

## SPECIAL REPORT

# The EBMT activity survey 2007 with focus on allogeneic HSCT for AML and novel cellular therapies

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The 2007 report describes the current status of HSCT activity in Europe, highlights the increasing role of allogeneic HSCT in treatment of AML and gives the first quantitative information on novel cellular therapies. In 2007, there were 25 563 first HSCTs, 10 072 allogeneic (39%), 15 491 autologous (61%) and 3606 additional transplants reported from 613 centers in 42 countries. The main indications were leukemias (8061 (32%; 89% allogeneic)); lymphomas (14 627 (57%; 89% autologous)), solid tumors (1488 (6%; 96% autologous)) and nonmalignant disorders (1302 (5%; 91% allogeneic)). Peripheral blood was the main source of stem cells for autologous HSCT (98%) and the predominant source for allogeneic HSCT (71%). Among allogeneic HSCTs, the number of unrelated donor grafts equaled the number of HLA-identical sibling donor grafts for the first time (47% each). AML was the most frequent indication for allogeneic HSCT (32% of all allogeneic HSCTs), with an increase of 247 (8%). Information on novel cellular therapies was collected for the first time; there were 212 mesenchymal SCTs and 212 HSCTs for nonhematopoietic use. The indications for the latter were cardiovascular disorders (97; 46%), neurological disorders (94; 44%) and tissue repair (21; 10%). These data illustrate the expanding role of cellular therapies.

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**Keywords:** hematopoietic SCT; Europe; transplant rates; acute myeloid leukemia; mesenchymal stem cells; novel cellular therapies

## Introduction

The annual European Group for Blood and Bone Marrow Transplantation (EBMT) activity report has become an established instrument to describe the current status of HSCT in Europe to observe trends and to monitor changes in technology use.<sup>1–3</sup> It serves as a basis for decision making at the individual patient level as well as for health care agencies in planning and providing the infrastructure for this complex medical technology. In addition to the general description of the number of transplants by indication, donor type and stem cell source, the report has focused each year on specific aspects. The increasing use of cord blood as a stem cell source, the change from BM to peripheral blood or the utilization and integration of unrelated donor transplants were the key topics in the past.<sup>4–6</sup> In the 2007 report, information on the use of novel cellular therapies was integrated for the first time. The numbers of mesenchymal SCTs and the numbers of HSCT for nonhematological indications were requested.<sup>7–10</sup> The most striking observation in the last year was the increase of allogeneic HSCTs for the treatment of AML and myelodysplastic syndromes (MDS). More detailed information is provided on the pattern of use for this indication.

## Patients and methods

### *Data collection and validation*

All participating teams were requested to report their data for 2007 by indication, stem cell source and donor type as listed in Table 1. Data were validated by three independent systems: through confirmation by the reporting team that received a computer printout of the entered data, by selective comparison with MED-A data sets in the EBMT ProMISE data system and by cross-checking with the National Registries. Onsite visits of selected teams were part of the quality control program (www.jacie.org).

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### Teams

A total of 628 teams in 45 countries (38 European and 7 affiliated countries) were contacted for the 2007 report, of which 613 reported their numbers. This corresponds to a 98% return rate of active teams and includes 509 active EBMT member teams reporting to the survey. There were 15 teams known to have been performing HSCTs in 2007 that chose not to reply or failed to reply. The teams that were contacted are listed in the Appendix in alphabetical order according to country, city and EBMT center code. According to the information received, there were no blood or marrow transplants performed in Albania, Andorra, Armenia, Georgia, Liechtenstein, Malta, Moldavia, Monaco, Montenegro, San Marino and the Vatican in 2007. The non-European countries participating in the EBMT survey include Algeria, Iran, Israel, Lebanon, Saudi Arabia, South Africa and Tunisia. Their data are included in some of the analyses.

### Definitions

**Transplant numbers.** The EBMT survey focused, as in previous years, on the number of patients treated for the first time with HSCT.<sup>1</sup> Information on additional transplants, for instance, a second, third or fourth HSCT in a patient with a previous HSCT was collected by disease category only for those patients with a planned double allogeneic after autologous transplants; for all other situations, this information was collected generically only. The following definitions were used: 'retransplants' (autologous or allogeneic) were defined as an unplanned HSCT for rejection or relapse after a previous HSCT; 'multiple transplants' were defined as being part of a planned double or triple autologous or allogeneic transplant protocol. Information on stem cell source was collected as BM, peripheral blood or cord blood. Any transplants with a combination of stem cell source that included cord blood were reported as cord blood HSCTs. BM and peripheral blood combinations were reported as peripheral blood HSCTs. Information on reduced-intensity conditioning (RIC) was collected as a total for each team only and not for individual transplants. Definitions for RIC HSCT followed the recently published definitions.<sup>11</sup>

**Transplant rates.** Transplant rates were computed as the number of HSCTs per 10 million inhabitants as defined earlier.<sup>12</sup> Transplant rates refer to the number of transplants in a given country compared with its own population. The survey cannot make adjustments for patients who cross borders and receive their HSCT in a foreign country. Population data were obtained from the US census office (<http://www.census.gov>).

**Economic factors.** Economic factors considered in the analysis followed previously defined rules.<sup>12</sup> Countries were categorized by their Gross National Income (GNI) per capita according to the World Bank definitions into high income (Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland and the United Kingdom), middle

income (Bulgaria, Croatia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Serbia, Slovakia and Turkey) and low income countries (Azerbaijan, Belarus, Bosnia and Herzegovina, Macedonia and Ukraine). The latter category refers to the World Bank definition of 'lower middle income' (<http://www.worldbank.org>). Furthermore, the category of high income was subdivided into a very high-income group, consisting of those countries with a GNI/capita of >40 000 per capita (Denmark, Finland, Ireland, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom).

The non-European countries that traditionally participate in the EBMT activity survey (Algeria, Iran, Israel, Lebanon, Saudi Arabia, South Africa and Tunisia) are included in the overall data presentation. They were not included in the analysis on economic factors. The same applies to Iceland and Luxembourg because of some missing data over the time span.

**Statistical analysis.** The relation of the macroeconomic factors (GNI/capita) with transplant rates was estimated by ordinary least squares by multiple regressions to measure the coefficient of determination ( $r^2$ ) or explanatory content.

## Results

### Participating teams

Of the 613 teams reporting HSCTs in 2007, 374 (61%) performed both allogeneic and autologous transplants; 225 (37%) restricted their activity to autologous transplants, 5 teams (1%) to allogeneic transplants only and 9 teams (1%) reported having performed no transplants in 2007.

A total of 216 teams (35%) reported fewer than 20 first HSCTs in 2007, 223 teams (37%) between 20 and 50 HSCTs, 121 teams (20%) between 51 and 100 HSCTs and 53 teams (8%) >100 HSCTs.

A total of 142 teams reported at least one cord blood HSCT in 2007 with 33 teams reporting >5.

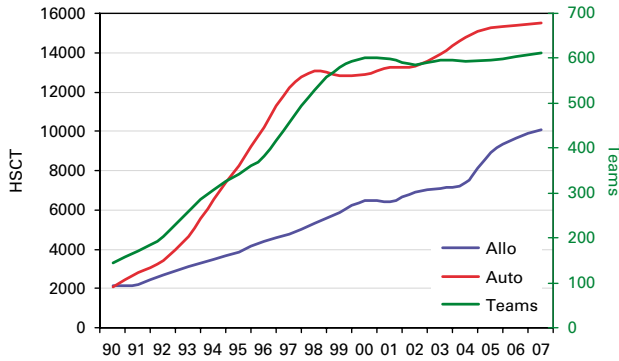
### Numbers of HSCT in 2007

**First transplants in 2007.** A total of 25 563 first transplants, 10 072 (39%) allogeneic and 15 491 (61%) autologous, were carried out in 2007 (Table 1). Overall, this corresponds to a slight increase in the numbers of HSCT compared with 2006 when there were 25 050 first transplants. The numbers of allogeneic HSCT increased by 4% from 9661 in 2006 to 10 072 in 2007, whereas the numbers of autologous HSCT remained similar at 15 389 in 2006 and 15 491 in 2007.

**Additional transplants in 2007.** There were 1662 retransplants (810 allogeneic/852 autologous) and 1944 additional planned multiple transplants (71 allogeneic/1873 autologous). Thus, there were a total of 29 169 HSCT procedures, 10 953 allogeneic (38%) and 18 216 autologous (62%), performed in 2007. This corresponds to an overall increase of 105 retransplants (38 allogeneic and 67 autologous) or 7% compared with 2006. A total of 522 transplants were reported as being part of a planned double autologous-

allogeneic HSCT. This corresponds to a decrease of 5% when compared with 2006, where a total of 531 planned double autologous-allogeneic HSCTs were reported. The main indications for the planned double transplant

programs were, as in the previous year, multiple myeloma, non-Hodgkin's lymphoma and Hodgkin's disease. The evolution over time in the number of participating teams, numbers of allogeneic and autologous HSCTs is depicted in Figure 1.

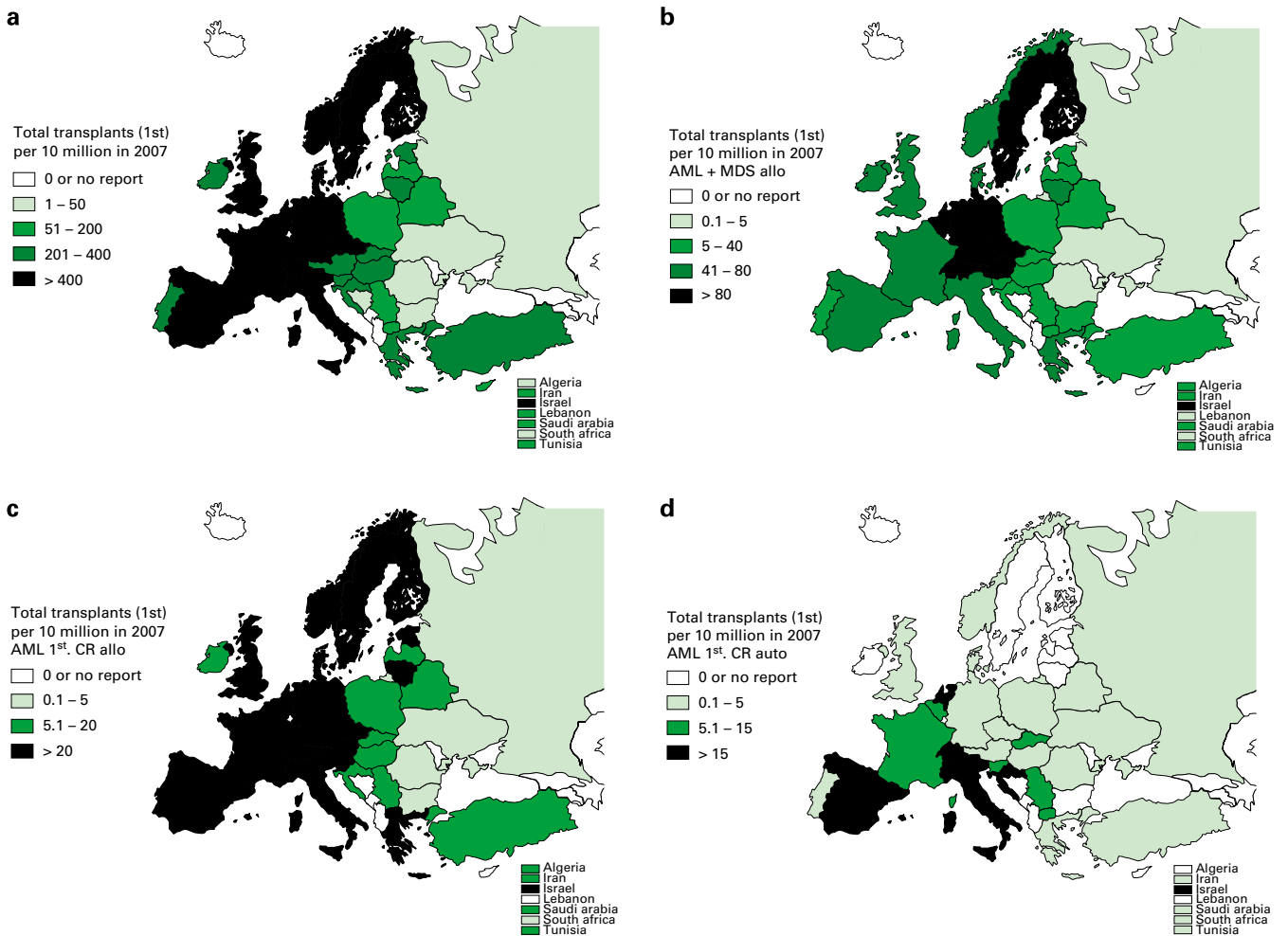


**Figure 1** Development of the activity survey from 1990 to 2007. Numbers of participating teams (green), allogeneic (blue) and autologous (red) HSCTs.

*Transplant rates in 2007.* There were marked differences in transplant rates between European countries and countries affiliated with EBMT as presented in Figure 2. These differences relate to all transplants (Figure 2a) and to autologous HSCT (data not shown). The differences between Eastern and Western European countries have been reported earlier. It is interesting to note that countries with similar total transplant rates had similar transplant rates for allogeneic HSCT as well as for autologous HSCT.

*Disease indications in 2007*

The indications for HSCT in 2007 are listed in detail in Table 1. The main indications were 'lymphoproliferative disorders' with 14 627 patients (57%), 1646 patients with allogeneic HSCTs (11%), 12 981 with autologous HSCTs



**Figure 2** Transplant rates (= number of HSCTs per 10 million inhabitants) in Europe 2007 by country. (a) Transplant rates for all HSCTs, allogeneic and autologous. (b) Transplant rates for myeloid malignancies (AML and MDS), allogeneic HSCT only. (c) Transplant rates for AML, the first CR only, allogeneic HSCT. (d) Transplant rates for AML, the first CR only, autologous HSCT. HSCT, hematopoietic SCT; MDS, myelodysplastic syndromes.

