

## SPECIAL REPORT

# Results of the EBMT activity survey 2005 on haematopoietic stem cell transplantation: focus on increasing use of unrelated donors

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**This EBMT activity report documents the haematopoietic stem cell transplantation (HSCT) activity in Europe in 2005. It provides numbers of HSCT by indication, donor type and stem cell source, lists the new practice of planned double transplants with allogeneic after autologous HSCT and concentrates on the increasing role of unrelated transplants over the last years. In 2005, there were 24 168 first HSCT, 8890 allogeneic (37%), 15 278 autologous (63%) and 3773 additional re- or multiple transplants reported from 597 centres in 43 participating countries. Main indications were leukaemias (7404 (31%; 82% allogeneic)); lymphomas (13825 (57%; 89% autologous)); solid tumours (1655 (7%; 92% autologous)) and non-malignant disorders (1131 (5%; 93% allogeneic)). A total of 671 planned allogeneic after autologous HSCT were reported; the majority for myeloma (52%), lymphoma (28%) and acute myeloid leukaemia (11%). Compared to 2004, there was a 20% increase in allogeneic HSCT; numbers of autologous HSCT remained constant. The most noticeable increase was in unrelated HSCT, which comprise 41% of all allogeneic HSCT. Unrelated HSCT were preferentially performed for leukaemias and in countries with high income according to World Bank criteria. These data illustrate the current experience in Europe and form the basis for patient counselling and decisions making at health care institutions.**

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## Introduction

Transplantation of haematopoietic stem cells (HSCT) has become the standard treatment for many patients with congenital or acquired disorders of the haematopoietic system or with chemo-, radio- or immunosensitive malignancies.<sup>1–4</sup> It is under examination for novel indications such as autoimmune disorders or single enzyme deficiencies.<sup>5–7</sup> Its introduction to clinical medicine dates back to 1968 with the first reports of successful bone marrow transplants from human leucocyte antigen (HLA) identical siblings for patients with immune deficiency disorders.<sup>8</sup> Years of intensive investigations have improved outcome and triggered the wide application we see today.<sup>9</sup> HSCT has seen a rapid expansion and a constant evolution in technology use. Stem cell source has changed from bone marrow to peripheral blood and novel conditioning regimens have been introduced.<sup>10–12</sup> It is the purpose of this survey to provide precise data on the current use of HSCT and to illustrate the latest trends. Both are essential for patients, physicians and health care providers alike.

The activity survey of the European Group for Blood and Marrow Transplantation (EBMT) is a mandatory self-reporting system and forms an integral part of a comprehensive quality assurance programme JACIE (Joint Accreditation Committee of the International Society for Cellular Therapy (ISCT)) (<http://www.JACIE.org>) and the European Group for Blood and Marrow Transplantation (EBMT) (<http://www.EBMT.org>). It was designed in 1990 to provide comprehensive information on transplant numbers and to distribute it rapidly on an annual basis.<sup>13</sup> EBMT members and affiliated teams known to perform transplants, report their numbers of patients transplanted by indication, stem cell source and donor type. For the 2005 survey, a new data set was introduced providing information on the increasingly reported use of planned double transplants with an autologous transplant first, followed by an allogeneic reduced intensity conditioning (RIC) transplant. In addition, this year's survey concentrates on the use of unrelated HSCT, its increase and its application by disease type. Furthermore, we were interested in the potential correlation with economic factors. We

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used the Gross National Income per capita (GNI/capita) in the participating European countries as a comparator.

## Patients and methods

### Data collection and validation

Participating teams reported their data for 2005 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, which received

a computer printout of the entered data, by selective comparison with MED-A data sets in the data capture system of the EBMT; PROMISE ([www.msbi.nl/Promise](http://www.msbi.nl/Promise)) and by cross-checking with national registries where they exist. Onsite visits of selected teams were part of the quality control programme.

### Teams

Six hundred and twenty two teams in 43 countries (38 European and five affiliated countries) were contacted for

**Table 1** Number of patients treated in Europe during the year 2005 with a first haematopoietic stem cell transplant listed by indication, donor type and stem cell source

	Donor source No. of patients												
Year = 2005	Allogeneic								Autologous		Total		
Teams = 597	Family						Unrelated						
	HLA-id		Non-id		Twin				BM	BM +	Allo	Auto	Total
	BM	PBPC	BM	PBPC	BM	PBPC	BM	PBPC	Only	PBPC			
Leukaemias	798	2305	45	264	6	23	666	2000	97	1200	6107	1297	7404
Acute myeloid leukaemia	306	1128	18	138	2	12	223	875	70	801	2702	871	3573
First complete remission	240	702	8	43	2	5	107	341	58	668	1448	726	2174
Not first complete remission	66	426	10	95		7	116	534	12	133	1254	145	1399
Acute lymphatic leukaemia	274	415	16	85	1	5	234	438	21	168	1468	189	1657
First complete remission	186	257	4	23	1	2	118	200	17	122	791	139	930
Not first complete remission	88	158	12	62		3	116	238	4	46	677	50	727
Chronic myeloid leukaemia	129	249	2	16	0	2	85	201	0	17	684	17	701
Chronic phase	107	170	2	6			60	116		5	461	5	466
Not first chronic phase	22	79		10		2	25	85		12	223	12	235
MDS incl. Sec AL	67	271	7	12	2	1	85	286	3	28	731	31	762
MPS	10	74	1	4	1		27	108	2	8	225	10	235
Chronic lymphatic leukaemia	12	168	1	9		3	12	92	1	178	297	179	476
Lymphoproliferative disorders	97	800	4	36	0	17	88	478	118	12187	1520	12305	13825
Plasma cell disorders – MM	17	311		2		5	17	161	19	5768	513	5787	6300
Plasma cell disorders – other	2	13				3	3	6	3	220	27	223	250
Hodgkin's lymphoma	15	96		15		4	18	60	25	1652	208	1677	1885
Non Hodgkin's lymphoma	63	380	4	19		5	50	251	71	4547	772	4618	5390
Solid tumours	12	67	0	34	0	1	2	14	75	1450	130	1525	1655
Neuroblastoma	1	1		17					40	291	19	331	350
Soft tissue sarcoma	3	5		10					3	66	18	69	87
Germinal tumours	1					1			6	280	2	286	288
Breast cancer	1	11		2						185	14	185	199
Ewing	1			3			1		7	211	5	218	223
Renal cancer	1	30						8	3	36	39	39	78
Melanoma											0	0	0
Colon cancer		4								1	4	1	5
Other solid tumours	4	16		2			1	6	16	380	29	396	425
Non-malignant disorders	376	204	44	78	2	8	161	175	3	80	1048	83	1131
Bone marrow failure – SAA	142	105	3	10		7	42	64		2	373	2	375
Bone marrow failure – other	27	22	3	6		1	22	15		1	96	1	97
Hemoglobinopathies – thal	87	52	7	12	1		20	6			185	0	185
Hemoglobinopathies – other	28	11	2				4	3			48	0	48
Immune deficiencies	71	6	26	38			55	49	1		245	1	246
Inherited disorders of Metabolism	21	6	3	12			18	37	1		97	1	98
Auto immune disease		2			1			1	1	77	4	78	82
Others	19	24		9			11	22	1	67	85	68	153
Total	1302	3400	93	421	8	49	928	2689	294	14984	8890	15278	24168

Abbreviations: BM = bone marrow; MDS = myelodysplastic syndrome; MM = multiple myeloma; MPS = myeloproliferative disorders; PBPC = peripheral blood precursor cells; SAA = severe aplastic anaemia.

the 2005 report, of which 597 reported their numbers. This corresponds to a 96% return rate of active teams and includes 489 of 506 active EBMT member teams reporting to the survey. Twenty-five teams known by the investigators to have been performing HSCT in 2005 were also contacted, but chose not to reply or, for unknown reasons, failed to reply in spite of several efforts to reach them. No major transplant team in Europe is missing from this list. All contacted teams are listed in the Appendix in alphabetical order according to country, city and EBMT centre code. We received information that in 2005 no blood or marrow transplants were performed in the following European countries: Albania, Andorra, Armenia, Georgia, Liechtenstein, Malta, Moldavia, Monaco, San Marino and The Vatican. By EBMT tradition, a number of non-European countries are included in the survey and the analyses, Algeria, Iran, Israel, Saudi Arabia and Tunisia.

### Definitions

As their introduction the EBMT surveys have focused on numbers of patients, which were treated with HSCT. Information on additional transplants, hence on a second, third or fourth HSCT in a patient with a previous HSCT was collected in two forms. It was either reported by disease category with the newly introduced system for planned double allogeneic after autologous transplants or collected generically for all other situations. These were as follows: *Re-transplants*, (autologous or allogeneic) defined as an unplanned HSCT for rejection or relapse after a first HSCT or *Multiple transplants*, defined as being part of a planned double or triple autologous or allogeneic transplant protocol. Information on stem cell source was collected as bone marrow or peripheral blood. Combined bone marrow and peripheral blood transplants or cord blood transplants were reported as peripheral blood HSCT. Information on cord blood transplants was collected only as a generic number per year for each individual team. Similarly, information on RIC was collected only as a total for each team and not for individual transplants. Definitions for RIC HSCT followed the recently published definitions.<sup>3</sup>

### Transplant rates

Transplant rates were computed as numbers of HSCT per 10 million inhabitants by disease indication and donor type as listed in Table 1 for each country as defined previously.<sup>14</sup> They were assessed for all HSCT (total HSCT) and separately for allogeneic, autologous, unrelated and RIC allogeneic HSCT. Transplant rates refer to the number of transplants in a given country compared to 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

In order to assess impact of economic factors on transplant rates in the participating countries, we used GNI per capita as key element. The World Bank publishes annually a list of all (European and Non-European) countries and cate-

gorises countries according to their GNI per capita into high, middle or low income as main categories (<http://www.worldbank.org>). Accordingly, we grouped participating countries into high income (Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland and United Kingdom), middle income (Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia) and low income countries (Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Macedonia, Romania, Russia, Serbia and Montenegro, Ukraine and Turkey) as used previously.<sup>15</sup>

Non-European countries, which traditionally participate in the EBMT activity survey (Algeria, Iran, Israel, Saudi Arabia and Tunisia) were not included in the analysis on economic factors as well as Iceland and Luxemburg where there were some missing data over the time span.

## Results

### Participating teams

Of the 597 teams reporting HSCT in 2005, 356 (60%) did both allogeneic and autologous transplants; 221 (37%) restricted their activity to autologous, six teams (1%) to allogeneic transplants only. Fourteen teams (2%) reported having performed no transplants in 2005.

