2020 EBMT ACTIVITY SURVEY

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Activity Survey 2020

Patient and Transplant Numbers

<table>
<thead>
<tr>
<th>Teams: 690</th>
<th>Participating countries: 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allogeneic</td>
<td>Autologous</td>
</tr>
<tr>
<td>1st allo / 1st auto HCT</td>
<td>17 647</td>
</tr>
<tr>
<td>Re/Additional transplants</td>
<td>1 149</td>
</tr>
<tr>
<td>Total HCT</td>
<td>18 796</td>
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<tr>
<td>Myeloablative HCT</td>
<td>58%</td>
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</table>

Main Indication 1st HCT

- Myeloid malignancies: 10 217 (22% of 46 409)
- Lymphoid malignancies: 5 046 (22% of 22 992)
- Solid tumours: 36 (1 686)
- Bone marrow failure: 902 (1 900)
- Other non-malignant disorders: 1 311 (3 181)
- Other: 135 (66)

Myeloid malignancies

- AML 1st CR: 4 013 (85%)
- AML not 1st CR: 1 828 (37%)
- CML 1st CR: 1 016 (66%)
- CML not 1st CR: 163 (46%)
- MDS or MDS/MPN, MPN: 3 006 (3 008)

Lymphoid malignancies

- ALL 1st CR: 1 849 (51%)
- ALL not 1st CR: 1 175 (31%)
- CLL: 169 (33%)
- Plasma cell disorders: 289 (12 766)
- Hodgkin lymphoma: 375 (2 134)
- Non-Hodgkin lymphoma: 1 189 (6 087)
- Neuroblastoma: 25 (505)
- Soft tissue sarcoma/Ewing: 4 (281)
- Germ cell tumour: 0 (456)
- Other solid tumour: 4 (444)

Non-malignant disorders

- Bone marrow failure - SAA: 676 (1 677)
- Bone marrow failure - other: 226 (0 226)
- Thalassemia: 275 (6 281)
- Sickle cell disease: 224 (1 225)
- Primary immune deficiency: 621 (5 626)
- Inherited disorder of metabolism: 173 (8 181)
- Auto immune disease: 18 (298 316)
- Others: 135 (66 201)

Paediatric patients

- HLA-id/twin |
- Haplo-id |
- Other relative |
<table>
<thead>
<tr>
<th>BM</th>
<th>PB</th>
<th>CB</th>
<th>BM</th>
<th>PB</th>
<th>CB</th>
<th>BM</th>
<th>PB</th>
<th>CB</th>
<th>BM</th>
<th>PB</th>
<th>CB</th>
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<tbody>
<tr>
<td>843</td>
<td>340</td>
<td>23</td>
<td>263</td>
<td>562</td>
<td>76</td>
<td>81</td>
<td>10</td>
<td>504</td>
<td>805</td>
<td>161</td>
<td>20</td>
</tr>
<tr>
<td>1 198</td>
<td>1 570</td>
<td>1 378</td>
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Patients with un-manipulated DLI: N= 3 055.
Graft enhancement/failure:728; residual disease:482; relapse:1 265; per protocol: 850.

Non HCT Cellular therapies using manipulated or selected cell in 2020: CAR-T therapies:
- Notable increase of 65% since 2019.
- Increase in ALL: 25%; in HL/NHL: 74%; in others: 118%
- Data reported from 154 centres in 22 countries.
- Other CT: MSC increased by 19%, selected T cells decreased by 8%.
- No obvious effect caused by the SAR-CoV-2 pandemic.

Observations in 2020: Impact of the SARS-CoV-2 Pandemic

Main trends seen in the numbers of HCT reported in 2020.

- Number of HCT decreased for the first time in 30 years of the annual survey.
- Allogeneic HCT: -5.1%; autologous HCT: -7.5%; overall: -6.5%.
- Decrease seen in the majority of indications for both allogeneic and autologous HCT.
- Use of unrelated and sibling donors decreased while use of haploidentical donors increased.
- Use of marrow as stem cell source decreased.
- Myeloablative HCT decreased when compared to non-myeloablative HCT.
- Cord blood HCT increased by 11.7% for the first time since 2012.
- Changes are most likely due to the SARS-CoV-2 pandemic, but also possibly due to the introduction of innovative therapies in hematology.

Figure 1: Trend in the number of patients transplanted since 1990

Figure 2: Change in donor choice since 1990

Figure 3: Change in the numbers of autologous HCT for lymphoproliferative disorders since 1990

Figure 4: Change in the numbers of MAB versus NMA allogeneic HCT since 2020

Figure 5: Change in HCT activity: average change in the number of transplants in centres reporting consistently over a 4 year period 2017-2020 in selected countries

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