(89%); 'leukemias' with 8061 patients (32%), 7153 patients with allogeneic HSCTs (89%), 908 with autologous (11%) HSCTs; 'solid tumors' with 1488 patients (6%), 63 with allogeneic HSCTs (4%), 1425 with autologous HSCTs (96%); and 'nonmalignant disorders' with 1302 patients (5%), 1141 with allogeneic HSCTs (91%) and 161 with autologous HSCTs (12%). The latter, autologous HSCT for nonmalignant disorders, predominantly includes patients (150) with autoimmune disorders. An additional 85 patients (0.5%), 69 with allogeneic HSCTs and 16 with autologous HSCTs, were reported as 'other indications'.

#### Stem cell source in 2007

Of the 15491 autologous first transplants, 256 (2%) were BM derived, 15234 (98%) were from peripheral blood stem cells or from combined BM and peripheral blood stem cells and one was from autologous cord blood cells (Table 1). Of the 10072 allogeneic first transplants, 23% were BM, 71% were peripheral blood and 6% were cord blood transplants. This corresponds to a stable proportion of peripheral blood as stem cell source compared with the 70% in 2006. The proportion of peripheral blood as stem cell source varied depending on donor type. It was 73% for HLA-identical sibling donor transplants, 68% for unrelated donors, 74% for HSCT from other family members and 73% for twin donors. Within allogeneic HSCT, the only disease indications with more BM than peripheral blood donors as stem cell source were BM failure syndromes (51% bone marrow) and congenital disorders (59% BM). The proportion of main indications varied as well within the three stem cell sources. Nonmalignant disease represented about a quarter of all indications for BM and cord blood but only a small fraction among the peripheral blood transplants.

#### Donor type in 2007

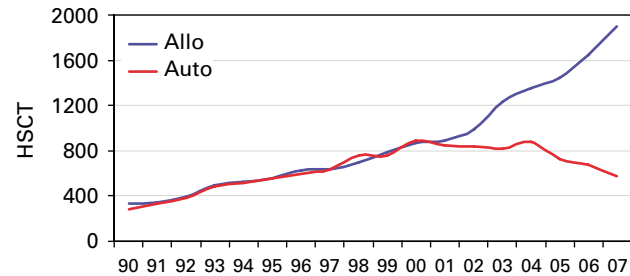
For the 10072 allogeneic first transplants, HLA-identical siblings were used as donors for 4716 (47%) of the recipients, other family members for 552 (5%) of the recipients, a syngeneic twin for 52 (1%) of the recipients and an unrelated volunteer donor for 4752 (47%) of the recipients. For the first time since the introduction of the EBMT activity survey, the proportion of unrelated donors is higher than the number of HLA-identical sibling donors.

#### Use of RIC in 2007

The numbers of RIC HSCT continued to increase from 3530 in 2006 to 3914 in 2007 at the same rate as allogeneic HSCT. RIC was used for 36% of all allogeneic HSCTs. This information is collected in a generic way only; no information on disease distribution is possible within the activity survey.

#### Focus of the 2007 survey

**AML.** AML was the most frequent indication for an allogeneic HSCT in 2007. The 3269 allogeneic HSCTs for AML correspond to 32% of all allogeneic HSCTs. Together with the 1052 HSCTs for MDS, AML and MDS (4321 allogeneic HSCTs) correspond to 43%. There were more HSCTs for AML in the first CR (58%) compared



**Figure 3** Numbers of allogeneic (blue) and autologous (red) HSCTs for AML in the first CR. HSCT, hematopoietic SCT.

with later stages of the disease. HSCT for AML in the first CR increased from 1354 in 2004 to 1903 in 2007. This is the highest increase for any indication over the recent years (Figure 3). Allogeneic HSCTs for all patients with AML increased from 2404 in 2004 to 3269 in 2007. In contrast, the numbers of autologous HSCT for AML in the first CR declined from 874 in 2004 to 577 in 2007.

Transplant rates for allogeneic HSCTs in AML and MDS differed significantly between participating countries (Table 2) and ranged from less than 5 per 10 million (several countries) to 135 per 10 million inhabitants in Belgium. Countries with high transplant rates for AML also showed high transplant rates for MDS, but transplant rates for AML did not necessarily parallel transplant rates in general (Figures 2b, c and d). It is interesting to note that transplant rates for AML in the first CR were very homogeneous with a coefficient of variation in high-income countries of 39, indicating a consensus among the participating countries.<sup>12</sup> The transplant rates in high-income countries for MDS varied more with a coefficient of variation of 68; for autologous HSCT for AML (Figure 2d), the variation was even larger with a coefficient of variation of 119.

Similarly, the coefficient of determination for GNI/capita and transplant rates differed significantly between allogeneic and autologous HSCTs. It was high for AML allogeneic HSCT with an explanatory content of  $r^2 = 64.27\%$ , MDS allogeneic HSCT with  $r^2 = 66.21\%$  or AML first CR allogeneic HSCT with  $r^2 = 49.54\%$ . It was low for autologous HSCT with  $r^2 = 9.91\%$  for AML autologous HSCT,  $r^2 = 9.21\%$  for MDS and  $r^2 = 8.47\%$  for AML first CR only.

**Novel cellular therapies.** Table 3 summarizes the experience in Europe with novel cellular therapies. There were a total of 212 mesenchymal SCTs performed by 46 teams in 15 countries. The indications for these transplants are unknown. There were a total of 212 HSCTs for non-hematopoietic use. This includes 97 HSCTs for cardiovascular disorders, 94 HSCTs for neurological disorders and 21 HSCTs for tissue repair.

There were 1898 patients reported as having received donor lymphocyte infusions in 2007 (Table 3). This corresponds to about two-thirds of the number of reported patients with RIC HSCT. No information on the disease indication of those patients with donor lymphocyte infusion is available from the activity survey.

**Table 2** Numbers and transplant rates of allogeneic HSCTs for AML and MDS in Europe in 2007

	Demographics			Allo total			AML first CR			AML not first CR			MDS			Total AML + MDS		
	Population	WB	N	N	TR	% Total AML+MDS	% Allo	N	TR	% Total AML+MDS	% Allo	N	TR	% Total AML+MDS	% Allo	N	TR	
																		N
Europe			145	18	22.0	21	12	47	57.4	55	32	21	25.6	24	14	86	105.0	
Austria	8.2	H	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	
Azerbaijan	10.4	H	264	60	57.7	43	23	36	34.6	26	14	44	42.3	31	17	140	134.6	
Belgium	4.6	L	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	
Bosnia and Herzegovina	7.3	M	9	3	4.1	75	33	1	1.4	25	11	0	0.0	0	0	4	5.5	
Bulgaria	4.5	M	32	6	13.3	50	19	4	8.9	33	13	2	4.4	17	0	12	26.7	
Croatia	0.8	H	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	
Czech Republic	10.2	H	197	42	41.2	48	21	17	16.7	20	9	28	27.5	32	14	87	85.3	
Denmark	5.5	H	83	14	25.5	41	17	10	18.2	29	12	10	18.2	29	12	34	61.8	
Estonia	1.3	H	9	4	30.8	80	44	1	7.7	20	11	0	0.0	0	0	5	38.5	
Finland	5.2	H	107	22	42.4	8	21	5	9.6	2	5	18	34.7	6	17	283	545.3	
France	63.7	H	1251	260	40.8	86	21	158	24.8	52	13	124	19.5	41	10	304	47.7	
Germany	82.4	H	2114	321	39.0	31	15	397	48.2	38	19	320	38.8	31	15	1038	126.0	
Greece	10.7	H	113	30	28.0	51	27	16	15.0	27	14	13	12.1	22	12	59	55.1	
Hungary	10.0	M	121	20	19.9	51	17	11	11.0	28	9	8	8.0	21	10	39	38.8	
Ireland	4.1	H	61	7	17.1	27	11	15	36.6	58	25	4	9.8	15	7	26	63.4	
Italy	58.1	H	1264	186	32.0	40	15	182	31.3	39	14	97	16.7	21	8	465	80.0	
Latvia	2.3	M	2	2	8.7	100	100	0	0.0	0	0	0	0.0	0	0	2	8.7	
Lithuania	3.6	M	49	18	50.1	75	37	3	8.4	13	6	3	8.4	13	40	24	66.8	
Macedonia	2.1	L	6	5	23.8	83	83	1	4.8	17	17	0	0.0	0	0	6	28.6	
Netherlands	16.6	H	372	79	47.6	53	21	31	18.7	21	8	39	23.5	26	10	149	89.8	
Norway	4.6	H	66	11	23.9	37	17	8	17.4	27	12	11	23.9	37	17	30	65.2	
Poland	38.5	M	255	61	15.8	54	24	32	8.3	29	13	19	4.9	17	7	112	29.1	
Portugal	10.6	H	92	23	21.7	64	25	9	8.5	25	10	4	3.8	11	4	36	34.0	
Republic of Belarus	9.7	L	27	5	5.2	56	19	1	1.0	11	4	3	3.1	33	11	9	9.3	
Romania	22.3	M	9	3	1.3	50	33	2	0.9	33	22	1	0.4	17	11	6	2.7	
Russia	141.4	M	129	22	1.6	34	17	26	1.8	40	20	17	1.2	26	13	65	4.6	
Slovakia	5.4	M	29	8	14.8	53	28	6	11.1	40	21	1	1.9	7	3	15	27.8	
Slovenia	2.0	H	25	5	25.0	71	20	2	10.0	29	8	0	0.0	0	0	7	35.0	
Spain	40.4	H	626	159	39.4	59	25	60	14.9	22	10	52	12.9	19	8	271	67.1	
Sweden	9.0	H	197	37	41.1	46	19	17	18.9	21	9	26	28.9	33	8	80	88.9	
Switzerland	7.6	H	127	25	32.9	40	20	17	22.4	27	13	21	27.6	33	17	63	82.9	
Turkey	71.2	M	401	100	14.0	61	25	50	7.0	30	12	15	2.1	9	4	165	23.2	
Ukraine	46.3	L	6	2	0.4	0	33	1	0.2	0	17	1	0.2	25	0	4	0.9	
United Kingdom	60.8	H	1061	188	30.9	44	18	123	20.2	29	12	113	18.6	27	11	424	69.7	
Serbia	4.7	M	21	4	8.5	50	19	3	6.3	38	14	1	2.1	13	5	8	16.9	
<i>Affiliated countries</i>																		
Algeria	33.4	L	103	24	7.2	86	23	3	0.9	11	3	1	0.3	4	1	28	8.4	
Iran	65.4	L	241	54	8.3	68	22	17	2.6	21	7	9	1.4	11	4	80	12.2	
Israel	7.0	H	239	28	40.0	30	12	50	71.4	54	21	15	21.4	16	6	93	132.9	
Lebanon	3.9	M	5	0	0.0	0	0	0	0.0	0	0	1	2.6	100	20	1	2.6	
Saudi Arabia	27.6	H	157	28	10.1	70	18	4	1.4	10	3	8	2.9	20	5	40	14.5	
South Africa	48.4	M	21	7	1.4	88	33	0	0.0	0	0	1	0.2	13	5	8	1.7	
Tunisia	10.3	L	36	12	11.7	92	33	0	0.0	0	0	1	1.0	8	3	13	12.6	

Abbreviations: Allo = allogeneic; Auto = autologous; H = high income; HSCT = hematopoietic SCT; L = low income; M = middle income; MDS = myelodysplastic syndromes; N = transplant numbers; TR = transplant rates per 10 million inhabitants (see Patients and methods for definition); WB = World Bank category.

**Table 3** Overview of novel cellular therapies in Europe in 2007

Cell product	Allogeneic cells		Autologous cells		Total N
	Products (N)	Countries (N)	Products (N)	Countries (N)	
Donor lymphocyte infusions	1898	31	0	—	1898
Cord blood products	634	25	1	1	635
Mesenchymal stem cells	180	15	32	4	212
<i>HSCT for nonhematopoietic use</i>					
Cardiovascular	0	0	97	11	97
Neurological	6	2	88	2	94
Tissue repair	3	3	18	2	21
Total	9	—	203	—	212
Total	2721	—	236	—	2957

Abbreviation: HSCT = hematopoietic SCT.

## Discussion

Data from this report describe the current state of art of HSCT in Europe in 2007. They document the ongoing role of autologous and allogeneic stem cells for a broad range of malignant and nonmalignant disorders. Allogeneic HSCTs continued to increase, whereas the numbers of autologous HSCT remained within a similar range for most disease indications when compared with the previous years.

For the first time since the introduction of the EBMT activity survey, additional information was collected for novel cellular therapies.<sup>7–10</sup> They confirm the importance of donor lymphocyte infusions, which parallel the development of RIC for which therapy donor lymphocyte infusion remains an integral part of the therapeutic concept.<sup>13–16</sup> More interesting and novel are the substantial number of mesenchymal stem cell grafts and the use of hematopoietic stem cell transplants for nonhematopoietic indications, for example, cardiovascular and neurological disorders, or for tissue repair.<sup>8–10</sup> No specific information was collected for the donor lymphocyte infusions and the mesenchymal stem cell grafts. It is also clear from some feedback ([www.eurocet.org](http://www.eurocet.org)) that the numbers of HSCT for non-hematopoietic use as well as of mesenchymal stem cell grafts are probably larger than those reported within this survey. Such grafts are frequently performed outside the traditional hematopoietic SCT units. It will be a challenge for the scientific and political community to collaborate and to get comprehensive information on the numbers, indications and outcome of these grafts. Specifically, mesenchymal stem cells, more correctly called multipotent mesenchymal stromal cells, are being tested in various clinical settings to exploit their proposed antiproliferation and immunomodulatory properties. They are obtained by the *ex vivo* expansion of stromal cells from BM, cord blood, fat tissue or placenta, and the host does not require conditioning or immunosuppression. Mesenchymal stromal cells actively home to distressed tissue and act through paracrine-secreted molecules rather than by transdifferentiation. The main indications being tested are acute GVHD, myocardial infarct, critical ischemic and autoimmune disease.<sup>16–19</sup>

Of specific interest is the rapidly increasing role of allogeneic HSCT for AML and MDS. Several prospective controlled trials have confirmed better outcome with allogeneic transplants, and there is often no therapy available for disease eradication other than an allogeneic HSCT.<sup>20–24</sup> Currently available data are clear concerning an advantage for younger patients with intermediate or high-risk leukemia. The heterogeneity in use of HSCT for AML and MDS, as expressed by the  $r^2$  analysis, and the heterogeneity in use in the first CR or at later stages of the disease clearly indicate a need for a continuous evaluation of the technology. This applies even more so for autologous HSCT for AML where the explanatory content is less than 10% (by  $r^2$ ). Data from the survey does not indicate whether a transplant was the best therapy for the individual patient indication or not. Again, it will be the task of the working parties and the AML study groups to provide evidence on the role of HSCT in this clinical situation. Such trials have been initiated ([www.ebmt.org](http://www.ebmt.org)).