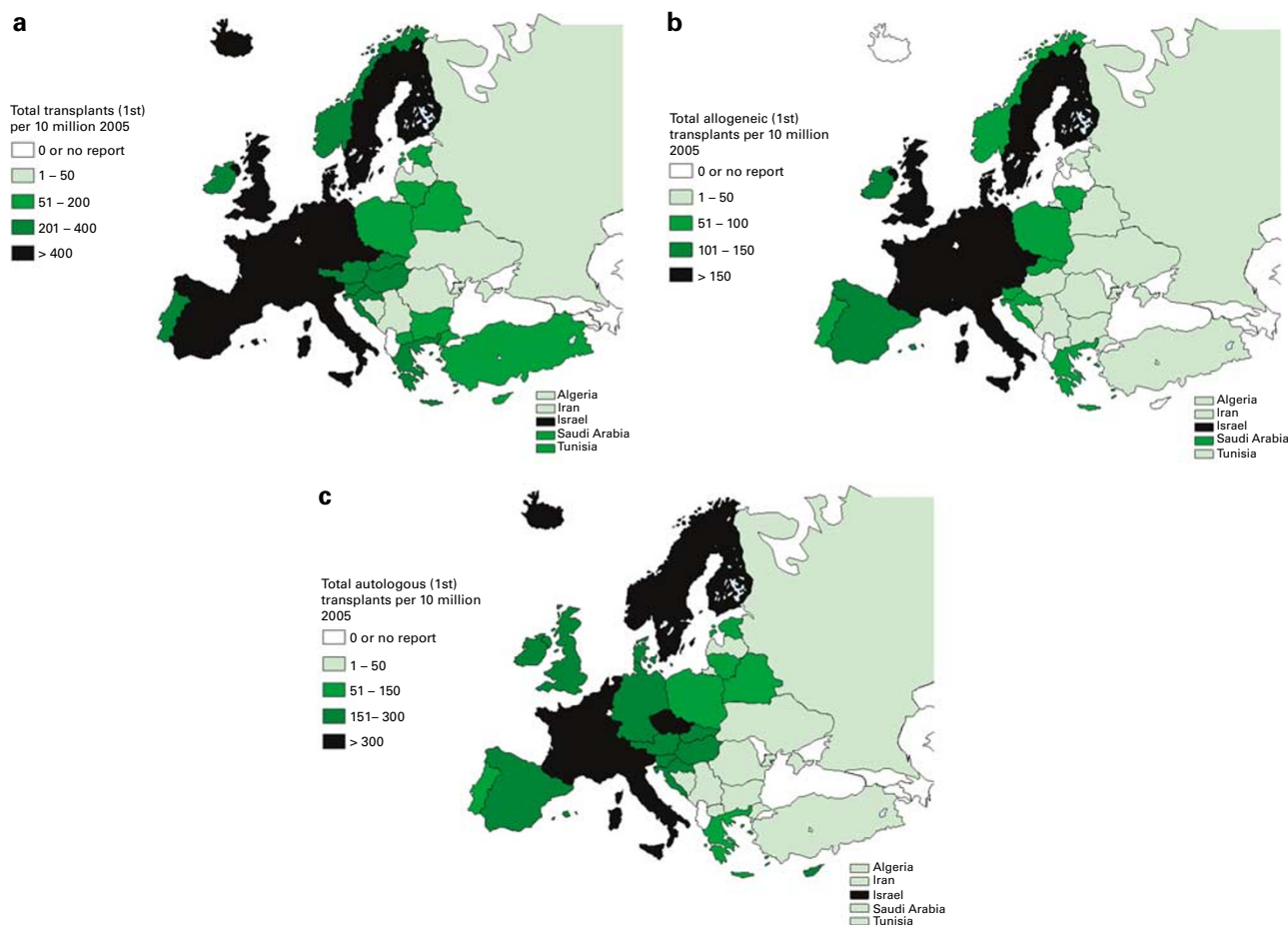
### Numbers of HSCT in 2005

**First transplants 2005.** A total of 24 168 first transplants, 8890 (37%) allogeneic and 15 278 (63%) autologous were carried out in 2005 (Table 1). This represents an increase of 1952 transplants or an increase of 9% compared to 2004, when there were 22 216 first transplants.<sup>12</sup> Numbers of allogeneic HSCT increased by 20% from 7407 in 2004 to 8890 in 2005. In contrast, numbers of autologous HSCT remained at a similar order of magnitude with 14 809 in 2004 and 15 278 in 2005. This increase of 469 autologous HSCT corresponds to a change in +3%.

**Transplant rates in 2005.** There were marked differences in transplant rates between European countries and countries affiliated with EBMT as presented in Figure 1. These differences relate to all transplants (Figure 1a), to allogeneic HSCT (Figure 1b) and to autologous HSCT (Figure 1c). Differences between Eastern and Western European countries have been reported previously.<sup>16</sup> Of interest to note is that countries with similar total transplant rates had similar transplant rates for allogeneic HSCT as well as for autologous HSCT.

### Disease indications

Indications for HSCT in 2005 are listed in details in Table 1. Main indications were *lymphoproliferative disorders* with 13 825 patients (57%), 1520 patients with allogeneic HSCT (11%), 12 305 with autologous HSCT (89%); *leukaemia's* with 7404 patients (31%), 6107 patients with allogeneic (82%), 1297 with autologous (18%) HSCT; *solid tumours* with 1655 patients (7%), 130 with allogeneic HSCT (8%), 1525 with autologous HSCT (92%) and *non-malignant disorders* with 1131 patients (5%), 1048 with



**Figure 1** Transplant rates (number of HSCT per 10 million inhabitants) in European countries in 2005. (a) All HSCT combined. (b) Allogeneic HSCT only. (c) Autologous HSCT only.

allogeneic HSCT (93%) 83 with autologous HSCT (7%). The latter, autologous HSCT for non-malignant disorders predominantly include patients with autoimmune disorders (78). An additional 153 patients, 85 with allogeneic HSCT and 68 with autologous HSCT were listed as 'other indications'. Transplants increased in all disease categories compared to 2004,<sup>12</sup> with one exception. There was once again a reduction in HSCT for chronic myeloid leukaemia as was observed in previous years with 832 HSCT in 2004 and 701 HSCT in 2005.<sup>17</sup>

#### Additional transplants 2005

There were 1464 additional re-transplants (698 allogeneic/766 autologous) and 2309 additional planned multiple transplants (133 allogeneic/2176 autologous). Thus, there were a total 27 941 HSCT procedures, 9721 allogeneic (35%) and 18 220 autologous (65%) performed in 2005. This corresponds to a decrease of 374 re-transplants (350 allogeneic/24 autologous) or of 20% in re-transplants as compared to 2004. One of the reasons for this decrease is the new collection of numbers on planned double transplants with autologous followed by allogeneic HSCT, where the allogeneic HSCT is reported as a first transplant for that patient.<sup>18–20</sup>

Detailed information was available this year for the planned multiple transplants. There was a total of 2176 planned multiple autologous HSCT. Compared to 2004, there is no real change. There was a total of 133 planned multiple allogeneic HSCT. Compared to 2004, this corresponds to a decrease of 73%. There were a total of 671 planned double autologous-allogeneic HSCT. This corresponds to 7% of all allogeneic HSCT. Main indications for these planned double transplant programmes were multiple myeloma, non-Hodgkin's lymphoma, Hodgkin's disease and acute myeloid leukaemia (AML) beyond first complete remission as illustrated in Table 2.

#### Stem cell source

Of the 15 278 autologous first transplants, 294 (2%) were bone marrow derived, 14 984 (98%) from peripheral blood stem cells or from combined bone marrow and peripheral blood stem cell transplants (Table 1). Of the 8890 allogeneic first transplants, 2331 (26%) were bone marrow and 6559 (74%) were peripheral blood stem cell transplants. This corresponds again to an ongoing increase in peripheral blood as stem cell source in allogeneic HSCT; it being 69% in 2004. The proportion of peripheral blood as stem cell source varied depending on donor type. It was 72% for

**Table 2** Disease indications for the 671 planned double autologous-allogeneic HSCT programmes in Europe in 2005

Indication	No. of Patients	%
Plasma cell disorders	349	52.0
NHL	115	17.1
HD	76	11.3
AML	76	11.3
ALL	15	2.2
MDS	11	1.6
MPS	1	0.1
CLL	17	2.5
Neuroblastoma	2	0.3
Breast cancer	2	0.3
Ewing	1	0.1
Other solid tumour	3	0.4
Auto immune disease	3	0.4
Total	671	100.0

Abbreviations: AML=acute myeloid leukaemia; ALL=acute lymphoblastic leukaemia; CLL=chronic lymphocytic leukaemia; HD=Hodgkin's disease; MDS=myelodysplastic syndrome; MM=multiple myeloma; MPS=myeloproliferative disorders; NHL=non-Hodgkin's lymphoma.

HLA-identical sibling donor transplants, 74% for unrelated donors, 82% for HSCT from other family members and 86% for twin donors.

The proportion of peripheral blood as the stem cell source varied for allogeneic HSCT depending on disease indication with a higher proportion of peripheral blood in patients with malignancies. It was 75% for leukaemias, 88% for lymphoproliferative disorders and 89% for solid tumours. It was only 44% for patients with non-malignant diseases, 50% of which were for severe aplastic anaemia.

A total of 395 allogeneic HSCT were cord blood transplants compared to 281 in 2004 and 86 in 1997 when this item was introduced into the activity survey. This corresponds to 4% of all allogeneic transplants. Owing to the design of the survey, no disease specific information on cord blood transplants is available.

#### Donor type

**Absolute numbers in 2005.** For the 8890 allogeneic first transplants, HLA-identical siblings were used as donors for 4702 (52%) of the recipients, other family members for 514 (6%) of the recipients, a syngeneic twin for 57 (1%) of the recipients and an unrelated volunteer donor for 3617 (41%) of the recipients. Alternative donors were used for all indications but more commonly for patients with leukaemia's or non-malignant disorders as listed in Table 3.

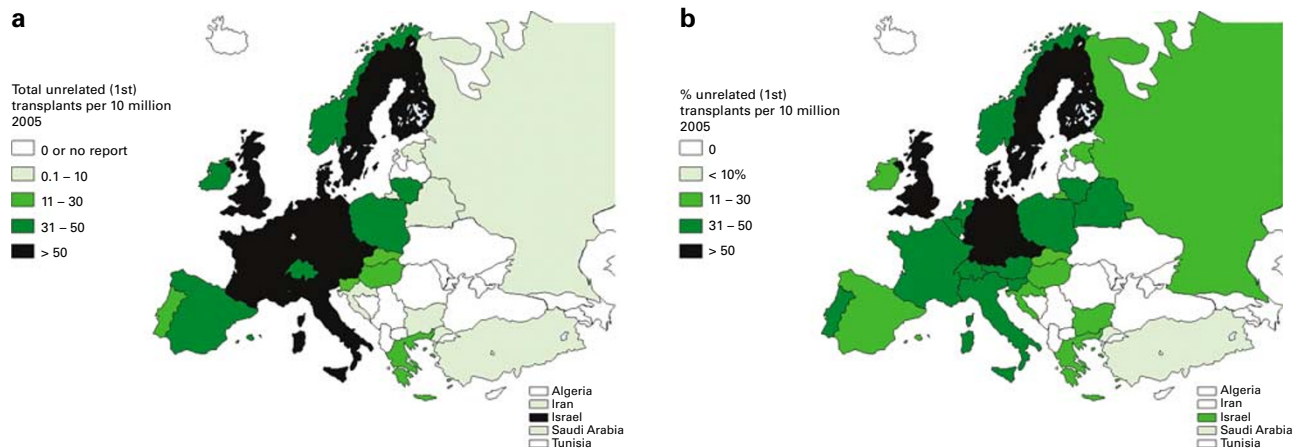
**Changes over time in use of unrelated HSCT from 1990 to 2005.** There was a marked increase in unrelated transplants from 181 HSCT in 1990 to 3617 in 2005. This increase was 6% higher than the general increase in allogeneic HSCT during the same time period. The proportion of unrelated transplants was different between European countries in absolute numbers of transplant rates (Figure 2a) as well as in the proportion of unrelated HSCT amongst allogeneic HSCT (Figure 2b). The proportion of unrelated donors was especially high for leukaemias as

