EU funds</td>
<td>Personnel migration/limited financial resources/not being part of emergency medicine</td>
<td></td>
</tr>
</tbody>
</table>

### Tools

<table>
<thead>
<tr>
<th>First Time</th>
<th>Telephone</th>
<th>Mail, SMS</th>
<th>Post Card</th>
<th>Radio-TV</th>
<th>Newspapers</th>
<th>Website</th>
<th>Hungarian</th>
<th>German</th>
<th>Questionnaire</th>
<th>Register of complains</th>
<th>Education</th>
<th>Socio-economic status</th>
<th>Median Age</th>
<th>Gender</th>
<th>Biological Quality</th>
<th>Behaviour</th>
<th>Inventory (established limits)</th>
<th>Waiting time/undersized personnel/lack of training (communication skills)</th>
<th>Volunteers/donors’ associations/EU funds</th>
<th>Personnel migration/limited financial resources/not being part of emergency medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>57</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>8</td>
<td>35</td>
<td>&gt;60%</td>
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</tbody>
</table>

### Language

<table>
<thead>
<tr>
<th>Language</th>
<th>Telephone</th>
<th>Mail, SMS</th>
<th>Post Card</th>
<th>Radio-TV</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Hungarian</td>
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</tbody>
</table>

### Other

- First time: regular
- 1st: (B) regular
- 2nd: (C) 1st
- 3rd: (A) 2nd

### Questions

- 1st: 97 questions
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% of mobile from total collection</td>
<td>8.75</td>
<td>7.23</td>
<td>6.56</td>
<td>5.99</td>
<td>6.2</td>
<td>6.5</td>
</tr>
<tr>
<td>national policy/ priority</td>
<td></td>
<td></td>
<td></td>
<td>(A)-1\textsuperscript{st}</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(A) 1\textsuperscript{st}: strategy; „Bus” (mobile) collection; lack of personalized soft/lack of blood donation promotion training/limited financial resources for blood donation promotion; undersized personnel/limited budget/population ageing; donor’s satisfaction questionnaire, register of complains; inventories; median age; waiting time/undersized personnel/lack of tranings (communication skills); personnel migration/limited financial resources/not being part of emergency medicine; mobile collection; sociologic studies..

(A) 2\textsuperscript{nd}: personalized operational marketing - mail, SMS, post card

(B) 1\textsuperscript{st}: involvement of institutions/people: donors’ association, Red Cross; collaboration with local authority (including the signalizing of the Blood Establishments location, along traffic routes); improvement of average of spent time by donors in BTEs; personalized web-site;

(B) 2\textsuperscript{nd}: contract with volunteers; round-tables, conferences, scientific papers; donors’ profile

(C) 1\textsuperscript{st}: promotion/recruitment (tools: mass media, newspapers, video clip, flyers..); improvement of personnel abilities; addressability maintenance; donors’ comfort maintenance
Regarding the medical staff working in blood establishments, should increase with 20% (the necessary human resource for running in optimal conditions – common/special circumstances), with regular trainings (internal/external training, including an e-learning platform), aware of its role in the community, able to understand the context in which it evolves to achieve quality requirements, another vital point of interest is the acquisition of specific equipment (including for NAT testing), in sufficient number to cover all progressively increasing working volume and complexity to streamline the institutions involved, is imperative to implement an unique computerized soft for donor management, the Donor Base enabling to intervene with timely and adequately recruitment/retention activities, and hemovigilance purpose as well, to provide interface to all interested parties another key in improving the quality system, is the use a national (SEE) standardized reporting system for transfusion activity and performance assessment/reorganization.
should be acquired *authorized vehicles*, to support an increase of at least 25% of mobile collection, in about 12 months from the acquisition moment, able to be used in special circumstances, as well *the renovation/modernization of the infrastructure*, are prerequisites for the implementation of current technical knowledge, quality management system requirements, offering comfort and assuring the return of blood donors in order to avoid potential consequences in both common/special circumstances, such as major discontinuity in hospitals supply with blood and blood components (either by reducing the amount thereof, or by decreasing transfusion safety or the worst, both of them), is compulsory to apply the above measures (respecting the national policy), through **ASSURING ADEQUATE FINANCIAL RESOURCES**, thus being fulfilled the medical staff’s (pre-hospital/hospital levels) donors’ and recipients’ satisfaction
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Poll – April 2013

Age of subjects (n=394)
- The average age: 47.6 yrs
- Std deviation: 16.3
- Minimum age: 17
- Maximum age: 86

between relatives, close friends, some who have received blood transfusion?
- Yes, 34.9%
- No, 60.3%
- I don’t know, 4.6%
- I don’t want to answer, 3%

in the future, you are willing to donate blood?
- I would never donate blood: 9.8% Yes, 86.1% I don’t know, 4.1%
- I donate blood if I could get any reward: 73.3% Yes, 17.9% I don’t know, 8.8%
- I donate blood if someone close to me would require: 9.8% Yes, 86.1% I don’t know, 4.1%
- I donate blood to help anyone: 20.2% Yes, 73.6% I don’t know, 6.2%
do you consider that the blood donation is promoted enough?

- No: 73.4%
- Yes: 10.7%
- I don’t know: 15.7%
- I don’t want to answer: 3%
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Medical staff professionalism/devotion

High degree of transfusion security (91 minor transfusion reactions in 2013)

Continuous improvement (low speed) of specific medical devices pool, at national transfusion network level

On-going
- editing of national guidelines (immune-hematology, ethics)
- training courses for hospital staff involved in transfusion therapy
- documentation for transfusion competence

strengths
The hospitals should increase the level of quality in transfusion medicine, based on specific procedures in both common/special circumstances. Lack of National Computerized Network at BTCs level.

Weaknesses:

- No "computerized" interface: HBB/BEs
- Limited uniformity/complementarity in reported data by the interested institutions
- Limited complementarity between the 2 main "actors": pre-hospital & hospital
- Limited Promotion of Transfusion field, due to insufficient information (common/special circumstances, displayed on professional web-sites)
opportunities

European funds for National network of IT-system

Editing specific manuals/guides/regulations for both common/special circumstances
(on-going the Ethical Guide in Transfusion Medicine)

To use the information from activity report for national tender, as a basic tool for Blood Supply Management, in both common/special circumstances

Post-graduate Quality Management in Transfusion training program (CME) for each “actor” according to level of involvement, organized by medical universities/professional bodies/experts
Inadequate number/category of medical staff (no Transfusion Medicine specialization/competence)

Under-financing the transfusion network

A continuous overload of job description → increase the risk of human errors

Low speed to get to European Standards in Blood Supply Management and hemovigilence system

Limited efficiency in collaboration/coordination between interested stakeholders

Limited medium and long-term strategic vision in both prehospital/hospital levels

Degree of influence
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• Necessity to:
  - be revised and validated the proposed questionnaire (by each SEEHN representative in blood safety domain, with the international institutions/experts participation)
  - be applied the questionnaire to each country, part of SEEHN, under the National Coordinator responsibility
  - be evaluated and to be found the common and specific features, in order to develop an efficient strategy, when refers to emergency situations/special circumstances at SEE level
  - publish a booklet with all compiled data
Oradea Pro Life – May 2013

Blood, Stem cells, organs and tissues donation promotion

a “Heart” of 150 lanterns was launched toward sky

the video clip will be presented to the 31st Plenary Meeting of South Eastern Europe Health Network, June 2013, Chisinau