It is specifically interesting to note that, for the first time since the activity survey began, the numbers of unrelated HSCT equal the number of HLA-identical sibling transplants. There are several reasons behind this development. The massive increase of unrelated donor registries has increased the likelihood of finding a well-matched unrelated donor ([www.wmda.org](http://www.wmda.org)). In addition, there is increasing evidence that the well-matched donor in certain situations might be preferable to a sibling donor, for example, in the situation of an older male patient with the choice between an older female sibling donor and a young well-matched unrelated male donor.<sup>25</sup>

The activity survey does not provide any data on outcome. It also does not provide any information either on the age or sex of the patients or on their pre- or post-transplant therapy. Even more important is that there is no information on nontransplanted patients. Even though desired, this is not the purpose of this data collection. Its key focus is the rapid dissemination of the *status quo* in the field of HSCT. As such, this activity survey provides a formal basis for patient counseling and health care planning in the field of SCT.

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## Conflict of interest

The authors declare no conflict of interest.

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## APPENDIX 2007

### List of transplant centres in 2007

(Total first HSCT (total all HSCT), N allogeneic /N autologous first HSCT)

**Albania:** no report  
**Andorra:** no report  
**Armenia:** no report

**Algeria** (1 team) (147 (149) 103/44)  
Alger, Centre Pierre et Marie Curie, CIC 703, R. Hamladji (147 (149) 103/44)

**Austria** (12 teams) (319 (360) 145/174)  
Graz, Karl Franz University Hospital (hem), CIC 308, W. Linkesch (45 (47) 20/25)  
Graz, Universitäts-Kinderklinik (hem, onco), CIC 593, Ch. Urban (13 (16) 9/4)  
Innsbruck, Universitätsspital (hem, onco), CIC 271, G Gastl, D Nachbaur (62 (66) 34/28)  
Klagenfurt, General Hospital Klagenfurt, D Geissler, M Heisteringer (12 (15) 0/12)  
Linz, AO Krankenhaus (onco), I Medizin, MA Fridrik (4 (4) 0/4)  
Linz, AOK der Elisabethinen, Internal Medicine, CIC 594, D Lutz, O Krieger (44 (49) 19/25)  
Salzburg, LKA Salzburg (onco), CIC 356, R. Greil (13 (18) 0/13)  
Vienna, AKH, Universitätsklinik für Innere Medizin I (onco), CIC 227, HT Greinix, P Kalhs (66 (69) 43/23)  
Vienna, St Anna Kinderspital (hem, onco), CIC 528, H. Gadner, C. Peters (31 (38) 20/11)  
Vienna, Hanusch-Krankenhaus (hem, onco), CIC 743, E Koller (11 (15) 0/11)  
Vienna, Donauespital, CIC 767, W Hinterberger (3 (3) 0/3)  
Vienna, Wilhelminenspital (hem, onco), CIC 828, H Ludwig (15 (20) 0/15)

**Azerbaijan:** (1 team)  
Baku, Azerbaijan Central Clinic Hospital, CIC 186, S Dincer (no report)

**Belarus, Republic of** (2 teams) (72 (77) 27/45)  
Minsk, Belorussian Center (hem, onco, peds), CIC 591, O Aleinikova (35 (35) 20/15)  
Minsk, Hospital No 9, N Milanovitch (37 (42) 7/30)

**Belgium** (20 teams) (630 (715) 264/366)  
Antwerpen, Stuivenberg ZH, CIC 339, P Zachée (34 (41) 17/17)

Antwerpen-Edegem, University Antwerpen (hem), CIC 996, W Schroyens (38 (41) 18/20)  
Antwerpen, AZ Middelheim (hem), CIC 783, R de Bock (10 (10) 0/10)  
Brugge, AZ St Jan (hem), CIC 506, D Selleslag, A Van Hoof, J Van Droogenbroeck, K Van Eygen (59 (65) 27/32)  
Brussels, Institut Jules Bordet and the Children's University Hospital, CIC 215, D Bron, E Sariban, C Devalck, A Ferster (50 (61) 25/25)  
Brussels, Clinique universitaire St Luc (hem, ads), CIC 234, A Ferrant (42 (48) 18/24)  
Brussels, Clinique Universitaire St Luc (peds), CIC 234, C Vermynen (11 (11) 6/5)  
Brussels, Hôpital Erasme (hem), CIC 596, W Feremans, A Kentos, M Lambermont, A Deweiwere (15 (19) 0/15)  
Brussels, Ac Z VUC University Hospital (hem, onco), CIC 630, B Van Camp, A Schots (26 (28) 6/20)  
Charleroi, Hôpital Notre-Dame (hem, onco), CIC 349, M André (17 (19) 4/13)  
Charleroi, Hôpital Vésale de Charleroi (hem), CIC 804, A Triffet (5 (5) 0/5)  
Gent, University Hospital (hem, ads, peds), CIC 744, LA Noens (35 (37) 16/19)  
Haine St Paul, Hôpital de Jolimont (hem), CIC 234, A Delannoy, C Ravoot, N Straetmans (17 (22) 2/15)  
Hasselt, Virga Jesse Ziekenhuis (hem), CIC 632, D Vanstraelen, G Bries, V Madoe (30 (33) 0/30)  
Leuven, University Hospital Gasthuisberg (hem, ads, peds), CIC 209, J Maertens, D Dierickx, M Renaud (117 (123) 82/35)  
Liège, CHR de la Citadelle (hem, onco), CIC 353, S Van Steenweghen, C Andre, F Scerbo (6 (10) 0/6)  
Liège, University Hospital Sart-Tilman (hem), CIC 726, Y Béguin, B De Prijck (71 (87) 34/37)  
Roeselare, Heilig Hartziekenhuis (hem, onco), CIC 646, F Van Aelst, J Tytgat, J Demol (11 (14) 3/8)  
Wilrijk, Sint Agustinos GVA (hem), CIC 715, J Lemmens (11 (11) 0/11)  
Yvoir, Clinique universitaire Mont-Godinne (hem), CIC 234, C Doyen (25 (30) 6/19)

**Bosnia-Herzegovina:** (2 teams) (7 (7) 0/7)  
Sarajevo, Clinical centre University Sarajevo (hem), CIC 198, A Sofo-Hafizovic (5 (5) 0/5)  
Tuzla, University Clinical Centre of Tuzla (hem), CIC 647, M Malesevic (2 (2) 0/2)

**Brazil:** (1 team) (151 (165) 98/53) (not included in analysis)  
Jau, Amaral Carvalho Hospital, CIC 180, C Vergilio (151 (165) 98/53)

**Bulgaria:** (2 teams) (24 (26) 9/15)  
Sofia, Pediatric Hospital for Oncohematology and Bone Marrow Transplantation (peds, hem, onco), CIC 346, D Bobev, B Avramova, M Yordanova (24 (26) 9/15)  
Sofia, National Centre of Hematology and Transfusiology BMT, CIC 859, G Mihaylov (0 (0) 0/0)

**Croatia** (2 teams) (121 (127) 32/89)  
Zagreb, Clinic Hospital 'Mercur', CIC 159, B Jaksic, H Minigo (27 (30) 6/21)  
Zagreb, Clinical Hospital Center, CIC 302, B Labar, D Nemet, M Mrsic (94 (97) 26/68)

**Cyprus** (1 team) (4 (4) 0/4)  
Nicosia Makarios Hospital III (hem), CIC 575, A Papatryphonos (4 (4) 0/4)

**Czech Republic** (9 teams) (461 (530) 197/264)  
Brno, Masaryk University Hospital (ads, peds, hem, onco), CIC 597, J Vorliceck, J Mayer, Z Koristek (98 (133) 29/69)  
Hradec Kralové, Charles University (hem), CIC 729, L Jebavy, S Filip, M Blaha (38 (41) 22/16)  
Olomouc, University Hospital (hem, onco), CIC 574, K Indrak (59 (66) 22/37)  
Pilsen, Faculty Hospital (hem, onco), CIC 718, V Koza (91 (98) 39/52)  
Prague, Clinical Haematology, Charles University, CIC 318, T Kozak (29 (29) 0/29)

Prague, Thomayer Memorial Hospital, CIC 375, J Abrahamova, J Nepomucká (3 (3) 0/3)  
Prague, University Hospital Motol (peds, hem, onco), CIC 452, P Sedlacek (26 (28) 22/4)  
Prague, Institute of Hematology and Blood Transfusion, A Vitek, P Kobylka CIC 656 (64 (67) 63/1)  
Prague, Charles University, CIC 745, M Trneny (53 (65) 0/53)

**Denmark** (4 teams) (254 (291) 83/171)

Aalborg, Aalborg Hospital (hem/clin immunology), CIC 848, J Baech, I Christiansen (26 (30) 0/26)  
Aarhus, Amtssygehus (hem) and Skejby Hospital, CIC 634 + 510, E Segel, B Moeller (52 (57) 0/52)  
Copenhagen, Rigshospitalet (hem), CIC 206, H Seneglov (157 (184) 83/74)  
Copenhagen, Herlev Hospital (hem) University, CIC 568, N Clausen (19 (20) 0/19)

**Estonia** (2 teams) (40 (42) 9/31)

Tallinn, North Estonian Regional Hospital, K Vaht, T Jogi (19 (20) 0/19)  
Tartu, University Hospital (hem, onco), CIC 746, H Everaus, A Kaare (21 (22) 9/12)

**Finland** (7 teams) (279 (303) 107/172)

Helsinki, Children's Hospital, CIC 219, U Pihkala, S Vettenranta (28 (33) 20/8)  
Helsinki, University Central Hospital, Department of Medicine, CIC 515, T Ruutu (90 (90) 62/28)  
Helsinki, University Hospital (onco), CIC 833, H Joensuu, R Janes (12 (12) 0/12)  
Kuopio, Department of Medicine, University Hospital, CIC 396, E Jantunen, T Nousiainen (35 (40) 0/35)  
Oulu, University Central Hospital (hem, onco), CIC 690, P Koistinen, T Turpeenniemi-Hujanen (27 (30) 0/27)  
Tampere, University Hospital (ads, peds), CIC 635, E Koivunen, T Lehtinen, R Silvennoinen, M Arola (34 (40) 0/34)  
Turku, University Central Hospital, CIC 225, K Remes (53 (58) 25/28)

**France** (72 teams) (3705 (4172) 1251/2454)

Amiens, CHU Amiens, CIC 955, G Damaj (42 (45) 0/42)  
Angers, Centre Hospitalier, CIC 650, N Ifrah, S François (65 (73) 29/36)  
Argenteuil, Hopital Victordupouy (hem), CIC 199, L Sutton (14 (14) 0/14)  
Besançon, Hôpital Jean Minjot and Hôpital St Jacques (ads, peds), CIC 233, P Herve, E. Deconinck, P.Rohrlich (97 (103) 47/50)  
Bordeaux, Hôpital des Enfants (hem, onco), A Notz-Carrere (10 (12) 2/8)  
Brest, Hôpital Morvan (hem), D Gillet (66 (77) 16/50)  
Caen, Centre Hospitalier Régional, CIC 251, O Reman (45 (53) 17/28)  
Caen, Hôpital Cote de Nacre (peds, hem, onco), P Boutard (2 (3) 0/2)  
Caen, Centre Régional François Baclesse, C Fruchart (20 (29) 0/20)  
Clermont Ferrand, Centre Jean Perrin and CHU Hotel Dieu (ads, peds), CIC 273, J-O Bay, F Dèmeocq, P Travade (98 (119) 41/57)  
Colmar, Hôpital civil, B Audhuy (7 (8) 0/7)  
Corbeil Essonne, Hôpital Gilles de Corbeil, A Devidas (17 (18) 0/17)  
Créteil, Hôpital H Mondor (hem), CIC 252, C Cordonnier, M Kuentz (50 (55) 28/22)  
Dijon, Hôpital d'Enfants, D Caillot (68 (76) 0/68)  
Dunkerque, Centre Hospitalier (hem), M Wetterwald (no report)  
Grenoble, Centre Hospitalier A Michallon (ads, peds), CIC 270, JY Cahn, F Garban, P Drillat, D Plantaz (101 (109) 47/54)  
Lille, Hôpital Claude Huriez, CIC 277, F Bauters, JP Jouet (91 (101) 55/36)  
Lille, Hôpital Jeanne de Flandre (peds), CIC 963, B Bruno (1 (1) 0/1)  
Lille, Centre Oscar Lambret (onco, peds), A Defachelles (12 (21) 0/12)  
Lille, Centre Hospitalier Saint Vincent, N Cambier (21 (24) 0/21)  
Limoges, Centre Hospitalier Dupuytren (ads, hem), CIC 977, D Bordessoule, P Turlure (43 (48) 0/43)  
Lyon, Centre Léon Bérard, CIC 241, P Biron, T Philip (64 (75) 0/64)  
Lyon, Hôpital Edouard Herriot, CIC 671, M Michallet, E Wattel, A Thiebaut, F Nicolini, J Troncy, X Thomas (67 (75) 54/13)  
Lyon Sud (Pierre Benite), Centre Hospitalier, B Coiffier (76 (86) 0/76)