**Table 3** Proportion of patients with unrelated HSCT by disease indication

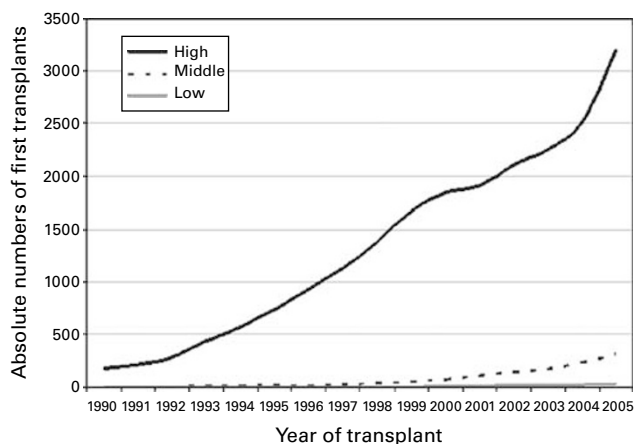
	Allogeneic HSCT	Unrelated HSCT	% Unrelated HSCT
<i>Leukaemias</i>	6107	2666	44
Acute myeloid leukaemia	2702	1098	41
First complete remission	1448	448	31
Not first complete remission	1254	650	52
Acute lymphoblastic leukaemia	1468	672	46
First complete remission	791	318	40
Not first complete remission	677	354	52
Chronic myeloid leukaemia	684	286	42
Chronic phase	461	176	38
Not first chronic phase	223	110	49
MDS incl. Sec AL	731	371	51
MPS	225	135	60
Chronic lymphocytic leukaemia	297	104	35
<i>Lymphoproliferative disorders</i>	1520	566	37
Plasma cell disorders – MM	513	178	35
Plasma cell disorders – other	27	9	33
Hodgkin's lymphoma	208	78	38
Non-Hodgkin's lymphoma	772	301	39
<i>Solid tumours</i>	130	16	12
Neuroblastoma	19	0	0
Soft tissue sarcoma	18	0	0
Germinal tumours	2	0	0
Breast cancer	14	0	0
Ewing	5	1	20
Renal cancer	39	8	21
Melanoma	0	0	0
Colon cancer	4	0	0
Other solid tumours	29	7	24
<i>Nonmalignant disorders</i>	1048	336	32
Bone marrow failure – SAA	373	106	28
Bone marrow failure – other	96	37	39
Hemoglobinopathies – thal	185	26	14
Hemoglobinopathies – other	48	7	15
Immune deficiencies	245	104	42
Inherited disorders of metabolism	97	55	57
Auto immune disease	4	1	25
Others	85	33	39
Total	8890	3617	41

Abbreviations: HSCT=haematopoietic stem cell transplantation; MPS=myeloproliferative disorders; SAA=severe aplastic anaemia.

illustrated in Table 3. Transplant rates for unrelated HSCT (per 10 million inhabitants) suggest a clear dependency on GNI/capita. Transplant rates were higher and increase was more pronounced in absolute numbers in countries with high income as illustrated in Figure 3. The increase of unrelated HSCT in absolute numbers over the last years is illustrated in Figure 4 with details for AML (Figure 4a), acute lymphoblastic leukaemia (Figure 4b), chronic myeloid leukaemia (CML) (Figure 4c) and severe aplastic anaemia (Figure 4d). The increase was most marked in AML. As for sibling transplants, the decrease continued for CML.



**Figure 2** Unrelated HSCT in Europe. (a) Transplant rates (number of HSCT per 10 million inhabitants) in participating European countries in 2005. (b) Proportion of unrelated HSCT among allogeneic HSCT. Shades reflect percentage.



**Figure 3** Evolution of unrelated HSCT in Europe from 1990 to 2005. Curves reflect absolute transplant numbers according to World Bank category (see text) of the participating countries.

### Conditioning

Numbers of RIC HSCT continued to increase as reported the year before from 2747 in 2004 to 3301 in 2005. This corresponds to an increase of 20%. This increase was higher and more pronounced in absolute numbers in countries with high income according to GNI per capita. RIC HSCT comprised 34% of all allogeneic HSCT in 2005, with marked variation of RIC HSCT amongst participating countries that ranges from 2 to 100%.

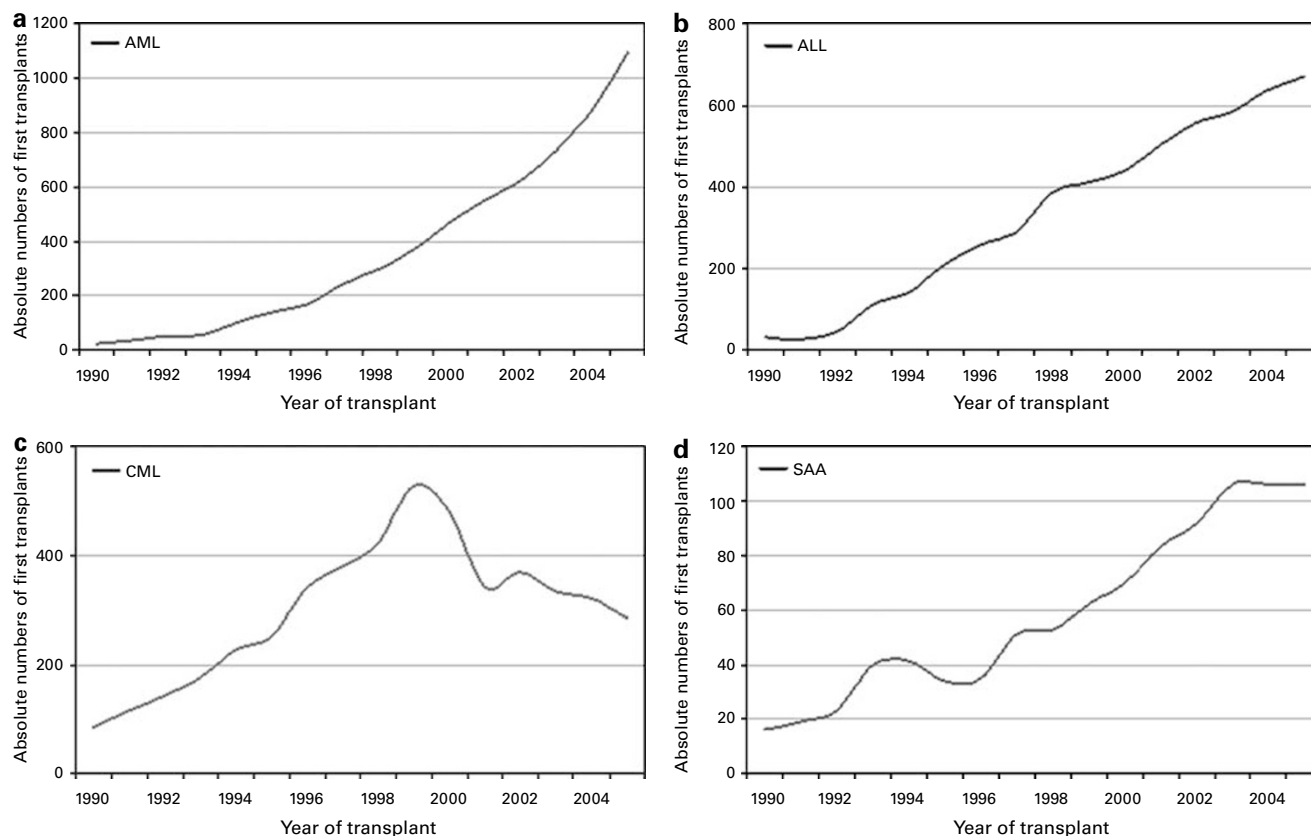
### Discussion

This report presents the current state of the art of HSCT in Europe in 2005. It documents the diversity of the procedure, which includes autologous and allogeneic stem cells from the three main sources, bone marrow, peripheral blood and cord blood for a broad range of malignant and non-malignant disorders.<sup>1-7</sup> It confirms the unbroken increase in transplant rates for allogeneic HSCT, the stable rates of autologous HSCT and the main differences

between the participating European countries. Transplant rates were primarily influenced, as previously shown, by the income of the countries with clear dependency from their GNI per capita.<sup>14-16</sup> Countries with high income, as defined by the World Bank, performed more transplants than countries with less income.

The report highlights the increasing role of unrelated donors in allogeneic HSCT. The increase in unrelated HSCT exceeds the general increase of allogeneic HSCT. It was even more so for some specified disease categories, AML and non-Hodgkin's lymphoma. The increase in transplants and increase in unrelated HSCT was more influenced by GNI/capita with a high increase of unrelated HSCT primarily in countries with high income. The rapid expansion of unrelated donor pools worldwide and the expansion of cord blood banks have changed the outlook of an unrelated donor search.<sup>20-24</sup> Depending on the selection criteria, up to 80 or 90% of all patients can find a donor in some countries.<sup>25,26</sup> At the same time, costs for the donor search and costs for the transplant harvest and transfer have increased and add substantially to overall transplant costs. Donors within a country might be the only possible choice for transplant physicians in some countries. Under such circumstances, the gap in transplant rates of unrelated HSCT between countries with high or middle income will likely increase even further in the future.

The observation of a lower proportion of RIC HSCT in economically less advantaged countries fits this observation. RIC HSCT might be less expensive in the early transplant period than standard conditioning HSCT. However, RIC HSCT relies on graft-versus-tumour effects.<sup>11</sup> The ability to monitor and modulate donor chimerism by changes in immunosuppression and donor lymphocyte infusions forms integral part of the procedure.<sup>27</sup> These techniques require laboratory infrastructure, repetitive monitoring and might be more costly long term. With limited resources, standard conditioning might be the preferred choice. This remains a hypothesis. The annual report provides only numbers. More studies are required to gain more insight into the mechanisms behind the differences we have observed.



**Figure 4** Evolution of unrelated HSCT in Europe from 1990 to 2005 by disease indication. Curves reflect absolute numbers of unrelated HSCT. (a) AML. (b) Acute lymphoblastic leukaemia. (c) CML. (d) Severe aplastic anaemia.

The report provides for the first time information on planned double autologous – allogeneic transplants. It is of interest to note, that most of these procedures were performed for patients with multiple myeloma or lymphoma; the diseases for which this was procedure was first suggested.<sup>18–20</sup> Unexpected, but easy to explain, is the relative high number of planned double autologous – allogeneic HSCT for AML beyond first remission. In recent years, several study groups have investigated through prospective randomized studies the value of autologous HSCT compared to intensive chemotherapy.<sup>28–30</sup> As a consequence, there is a large group of patients with stored cryopreserved cells. They can be used for autologous HSCT instead of re-induction chemotherapy and be followed by a RIC or standard allogeneic HSCT. Concept studies have recently been published.<sup>31</sup>

As consequence of its design, this survey gives no information on outcome. These data can be reported later, when the information becomes available with sufficient follow-up. Data from these outcome analyses will confirm or refute whether the trends we observe today will be validated by results. Still, as it stands, the survey presents the current status and trends. As such, it is the most accurate and appropriate resource for decision making. This is relevant for patients, physicians, transplant teams and health care providers alike.

