Background
The revised Dutch blood transfusion guideline (2011) published internal quality indicators for the hospital transfusion chain to measure aspects of guideline compliance.

Method
The indicators were collected by voluntary online survey in 2011 and 2012. The indicators consist of 4 structural indicators and 3 process indicators that required provision of figures.

Results

Indicator 5 Indication setting for RBC transfusion: percentage of transfusions with pre-transfusion Hb level ≤ 6 mmol/l (≤ 9.6 g/dl)
- Aims to measure unnecessary transfusions.
- A RBC transfusion at Hb > 6 mmol/l (> 9.6 g/dl) within 72 hours of transfusion is rarely indicated.
- Time frame Hb measurement (< 72 hours before transfusion) chosen to be able to include outpatients and inpatients.
- 82% (2011) and 90% of respondents reported > 80% of RBC transfusions complying to transfusion trigger.

Indicator 6 Indication setting and evaluation of platelet (plt) transfusion in hemato-oncology patients by measuring platelet levels before and after transfusion
- 2011: 30 hospitals responded: platelet counts available in 35-100% of transfusions.
- Wide variation in response may be due to two questions in one indicator => 2012 split into 6a pre transfusion count and 6b effect measurement.
- 2012: 38 hospitals reported data: 58% of hospitals measured pretransfusion plt count and 35% measured effect in > 80% of plt transfusions.

Indicator 7 Traceability of transfusions: confirmation of transfusion or final disposal of a blood component
- Traceability high: 83% and 89% of responders reported traceability in > 95% of transfusion.
- 24% had complete (100%) traceability of all blood components.
- In 2012 added questions on the actual administrative processes of traceability by the transfusion lab found:
  - Administrative methods used vary widely.
  - 20% do not confirm transfusion; after issue from the lab transfusion is assumed.
  - 23 responders (31%) reported adequate administrative procedures.

Conclusions
- Participation in the voluntary survey of quality indicators was high, but lower for process indicators that required provision of actual performance data.
- Data regarding 2012 were comparable to 2011 and did not show statistically significant changes.

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NATIONAL SURVEY OF QUALITY INDICATORS FOR THE HOSPITAL TRANSFUSION CHAIN
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Background
The revised Dutch blood transfusion guideline (2011) published internal quality indicators for the hospital transfusion chain for measuring aspects of guideline compliance.

Method
The indicators were collected by voluntary online survey in 2011 and 2012. The indicators consist of 4 structural indicators and 3 process indicators that required provision of figures.

Results

Participation: 2011 78% (78 out of 100 hospitals); 2012 78% (76 out of 98 hospitals), but lower for process indicators

Indicator 1a Instatement of transfusion committee (TC): 96% of responding hospitals had instated a TC (2011&2012).
Indicator 2a Employment transfusion safety officer (TSO): 83% (2011) and 89% (2012) of responding hospitals employed a TSO.

<table>
<thead>
<tr>
<th>Indicator 2b TSO time allocation</th>
<th>≥ 8 hours/week</th>
<th>&lt; 8 hours/week</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>14%</td>
<td>36%</td>
<td>50%</td>
</tr>
<tr>
<td>2012</td>
<td>23%</td>
<td>32%</td>
<td>55%</td>
</tr>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>
44% (2011) and 63% (2012) of responders complied both with the recommended minimum of four annual transfusion committee meetings and 8 hours’ weekly employment of a transfusion safety officer.

Indicator 3 Ability to generate data from hospital computer system with regard to indicator 5,6 & 7

Indicator 4 Deployment of electronic pre-transfusion check of patient and blood product identity
1 hospital reported hospital-wide implementation of electronic pre-transfusion check and 6 reported partial implementation on a limited number of wards (2011: 4 hospitals partial implementation

Conclusions
- Participation in the voluntary survey of quality indicators was high, but lower for process indicators that required provision of actual figures.
- Data regarding 2012 were comparable to 2011 and did not show statistically significant changes.
- The indicators can be used for monitoring aspects of the quality of the hospital transfusion chain, guideline compliance and optimal blood use.
- The results for indicators 1&2, 5,6, and 7 should approach 100%. Improvement of the compliance rates should be achievable.
- The results can be used for (inter)national benchmarking.

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