Lyon, Hôpital Debrousse, CIC 806, Y Bertrand, V Mialou (28 (29) 27/1)  
Marseille, Inst. Paoli-Calmettes, CIC 230, D Blaise (318 (380) 69/249)  
Marseille, Hôpital d'Enfants de la Timone (onco), CIC 301, C Coze, JL Bernard J Frayfer (6 (7) 0/6)  
Meaux, Centre Hospitalier de Meaux (9 (10) 0/9)  
Metz, Thionville Hôpital Notre-Dame de Bon-Secours (hem), V Dorvaux, B Christen (25 (29) 0/25)  
Montpellier, CHU de Montpellier Hôpital Arnaud de Villeneuve (peds), G Marguerite (12 (12) 7/5)  
Montpellier, CHR Lapeyronie (hem), CIC 926, T Kanouni (136 (157) 52/84)  
Mulhouse, Hôpital du Hasenrain, B Drénou, M Ojeda (12 (13) 0/12)  
Nancy, Vandoeuvre-les-Nancy, Hôpital d'Enfants, P Bordigoni (53 (54) 46/7)  
Nancy, Vandoeuvre-les-Nancy, CHU Nancy-Brabois (hem), P Lederlin, F Witz (52 (64) 0/52)  
Nantes, Hotel Dieu (hem), CIC 253, P Chevallier, JL Harousseau (192 (196) 69/123)  
Nice, Hôpital de l'Archet (incl. Hopital Lenval (peds), CIC 523, N Gratecos, JP Cassuto, D de Ricaud (43 (51) 26/17)  
Nice, Centre Antoine Lacassagne, A Thyss (26 (26) 0/26)  
Paris, Hôpital Necker (ads, hem), CIC 160, B Varet, C Bélanger, A Veil (66 (67) 34/32)  
Paris, Hôpital Necker des enfants malades (allo), CIC 201, A Fischer (32 (39) 31/1)  
Paris, Hôpital St Louis (hem-allo, ads, peds), CIC 207 + 748, G Socié, E Gluckman, H Esperou (101 (109) 99/2)  
Paris, Hôpital St Louis (auto), CIC 805, G Gisselbrecht (54 (56) 0/54)  
Paris, Hôpital St Louis (auto-leuk), CIC 960, H Dombret, L Degos, P Rousselot (6 (6) 0/6)  
Paris, Hôpital St Louis (autoimmuno-Haem), J-P Fermand (51 (51) 0/51)  
Paris, Hôpital St Antoine (hem), CIC 213, C Gorin, L Fouillard (47 (49) 17/30)  
Paris, Hôpital D'enfants Armand-Trousseau, CIC 675, G Leverger, A Auvrignon, L Douay (6 (7) 0/6)  
Paris, Hôtel Dieu (hem), CIC 222, B Rio, Z Marjanovic (66 (70) 34/32)  
Paris, Hôpital Pitié Salpêtrière (hem), CIC 262, J-P Vernant, V Leblond, N Dedhin (112 (117) 51/61)  
Paris, Institut Curie (ads, onco, peds), CIC 702, J Michon (40 (43) 0/40)  
Paris, Hôpital Tenon (onco), CIC 747, JP Lotz (18 (38) 0/18)  
Paris, Hôpital Robert Debré, CIC 631, A Baruchel, JH Dalle, G Cotten (33 (35) 33/0)  
Paris, Hôpital Européen GP, JM Andrieu, C Le Maignan (5 (6) 0/5)  
Paris, Hôpital d'Instruction des Armées Percy, Clamart, T de Revel, G Nedellec (43 (53) 17/26)  
Paris, Hôpital Cochin (auto), M Quarre (24 (30) 0/24)  
Pessac, Hôpital Haut-Lévêque, CHU Bordeaux, CIC 267, N Milpied, G Marit, R Tabrizi (163 (178) 91/72)  
Poitiers, Hôpital la Milettrie, CIC 264, M Renaud (63 (71) 25/38)  
Pontoise, Hospital René Dubois (hem, onco), CIC 961, H Gonzalez (13 (13) 0/13)  
Reims, Hopital Robert Debré (hem, onco), CIC 959, A Delmer, B Pignon, C Himberlin (28 (33) 0/28)  
Rennes, CHRU, Clinique Médical Infantile, CIC 661, E Le Gall, V Gandemer (16 (17) 10/6)  
Rennes, Hôpital de Pontchaillou (hem), CIC 661, T Lamy (113 (118) 35/78)  
Roubaix, Hôpital V Provo (hem), I Plantier-Colcher (16 (17) 0/16)  
Rouen, Centre Henri Becquerel, CIC 941, H Tilly, P Lenain (80 (98) 18/62)  
Rouen, Hôpital Charles Nicolle, JP Vannier (12 (12) 7/5)  
St Cloud, Centre René Huguenin, CIC 551, M Janvier (25 (26) 0/25)  
Strasbourg, Hôpital de Haute-pierre, B Lioure (79 (91) 35/44)  
Strasbourg, Hospices Civils, Service de Pédiatrie 5, P Lutz (14 (21) 8/6)  
Toulouse, Hôpital de Purpan (hem), CIC 624, M Attal, J-C Nogaro (128 (140) 28/100)  
Toulouse, Hôpital de Purpan (peds), CIC 624, H Rubie (12 (12) 5/7)  
Tours, Hôpital Bretonneau (onco), CIC 272, P Colombat (59 (64) 0/59)  
Valenciennes, Hospital De Valenciennes, M Simon (15 (15) 0/15)  
Villejuif, Institut G Roussy (peds), CIC 503, O Hartmann, DValteau-Couanet (35 (66) 0/35)

Villejuif, Institut G Roussy (ads, hem), CIC 666, J-H Bourhis, C Boccaccio, J-M Vantelon (136 (145) 41/95)  
Villejuif, Hôpital Paul Brousse, B Delmas-Marsalet (5 (6) 0/5)

**Georgia:** no report

**Germany** (106 teams) (4568 (5682) 2114/2454)  
Aachen, Universitätsklinikum RWTH (hem, onco), Med Klinik IV, CIC 348, R Osieka, G Gehbauer (16 (21) 0/16)  
Augsburg, Zentralklinikum (hem, onco), Med Klinik II, G Schlimok, M Sandherr (37 (44) 16/21)  
Bad Saarow, Humaine Klinikum, G Schultze, U Wruck, K Senftleben (4 (5) 0/4)  
Berlin, Universitätsklinikum der HU Charité Campus Virchow Klinikum (peds), CIC 336, G Gaedicke, W Ebell, J Kühl (22 (28) 21/1)  
Berlin, Universitätsklinikum der HU Charité Campus Virchow Klinikum (ads, hem, onco), CIC 807, B Dörken, R Arnold (114 (124) 77/37)  
Berlin, HELIOS Klinikum Berlin, Robert-Rössle Klinik (hem, onco), CIC 518, W-D Ludwig, R Bargon (28 (38) 0/28)  
Berlin, Universitäts-Klinik der FU Benjamin Franklin (hem, onco), CIC 590, L Uharek E. Thiel (72 (93) 32/40)  
Bielefeld, Franziska Hospital (hem, onco), HJ Weh, A Zumsprekel (6 (6) 0/6)  
Bochum, Knappschafts-Krankenhaus (hem, onco), CIC 124, W Schmiegel, C Teschendorf (30 (50) 0/30)  
Bonn, Rheinische Friedrich-Wilhelms Universität (ads, hem, onco), T Sauerbruch, I Schmidt-Wolf (12 (23) 0/12)  
Bonn, Rheinische Friedrich-Wilhelms Universität (peds, hem, onco), U Bode, C Hasan (6 (7) 0/6)  
Braunschweig, Städtisches Klinikum (hem, onco), CIC 674, B Wörmann, T Gabrysiak (32 (39) 0/32)  
Bremen, Zentralkrankenhaus St Jürgenstrasse, CIC 602, B Hertenstein, H Rasche, H Thomssen (25 (29) 14/11)  
Bremen, DIAKO (hem, onco), KH Pflüger, T Wolff (11 (19) 0/11)  
Chemnitz, Krankenhaus Küchwald (hem), CIC 104, M Hänel, G Geissler (42 (51) 0/42)  
Cottbus, Carl-Thiem Klinikum, Med Klinik II (hem), H Steinhauer, N Peter (16 (29) 0/16)  
Dessau, Städtisches Klinikum Dessau (hem, onco), M Plauth, A Florschütz (7 (7) 0/7)  
Dortmund, St Johannes Hospital (hem, onco), H Plelken, M Hindahl (2 (2) 0/2)  
Dresden, Universitätsklinikum Carl Gustav Carus (hem, onco), CIC 808, G Ehninger, M Bornhäuser (181 (209) 115/66)  
Duisburg, St Johannes Hospital, CIC 519, C Aul, R Hartwig (30 (41) 0/30)  
Düsseldorf, Heinrich-Heine Universität; Medizinische Klinik (hem, onco) and St Antonius Hospital, Eschweiler, (hem, onco), CIC 390, R Haas, G Kobbe, R Fuchs (97 (125) 42/55)  
Düsseldorf, Heinrich-Heine Universität; Zentrum für Kinderheilkunde, CIC 651, U Göbel, D Dilloo (27 (35) 16/11)  
Erlangen, Universität Erlangen-Nürnberg (hem, onco), Med Klinik III, CIC 809:1, W Rösler (29 (37) 14/15)  
Erlangen, Universitäts-Klinik für Kinder und Jugendliche (hem, onco), CIC 809:2, W Holter (10 (11) 3/7)  
Essen, Universitätsklinikum (ads, peds), CIC 259, DW Beelen, R Peceny, W Havers, B Kremens, O Basu (170 (184) 158/12)  
Essen, Evangelisches Krankenhaus Essen-Werden GmbH (hem, onco), CIC 784, W Heit, M Wattad (50 (58) 17/33)  
Essen, Universitätsklinikum (hem), C Dührsen, R Noppeney (28 (32) 0/28)  
Essen, West German Cancer Center, S Seeber, T Moritz (24 (43) 0/24)  
Frankfurt, KH Nordwest, A Knuth, E Jäger (16 (25) 0/16)  
Frankfurt, Klinikum Frankfurt (Oder), CIC 190, M. Kiehl (16 (24) 3/13)  
Frankfurt a M Universitätsklinikum d, JW Goethe (hem, onco, peds), CIC 138, T Klingebiel (41 (46) 33/8)  
Frankfurt a M., JW Goethe-Universität (ads), CIC 297, D Hoelzer, H Martin (50 (60) 32/18)  
Frankfurt/Mainz, Städtisches Klinikum (ads), HG Derigs, T Flohr (8 (8) 0/8)  
Frankfurt/Mainz, Onkologische Gemeinschaftspraxis, CIC 193, W Knauf (23 (29) 0/23)

Freiburg i Br, Universitätsklinik (ads, hem, onco), Med Klinik I, CIC 810, R Mertelsmann, J Finke, M Engelhardt (151 (182) 100/51)  
Freiburg i Br., Universitätskinderklinik (hem, onco), CIC 810, C Niemeyer, U Duffner (22 (25) 20/2)  
Giesen, Universitätskinderklinik (hem, onco), CIC 326, A Reiter, W Wössmann (15 (15) 11/4)  
Göttingen, Georg-August Universität (hem, onco), CIC 552, L Trümper, B Glass (77 (92) 32/45)  
Greifswald, Ernst-Moritz-Arndt Universität (ads + peds), CIC 530, G Dölken, W Krüger (27 (37) 14/13)  
Gütersloh, Städt Krankenhaus (hem, onco), C Gropp, S Rösel (2 (2) 0/2)  
Hagen, Kath. Krankenhaus (hem, onco), CIC 536, H Eimermacher, W Lindemann (13 (18) 0/13)  
Halle, Martin Luther Universität (hem, onco, ads), CIC 338, G Behre, H-J Schmoll, M Christopeit (51 (101) 15/36)  
Halle, Martin Luther Universität (hem, onco, peds), CIC 654, G Horneff, J Föll (4 (4) 3/1)  
Hamburg, KH St George (hem, onco), CIC 153, N Schmitz, P Dreger (55 (61) 33/22)  
Hamburg, Allgemeines Krankenhaus Altona (hem, onco), CIC 366, D, Braumann, H Salwender (44 (66) 0/44)  
Hamburg, Eppendorf-Krankenhaus (hem, onco, ads, peds) CIC 614, AR Zander, N Kröger (133 (147) 113/20)  
Hamburg, Eppendorf-Krankenhaus (hem, onco, ads), Med Klin II, CIC 673, C Bokemeyer (32 (56) 0/32)  
Hamel, Kreiskrankenhaus Hameln (hem, onco), H Schmidt, K Buhrmann (15 (24) 1/14)  
Hamm, St Marien Hospital (hem, onco), CIC 147, H Dürk, H. Pelz (23 (26) 0/23)  
Hamm, Evangelisches Krankenhaus (hem, onco), CIC 509, L Balleisen (23 (31) 0/23)  
Hannover, Medizinische Hochschule (hem, onco, ads), CIC 295, A Ganser, B Hertenstein (102 (117) 72/30)  
Hannover, Medizinische Hochschule (hem, onco, peds), CIC 295, K Welte, K Sykora (27 (31) 25/2)  
Hannover, KH Siloah, CIC 342, H Kirchner, M Sosada (10 (25) 0/10)  
Heidelberg, Ruprecht-Karls Universitäts-Poliklinik (hem, onco), CIC 524, P Deger, AD Ho, U Hegenbart (231 (311) 81/150)  
Homburg/Saar, Universität des Saarlandes (hem, onco), CIC 785, M Pfreundschuh, J Schubert (68 (98) 20/48)  
Idar-Oberstein, Klinik für Hämato-/Onkologie, CIC 592, AA Fauser, L Kraut (21 (27) 7/14)  
Jena, Klinik der FSU (hem, onco), Innere Medizin II, CIC 533, K Hoeffken, HG Sayer (50 (62) 26/24)  
Jena, Klinikum der FSU (hem, onco), Universitäts-Kinderklinik, CIC 750, F Zintl, D Fuchs (8 (8) 5/3)  
Kaiserlautern, Westfalzklinikum (hem), CIC 357, H Link, F-G Hagmann (5 (11) 0/5)  
Karlsruhe, Städtisches Klinikum (hem, onco), CIC 290, M Bentz, S Wilhelm (26 (37) 0/26)  
Kassel, Städtische Kliniken (hem, onco), M Wolf, E Steinhauer (20 (25) 0/20)  
Kiel, Christian-Albrechts-Universität (hem, onco), CIC 256, M Gramatzki, R. Repp (98 (110) 50/48)  
Köln, Universitäts-Klinik (ads, peds), CIC 534, M Hallek, V Diehl, CH Scheid, F Berthold, T Simon (109 (120) 44/65)  
Krefeld, Klinikum Krefeld, Med Klinik III, T Frieling, S Helmer (4 (6) 0/4)  
Leipzig, Universitäts-Klinik (hem, onco), CIC 389, D Niederwieser, W Pönisch, R Krahl (150 (172) 107/43)  
Lemgo, Klinikum Lippe, HP Lohrmann, C Constantin (10 (14) 0/10)  
Lübeck, Med Universität (ads), CIC 367:1, H Fehm, S Peters (18 (24) 0/18)  
Lübeck, Med Universität (peds), CIC 367:2, P Bucsky, P Temming (2 (2) 0/2)  
Lübeck, Städtisches KH Sud (hem, onco), Dr Heer-Sonderhoff, S Fetscher, A Heer-Sonderhoff (20 (25) 0/20)  
Magdeburg, Otto-von-Guericke Universität (hem, onco), CIC 359, A Franke, M Koenigsmann (19 (27) 0/19)  
Mainz, Johannes-Gutenberg-University (hem), Med Klin III, CIC 786, K Kolbe, D Wehler (70 (75) 33/37)  
Mannheim, III Med Klinik, R Hehlmann, J Hastka, E Lengfelder (10 (14) 0/10)