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## APPENDIX 2005

### List of transplant centres in 2005

**Albania:** no report

**Andorra:** no report

**Armenia:** no report

**Algeria:** (1 team: 153 (153) 113/40)

Alger, Centre Pierre et Marie Curie, CIC 703, R Hamladji (153 (153) 113/40)

**Austria:** (15 teams: 307 (383) 136/171)

Graz, Karl Franz University Hospital (onco), CIC 278 (0 (2) 0/0)

Graz, Karl Franz University Hospital (hem), CIC 308, W Linkesch (55 (60) 27/28)

Graz, Universitäts-Kinderklinik (hem, onco), CIC 593, Ch. Urban (14 (19) 8/6)

Innsbruck, Universitätsspital (hem, onco), CIC 271, G Gastl, D Nachbaur (49 (61) 27/22)

Innsbruck, Universitätsspital, Internal Medicine (onco), CIC 516, W Eisterer (1 (1) 0/1)

Klagenfurt, General Hospital Klagenfurt, D Geissler, M Heisteringer (7 (7) 0/7)

Linz, AO Krankenhaus (onco), I Medizin, MA Fridrik (3 (3) 0/3)

Linz, AOK der Elisabethinen, Internal Medicine, CIC 594, D Lutz, O Krieger (43 (56) 13/30)

Salzburg, LKA Salzburg (onco), CIC 356, R Greil (16 (18) 0/16)

Vienna, AKH, Universitätsklinik für Innere Medizin I (onco), CIC 227, HT Greinix, P Kalhs (55 (61) 38/17)

Vienna-Lainz, Krankenhaus der Stadt Wien-Lainz, 5. Med Onko, K Geissler, E Ulsperger (0 (0) 0/0)

Vienna, St. Anna Kinderspital (hem, onco), CIC 528, H Gadner, C Peters (34 (44) 23/11)

Vienna, Hanusch-Krankenhaus (hem, onco), CIC 743, E Koller (12 (18) 0/12)

Vienna, Donauespital, CIC 767, W Hinterberger (3 (4) 0/3)

Vienna, Wilhelminenspital (hem, onco), CIC 828, H Ludwig (15 (29) 0/15)

**Azerbaijan:** (1 team: no report)

Baku, Azerbaijan Central Clinic Hospital, CIC 186, S Dincer (no report)

**Belarus, Republic of:** (2 teams: 86 (91) 19/67)

Minsk, Belorussian Center (hem, onco, peds), CIC 591, O Aleinikova (44 (46) 12/32)

Minsk, Hospital No. 9, N Milanovitch (42 (45) 7/35)

**Belgium:** (21 teams: 558 (645) 209/349)

Antwerpen, Stuivenberg ZH, CIC 339, P Zachée (36 (49) 24/12)

Antwerpen-Edegem, University Antwerpen (hem), CIC 996, W Schroyens (29 (34) 12/17)

Antwerpen, AZ Middelheim (hem), CIC 783, R de Bock (10 (13) 0/10)

Brugge, AZ St Jan (hem), CIC 506, D Selleslag, A Van Hoof, J Van Droogenbroeck, K Van Eygen (42 (50) 11/31)

Brussels, Institut Jules Bordet and the Children's University Hospital, CIC 215, D Bron, E Sariban, C Devalck, A Ferster (34 (40) 13/21)

Brussels, Clinique universitaire St Luc (hem, ads), CIC 234, A Ferrant (51 (57) 27/24)

Brussels, Clinique Universitaire St Luc (peds), CIC 234, C Vermeylen (5 (5) 4/1)

Brussels, Cliniques Universitaires St Luc, (onco), JP Machiels (no report)

Brussels, Hôpital Erasme (hem), CIC 596, W Feremans, A Kentos, M Lambermont, A Dewiere (22 (25) 1/21)

Brussels, University Hospital (hem, onco), CIC 630, B Van Camp, A Schots (29 (31) 9/20)

Charleroi, Hôpital Notre-Dame (hem, onco), CIC 349, M André (15 (17) 1/14)

Charleroi, University Hospital (hem), CIC 804, A Triffet (2 (2) 0/2)

Gent, University Hospital (hem, ads, peds), CIC 744, LA Noens (55 (56) 22/33)

Haine St Paul, Hôpital de Jolimont (hem), CIC 234, A Delannoy, C Ravoot, N Straetmans (14 (15) 1/13)

Hasselt, Virgajesse Ziekenhuis (hem), CIC 632, D Vanstraelen, G Bries, V Madoe (24 (30) 0/24)

Leuven, University Hospital Gasthuisberg (hem, ads, peds), CIC 209, J Maertens, MA Boogaerts, P Vandenberghe (92 (96) 49/43)

Liège, CHR La Citadelle (hem, onco), CIC 353, B De Prijck (6 (7) 0/6)

Liège, University Hospital Sart-Tilman (hem), CIC 726, Y Béguin (46 (62) 28/18)

Roeselare, H Hartziekenhuis (hem, onco), CIC 646, F Van Aelst, J Tytgat, J Demol (13 (18) 1/12)

Wilrijk, Sint Agustinus GVA (hem), CIC 715, J Lemmens (6 (6) 0/6)

Yvoir, Clinique universitaire de Mont-Godinne (hem), CIC 234, C Doyen (27 (32) 6/21)

**Bosnia-Herzegovina:** (2 teams: 13 (13) 3/10)

Sarajevo, Clinical centre University Sarajevo (hem), CIC 198, A Sofic-Hafizovic (0 (0) 0/0)

Tuzla, University Clinical Centre of Tuzla (hem), CIC 647, M Malesevic (13 (13) 3/10)

**Bulgaria:** (2 teams: 39 (41) 6/33)

Sofia, Pediatric Hospital for Oncohematology and Bone Marrow Transplantation (peds hem-onco), CIC 346, D Bobev, B Avramova, M Yordanova (18 (19) 6/12)

Sofia, National Centre of Hematology and Transfusiology BMT, CIC 859, G Michailov (21 (22) 0/21)

**Croatia:** (2 teams: 115 (133) 24/91)

Zagreb, Clinic Hospital 'Merkur', CIC 159, B Jaksic, H Minigo (30 (31) 5/25)

Zagreb, Clinical Hospital Center, CIC 302, B Labar, D Nemet, M Mrcic (85 (102) 19/66)

**Cyprus:** (1 team: 12 (12) 0/12)

Nicosia Makarios Hospital III (hem), CIC 575, A Papatryfonos (12 (12) 0/12)

**Czech Republic:** (9 teams: 494 (565) 186/308)

Brno, Masaryk University Hospital (ads, peds, hem, onco), CIC 597, J Vorlicek, J Mayer, Z Koristek (98 (123) 25/73)

Hradec Kralové, Charles University (hem), CIC 729, S Filip, M Blaha (57 (66) 16/41)

Olomouc, University Hospital (hem, onco), CIC 574, K Indrak (63 (67) 20/43)

Pilsen, Faculty Hospital (hem, onco), CIC 718, V Koza (60 (77) 34/26)

Prague, Clinical Haematology, Charles University, CIC 318, T Kozak (40 (40) 0/40)

Prague, Thomayer Memorial Hospital, CIC 375, J Abrahamova, J Nepomucká (6 (6) 0/6)

Prague, University Hospital Motol (peds, hem, onco), CIC 656:2, P Sedlacek (39 (43) 29/10)

Prague, Institute of Hematology and Blood Transfusion, A Vitek, P Kobyłka CIC 656:1 (65 (66) 62/3)

Prague, Charles University, CIC 745, M Trneny (66 (77) 0/66)

**Denmark:** (4 teams: 231 (259) 85/146)

Aalborg, Aalborg Hospital (hem/clin immunology), CIC 848, J Baech I Christiansen (1 (1) 0/1)

Aarhus, Amtssygehus (hem) and Skejby Hospital, CIC 634 + 510, E Segel, B Moeller (50 (53) 0/50)

Copenhagen, Rigshospitalet (hem), CIC 206, N Jacobsen (157 (179) 85/72)

Copenhagen, Herlev Hospital (hem), University, CIC 568, B Jensen (23 (26) 0/23)

**Estonia:** (1 team: 22 (22) 4/18)

Tartu, University Hospital (hem, onco), CIC 746, H Everaus, A Kaare (22 (22) 4/18)

**Finland:** (7 teams: 310 (341) 88/222)

Helsinki, Children's Hospital, CIC 219, U Pihkala, S Vettenranta (23 (24) 17/6)  
Helsinki, University Hospital, Dept of Medicine, CIC 515, T Ruutu (97 (99) 57/40)  
Helsinki, University Hospital (onco), CIC 833, H Joensuu, R Janes (21 (21) 0/21)  
Kuopio, Department of Medicine, University Hospital, CIC 396, E Jantunen, T Nousiainen (43 (45) 0/43)  
Oulu, University Central Hospital (hem, onco), CIC 690, P Koistinen, T Turpeenniemi-Hujanen (25 (33) 0/25)  
Tampere, University Hospital (ads, peds), CIC 635, E Koivunen, T Lehtinen, R Silvennoinen, M Arola (44 (53) 0/44)  
Turku, University Central Hospital, CIC 225, K Remes (57 (66) 14/43)

**France:** (75 teams: 3559 (4319) 1045/2514)

Amiens, CHU Amiens, CIC 955, G Damaj (29 (31) 0/29)  
Angers, Centre Hospitalier, CIC 650, N Ifrah, S François (68 (87) 15/53)  
Angers, Paul Papin, Dr Gamelin (0 (0) 0/0)  
Argenteuil, Hôpital Victordupouy (hem), CIC 199, L Sutton (17 (19) 0/17)  
Besançon, Hôpital Jean Minjot & Hôpital St Jacques (ads, peds), CIC 233, P Herve, E Deconinck, P Rohrich (69 (77) 33/36)  
Bordeaux, Hôpital des Enfants (hem, onco), A Notz-Carrere (4 (4) 0/4)  
Brest, Centre Hospitalier, C Berthou (44 (81) 22/22)  
Caen, Centre Hospitalier Régional, CIC 251, O Reman (45 (47) 12/33)  
Caen, Hôpital Cote de Nacre (peds hem onco), P Boutard (0 (0) 0/0)  
Caen, Centre Régional François Baclesse, A M Peny (11 (23) 0/11)  
Clermont Ferrand, Centre Jean Perrin and CHU Hotel Dieu (ads, peds), CIC 273 + 589, J-O Bay, F Demeocq, P Travade (98 (119) 31/67)  
Colmar, Hôpital civil, B Audhuy (6 (6) 0/6)  
Corbeil Essonne, Hôpital Gilles de Corbeil, A Devidas (12 (12) 0/12)  
Créteil, Hôpital H Mondor (hem), CIC 252, C Cordonnier, M Kuentz (49 (51) 24/25)  
Dijon, Hôpital d'Enfants, D Caillot (66 (72) 0/66)  
Dunkerque, Centre Hospitalier (hem), M Wetterwald (17 (22) 0/17)  
Grenoble, Centre Hospitalier A Michallon (ads, peds), CIC 270, J Y Cahn, F Garban, P Drillat, D Plantaz (73 (82) 28/45)  
Lille, Hôpital Claude Huriez, CIC 277, F Bauters, JP Jouet (92 (101) 54/38)  
Lille, Hôpital Jeanne de Flandre, CIC 963, J Dalle, B Nelken (2 (2) 0/2)  
Lille, Centre Oscar Lambret (onco), Dr Depadt, Dr. Defachelles (4 (8) 0/4)  
Lille, Centre Hospitalier Saint Vincent, N Cambier (17 (17) 0/17)  
Limoges, Centre Hospitalier Dupuytren (ads, hem), CIC 977, D Bordessoule, P Turlure (24 (32) 0/24)  
Lyon, Centre Léon Bérard, CIC 241, P Biron, T Philip (55 (76) 0/55)  
Lyon, Hôpital Edouard Herriot, CIC 671, M Michallet, E Wattel, A Thiebaut, F Nicolini, J Troncy, X Thomas (80 (92) 51/29)  
Lyon Sud (Pierre Benite), Centre Hospitalier, B Coiffier (96 (119) 0/96)  
Lyon, Hôpital Debrousse, Y Bertrand, V Mialou (24 (25) 22/2)  
Marseille, Inst. Paoli-Calmettes, CIC 230, D Blaise (299 (382) 49/250)  
Marseille, Hôpital d'Enfants de la Timone (onco), CIC 301, C Coze, JL Bernard J Frayfer (6 (11) 0/6)  
Meaux, Centre Hospitalier de Meaux, (12 (13) 0/12)  
Metz, Thionville Hôpital Notre-Dame de Bon-Secours (hem), V Dorvaux, B Christen (28 (32) 0/28)  
Montpellier, CHU de Montpellier Hôpital Arnaud de Villeneuve, F Bernard (13 (13) 10/3)  
Montpellier, Centre Rég. De Lutte contre de Cancer, M Fabbro, J-B Dubois (6 (6) 0/6)  
Montpellier, CHR Lapeyronie (hem), CIC 926, JF Rossi (116 (154) 19/97)  
Mulhouse, Hôpital du Hasenrain, B Drénou, M Ojeda (14 (14) 0/14)  
Nancy, Vandoeuvre-les-Nancy, Hôpital d'Enfants, P Bordigoni (44 (51) 39/5)

Nancy, Vandoeuvre-les-Nancy, CHU Nancy-Brabois (hem), P Lederlin, F Witz (45 (49) 0/45)  
Nantes, Hotel Dieu (hem), CIC 253, P Chevallier, JL Harousseau (182 (201) 68/114)  
Nice, Hôpital de l'Archet (incl Hopital Lenval (peds), CIC 523, N Gratecos, JP Cassuto, D de Ricaud (59 (67) 26/33)  
Nice, Centre Antoine Lacassagne, A Thyss (26 (31) 0/26)  
Paris, Hôpital Necker (ads, hem), CIC 160, B Varet, C Bélanger, A Veil (82 (99) 23/59)  
Paris, Hôpital Necker des enfants malades (allo), CIC 201, A Fischer (36 (43) 36/0)  
Paris, Hôpital St Louis (hem allo, ads, peds), CIC 207 + CIC 748, G Socié, E Gluckman, H Esperou (110 (118) 110/0)  
Paris, Hôpital St Louis (auto), CIC 805, G Gisselbrecht (73 (76) 0/73)  
Paris, Hôpital St Louis (auto-leuk), CIC 960, H Dombret, L Degos, P Rousselot (1 (7) 0/1)  
Paris, Hôpital St Louis (auto immuno-Haem), J-P Femand (58 (66) 0/58)  
Paris, Hôpital St Antoine (hem), CIC 213, C Gorin, L Fouillard (40 (51) 9/31)  
Paris, Hôpital D'enfants Armand-Trousseau, CIC 213, G Leverger, A Auvrignon, L Douay (17 (19) 0/17)  
Paris, Hôtel Dieu (hem), CIC 222, Z Marjanovic (57 (66) 32/25)  
Paris, Hôpital Pitié Salpêtrière (hem), CIC 262, J-P Vernant, V Leblond, N Dedhin (78 (80) 35/43)  
Paris, Institut Curie (ads/onco/peds), CIC 702, J Michon (48 (69) 0/48)  
Paris, Hôpital Tenon (onco), CIC 747, JP Lotz (32 (49) 0/32)  
Paris, Hôpital Robert Debré, K Yakouben, A Baruchel (27 (27) 27/0)  
Paris, Hôpital Européen GP, JM Andrieu, C Le Maignan (6 (10) 0/6)  
Paris, Hôpital d'Instruction des Armées Percy, Clamart, T de Revel, G Nedellec (9 (20) 7/2)  
Paris, Hôpital Cochin (auto), F Dreyfus, M Quarre (18 (38) 0/18)  
Pessac, Hôpital Haut-Lévêque, CHU Bordeaux, CIC 267, N Milpied, G Marit, R Tabrizi (158 (191) 62/96)  
Poitiers, Hôpital la Milettrie, CIC 264, M Renaud (89 (104) 45/44)  
Pontoise, Hôpital René Dubois (hem, onco), CIC 961, H Gonzalez (14 (14) 0/14)  
Reims, Hôpital Robert Debré (hem, onco), CIC 959, A Delmer, B Pignon, C Himerlin (44 (60) 0/44)  
Rennes, CHRU, Clinique Médical Infantile, E Le Gall, V Gandemer (17 (17) 5/12)  
Rennes, Hôpital de Pontchaillou (hem), T Lamy (84 (86) 26/58)  
Roubaix, Hôpital V Provo (hem), I Plantier-Colcher (16 (18) 0/16)  
Rouen, Centre Henri Becquerel, CIC 941, H Tilly, P Lenain (61 (76) 9/52)  
Rouen, Hôpital Charles Nicolle, JP Vannier (14 (16) 11/3)  
St Cloud, Centre René Huguenin, CIC 551, M Janvier (16 (17) 0/16)  
Strasbourg, Hôpital de Haute-pierre, B Lioure (94 (107) 31/63)  
Strasbourg, Hospices Civils, Service de Pédiatrie 5, P Lutz (19 (24) 12/7)  
Toulouse, Hôpital de Purpan (hem), CIC 624, M Attal, J-C Nogaro (130 (144) 25/105)  
Toulouse, Hôpital de Purpan (peds), CIC 624, H Rubie (11 (12) 1/10)  
Toulouse, Centre Claudius Régaud, H Roche, C Chevreau (5 (17) 0/5)  
Tours, Hôpital Bretonneau (onco), CIC 272, P Colombat (75 (91) 0/75)  
Valenciennes, Hosp De Valenciennes, M Simon (20 (23) 0/20)  
Villejuif, Institut G Roussy (peds), CIC 503, O Hartmann, DValteau-Couanet (58 (114) 0/58)  
Villejuif, Institut G Roussy (ads, hem), CIC 666, J-H Bourhis, C Boccaccio, J-M Vantelon (89 (119) 36/53)  
Villejuif, Hôpital Paul Brousse, B Delmas-Marsalet (2 (2) 0/2)

**Georgia:** no report**Germany:** (108 teams: 4508 (5610) 1901/2607)

Aachen, Universitätsklinikum RWTH (hem, onco), Med Klinik IV, CIC 348, R Osieka, G Gehbauer (12 (14) 0/12)  
Augsburg, Zentralklinikum (hem, onco), Med Klinik II, G Schlimok, M Sandherr (39 (48) 12/27)  
Bad Saarow, Humaine Klinikum, G Schultze, UWruck, K Senftleben (21 (23) 0/21)  
Berlin, Universitätsklinikum der HU Charité Campus Virchow Klinikum (peds), CIC 336, G Gaedicke, W Ebell, J Kühl (24 (28) 23/1)

- Berlin, Universitätsklinikum der HU Charité Campus Virchow Klinikum (ads, hem, onco), CIC 807, B Dörken, R Arnold (94 (105) 62/32)
- Berlin, HELIOS Klinikum Berlin, Robert-Rössle Klinik (hem, onco), CIC 518, W-D Ludwig, R Bargon (22 (34) 0/22)
- Berlin, Universitäts-Klinik der FU Benjamin Franklin (hem, onco), CIC 590, L Uharek E Thiel (69 (87) 29/40)
- Berlin, Krankenhaus Neukölln (hem, onco), ACMayr, C Kerschgens (0 (0) 0/0)
- Bielefeld, Franziska Hospital (hem, onco), HJ Weh, A Zumsprekel (4 (4) 0/4)
- Bochum, Knappschaftskrankenhaus (hem, onco), W Schmiegel, C Teschendorf (29 (37) 0/29)
- Bonn, Rheinische Friedrich-Wilhelms Universität (ads, hem, onco), T Sauerbruch, I Schmidt-Wolf (35 (53) 0/35)
- Bonn, Rheinische Friedrich-Wilhelms Universität (peds, hem, onco), U Bode, C Hasan (4 (6) 0/4)
- Braunschweig, Städtisches Klinikum (hem, onco), CIC 674, B Wörmann, T Gabrysiak (17 (30) 0/17)
- Bremen, Zentralkrankenhaus St Jürgenstrasse, CIC 602, B Hertenstein, H Rasche, H Thomssen (28 (40) 0/28)
- Bremen, DIAKO (hem, onco), KH Pflüger, T Wolff (14 (19) 0/14)
- Chemnitz, Krankenhaus Küchwald (hem), CIC 104, M Hänel, G Geissler (62 (86) 0/62)
- Cottbus, Carl-Thiem Klinikum, Med Klinik II (hem), H Steinhauer, N Peter (19 (29) 0/19)
- Dessau, Städtisches Klinikum Dessau (hem, onco), M Plauth, A Florschütz (11 (14) 0/11)
- Dortmund, St Johannes Hospital (hem, onco), H Plelken, M Hindahl (4 (4) 0/4)
- Dresden, Universitätsklinikum Carl Gustav Carus (hem, onco), CIC 808, G Ehninger, M Bornhäuser (187 (218) 125/62)
- Duisburg, St Johannes Hospital, CIC 519, C Aul, R Hartwig (27 (40) 0/27)
- Düsseldorf, Heinrich-Heine Universität; Medizinische Klinik (hem, onco) and St Antonius Hospital, Eschweiler, (hem, onco), CIC 390, R Haas, G Kobbe, R Fuchs (108 (117) 49/59)
- Düsseldorf, Heinrich-Heine Universität; Zentrum für Kinderheilkunde, CIC 651, U Göbel, D Dilloo (20 (29) 14/6)
- Erlangen, Universitäts-Klinik für Kinder und Jugendliche (hem, onco), CIC 809, W Rascher, W Holter, D Stache I (17 (20) 15/2)
- Erlangen, Universität Erlangen-Nuremberg (hem, onco), Med Klinikum III, CIC 809, W Rösler, J-R Kalden (25 (37) 9/16)
- Essen, Universitätsklinikum (ads, peds), CIC 259, DW Beelen, R Peceny, W Havers, B Kremens, O Basu (170 (187) 145/25)
- Essen, Evangelisches Krankenhaus Essen-Werden GmbH (hem, onco), CIC 784, W Heit, M Wattad (39 (40) 7/32)
- Essen, Universitätsklinikum (hem), C Dührsen, R Noppeney (20 (24) 0/20)
- Essen, West German Cancer Center, S Seeber, T Moritz (35 (79) 0/35)
- Frankfurt, KH Nordwest, A Knuth, E Jäger (10 (10) 0/10)
- Frankfurt, Klinikum Frankfurt (Oder), CIC 190, M Kiehl (14 (14) 0/14)
- Frankfurt aM, Universitätsklinikum dJWGoethe (hem, onco peds), CIC 138, T Klingebiel (33 (40) 27/6)
- Frankfurt a M, JW Goethe-Universität (ads), CIC 297, D Hoelzer, H Martin (65 (77) 36/29)
- Frankfurt/Mainz, Städtisches Klinikum (ads), HG Derigs, T Flohr (5 (7) 0/5)
- Frankfurt/Mainz, Onkologische Gemeinschaftspraxis, CIC 193, W Knauf (8 (12) 0/8)
- Freiburg i Br., Universitätsklinik (ads, hem, onco), Med Klinik I, CIC 810, R Mertelsmann, J Finke, M Engelhardt (165 (187) 88/77)
- Freiburg i Br., Universitätskinderklinik (hem, onco), CIC 810, C Niemeyer, U Duffner (29 (33) 21/8)
- Gießen, Universitätskinderklinik (hem, onco), CIC 326, A Reiter, W Wössmann (17 (19) 13/4)
- Göttingen, Georg-August Universität (hem, onco), CIC 552, L Trümper, B Glass (62 (70) 28/34)
- Greifswald, Ernst-Moritz-Arndt Universität (ads + peds), CIC 530, G Döken, W Krüger (27 (36) 14/13)
- Gütersloh, Städtisches Krankenhaus (hem, onco), C Gropp, S Rösel (3 (3) 0/3)
- Hagen, Kath. Krankenhaus (hem, onco), CIC 536, H Eimermacher, W Lindemann (11 (14) 0/11)
- Halle, Martin Luther Universität (hem, onco, ads), CIC 338, G Behre, H-J Schmoll, M Christopeit (55 (120) 12/43)
- Halle, Martin Luther Universität (hem, onco, peds), CIC 654, G Horneff, J Föll (5 (5) 3/2)
- Hamburg, KH St George (hem, onco), CIC 153, N Schmitz, P Dreger (32 (45) 7/25)
- Hamburg, Allgemeines Krankenhaus Altona (hem, onco), CIC 366, D Braumann, H Salwender (53 (79) 0/53)
- Hamburg, Eppendorf-Krankenhaus (hem, onco, ads, peds) CIC 614, AR Zander, N Kröger (144 (156) 123/21)
- Hamburg, Eppendorf-Krankenhaus (hem, onco, ads), Med Klinik II, CIC 673, C Bokemeyer (29 (41) 0/29)
- Hameln, Kreiskrankenhaus Hameln (hem, onco), H Schmidt, K Buhrmann (9 (12) 0/9)
- Hamm, St Marien Hospital (hem, onco), H Dürk, H Pelz (4 (7) 0/4)
- Hamm, Evangelisches Krankenhaus (hem, onco), CIC 509, L Balleisen (17 (17) 0/17)
- Hannover, Medizinische Hochschule (hem, onco, ads), CIC 295, A Ganser, B Hertenstein (132 (150) 88/44)
- Hannover, Medizinische Hochschule (hem, onco, peds), CIC 295, K Welte, K Sykora (29 (35) 24/5)
- Hannover, KH Siloah, CIC 342, H Kirchner, M Sosada (22 (31) 0/22)
- Heidelberg, Ruprecht-Karls Universitäts-Poliklinik (hem, onco), CIC 524, P Deger, AD Ho, U Hegenbart (203 (278) 52/151)
- Homburg/Saar, Universität des Saarlandes (hem, onco), CIC 785, M Pfreundschuh, J Schubert (64 (81) 22/42)
- Idar-Oberstein, Klinik für Hämato-/Onkologie, CIC 592, AA Fauser, L Kraut (21 (24) 17/4)
- Jena, Klinik der FSU (hem, onco), Innere Medizin II, CIC 533, K Hoeffken, HG Sayer (49 (58) 25/24)
- Jena, Klinikum der FSU (hem, onco), Universitäts-Kinderklinik, CIC 750, F Zintl, D Fuchs (16 (19) 11/5)
- Kaiserslautern, Westpfalz-Klinikum (hem), CIC 357, H Link, F-G Hagmann (5 (5) 0/5)
- Karlsruhe, Städtisches Klinikum (hem, onco), CIC 290, M Bentz, S Wilhelm (21 (29) 0/21)
- Kassel, Städtische Kliniken (hem, onco), M Wolf, E Steinhauer (8 (10) 0/8)
- Kiel, Christian-Albrechts-Universität (hem, onco), CIC 256, M Gramatzki, R Repp (97 (117) 39/58)
- Köln, Universitäts-Klinik (ads, peds), CIC 534, M Hallek, V Diehl, Ch. Scheid, F Berthold, T Simon (103 (112) 35/68)
- Krefeld, Klinikum Krefeld, Med Klinik III, T Frieling, S Helmer (9 (9) 0/9)
- Leipzig, Universitäts-Klinik (hem, onco), CIC 389, D Niederwieser, W Pönisch, R Krahel (144 (148) 89/55)
- Lemgo, Klinikum Lippe, HP Lohrmann, C Constantin (5 (5) 0/5)
- Lübeck, Med. Universität (ads), CIC 367:1, H Fehm, S Peters (32 (43) 0/32)
- Lübeck, Med. Universität (peds), CIC 367:2, P Bucky, P Temming (1 (1) 0/1)
- Lübeck, Städtisches KH Sud (hem, onco), Dr Heer-Sonderhoff, S Fetscher, A Heer-Sonderhoff (16 (19) 0/16)
- Magdeburg, Otto-von-Guericke Universität (hem, onco), CIC 359, A Franke, M Koenigsmann (35 (45) 0/35)
- Mainz, Johannes-Gutenberg-Universität (hem), Med. Klinik III, CIC 786, K Kolbe, D Wehler (83 (94) 35/48)
- Mannheim, III Med. Klinik, R Hehlmann, J Hastka, E Lengfelder (12 (18) 0/12)
- Marburg, Med. Universitätsklinik der Philipps Universität (hem, onco), CIC 645, A Neubauer, J Beyer (62 (86) 25/37)
- Minden / Westfalen, Med. Klinik (hem, onco), H Bodenstein, HJ Tischler (14 (22) 0/14)
- Mönchengladbach, KH Maria Hilf II, U Graeven, D Kohl (7 (8) 0/7)
- Munich, Klinikum Grosshadern der LMU (ads, hem, onco) CIC 513, H-J Kolb, W Hiddemann (118 (129) 82/36)
- Munich, Klinikum Innenstadt der LMU (peds, hem, onco), CIC 513, Professor Borkhard (23 (24) 20/3)
- Munich, SKH München-Harlaching (hem, onco), CIC 664, M Hentrich, R Hartenstein (17 (30) 0/17)