Marburg, Med Universitätsklinik der Philipps Universität (hem, onco), CIC 645, A Neubauer, J Beyer (67 (85) 29/38)  
Minden/Westfallen, Med Klinik (hem, onco), H Bodenstern, HJ Tischler (12 (18) 0/12)  
Mönchengladbach, KH Maria Hilf II, U Graeven, D Kohl (17 (26) 0/17)  
Munich, Klinikum Grosshadern der LMU (ads, hem, onco) CIC 513, H-J Kolb, W Hiddemann (118 (131) 78/40)  
Munich, Klinikum Innenstadt der LMU (peds, hem, onco), CIC 513, Professor Borkhard (25 (29) 20/5)  
Munich, SKH München-Harlaching (hem, onco), CIC 664, M Hentrich, R Hartenstein (23 (33) 0/23)  
Munich, Städt Krankenhaus Schwabing (hem, onco, peds), CIC 189, S Burdach, A Wawer, M Nathrath (14 (18) 7/7)  
Munich, Klinikum Innenstadt der LMU, M Reincke, C Straka (30 (39) 0/30)  
Munich, SKH München-Schwabing (hem, onco), CH Nerl, C Waterhaus, N Fischer (23 (33) 0/23)  
Munich, Klinikum rechts der Isar (hem, onco), CIC 558, C Peschel, CV Schilling (55 (64) 21/34)  
Münster, Westfälische Wilhelms-Universitäts Kinderklinik (hem, onco), CIC 505, H Jürgens, J Vormoor (27 (32) 15/12)  
Münster, Westfälische Wilhelms-Universitäts Klinik (hem, onco), Innere Med CIC 680, W Berdel, J Kienast (116 (133) 59/57)  
Nürnberg, Städt Klinikum (hem, onco), CIC 625, M Wilhelm, H Wandt, K Schäfer (61 (72) 34/27)  
Oldenburg, Klinikum Oldenburg (hem, onco), CIC 749, B Metzner, C Köhne (40 (61) 0/40)  
Osnabrück, Klinik Osnabrück (hem, onco), CIC 101, R Peceny, HJ Hartlapp (7 (8) 0/7)  
Potsdam, Klinikum Ernst von Bergmann (hem, onco), CIC 106, G Maschmeyer, R Pasold, A Haas (20 (25) 0/20)  
Regensburg, Universitäts Klinikum (hem, onco), CIC 787, E Holler, A Reichle (82 (116) 40/42)  
Rostock, Universitäts Klinikum (hem, onco), CIC 585, M Freund, J Casper (57 (79) 26/31)  
Rotenburg-Wümme, Diakonie Klinikum, Dr Meinhardt (15 (28) 0/15)  
Siegen, St Marien Krankenhaus (hem, onco), CIC 135, W Gassmann, T Gaska (11 (19) 0/11)  
Stuttgart, Robert-Bosch-Krankenhaus (hem, onco), CIC 145, W Aulitzky, S Martin (43 (56) 11/32)  
Stuttgart, Olgahospital (hem, onco), Pädiatrisches Zentrum, CIC 701, J Treuner, E Koscielniak (5 (6) 0/5)  
Stuttgart, Bürgerhospital and Katharinenhospital (onco), H Mergenthaler, W Grimminger, J Schleicher (7 (10) 0/7)  
Stuttgart, Diakonissen Krankenhaus, E Heidemann, M Bichler (12 (13) 1/11)  
Tübingen, Medizinische Universitäts-Klinik (hem, onco), CIC 223, L Kanz, H Einsele, C Faul (118 (144) 81/37)  
Tübingen, Medizinische Universitäts-Klinik (hem, onco), Abteilung Pädiatrie, CIC 535, R Handgretinger, D Niethammer, J Greil (49 (54) 44/5)  
Ulm, Medizinische Universitäts-Klinik (hem, onco), CIC 204, H.Döhner, D Bunjes (140 (154) 60/80)  
Ulm, Kinderklinik der Universität, CIC 204, K Debatin, W Friedrich, A Schultz (32 (34) 32/0)  
Villingen, Klinikum Villingen-Schwenningen, W Brugger, F Köhles, W Willenbacher (24 (26) 0/24)  
Wiesbaden, Deutsche Klinik für Diagnostik, CIC 311, R Schwerdtfeger, M Schleuning, H Baumann (100 (105) 92/8)  
Wiesbaden, Dr Horst-Schmidt Klinikum (hem, onco), CIC 586, N Frickhofen, B Jung (25 (26) 0/25)  
Wuppertal, HELIOS Klinikum Wuppertal (hem, onco), A Raghava-char (0 (0) 0/0)  
Würzburg, Universitätsklinikum Würzburg (hem, onco, ads), CIC 712, K Wilms, F Weissinger, P Reimer (127 (174) 49/78)  
Würzburg, Universitätsklinikum Würzburg (peds), CIC 196, P Schlegel (19 (21) 10/9)

**Greece:** (11 teams) (265 (300) 113/152)  
Alexandroupolis, Thrace University Medical School (hem), CIC 681, G Bourikas, D Pantelidou (1 (2) 0/1)  
Athens, Laikon General Hospital, CIC 328, Y Rombos, D Boutsis, V Kalotychoy (22 (25) 0/22)

Athens, Medical Center (hem), CIC 603, A Pigadito (2 (2) 0/2)  
Athens, University of Athens, CIC 604, I Dervenoulas (19 (20) 2/17)  
Athens, Evangelismos Hospital (hem), CIC 622, D Karakassis, N Harhalakis, E Nikiforakis (50 (60) 28/22)  
Athens, General Hospital, G Gennimatas (hem), CIC 638, A Zomas (no report)  
Athens, Diagnosis and Therapy Centre 'Hygeia' (hem), Maroussi, CIC 643, G Karianakis (5 (5) 0/5)  
Athens, Hellenic Cancer Institute St Savas (onco), CIC 751, A Efremedis, G Koumakis, M Stamatellou, K Papanastassiou, I Fillis (42 (57) 10/32)  
Athens, 'Aghia Sophia' Children's Hospital, CIC 752, S Graphakos, G Vessalas (35 (35) 24/11)  
Patras, University Medical School (hem), CIC 281, NC Zoumbos, A Spyridonidis, A Symeonidis, M Tiniakou (19 (22) 12/7)  
Thessaloniki, the George Papanicolaou General Hospital (hem), CIC 561, AS Fassas (69 (71) 37/32)

**Hungary** (6 teams) (362 (365) 121/241)  
Budapest, National Medical Centre (hem ads), CIC 556, T Masszi, P Reményi (105 (105) 35/70)  
Budapest, Szent Laszlo Hospital (peds), CIC 824, G Kriván, E Torbvágyi, L Lengyel (73 (73) 37/36)  
Budapest, Szent Laszlo Korhaz, Dr Fellnott (77 (80) 37/40)  
Debrecen, University of Debrecen, CIC 648, A Kiss (39 (39) 0/39)  
Miskolc, Postgraduate Medical School (peds), CIC 599, N Kalman, G Marton (21 (21) 12/9)  
Pécs, University of Pécs, Internal Medicine, CIC 682, H Losonczy, M Dávid, Á Szomor (47 (47) 0/47)

**Iceland** (1 team)  
Reykjavik, National University Hospital (hem), CIC 605, S Reykdal (no report)

**Iran** (2 teams) (408 (415) 241/167)  
Shiraz, Nemazee Hospital (hem, onco), CIC 188, M Ramzi (62 (62) 20/42)  
Teheran, Shariati Hospital (hem, onco), CIC 633, A Ghavamzadeh (346 (353) 221/125)

**Ireland** (5 teams) (139 (147) 61/78)  
Cork, Regional University Hospital (hem), O Gilligan, M Cahill (5 (5) 0/5)  
Dublin, St James's Hospital (hem), CIC 257, P Browne (97 (105) 53/44)  
Dublin, St Vincent's Hospital (hem, onco), CIC 541, J Crown, K Murphy, M Connell (9 (9) 0/9)  
Dublin, Our Lady's Hospital of Sick Children, Crumlin, CIC 774, A O'Meara (16 (16) 8/8)  
Galway, University College Hospital, M Murray (12 (12) 0/12)

**Israel** (7 teams) (490 (549) 239/251)  
Haifa, Rambam Medical Center (hem, ads, peds), CIC 345, J Rowe (100 (102) 31/69)  
Jerusalem, Hadassah University Hospital (ads, peds), CIC 258, R Or, S Slavin (117 (138) 68/49)  
Petach-Tikva, Children's Medical Center, CIC 755, J Stein (40 (45) 18/22)  
Rehovot, Kaplan Hospital (hem), CIC 327, A Berribi (9 (9) 0/9)  
Tel Aviv, Sourasky Medical Center, CIC 161, E Naparstek (38 (42) 22/16)  
Tel Hashomer, Chaim Sheba Medical Center (hem, onco, ads) CIC 754, A Nagler, A Shimoni (156 (177) 82/74)  
Tel Hashomer, Chaim Sheba Medical Center (hem, onco, peds) CIC 572, A Toren, H Golan, B Bielorai (30 (35) 18/12)

**Italy** (97 teams) (3726 (4592) 1264/2462)  
Alessandria, SS Antonio e Biagio e C Arrigo (hem), CIC 825, A Levis, A Allione, M Pini, F Salvi (38 (49) 12/26)  
Ancona, Ancona University Hospital (hem), CIC 788, M Montanari, P Leoni (60 (72) 21/39)  
Ascoli Piceno, Mazzoni Hospital, CIC 119, P Galieni (31 (39) 3/28)  
Avellino, AOS Giovanni Di Guglieimo (hem), CIC 789, N Cantore, G Storti (18 (18) 16/12)