Munich, Städt Krankenhaus Schwabing (hem, onco, peds), CIC 189, S Burdach, A Wawer, M Nathrath (13 (15) 7/6)

Munich, Klinikum Innenstadt der LMU, M Reincke, C Straka (32 (57) 0/32)

Munich, SKH München-Schwabing (hem, onco), Ch Nerl, C Waterhaus, N Fischer (23 (28) 0/23)

Munich, Klinikum rechts der Isar (hem, onco), CIC 558, C Peschel, Cv Schilling (49 (65) 11/38)

Münster, Westfälische Wilhelms-Universitäts Kinderklinik (hem, onco), CIC 505, H Jürgens, J Vormoor (23 (28) 10/13)

Münster, Westfälische Wilhelms-Universitäts Klinik (hem, onco), Innere Med. CIC 680, W Berdel, J Kienast (112 (132) 45/67)

Neuss, Lukaskrankenhaus (hem, onco), P Czygan, J Streuss (0 (0) 0/0)

Nürnberg, Städt Klinikum (hem, onco), CIC 625, M Wilhelm, H Wandt, K Schäfer (78 (95) 33/45)

Oldenburg, Klinikum Oldenburg (hem, onco), CIC 749, B Metzner, C Köhne (49 (77) 0/49)

Osnabrück, Klinik Osnabrück (hem, onco), CIC 101, R Peceny, HJ Hartlapp (5 (7) 0/5)

Potsdam, Klinikum Ernst von Bergmann (hem, onco), CIC 106, G Maschmeyer, R Pasold, A Haas (16 (20) 0/16)

Regensburg, Universitäts Klinikum (hem, onco), CIC 787, E Holler, A Reichle (105 (142) 46/59)

Rostock, Universitäts Klinikum (hem, onco), CIC 585, M Freund, J Casper (77 (98) 33/44)

Rotenburg-Wümme, Diakonie Klinikum, Dr Meinhardt (10 (10) 0/10)

Siegen, St Marien Krankenhaus (hem, onco), CIC 135, W Gassmann, T Gaska (19 (29) 0/19)

Stuttgart, Robert-Bosch-Krankenhaus (hem, onco), CIC 145, W Aulitzky, S Martin (45 (53) 12/33)

Stuttgart, Olghospital (hem, onco), Pädiatrisches Zentrum, CIC 701, J Treuner, E Koscielniak (1 (1) 0/1)

Stuttgart, Bürgerhospital and Katharinenhospital (onco), H Mergenthaler, W Grimminger, J Schleicher (23 (33) 0/23)

Stuttgart, Diakonissen Krankenhaus, E Heidemann, M Bichler (11 (12) 0/11)

Tübingen, Medizinische Universitäts-Klinik (hem, onco), CIC 223, L Kanz, H Einsele, C Faul (127 (169) 61/66)

Tübingen, Medizinische Universitäts-Klinik (hem, onco), Abteilung Pädiatrie, CIC 535, R Handgretinger, D Niethammer, J Greil (28 (34) 20/8)

Ulm, Medizinische Universitäts-Klinik (hem, onco), CIC 204, HDöhner, D Bunjes (106 (129) 55/51)

Ulm, Kinderklinik der Universität, CIC 204, K Debatin, W Friedrich, A Schultz (28 (34) 27/1)

Villingen, Klinikum Villingen- Schwenningen, W Brugger, F Köhles, W Willenbacher (11 (11) 0/11)

Wiesbaden, Deutsche Klinik für Diagnostik, CIC 311, R Schwerdtfeger, M Schleuning, H Baurmann (85 (96) 77/8)

Wiesbaden, Dr Horst-Schmidt Klinikum (hem, onco), CIC 586, N Frickhofen, B Jung (6 (12) 0/6)

Wuppertal, HELIOS Klinikum Wuppertal (hem, onco), A Raghavachar (1 (1) 0/1)

Würzburg, Universitätsklinikum Würzburg (hem, onco, ads), CIC 712, K Wilms, F Weissinger, P Reimer (112 (120) 32/80)

Würzburg, Universitätsklinikum Würzburg (peds), CIC 196, P Schlegel (12 (16) 6/6)

**Greece:** (12 teams: 261 (293) 102/159)

Alexandroupolis, Thrace University Medical School (Haem), CIC 681, G Bourikas, D Pantelidou (2 (2) 0/2)

Athens, Laikon General Hospital, CIC 328, Y Rombos, D Boutsis, V Kalotychou (29 (34) 0/29)

Athens, Medical Center (hem), CIC 603, A Pigadito (4 (4) 0/4)

Athens, University of Athens, CIC 604, I Dervenoulas (10 (10) 1/9)

Athens, Evangelismos Hospital (hem), CIC 622, D Karakassis, N Harhalakis, E Nikiforakis (61 (73) 35/26)

Athens, General Hospital G Gennimatas (hem), CIC 638, A Zomas (no report)

Athens, Diagnosis & Therapy Centre 'Hygeia' (hem), Maroussi, CIC 643, G Karianakis (20 (20) 0/20)

Athens, Hellenic Cancer Institute St Savas (onco), CIC 751, A Efremedis, G Koumakis, M Stamatellou, K Papanastassiou, I Fillis (23 (32) 4/19)

Athens, 'Aghia Sophia' Children's Hospital, CIC 752, S Graphakos, G Vessalas (27 (27) 18/9)

Crete, University Hospital of Heraklion (peds, hem-onco), CIC 352, M Kalmanti (0 (0) 0/0)

Patras, University Medical School (hem), CIC 281, NC Zoumbos, A Spyridonidis, A Symeonidis, M Tiniakou (16 (21) 2/14)

Thessaloniki, The George Papanicolaou General Hospital (hem), CIC 561, AS Fassas (69 (70) 42/27)

**Hungary:** (5 teams: 253 (258) 47/206)

Budapest, National Medical Centre (hem ads), CIC 556, T Masszi, P Reményi (99 (101) 23/76)

Budapest, Szent Laszlo Hospital (peds), CIC 824, G Kriván, E Torbágyi, L Lengyel (74 (77) 24/50)

Debrecen, University of Debrecen, CIC 648, A Kiss (32 (32) 0/32)

Miskolc, Postgraduate Medical School (peds), CIC 599, N Kalman, G Marton (no report)

Pécs, University of Pécs, Internal Medicine, CIC 682, H Losonczy, M Dávid, Á Szomor (48 (48) 0/48)

**Iceland:** (1 team: 12 (12) 0/12)

Reykjavik, National University Hospital (hem), CIC 605, S Reykdal (12 (12) 0/12)

**Iran:** (2 teams: 307 (310) 224/83)

Shiraz, Nemazee Hospital (hem, onco), CIC 188, M Ramzi (33 (33) 27/6)

Teheran, Shariati Hospital (hem, onco), CIC 633, A Ghavamzadeh (274 (277) 197/77)

**Ireland:** (5 teams: 128 (138) 53/75)

Cork, University Hospital, M Cahill (11 (11) 0/11)

Dublin, St James's Hospital (hem), CIC 257, SR McCann (88 (95) 44/44)

Dublin, St Vincent's Hospital (hem, onco), CIC 541, J Crown, K Murphy (10 (12) 0/10)

Dublin, Our Lady's Hospital of Sick Children, Crumlin, CIC 774, A O'Meara (15 (15) 9/6)

Galway, University College Hospital, M Murray (4 (5) 0/4)

**Israel:** (7 teams: 521 (566) 268/253)

Haifa, Rambam Medical Center (hem, ads, peds), CIC 345, J Rowe (115 (120) 30/85)

Jerusalem, Hadassah University Hospital (ads, peds), CIC 258, R Or, S Slavin: (128 (142) 94/34)

Petach-Tikva, Children's Medical Center, CIC 755, J Stein (38 (43) 22/16)

Rehovot, Kaplan Hospital (hem), CIC 327, A Berrihi (12 (12) 0/12)

Tel Aviv, Sourasky Medical Center, CIC 161, E Naparstek (23 (27) 12/1)

Tel Hashomer, Chaim Sheba Medical Center (hem, onco, ads) CIC 754, A Nagler, A Shimoni (184 (199) 93/91)