- Avezzano, Ospedale Civile di Avezzano, F Recchia (0 (0) 0/0)
- Aviano CRO Aviano (onco), CIC 162, M Michieli, M Rupolo, M Mazzucato, F Lollo (35 (41) 0/35)
- Bari, Università degli Studi di Bari (hem), CIC 649, V Pavone, V Liso (30 (34) 9/21)
- Bergamo, Ospedale Riuniti, CIC 658, A Rambaldi (98 (126) 30/68)
- Bologna, St Orsola-Malpighi (hem, onco), CIC 240, G Bandini, F Bonifazi, M Baccarani (121 (149) 41/80)
- Bologna, Poli S Orsola, Clinica pediatrica III, CIC 790, A Pession, A Prete (26 (33) 14/12)
- Bolzano, Ospedale S Maurizio (hem), CIC 299, M Casini, P Fabris, P Coser (59 (73) 17/42)
- Brescia, Ospedali Civili, CIC 288, G Rossi, C Almici (69 (115) 0/69)
- Brescia, Università degli Studi di Brescia (peds), CIC 741, F Porta, A Ugazio (21 (29) 17/4)
- Brindisi, Ospedaliera 'A Di Summa', Perrino Hospital (hem), CIC 920, G Quarta, S Pinna (13 (13) 0/13)
- Busto Arizio, Ospedale di circolo de Busto Arizio, CIC 927, L Montalbetti (11 (12) 0/11)
- Cagliari, Ospedale A Businco (hem), CIC 791, P Dessalvi (56 (63) 12/44)
- Cagliari, BMT Center CIC 811, G La Nasa (18 (27) 10/8)
- Cagliari, Ospedale per le Microcitemie (peds), CIC 812, F Argioli, A Cao (12 (18) 8/4)
- Catania, Ospedale Ferrarotto (hem), CIC 792, G Milone (42 (46) 25/18)
- Cremona, Ospedale Maggiore (hem), Medicina II, CIC 226, S Morandi, P Spedini, M Tajana, C Fiamenghi (7 (10) 0/7)
- Cuneo, Hospital S Croce E Carle (hem), CIC 606, A Gallamini, N Mordini (24 (33) 10/14)
- Ferrara, St Anna Hospital (hem), CIC 330, F Lanza, S Moretti, GM Rigolin, A Cuneo (18 (23) 0/18)
- Firenze, Ospedale di Careggi (hem), CIC 304, A Bosi, S Guidi (84 (97) 24/60)
- Firenze, Azienda Ospedale 'A.Meyer' (peds), CIC 600, G Bernini (17 (20) 6/11)
- Genova, Università, CIC 139, F Patrone, A Ballestrero (28 (38) 0/28)
- Genova, Ospedale S Martino (hem), CIC 217, A Bacigalupo (80 (93) 74/6)
- Genova, Istituto Giannina Gaslini (hem, onco), CIC 274, G Dini, E Lanino (36 (43) 18/18)
- Genova, Ospedaliera Universitaria San Martino (hem), CIC 987, A Carella (46 (58) 8/38)
- Latina, Ospedale S Maria Goretti, CIC 379, A De. Blasio, E Zappone (14 (17) 0/14)
- Lecce, Ospedale Vitofazzi di Lecce (hem), CIC 868, N Di Renzo (15 (15) 0/15)
- Messina, Policlinico Universitario (onco), CIC 669, V Pitini (9 (15) 0/9)
- Milano, Ospedale di Niguarda (onco ST), CIC 184, S Siena, P Pedrazzoli, R Schiavo (37 (54) 1/36)
- Milano, Ospedale Maggiore di Milano, CIC 265, G Lambertenghi Deliliers (47 (61) 17/30)
- Milano, Ospedale Fatebenefratelli e Oftalmico (onco), CIC 269, A Scanni, C Bianchi, D Pedretti (3 (3) 0/3)
- Milano, Ospedale di Niguarda (hem), CIC 294, P Marengo, R Cairoli, G Grillo (85 (86) 23/62)
- Milano, Istituto Europeo di Oncologia, CIC 331, G Martinelli (52 (72) 7/45)
- Milano, 1st Clinico Humanitas (hem-onco), CIC 354, L Castagna, A Santoro (59 (88) 13/46)
- Milano, Centro Trasfusionale e di Immunologia dei Trapianti, CIC 542, P Rebulli (0 (0) 0/0)
- Milano, Istituto Nazionale Tumori (ads, onco, peds), CIC 616, P Corradini, A Gianni, R Luksch (135 (164) 24/111)
- Milano, S Carlo Borromeo Hospital (onco), CIC 683, L Tedeschi (3 (4) 0/3)
- Milano, Istituto Scientifico HS Raffaele, CIC 813, F Ciceri, M Bregni (108 (157) 76/32)
- Modena, University of Modena (hem, onco), CIC 543, F Narni, A Donelli, G Torelli (47 (60) 13/34)
- Monza, Ospedale S Gerardo (peds), CIC 279, C Uderzo (29 (31) 26/3)
- Monza, Ospedale S Gerardo de 'Tintori, CIC 544, P Pioltelli, E Pogliani (50 (70) 16/34)
- Napoli, AORNA Cardarelli, Div. Di Oncologia, CIC 313, C Battista, G Pacilio, B Chiurazzi, G Iodice (13 (13) 0/13)
- Napoli, Hospital 'Pausilipon' (hem, peds), V Poggi, M Ripaldi (22 (23) 11/11)
- Napoli, Cardarelli Hospital (hem), CIC 607, F Ferrara (38 (55) 0/38)
- Napoli, Cardarelli Hospital (hem), CIC 837, V Mettievier (17 (18) 0/17)
- Napoli, Federico II University (hem), CIC 766, B Rotoli, C Selleri, G De Rosa (42 (45) 11/31)
- Napoli, National Cancer Institute (hem, onco), CIC 839, A Pinto, G Marcacci. (23 (28) 0/23)
- Noale, Civic Hospital (onco), CIC 563, O Vinante, G Azzarello (6 (6) 1/5)
- Nuoro, Ospedale San Francesco (hem), CIC 793, A Gabbas, A Palmas (0 (0) 0/0)
- Orbassano, Ospedale San Luigi Orbassano, CIC 378, G Saglio, A Guerrasio (32 (48) 4/28)
- Padova, Centro Leucemie Infantili, CIC 285, C Messina, S Cesaro, L Zanesco, S Varotto (31 (32) 17/14)
- Padova, Istituto Oncologia Veneto (IVO), Oncologia Medica II, CIC 319, S Aversa, S Monfardini (8 (9) 0/8)
- Palermo, Ospedale die Bambini (peds, hem, onc), CIC 109, O Ziino (14 (16) 7/7)
- Palermo, Ospedale V Cervello (hem), CIC 392, R Scimè, A Cavallaro (53 (65) 26/27)
- Palermo, Ospedale 'La Maddalena' (hem, onco), CIC 692, M Musso, F Porretto, A Crescinanno (74 (83) 14/60)
- Palermo, Div di Ematologia con Trapianto di Midullo, Uni degli studi di Palermo (hem), CIC 814, E Iannitto (0 (0) 0/0)
- Parma, Cattedra di Ematologia, University of Parma, CIC 245, V Rizzoli, M Mangoni (14 (21) 1/13)
- Pavia, Policlinico S Matteo (hem), CIC 286, EP Alessandrino (100 (103) 28/72)
- Pavia, Policlinico St Matteo (hem, onco, peds), CIC 557, F Locatelli (84 (110) 69/15)
- Pavia, Policlinico St Matteo (onco), CIC 562, M Danova (0 (0) 0/0)
- Pavia, Fondazione S Maugeri (onco), CIC 771, A Zambelli, G Robustelli della Cuna (11 (16) 1/10)
- Perugia, Policlinico Monteluce (onco), CIC 573, AM Liberati, F Grignani (11 (12) 0/11)
- Perugia, Policlinico Monteluce (hem), Università, CIC 794, MF Martelli, F Aversa, A Tabilio (122 (138) 52/70)
- Pesaro, Ospedale San Salvatore, CIC 529, G Visani, G Lucarelli (42 (47) 15/27)
- Pescara, Ospedale Civile (hem), CIC 248, P di Bartolomeo (43 (49) 32/11)
- Piacenza, Ospedale Civile (hem, onco), CIC 163, L Cavanna (30 (34) 6/24)
- Pisa, University of Pisa (peds, hem, onco), CIC 795, C Favre (15 (18) 10/5)
- Pisa, University of Pisa (ads, hem, onco), CIC 132, M Petrini, F Papineschi (58 (75) 21/37)
- Ravenna, Ospedale Civile (hem, onco), CIC 306, E Ruffa (26 (34) 0/26)
- Reggio di Calabria, Azienda Ospedale 'Riuniti e Morelli', CIC 587, P Iacopino, G Console (70 (85) 25/45)
- Reggio Emilia, Arcispedale S Maria Nuova (hem), CIC 660, L Gugliotta (20 (24) 5/15)
- Rimini, Ospedale Infermi Rimini (hem.onco), P Fattori (13 (16) 0/13)
- Rionero in Vulture, Centro di Riferimento Oncologico della Basilicata (hem), CIC 185, P Musto, N Di Renzo (6 (11) 0/6)
- Roma, Università 'La Sapienza' (hem), Faculty I, CIC 232, R Foa, G Meloni (99 (115) 31/68)
- Roma, Ospedale S Camillo (hem), CIC 287, I Majolino, A Locasciulli (38 (38) 15/23)
- Roma, Università Cattolica (hem), CIC 307, S Cuore, S Sica, G Leone (49 (57) 14/35)
- Roma, Universitario Tor Vergata (hem) CIC 756, Ospedale Bambino Gesù (hem), Regina Elena Cancer Institute (hem, onco), Università 'La Sapienza' (hem) Faculty II, W Arcese, P De Fabritiis, G De Rossi, MC Petti, L Annino, G Avvisati, B Monarca (134 (165) 44/90)
- Roma, Ospedale Bambino Gesù (onco), CIC 796, A Donfrancesco, A Jenkner, A Castellano, L De Sio, R Cozza, P Fidani, C De Laurentis (17 (19) 0/17)
- San Giovanni Rotondo, Hospital Casa Sollievo Sofferenza (hem), CIC 526, N Cascavilla, M Corsetti, M Greco (57 (71) 14/43)
- Sassari, Università Di Sassari (hem) CIC 870, M Longinotti (9 (11) 0/9)

Siena, Ospedale Sclavo (hem), CIC 321, F Lauria (25 (32) 8/17)  
 Taranto, Ospedale Nord (hem), CIC 332, P Mazza, G Palazzo, B Amurri (29 (33) 10/19)  
 Torino, Azienda Ospedaliera S Giovanni, CIC 231, M Falda, F Locatelli (61 (72) 24/37)  
 Torino, Ospedale Regina Margherita (peds), CIC 305, F Fagioli, E Vassallo (44 (54) 30/14)  
 Torino, Ospedale Mauriziano Umberto I, IRCC, CIC 377, M Aglietta, A. Capaldi, F Carnevale (29 (35) 6/23)  
 Torino, Ospedale S Giovanni (hem), CIC 696, M Boccadoro, M Massaia, C Tarella, B Benedetto, D Caracciolo, A Pileri (55 (92) 17/38)  
 Tricase (Lecce), Hospital C Panico, CIC 652, V Pavone (27 (27) 10/17)  
 Trieste, Istituto per l'Infanzia, Clinical Pediatrica, CIC 525, M Andolina (21 (21) 12/9)  
 Udine, Policlinico Universitario (hem), CIC 705, R Fanin (93 (110) 52/41)  
 Venezia, Ospedale Civile Riuniti di Venezia (hem), CIC 502, T Chisesi, M Vespignani, M Chinello (15 (18) 2/13)  
 Verbania-Pallanza, UOA Oncologia Medica, Ospedale di Verbania, CIC 385, A Luraschi (5 (7) 0/5)  
 Verona, Policlinico GB Rossi (hem, onco), CIC 623 + 514, P Benedetti (50 (62) 21/29)  
 Vicenza, Ospedale S Bortolo (hem), CIC 797, R Raimondi, F Rodeghiero (40 (50) 18/22)  
 Viterbo, ASL Viterbo Polo Ospedaliero Centrale, CIC 210, M Montanaro (0 (0) 0/0)

**Latvia:** (1team) (20 (22) 2/18)  
 Riga, Clinic Linezers, CIC 583, S Lejniece (20 (22) 2/18)

**Lebanon:** (1 team) (20 (23) 5/15)  
 Beirut, American University of Beirut, CIC 369, A Bazarbachi (20 (23) 5/15)

**Liechtenstein:** no report

**Lithuania:** (2 teams) (93 (104) 49/44)  
 Vilnius, University Hospital Santariskiu Klinikos (hem), CIC 644, A Slobinas, I Trociukas (83 (93) 44/39)  
 Vilnius, University Children's Hospital (hem, onco), CIC 508, J Rascon (10 (11) 5/5)

**Luxemburg:** no report

**Macedonia:** (1 team) (16 (16) 6/10)  
 Skopje, Medical Faculty (hem), CIC 381, B Georgievski (16 (16) 6/10)

**Malta:** no report  
**Moldova:** no report  
**Monaco:** no report  
**Montenegro:** no report

**Netherlands** (14 teams) (878 (917) (372/506)  
 Amsterdam, Academic Medical Center (ads, peds), CIC 247, MJ Kersten, J Zsiros (69 (75) 22/47)  
 Amsterdam, Free University Hospital (hem), CIC 588, GJ Ossenkoppele (122 (126) 50/72)  
 Amsterdam, The Netherlands Cancer Institute, CIC 976, S Rodenhuis, J Baars (14 (16) 0/14)  
 Enschede, the Medisch Spectrum Twente, CIC 360, Dr Schaafsma (25 (25) 0/25)  
 Groningen, University Hospital (hem), CIC 546, G van Imhoff (72 (80) 11/61)  
 The Hague, Haga Hospital (Leyenburg), CIC 547, PW Wijermans (34 (36) 0/34)  
 Leiden, University Medical Centre (ads, peds), CIC 203, R Willemze, M Egeler (95 (100) 79/16)  
 Maastricht, University Hospital (hem, onco), CIC 565, HC Schouten, J Wagstaff (56 (58) 17/39)  
 Nieuwegein, St Antonius Hospital, CIC 200, D Biesma, G Veth, O de Weerd (27 (27) 0/27)  
 Nijmegen, University Hospital (ads, peds, onco), CIC 237, A Schattenberg, P Hoogerbrugge (113) (120) 63/50)

Rotterdam, Dr Daniel den Hoed Cancer Center, CIC 246, JJ Cornelissen (130 (133) 57/73)  
 Rotterdam, Sophia Children's Hospital, CIC 998, R Pieters (no report)  
 Utrecht, University Hospital (hem, ads, peds), CIC 239, LF Verdonck, NM Wulffraat (106 (106) 73/33)  
 Zwolle, Isala Kliniecken/Sophia Ziekenhuis, CIC 548, M von Marwijk Kooy (15 (15) 0/15)

**Norway** (6 teams) (207 (220) 66/141)  
 Bergen, Haukeland Universitets Sjukehus, CIC 197, M Sjo (30 (37) 13/17)  
 Oslo, Rikshospitalet Radiumhospitalet, CIC 235, D Albrechtsen, L Brinch (75 (79) 50/25)  
 Oslo, Rikshospitalet Radiumhospitalet (onco), CIC 782, G Lauritzen, S Kvaloy (41 (41) 3/38)  
 Oslo, Ullevål Universitets Sykehus (hem), F Wisløff, J-M Tangen (26 (28) 0/26)  
 Tromsø, University Hospital of Northern Norway (hem), IM Dahl (11 (11) 0/11)  
 Trondheim, St Olavs Hospital, J Hammerstrom, A Waage (24 (24) 0/24)

**Poland** (17 teams) (684 (765) 255/429)  
 Bydgoszcz, Nicolaus Copernicus University (peds, hem, onco), CIC 764, M Wysocki, J Styczinski (21 (21) 8/13)  
 Gdansk, Medical University (hem), CIC 799, A Hellmann (29 (32) 4/25)  
 Katowice, Silesian Medical Academy (hem), CIC 677, J Holowiecki (136 (158) 77/59)  
 Krakow, Jagiellonian University (hem), CIC 553, A Skotnicki (43 (45) 8/35)  
 Krakow, University Children's Hospital, CIC 507, J Gozdzik (17 (17) 9/8)  
 Lodz, Medical University of Lodz (hem), CIC 171, T Robak (24 (26) 0/24)  
 Lublin, Children's University Hospital (hem, onco), CIC 678, J Kowalczyk (17 (19) 10/7)  
 Lublin, University Medical School (hem, onco), CIC 695, A Dmoszynska, M Wach, A Walter-Croneck, W Legiec (37 (46) 3/34)  
 Poznan, Institute of Pediatrics, CIC 641, J Wachowiak (24 (29) 18/6)  
 Poznan, K Marcinkowski University (hem), CIC 730, M Komarnicki (66 (68) 17/49)  
 Warsaw, Institute of Haematology and Blood Transfusion, CIC 693, B Marianska, L Konopka, B Nasilowska, K Halaburda, M Szczepinski (28 (29) 12/16)  
 Warsaw, Maria Skłodowska-Curie, Centre of Oncology, CIC 800, J Walewski (47 (49) 0/47)  
 Warsaw, Central Hospital Military Medical Academy (hem, onco), CIC 816, P Rzepecki, K Sulek, C Szczylik (33 (39) 4/29)  
 Warsaw, Central Clinical Hospital (hem, onco), CIC 954, W Wiktor-Jedrzejczak, A Deptala, M Rokicka (41 (55) 20/21)  
 Wroclaw, Lower Silesian Centre for Cellular Transplantation with National Bone Marrow Donor Registry, CIC 538, A. Lange (47 (53) 18/29)  
 Wroclaw, Medical Academy (hem), CIC 699, K Kuliczowski (19 (20) 6/13)  
 Wroclaw, University of Medicine (peds, hem, onco), CIC 817, A Chybicka (55 (59) 41/14)

**Portugal** (6 teams) (308 (347) 92/216)  
 Coimbra, University Hospital, CIC 164, N Costa (23 (27) 0/23)  
 Lisbon, Instituto Portugues de Oncologia, CIC 300, M Abecasis (64 (70) 33/34)  
 Lisbon, Hospital de Santa Maria, CIC 636, J Alves do Carmo, F de Lacerda (49 (56) 17/32)  
 Lisbon, Hospital de St Antonio dos Capuchos, CIC 826, A Botelho de Sousa (52 (59) 0/52)  
 Porto, Instituto Portugues de Oncologia, CIC 291, P Pimentel, F Campilho (92 (98) 45/47)  
 Porto, Hospital S Joao (hem, onco), CIC 329 (merged with CIC 572), JE Guimaraes, F Principe (28 (37) 0/28)

**Romania:** (3 teams) (81 (81) 9/72)

Bucharest, Fundeni University Hospital (hem), CIC 296, AD Moicean, D Colita, C Arion (36 (36) 3/33)  
Targu-Mures, Sectia Clinica de Hematologie, CIC 178, I Benedek (24 (24) 3/21)  
Timisoara, Emergency Childrens Hospital 'Louis Turcanu', III Ped Clinic (hem, onco), CIC 174, M Serban, C Jinca (21 (21) 3/18)

**Russia** (17 teams) (405 (440) 129/276)

Ekaterinburg, Regional Hospital no. 1, TS Konstantinova, VA Shalaev (26 (31) 7/19)  
Kirov, Research Hematological Institute, TP Zagorskina (no report)  
Moscow, Russian Children's Hospital (hem), CIC 694, A Maschan, E Skorobogato, E Pachanov (54 (64) 39/15)  
Moscow, Cancer Research Center, KN Melkova (33 (40) 2/31)  
Moscow, Institute of Biophysics, AE Baranov (11 (14) 0/11)  
Moscow, Cancer Research Center (peds, hem, onco), G Mentrevich (26 (26) 10/16)  
Moscow, Research Hematology Center of RAS, VG Savtchenko (34 (39) 15/19)  
Moscow, Main Military Clinical Hospital (hem), SV Shamansky (18 (18) 4/14)  
Moscow, Clinic of Hematology and Cellular Therapy Transplantation Unit, CIC 520, A Novik (65 (65) 0/65)  
Moscow, City Clinical Hospital no. 38, NA Obidina (no report)  
Novosibirsk, Insitute of Clinical Immunology, CIC 376, I Lisukov (33 (33) 1/32)  
Samara, Regional Hospital, VA Rossiev (5 (5) 0/5)  
St Petersburg, Clinical Center for Advanced Medical Tech, E Podoltseva, V Soldatenkov, O Rysnyanskaya (no report)  
St Petersburg, Research Institute of Hematology, KM Abdulkadirov (19 (19) 2/17)  
St Petersburg, State Pavlov Medical University (hem), CIC 725, BV Afanassiev, L Zubarovskaya (79 (84) 49/30)  
St Petersburg, Leningrad Regional Clinical Hospital, IS Zyuzgin (no report)  
Yaroslavl, Regional Clinical Hospital (hem), VA Lapin (2 (2) 0/2)

**San Marino:** no report

**Saudi Arabia** (3 teams) (214 (234) 157/57)

Riyadh, King Faisal Specialist Hospital and Research centre (onco, ads, hem), CIC 397:1, M Al Jurf (101 (114) 54/47)  
Riyadh, King Faisal Specialist Hospital and Research centre (peds, hem, onco), CIC 397:2, M. Ayas (105 (112) 99/6)  
Riyadh, Armed Forces Hospital, CIC 818, A Alabdulaaly (8 (8) 4/4)

**Serbia** (4 teams) (90 (98) 21/69)

Belgrade, Mother and Child Health Institute, CIC 358, D Vujic (16 (17) 8/8)  
Belgrade, Clinical Centre of Serbia (hem), CIC 373, J Bila, D Antic (16 (19) 0/16)  
Belgrade, Military Medical Academy (hem), CIC 582, D Stamatovic (46 (48) 12/34)  
Novi Sad, Institute of Internal Diseases, Clinical Centre of Novi Sad (hem), CIC 655, S Popoviae (12 (14) 1/11)

**Slovakia** (5 teams) (144 (151) 29/115)

Bansra Bystrica, Roosevelt Hospital (hem), CIC 333, I Markuljak, E Kralikova (14 (18) 0/14)  
Bratislava, National Cancer Institute, CIC 560, J Lakota (71 (71) 8/63)  
Bratislava, University Hospital (hem), CIC 610, M Mistrik (24 (27) 9/15)  
Bratislava, University Hospital, 2nd Children's Clinic, CIC 684, S Sufliarska, J Horakova, I Bodova (21 (21) 12/9)  
Kosice, University Hospital LF UP JS (hem), CIC 984, E Tothova (14 (14) 0/14)

**Slovenia** (1 team) (69 (97) 25/44)

Ljubljana, University Medical Centre (hem), CIC 640, J Pretnar (69 (97) 25/44)

**South Africa:** (9 teams) (63 (64) 21/42)

Bloemfontein, Faculty of Health Sciences Freestate University (hem), V Louw (0 (0) 0/0)  
Cape Town, Constantiaberg Medi Clinic (hem), CIC 772, P Jacobs, L Wood (16 (17) 9/7)  
Cape Town, UCT Medical School Faculty of Health Sciences (hem), CIC 512, N Novitzky (38 (38) 10/28)  
Durban, Albert Luthuli Hospital, V Jogessar (no report)  
Johannesburg, Donald Gordon Medical Centre, P Ruff (9 (9) 2/7)  
Johannesburg, Garden City Clinic, P du Toit (no report)  
Pretoria, Mary Potter Oncology Centre, C Slabber (no report)  
Pretoria, Faerie Glen Hospital, J Thomson (no report)  
Weltevredenpark, West Rand Oncology Centre (onco), CIC 165, D Brittain (no report)

**Spain** (66 teams) (1803 (1913) 626/1177)

Alicante, Hospital General, C Rivas-Gonzales (15 (17) 0/15)  
Barcelona, Hospital Clinic (hem, onco), CIC 214, E Carreras (95 (99) 40/55)  
Barcelona, Santa Creu I Sant Pau (adults), CIC 260, J Sierra, S Brunet (84 (86) 27/57)  
Barcelona, Santa Creu I San Pau (peds), CIC 260, I Badell Serra, N Pardo, M Torrent (15 (17) 8/7)  
Barcelona, Hospital Vall d'Hebron, Materno Infantil, CIC 527:1, J Sanchez de Toledo Codina (46 (50) 35/11)  
Barcelona, Hospital General Vall d'Hebron, CIC 527:2, A. Julia-Font, E. Sanchez (17 (18) 8/9)  
Barcelona, Hospital Mutua de Terrasa (hem, onco), T Marti (9 (9) 0/9)  
Barcelona, Hospital Universitario Germans Trias i Pujol, CIC 613, J Ribera (57 (62) 25/32)  
Barcelona, Hospital Sant Joan de Deu, CIC 668, J Estella Aguado (10 (15) 0/10)  
Barcelona, Hospital Duran i Reynals (hem), Institut Catala d'Oncologia, CIC 759, R Duarte Palomino, C Ferrá, J Berlanga, A Fernández (44 (46) 19/25)  
Caceres, Hospital San Pedro de Alcantara, E Pardo (9 (11) 0/9)  
Cadiz, Hospital del SAS de Jerez (hem), CIC 612, A Leon (23 (26) 5/18)  
Cadiz, Hospital Universitario 'Puerta del Mar' (hem), CIC 679, J Gil (8 (8) 0/8)  
Canary Isles, Las Palmas, Hospital Insular (hem), CIC 335, J Gonzalez-San Miguel (12 (12) 0/12)  
Canary Isles, Las Palmas, Hospital Materno-Infantil (hem, onco), J Lodos Rojas, A Molinés (2 (2) 0/2)  
Canary Isles, Las Palmas, Hospital Universitario de Gran Canaria 'Dr Negrin', CIC 537, T Molero, R Mataix, C Campo, S Jiménez (22 (22) 17/5)  
Canary Isles, Tenerife, Hospital Universitario de Canarias, L Hernandez Nieto, MT Hernandez Garcia (27 (27) 0/27)  
Canary Isles, Tenerife, Hospital NS De la Candelaria, J Garcia-Talavera, J Breña, P Rios Rull (20 (20) 0/20)  
Castellon de La Plana, Hospital General de Castellon (hem), R Garcia-Boyer (6 (7) 0/6)  
Cordoba, Hospital Reina Sofia (hem), CIC 238, A Torres Gomez (50 (54) 25/25)  
Cruces-Barakaldo, Hospital de Cruces (hem), CIC 393, I Zuazua-Verde, F Floristan (21 (23) 0/21)  
Galdakao, Hospital de Galdakao (hem), CIC 975, J Ojangueren, K Atutxa (11 (12) 0/11)  
Granada, Hospital Virgen de la Nieves (hem), CIC 559, M Jurado Checon (31 (31) 7/24)  
Jaen, Hospital Cuidad de Jaen (hem), A Alcalam (14 (14) 0/14)  
La Coruna, Complejo Hospitalario Juan Canalejo, CIC 361, FJ Batlle, C Ramirez, P Torres, R Gonzalez-Rodriguez, R Varela (35 (40) 4/31)  
Lérida, Hospital Arnau de Villanova, J Macia (3 (3) 0/3)  
Lugo, Hospital Xeral-Calde, M Gonzales-Lopez (7 (7) 0/7)  
Madrid, Hospital de la Princesa (hem), CIC 236, A Figuera, A Alegre (41 (43) 30/11)  
Madrid, Hospital Doce de Octubre, CIC 382, JJ Lahuerta (hem), H Cortés Funes (onco), J Lopez Perez (peds) (59 (64) 10/49)  
Madrid, Hospital Ramon y Cajal (ads), CIC 615, J Odriozola, J Pérez de Oteyza, J Lopez, J Garcia Larana (43 (46) 9/34)