Tel Hashomer, Chaim Sheba Medical Center (hem, onco, peds) CIC 572, A Toren, H Golan, B Bielora (21 (23) 17/4)

**Italy:** (99 teams: 3636 (4430) 1152/2484)

Alessandria, SS Antonio e Biagio e C Arrigo (hem), CIC 825, A Levis, A Allione, M Pini, F Salvi (30 (38) 10/20)

Ancona, Nuovo Ospedale Torrette (hem), CIC 788, A Olivieri, P Leoni (48 (60) 12/36)

Ascoli Piceno, Mazzoni Hospital, CIC 119, P Galieni (26 (30) 3/23)

Avellino, AOS Giovanni Di Guglieimo (hem), CIC 789, N Cantore, G Storti (no report)

Avezzano, Ospedale Civile di Avezzano, F Recchia (4 (4) 0/4)

Aviano, CRO Aviano (onco), CIC 162, M Michieli, M Rupolo, M Mazzucato, F Lollo (39 (45) 0/39)

Bari, Università degli Studi di Bari (hem), CIC 649, V Pavone, V Liso (21 (22) 8/13)

Bergamo, Ospedale Riuniti, CIC 658, A Rambaldi (90 (110) 29/61)

- Bologna, St Orsola-Malpighi (hem, onco), CIC 240, G Bandini, F Bonifazi, M Baccarani (148 (189) 43/105)
- Bologna, St Orsola-Malpighi, Oncologia Medica, CIC 657, A Martoni, C Zamagni (5 (5) 0/5)
- Bologna, Poli S Orsola, Clinica pediatrica III, CIC 790, A Pession (20 (25) 12/8)
- Bolzano, Ospedale S Maurizio (hem), CIC 299, M Casini, P Fabris, P Coser (53 (86) 17/36)
- Brescia, Ospedali Civili, CIC 288, G Rossi, C Almici (75 (103) 0/75)
- Brescia, Università degli Studi di Brescia (peds), CIC 741, F Porta, A Ugazio (14 (19) 13/1)
- Brindisi, Ospedaliera 'A Di Summa', Perrino Hospital (hem), CIC 920, G Quarta, S Pinna (10 (10) 0/10)
- Cagliari, Ospedale A Businco (hem), CIC 791, P Dessalvi (38 (52) 10/28)
- Cagliari, BMT Center CIC 811, G La Nasa (22 (28) 9/13)
- Cagliari, Ospedale per le Microcitemie (peds), CIC 812, F Argioli, A Cao (8 (9) 8/0)
- Catania, Ospedale Ferrarotto (hem), CIC 792, R Giustolisi, G Milone (49 (52) 18/51)
- Cremona, Ospedale Maggiore (hem), Medicina II, CIC 226, S Morandi, P Spedini, M Tajana, C Fiamenghi (9 (14) 0/9)
- Cuneo, Hospital S Croce E Carle (hem), CIC 606, A Gallamini, N Mordini (30 (36) 12/18)
- Ferrara, St Anna Hospital (hem), CIC 330, G Castoldi, F Lanza, S Moretti, GM Rigolin, A Cuneo (16 (22) 0/16)
- Firenze, Ospedale di Careggi (hem), CIC 304, A Bosi, S Guidi (81 (91) 29/52)
- Firenze, Azienda Ospedale 'A.Meyer', CIC 600, L Faulkner (18 (18) 7/11)
- Firenze, San Giuseppe Hospital (onco), CIC 841, P Bernardeschi (no report)
- Forlì, Morgagni-Pierantoni Hospital (onco), CIC 298, GL Frassinetti, D Amadori (no report)
- Genova, Università, CIC 139, F Patrone, A Ballestrero (30 (36) 0/30)
- Genova, Ospedale S Martino (hem), CIC 217, A Bacigalupo, (85 (94) 80/5)
- Genova, Istituto Giannina Gaslini (hem, onco), CIC 274, G Dini (40 (48) 19/21)
- Genova, Ospedaliera Universitaria San Martino (hem), CIC 987, A Carella (33 (37) 3/30)
- Latina, Ospedale S Maria Goretti, CIC 379, A De Blasio, E Zappone (17 (20) 0/17)
- Messina, Policlinico Universitario (onco), CIC 669, V Pitini (5 (12) 0/5)
- Milano, Ospedale di Niguarda (onco ST), CIC 184, S Siena, P Pedrazzoli, R Schiavo (46 (59) 7/39)
- Milano, Ospedale Maggiore di Milano, CIC 265, G Lambertenghi Delilieri (30 (43) 11/19)
- Milano, Ospedale Fatebenefratelli e Oftalmico (onco), CIC 269, A Scanni, C Bianchi, D Pedretti (2 (2) 0/2)
- Milano, Ospedale di Niguarda (hem), CIC 294, P Marengo, R Cairoli, G Grillo (72 (78) 21/51)
- Milano, Istituto Europeo di Oncologia, CIC 331, G Martinelli (57 (72) 6/51)
- Milano, 1st Clinico Humanitas (hem-onco), CIC 354, L Castagna, A Santoro (63 (87) 9/54)
- Milano, Istituto Nazionale Tumori (ads, onco, peds), CIC 616, P Corradini, A Gianni, R Luksch (139 (163) 37/102)
- Milano, S Carlo Borromeo Hospital (onco), CIC 683, L Tedeschi (1 (1) 0/1)
- Milano, Istituto Scientifico HS Raffaele, CIC 813, F Ciceri, M Bregni (79 (128) 36/43)
- Modena, University of Modena (hem, onco), CIC 543, F Narni, A Donelli, R Sabbatini (49 (61) 12/37)
- Monza, Ospedale S Gerardo (peds), CIC 279, C Uderzo (16 (16) 14/2)
- Monza, Ospedale S Gerardo de' Tintori, CIC 544, P Pioltelli, E Pogliani (51 (59) 18/33)
- Napoli, Div. Di Oncologia, CIC 313, C Battista, G Pacilio, B Chiurazzi, G Iodice (no report)
- Napoli, Hospital 'Pausilipon' (hem peds), V Poggi, M Ripaldi (18 (19) 5/13)
- Napoli, Cardarelli Hospital (hem), CIC 607, F Ferrara (54 (60) 0/54)
- Napoli, Cardarelli Hospital (hem), CIC 837, V Mettievier (20 (22) 0/20)
- Napoli, Università Federico II (hem), CIC 766, B Rotoli, C Selleri, G De Rosa (41 (46) 14/27)
- Napoli, National Cancer Institute (hem, onco), CIC 839, A Pinto, G Marcacci (20 (24) 0/20)
- Noale, Civic Hospital (onco), CIC 563, O Vinante, G Azzarello (11 (11) 8/3)
- Nuoro, Ospedale San Francesco (hem), CIC 793, A Gabbas, A Palmas (no report)
- Orbassano, Ospedale San Luigi Orbassano, CIC 378, G Saglio, A Guerrasio (22 (30) 4/18)
- Padova, Centro Leucemie Infantili, CIC 285, C Messina, S Cesaro, L Zanesco, S Varotto (31 (39) 15/16)
- Padova, Centro Oncologia Regionale, CIC 319, S Aversa, S Monfardini (7 (8) 0/7)
- Palermo, Ospedale die Bambini (peds.hem,onc), CIC 109, D Caselli (7 (11) 1/6)
- Palermo, Ospedale V Cervello (hem), CIC 392, R Scimè, A Cavallaro (50 (59) 17/33)
- Palermo, Ospedale 'La Maddalena' (hem, onco), CIC 692, M Musso, F Porretto, A Crescinanno (65 (70) 18/47)
- Palermo, Div. di Ematologia con Trapianto di Midullo, Uni degli studi di Palermo (hem), CIC 814, E Iannitto (8 (9) 0/8)
- Parma, Cattedra di Ematologia, Univ. of Parma, CIC 245, V Rizzoli, M Mangoni (13 (19) 0/13)
- Parma, Ospedaliera Di Parma, CIC 364, V Franciosi, S Cascinu (0 (0) 0/0)
- Pavia, Policlinico S Matteo (hem), CIC 286, EP Alessandrino (72 (74) 29/43)
- Pavia, Policlinico St Matteo (hem, onco, peds), CIC 557, F Locatelli (87 (107) 76/11)
- Pavia, Policlinico St Matteo (onco), CIC 562, M Danova (7 (10) 0/7)
- Pavia, Fondazione S Maugeri (onco), CIC 771, A Zambelli, G Robustelli della Cuna (16 (20) 2/14)
- Perugia, Policlinico Montelucre (onco), CIC 573, AM Liberati, FGrignani (13 (16) 0/13)
- Perugia, Policlinico Montelucre (hem), Università, CIC 794, MF Martelli, F Aversa, A Tabilio (122 (123) 40/82)
- Pesaro, Ospedale San Salvatore, CIC 529, G Visani, G Lucarelli (26 (32) 14/12)
- Pescara, Ospedale Civile (hem), CIC 248, P di Bartolomeo (38 (42) 25/13)
- Piacenza, Ospedale Civile (hem, onco), CIC 163, L Cavanna (18 (19) 5/13)
- Pisa, University of Pisa (peds, hem, onco), CIC 795, C Favre (24 (25) 16/8)
- Pisa, University of Pisa (ads, hem, onco), CIC 132, M Petrini, F Papineschi (44 (61) 14/30)
- Ravenna, Ospedale Civile (hem, onco), CIC 306, G Rosti (36 (47) 0/36)
- Reggio di Calabria, Azienda Ospedale 'Riuniti e Morelli', CIC 587, P Iacopino, G Console (81 (99) 26/55)
- Reggio Emilia, Arcispedale S Maria Nuova (hem), CIC 660, L Gugliotta (18 (23) 3/15)
- Rimini, Ospedale Infermi Rimini (hem.onco), P Fattori (25 (33) 0/25)
- Rionero in Vulture, Ospedale Oncologico Regionale, CIC 185, P Musto, N Di Renzo (14 (18) 0/14)
- Roma, Regina Elena Cancer Institute (hem, onco), CIC108, M Petti (22 (28) 0/22)
- Roma, Università 'La Sapienza' (hem), Faculty I, CIC 232, R Foa, G Meloni (105 (127) 29/76)
- Roma, Ospedale S Camillo (hem), CIC 287, I Majolino, A Locasciulli (42 (47) 18/24)
- Roma, Università Cattolica (hem), CIC 307, S Cuore, S Sica, G Leone (39 (44) 14/25)
- Roma, Università S Eugenio (hem) CIC 756 and Ospedale Bambino Gesù (hem), W Arcese, S Amadori, P Fabritiis, G De Rossi (92 (100) 47/45)
- Roma, Ospedale Bambino Gesù (onco), CIC 796, A Donfrancesco, A Jenkner, A Castellano, L De Sio, R Cozza, P Fidani, C De Laurentis (8 (8) 0/8)
- Roma, Università 'La Sapienza' (hem), Faculty II, CIC 864, C Guglielmi (0 (0) 0/0)