- Madrid, Hospital Ramon y Cajal (peds), CIC 615, A Munoz Villa (5 (5) 3/2)  
 Madrid, Clinica Puerta de Hierro (hem), CIC 728, MN Fernandez, JR Cabrera Marin (30 (32) 22/8)  
 Madrid, Hospital Nino Jesus (peds, onco), CIC 732, MA Diaz (43 (50) 30/13)  
 Madrid, Hospital Universitario San Carlos (hem), CIC 733, J Diaz Mediavilla, L Llorente, R Martinez (29 (29) 0/29)  
 Madrid, Hospital La Paz Infantil (hem, onco) and Hospital General La Paz (ads), CIC 734, A Martinez-Rubio, A Sastre, F Hernandez Navarro, M Canales (41 (41) 18/23)  
 Madrid, Unidad de TMO-ONC 4, Hospital Gregorio Maranon, CIC 819, JL Diez Martin (35 (40) 21/14)  
 Madrid, Clinica Moncloa (hem), JM Fernandez-Ranada, A Escudero (11 (11) 0/11)  
 Madrid, Clinica Ruber, JM Fernandez-Ranada, A Escudero (9 (9) 0/9)  
 Madrid, Hospital Quirou Madrid (hem), JM Fernandez-Ranada, A Escudero (18 (19) 0/18)  
 Madrid, Hospital Universitario de Getafe (hem), F Oña Compan, N Somolinos (7 (8) 0/7)  
 Madrid, Fundacion Jimenez Diaz (hem, onco), JL Lopez-Lorenzo, F Lobo, M Callejas (12 (14) 0/12)  
 Malaga, Carlos Haya Hospital (hem), CIC 576, M Gonzalez, M Pascual (50 (53) 20/30)  
 Murcia, Hospital University 'Virgen de la Arrixaca', CIC 323, A Morales-Lazaro, MJ Majado-Martinez (21 (25) 6/15)  
 Murcia, Hospital Morales Meseguer, CIC 735, JM Moraleda Jimenez, V Vicente-Garcia, I Heras (no report)  
 Orense, Hospital Cristal-Pinor (hem), J-L. Sastre-Moral (6 (7) 0/6)  
 Oviedo, Hospital Covadonga (hem), CIC 642, D Carrera Fernandez (35 (37) 9/26)  
 Palma de Mallorca, Hospital Son Dureta (hem), CIC 722, J Besalduch, M Canaro (35 (35) 9/26)  
 Palma de Mallorca, Hospital son Llatzer, CIC 110, J Bargay-Lleonart (11 (11) 0/11)  
 Pamplona, Hospita de Navarra (hem), CIC 577, M Orue, MJ Uriz (24 (25) 0/24)  
 Pamplona, Clinica Universitaria de Navarra, CIC 737, J Rifon (16 (16) 2/14)  
 Pontevedra, Hospital Montecelo (hem), A-M. Dios Loureiro (9 (9) 0/9)  
 Salamanca, Hospital Clinico (hem), CIC 727, D Caballero (92 (92) 41/51)  
 San Sebastian, Hospital Nostra Senora de Aranzazu, CIC 598, R Lasa, J Marin, D Martinez (23 (25) 6/17)  
 Santander, Hospital Universitario M de Valdecilla (hem), CIC 242, A Iriondo, E Conde (85 (86) 48/37)  
 Santiago de Compostela, Hospital Xeral de Galicia (hem), CIC 570, JL Bello (19 (20) 3/16)  
 Sevilla, Hospital Universitario Virgen del Rocio, CIC 769, I Espigadot (49 (52) 26/23)  
 Tarragona, Hospital de Tarragona Joan XXIII (hem), A Llorente Cabrera (10 (13) 0/10)  
 Valencia, Hospital Clinico Universitario (hem, onco), CIC 282, J Garcia-Conde, C Solano (49 (50) 22/27)  
 Valencia, Hospital Infantil La Fe (peds, onco), CIC 653, V Castel, A Verdeguer, JM Fernandez (26 (26) 9/17)  
 Valencia, Hospital Universitario La Fe (hem), CIC 663, MA Sanz, GF Sanz (87 (99) 48/39)  
 Valencia, Hospital Doctor Peset (hem), P Ribas Garcia (8 (8) 0/8)  
 Valencia, Instituto Valenciano de Oncologia, I Picon (7 (7) 0/7)  
 Valladolid, Hospital Rio Hortega, CIC 611, J Garcia Frade (13 (16) 0/13)  
 Vigo, Hospital Xeral-Cies, A Martinez-Dalmau (23 (23) 6/17)  
 Zaragoza, Clinico Universitario Lozano Blesa (hem, onco), CIC 531, M Gutierrez (8 (8) 0/8)  
 Zaragoza, Hospital Miguel Servet (hem + onco) M Giral, G Pérez-Lugmus, D Rubio-Félix, A Anton (21 (21) 8/13)
- Sweden** (8 teams) (540 (606) 197/343)  
 Goteborg, CHECT (ads + peds), CIC 289, M Brune, A Fasth (108 (126) 43/65)  
 Linköping, University Hospital (hem), CIC 740, N Theorin (57 (64) 19/38)
- Lund, University Hospital (hem), CIC 283, S Lenhoff (74 (92) 28/46)  
 Malmö, University Hospital, T Ahlgren (5 (7) 0/5)  
 Örebro, University Hospital (hem, onco), CIC 738, U Tidefelt (23 (27) 0/23)  
 Stockholm (Huddinge), Karolinska University Hospital (hem, onco), CIC 212, P Ljungman (137 (142) 65/72)  
 Umea, Norrland University Hospital, CIC 731, A Wahlin, V Lazarevic, J Lindh, B Markevärn (44 (53) 15/29)  
 Uppsala, University Hospital (ads + peds), CIC 266, G Oberg (92 (95) 27/65)
- Switzerland** (9 teams) (379 (452) 127/252)  
 Aarau, Kantonsspital (hem, onco), CIC 316, M Wernli, M Bargetzi (34 (34) 0/23)  
 Basel, Kantonsspital (hem, onco), CIC 202, A Gratwohl, T Kühne, R Herrmann (74 (89) 42/32)  
 Bellinzona, Ospedale San Giovanni (hem, onco), CIC 829, F Cavalli, M Ghielmini, L Leoncini (17 (23) 0/17)  
 Bern, Inselspital (ads, peds, hem, onco), CIC 221, K. Leibundgut, M Fey, T. Pabst, D. Baerlocher (49 (57) 0/49)  
 Geneva, Hôpital Cantonal Universitaire (hem, onco), CIC 261, J Passweg, Y Chalandon, P Wacker (37 (41) 37/0)  
 Lausanne, CHUV (hem, onco), CIC 820, M Schapira, T Kovacovics, S Leyvraz, N Ketterer (51 (59) 0/51)  
 St Gallen (hem, onco), Kantonsspital, CIC 324, U Hess (24 (27) 0/24)  
 Zurich, University Hospital (ads, hem, onco), CIC 208, U Schanz, C Renner (87 (104) 37/50)  
 Zurich, University Hospital (peds, hem, onco), CIC 334, R Seger (17 (18) 11/6)
- Tunisia** (1 team) (89 (116) 36/53)  
 Tunis, Centre National de Greffe de Moelle Osseuse, CIC 183, B Othman-Tarek (89 (116) 36/53)
- Turkey** (28 teams) (906 (955) 401/505)  
 Adana Yuregir, Baskent University Adana Research and Training (hem), CIC 589, H Ozdogu (20 (23) 4/16)  
 Ankara-Sihhiye, Hacettepe University (hem), CIC 168, H Goker, O Ozcebe, I Haznedaroglu, S Dundar (24 (24) 12/12)  
 Ankara-Besevler, Gazi University (hem), CIC 169, G Sucak (70 (75) 41/29)  
 Ankara, Hacettepe University, Institute of Oncology, CIC 292, E Kansu, E Ozdemir (35 (39) 4/31)  
 Ankara-Etilik, GATA BMT Center, CIC 372, F Arpacı, A Özet, C Beyan, A Ural (47 (48) 15/32)  
 Ankara, Ihsan Dogramaci Childrens Hospital, CIC 399, A Tuncer, D Uckan (14 (16) 14/0)  
 Ankara, University School of Medicine Ibni Sina Hospital (hem), CIC 617, G Gürman, M Arat (116 (131) 64/52)  
 Ankara, University of Ankara (peds), CIC 620, E Unal (13 (17) 10/3)  
 Ankara, Numune Education and Research Hospital, CIC 691, Ö Gülsüm (49 (50) 12/37)  
 Antalya, Akdeniz University Hospital (peds), CIC 618, MA Yesilipek, V Hazar, A Kuzesiz (45 (47) 42/3)  
 Antalya, Akdeniz University Hospital (hem), CIC 685, L Undar (21 (21) 3/18)  
 Aydin, Adnan Menderes University Medical Faculty (hem), CIC 187, Z Bolaman (4 (4) 0/4)  
 Balcali (Adana), Cukurova University Hospital (peds, onco), CIC 821:1, A Tanyeli (4 (4) 3/1)  
 Balcali (Adana), Cukurova University Hospital (ads, onco), CIC 821:2, B Sahin (5 (5) 0/5)  
 Denizli, Pamukkale University, CIC 401, I Sari (11 (11) 0/11)  
 Eskisehir, Osmangazi University, CIC 686, Z Güblas (45 (47) 15/30)  
 Gaziantep, University Medical School, CIC 402, M Pehlivan (13 (13) 0/13)  
 Istanbul, Marmara University (hem), Altunizade, CIC 714, T Akoglu (28 (28) 6/22)  
 Istanbul, University of Istanbul, CIC 760, S Kalayoglu-Besisik (39 (41) 21/18)  
 Istanbul, Cerrahpasa Medical School, CIC 761, B Ferhanoglu, T Soysal, M Cem Ar (23 (23) 7/16)

Istanbul, University of Istanbul Pediatric BMT Unit (peds, hem, onco), CIC 400, S Anak, O Gulyuz (18 (18) 13/5)  
Istanbul, Yeditepe University Hospital (hem, onco), CIC 919, Y Koc (41 (44) 11/30)  
Izmir, Ege University Medical Faculty (peds), CIC 621, S Kansoy (26 (28) 24/2)  
Izmir, Ege University Medical Faculty (ads, hem), CIC 628, S Cagirgan (78 (80) 23/55)  
Izmir, Dokuz Eylul University (onco), CIC 688, H Özsan (20 (21) 4/16)  
Izmir, Tulay Aktas Oncology Hospital, CIC 368, F Buyukkececi, M Töbü , G Saydam (10 (10) 0/10)  
Kayseri, Erciyes University Hospital (hem, onco), CIC 627, A Unal, M Cetin (74 (74) 47/27)  
Trabzon, Karadeniz Technical University (hem), CIC 170, E Ovali (13 (13) 6/7)

**Ukraine:** (2 teams) (46 (51) 6/40)

Kiev, Kiev City BMT Center, CIC 176, E Karamanescht, V Khomenko, I Korenkova, S Borodkin (32 (36) 0/32)  
Kiev, Kiev Regional Oncologic Hospital (peds, hem, onco), CIC 177, S Donska, O Ryzhak (14 (15) 6/8)

**United Kingdom** (51 teams) (2487 (2644) 1061/1426)

Aberdeen, The Royal Infirmary (hem), CIC 344, DJ Culligan (17 (20) 5/12)  
Bangor, Gwynedd Hospital (hem, onco), CIC 736, D Edwards (16 (16) 0/16)  
Bath, Royal United Hospital (hem), CIC 619, C Knechtli (10 (10) 0/10)  
Belfast, Belfast City Hospital (hem), CIC 268, F Jones, TCM Morris, P Abram (43 (43) 9/34)  
Birmingham, Heartlands Hospital (hem), CIC 284, DW Milligan (28 (30) 12/16)  
Birmingham, Queen Elizabeth Hospital (hem), CIC 387, C Craddock, P Mahendra (143 (147) 61/82)  
Birmingham, The Birmingham Childrens Hospital (hem), CIC 781, PJ Darbyshire (28 (30) 22/6)  
Bournemouth, Royal Bournemouth Hospital (hem), Poole Hospital, Dorset Cancer Centre and Salisbury District Hospital, CIC 765, S Killick, J Cullis (20 (20) 0/20)  
Bristol, Royal Hospital for Children (allo, ads, peds), CIC 386:1, JM Cornish, D Marks (84 (88) 80/4)  
Bristol, Avon Haematology Unit (auto), CIC 386:2, R Evelyn, J Bird (37 (38) 0/37)  
Cambridge, Addenbrooke's Hospital (hem), CIC 566, C Crawley, RE Marcus, J Craig, H Balsdon, T Chapman (68 (78) 21/47)  
Cardiff, University Hospital of Wales (hem), CIC 303, KMO Wilson, AK Burnett, JA Whittaker, CH Poynton (50 (53) 22/28)  
Cheltenham, Cheltenham General Hospital, CIC 398, E Blundell (14 (14) 0/14)  
Coventry, University Hospital and Warwickshire NHS Trust, J Mills (16 (17) 0/16)  
Dudley, The Dudley Group of Hospitals NHS Trust (hem), CIC 405, S Fernandes (9 (9) 0/9)  
Dundee, Ninewells Hospital (hem), CIC 719, D Meiklejohn (3 (3) 0/3)  
Edinburgh, Western General Hospital, (hem), CIC 228, PRE. Johnson, J Davies, F Scott, PH Roddie, P Shepherd (37 (37) 10/27)  
Exeter, Royal Devon and Exeter Hospital (hem), CIC 571, C Rudin (16 (18) 0/16)  
Glasgow, Royal Infirmary and the Western Infirmary, CIC 244, IG McQuaker, A Parker T Fitzsimons (67 (74) 34/33)

Glasgow, Royal Hospital for Sick Children (hem), CIC 707, B Gibson (12 (14) 10/2)  
Ipswich, The Ipswich Hospital NHS Trust (hem), CIC 128, N Dodd (7 (9) 0/7)  
Leeds, St James's University Hospital, the General Infirmary, Pinderfields Hospital CIC 254, G Cook, S Kinsey, MC Galvin (107 (109) 37/70)  
Leicester, Royal Infirmary (hem), CIC 713, AE Hunter (55 (59) 27/28)  
Liverpool, Royal Liverpool University Hospital (hem), CIC 501, RE Clark, A Pettitt (55 (60) 20/35)  
Liverpool, Alder Hay, CIC 773, M Caswell (10 (11) 8/2)  
London, Hammersmith Hospitals NHS Trust, CIC 205, J Apperley, E Olavarria, E Kanfer, A Rahemtulla, R Szydlo (90 (102) 28/62)  
London, Royal Free Hospital (hem), CIC 216, S Mackinnon (65 (66) 54/11)  
London, Royal Marsden Hospital (hem), CIC 218, M Potter (152 (164) 72/80)  
London, University College Hospital (hem), CIC 224, K Thomson (133 (136) 44/89)  
London, Great Ormond Street Hospital, CIC 243, P Veys 65 (75) 57/8)  
London, The London Clinic (hem), CIC 263, M Potter, P Gravett (17 (17) 7/10)  
London, St George's Hospital (hem), CIC 539, EC Gordon-Smith, S Ball (13 (13) 9/4)  
London, Guy's Hospital (hem), CIC 721, M Kazmi (56 (64) 26/30)  
London, King's College (hem), CIC 763, A Pagliuca (113 (121) 66/47)  
London, St Bartholomews, the Royal London Hospital, CIC 768, J Gribben, J Cavenagh, S Agrawal, T Lister (101 (119) 32/69)  
London, St Mary's Hospital, CIC 866, J de La Fuente, JD Cavenagh, S Agrawal, T Lister (16 (16) 16/0)  
Manchester, Royal Children's Hospital, CIC 521, R Wynn (28 (29) 21/7)  
Manchester, the Royal Infirmary, CIC 601, JA Yin (49 (52) 27/22)  
Manchester, Christie Hospital (hem), CIC 780, E Liakopoulou (99 (107) 31/68)  
Newcastle upon Tyne, Royal Victoria Infirmary and the Sunderland Royal Hospital, CIC 276, GH Jackson, SJ Proctor, P Taylor, A Cant, R Skinner PJ Carey (100 (107) 51/49)  
Norwich, Norfolk and Norwich Hospital (hem), CIC 391, M. Lawes, G. Turner (7 (7) 0/7)  
Nottingham, City Hospital, CIC 717, N Russell, JL Byrne, AP Haynes, A McMillan (109 (110) 44/65)  
Oxford, John Radcliffe Hospital (hem, onco), Headington and Wycombe General, CIC 255, TJ Littlewood, C Bunch, C Mitchell, CHatton, G Hall, J Wainscoat (72 (74) 28/44)  
Plymouth, Derriford Hospital, CIC 823, MD Hamon (52 (52) 9/43)  
Salford, Hope Hospital, JB Houghton (5 (5) 0/5)  
Sheffield, Sheffield Teaching Hospitals NHS Foundation Trust CIC 778:1, J Snowden, and Sheffield Children's Hospital NHS Foundation Trust CIC 778:2, A Vora (78 (83) 30/48)  
Somerset, Taunton and Somerset Hospital, S Bolam, SA Johnson (9 (11) 0/9)  
Southampton, CRC Wessex, CIC 704, K Orchard, A Duncombe, J Kohler (75 (76) 31/44)  
Stoke-on-Trent, University Hospital of North Staffordshire (hem), CIC 394, R Chasty (14 (14) 0/14)  
Swansea, Singleton Hospital, CIC554, Skett, S Al Ismail (5 (5) 0/5)  
Swindon, Great Western Hospital (hem), CIC 608, NE Blesing, A Gray, S Green, A Koster (12 (12) 0/12)  
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