San Giovanni Rotondo, Hospital Casa Sollievo Sofferenza (hem), CIC 526, N Cascavilla, M Corsetti, M Greco (64 (76) 19/45)  
 Sassari, Università Di Sassari (hem) CIC 870, M Longinotti (10 (11) 0/10)  
 Siena, Ospedale Sclavo (hem), CIC 321, F Lauria (40 (49) 15/25)  
 Taranto, Ospedale Nord (hem), CIC 332, P Mazza, G Palazzo, B Amurri (53 (57) 17/36)  
 Torino, Azienda Ospedaliera S Giovanni, CIC 231, M Falda, F Locatelli (79 (116) 34/63)  
 Torino, Ospedale Regina Margherita (peds), CIC 305, E Madon, F Fagioli, E Vassallo (34 (43) 18/16)  
 Torino, Ospedale Mauriziano Umberto 1, IRCC, CIC 377, M Aglietta, A Capaldi, F Carnevale (18 (24) 3/15)  
 Torino, Ospedale S Giovanni (hem), CIC 696, M Boccadoro, M Massaia, C Tarella, B Benedetto, D Caracciolo, A Pileri (77 (125) 20/57)  
 Tricase (Lecce), Hospital C Panico, CIC 652, V Pavone (15 (17) 2/13)  
 Trieste, Istituto per l'Infanzia, Clinical Pediatrica, CIC 525, M Andolina (13 (15) 5/8)  
 Udine, Policlinico Universitario (hem), CIC 705, R Fanin (88 (110) 36/52)  
 Venezia, Ospedale Civile Riuniti di Venezia (hem), CIC 502, T Chisesi, M Vespignani, M Chinello (15 (22) 3/12)  
 Verbania, UOA Oncologia Medica, Ospedale di Verbania, CIC 385, A Luraschi (4 (4) 0/4)  
 Verona, Policlinico di Borgo Roma (hem, onco), CIC 623 + CIC 514, G Perona, F Benedetti, G Cetto (68 (80) 15/53)  
 Vicenza, Ospedale S Bortolo (hem), CIC 797, R Raimondi, F Rodeghiero (55 (65) 12/43)

**Latvia:** (1 team: 3 (3) 0/3)

Riga, Clinic Linezers, CIC 583, S Lejiniece (3 (3) 0/3)

Liechtenstein: no report

**Lithuania:** (2 teams: 69 (74) 33/36)

Vilnius, University Hospital Santariskiu Klinikos (hem), CIC 644, A Slobinas, I Trociukas (57 (62) 25/32)

Vilnius, University Children's Hospital (hem, onco), CIC 508, J Rascon (12 (12) 8/4)

**Luxemburg:** no report

**Macedonia:** (1 team: 13 (13) 6/7)

Skopje, Medical Faculty (hem), CIC 381, B Georgievski (13 (13) 6/7)

**Malta:** no report

**Moldova:** no report

**Monaco:** no report

**Netherlands:** (13 teams: 879 (936) 356/523)

Amsterdam, Academic Medical Center (ads, peds), CIC 247, J van der Lelie, H van den Berg (peds) (51 (55) 18/33)

Amsterdam, Free University Hospital (hem), CIC 588, GJ Ossenkoppele (110 (120) 39/71)

Amsterdam, The Netherlands Cancer Institute, S Rodenhuis J Baars (28 (39) 0/28)

Enschede, The Medisch Spectrum Twente, CIC 360, Dr Schaafsma (19 (19) 0/19)

Groningen, University Hospital (hem), CIC 546, G van Imhoff, E Vellenga (56 (59) 16/40)

The Hague, Haga Hospital (Leyenburg), CIC 547, PW Wijermans (26 (28) 0/26)

Leiden, University Medical Centre (ads, peds), CIC 203, R Willemze, M Egeler (100 (108) 64/36)

Maastricht, University Hospital (hem, onco), CIC 565, HC Schouten, J Wagstaff (67 (68) 22/45)

Nieuwegein, St Antonius Hospital, CIC 200, D Biesma, G Veth, O de Weerdt (23 (23) 0/23)

Nijmegen, University Hospital (ads, peds, onco), CIC 237, A Schattenberg, L Beex, P Hoogerbrugge (129 (132) 66/63)

Rotterdam, Dr Daniel den Hoed Cancer Center, CIC 246, JJ Cornelissen (124 (132) 40/84)

Utrecht, University Hospital (hem, ads, peds), CIC 239, LF Verdonck, NM Wulffraat (132 (139) 91/41)

Zwolle, Isala Kliniecken / Sophia Ziekenhuis, CIC 548, M von Marwijk Kooy (14 (14) 0/14)

**Norway:** (5 teams: 181 (189) 42/139)

Bergen, Haukelands Sjukhus, CIC 197, P Ernst (17 (21) 0/17)

Oslo, Rikshospitalet, CIC 235, D Albrechtsen, L Brinch (61 (65) 35/26)

Oslo, The Norwegian Radium Hospital (onco), CIC 782, G Lauritzsen, S Kvaloy (50 (50) 7/43)

Oslo, Ullevals Sjukhus (haem), F Wisslöf, J-M Tangen (30 (30) 0/30)

Trondheim, St Olavs Hospital, J Hammerstrom, A Waage (23 (23) 0/23)

**Poland:** (17 teams: 767 (831) 311/456)

Bydgoszcz, Medical University (peds, hem, onco), CIC 764, M Wysocki, J Stycznski (19 (19) 4/15)

Gdansk, Medical University (hem), CIC 799, A Hellmann (62 (62) 30/32)

Katowice, Silesian Medical Academy (hem), CIC 677, J Holowiecki (143 (167) 79/64)

Krakow, Jagiellonian University (hem), CIC 553, A Skotnicki (45 (48) 14/31)

Krakow, Polish-American Children's Hospital, JUMC, CIC 507, M Ratajczak (12 (12) 3/9)

Lodz, Medical University of Lodz (hem), CIC 171, T Robak (24 (25) 0/24)

Lublin, Children's University Hospital (hem, onco), CIC 678, J Kowalczyk (18 (20) 11/7)

Lublin, University Medical School (hem, onco), CIC 695, A Dmoszynska, M Wach, A Walter-Croneck, W Legiec (36 (40) 3/33)

Poznan, Institute of Pediatrics, CIC 641, J Wachowiak (18 (19) 13/5)

Poznan, K Marcinkowski University (hem), CIC 730, M Komarnicki (53 (57) 15/38)

Warsaw, Inst. of Haematology and Blood Transfusion, CIC 693, B Marianska, L Konopka, B Nasilowska, K Halaburda, M Szczepinski (28 (30) 16/12)

Warsaw, Maria Skłodowska-Curie, Centre of Oncology, CIC 800, J Walewski (52 (54) 1/51)

Warsaw, Central Hospital Military Medical Academy (hem, onco), CIC 816, P Rzepecki, K Sulek, C Szczylik (37 (37) 9/28)

Warsaw, Central Clinical Hospital (hem, onco), CIC 954, W Wiktor-Jedrzejczak, A Deptala, M Rokicka (47 (63) 19/28)

Wroclaw, Lower Silesian Centre for Cellular Transplantation with National Bone Marrow Donor Registry, CIC 538, A Lange (68 (69) 34/34)

Wroclaw, Medical Academy (hem), CIC 699, K Kuliczowski (31 (31) 8/23)

Wroclaw, University of Medicine (peds, hem, onco), CIC 817, A Chybicka (74 (78) 52/22)

**Portugal:** (6 teams: 245 (290) 87/158)

Coimbra, University Hospital, CIC 164, N Costa (no report)

Lisbon, Instituto Portugues de Oncologia, CIC 300, M Abecasis, F Leal Costa (68 (80) 22/46)

Lisbon, Hospital de Santa Maria, CIC 636, J Alves do Carmo, F de Lacerda (32 (44) 19/13)

Lisbon, Hospital de St Antonio dos Capuchos, CIC 826, A Botelho de Sousa (36 (39) 0/36)

Porto, Instituto Portugues de Oncologia, CIC 291, P Pimentel, F Campilho (80 (87) 46/34)

Porto, Hospital S Joao (hem, onco), CIC 329 (merged with CIC 572, JE Guimaraes, F Principe (29 (40) 0/29))

**Romania:** (3 teams: 31 (31) 4/27)

Bucharest, Fundeni University Hospital (hem), CIC 296, AD Moicean, D Colita, C Arion (15 (15) 2/13)

Targu-Mures, Sectia Clinica de Hematologie, CIC 178, I Benedek (10 (10) 1/9)

Timisoara, University of Medicine (Ill peds Hem/Onco), CIC 174, M Serban (6 (6) 1/5)

**Russia:** (13 teams: 254 (271) 91/163)

Ekaterinburg, City Hospital No. 7, LB Filatov (no report)  
Ekaterinburg, Regional Hospital No. 1, TS Konstantinova, VA Shalaev (8 (8) 1/7)  
Moscow, Russian Children's Hospital (hem), CIC 694, A Maschan, E Skorobogato, E Pachanov (40 (48) 32/8)  
Moscow, Cancer Research Center, CIC 757, V Ptuschkina (46 (47) 1/45)  
Moscow, Institute of Biophysics, AE Baranov (9 (11) 0/9)  
Moscow, Cancer Research Center peds Hem/onco, G Mentrevich (28 (28) 16/12)  
Moscow, Research Hematology Center of RAS, VG Savtchenko (38 (41) 11/27)  
Novosibirsk, Institute of Clinical Immunology, CIC 376, I Lisukov (28 (28) 2/26)  
Samara, Regional Hospital, VA Rossiev (8 (8) 0/8)  
St Petersburg, Clinical Center for Advanced Medical Tech, CIC 370, E Podoltseva, V Soldatenkov, O Rysanyanskaya (no report)  
St Petersburg, Military Medical Academy (hem), CIC 520, A Novik (2 (2) 0/2)  
St Petersburg, Research Institute of Hematology, KM Abdulkadirov (2 (2) 0/2)  
St Petersburg, State Pavlov Medical University (hem), CIC 725, BV Afanassiev, L Zubarovskaya (45 (48) 28/17)  
San Marino: no report

**Saudi Arabia:** (3 teams: 232 (244) 169/63)

Riyadh, King Faisal Specialist Hospital and Research centre (onco, ads hem), CIC 397.1, M Al Jurf (116 (120) 68/48)  
Riyadh, King Faisal Specialist Hospital and Research centre (peds hem, onco), CIC 397.2, M Ayas (95 (101) 86/9)  
Riyadh, Riyadh Military Hospital, A Abdulaaly, CIC 818 (21 (23) 15/6)

**Serbia and Montenegro:** (4 teams: 49 (49) 11/38)

Belgrade, Mother and Child Health Institute, CIC 358, D Vujic (16 (16) 5/11)  
Belgrade, Clinical Centre of Serbia (hem), CIC 373, M Colovic, A Bogdanovic (3 (3) 0/3)  
Belgrade, Military Medical Academy (hem), CIC 582, L Ristic (26 (26) 6/20)  
Novi Sad, Institute of Internal Diseases, Clinical Centre of Novi Sad (hem), CIC 655, S Popovic (4 (4) 0/4)

**Slovakia:** (5 teams: 154 (163) 31/123)

Banska Bystrica, Roosevelt Hospital (hem), CIC 333, I Markuljak, E Kralikova (10 (15) 0/10)  
Bratislava, National Cancer Institute, CIC 560, J Lakota (93 (93) 7/86)  
Bratislava, University Hospital (hem), CIC 610, M Mistrik (33 (37) 17/16)  
Bratislava, University Hospital, 2nd Children's Clinic, CIC 684, S Sufiariska, J Horakova, I Bodova (18 (18) 7/11)  
Kosice, University Hospital LF UP JS (hem), CIC 984, E Tothova (no report)

**Slovenia:** (1 team: 47 (68) 11/36)

Ljubljana, University Medical Centre (hem), CIC 640, J Pretnar (47 (68) 11/36)

**Spain:** (69 teams: 1676 (1811) 509/1167)

Alicante, Hospital General, C Rivas-Gonzales (no report)  
Barcelona, Hospital Clinic (hem, onco), CIC 214, E Montserrat, E Carreras (66 (77) 25/41)  
Barcelona, Santa Creu i Sant Pau (adults), CIC 260, J Sierra, S Brunet (94 (103) 34/60)  
Barcelona, Santa Creu i Sant Pau (peds), CIC 260, I. Badell Serra, J Cubells-Riero (no report)  
Barcelona, Hospital Vall d'Hebron, Materno Infantil, CIC 527:1, J Sanchez de Toledo Codina (36 (36) 18/18)  
Barcelona, Hospital Vall d'Hebron, H General, CIC 527:2, A Julia Font, J Zuazu (29 (32) 11/18)  
Barcelona, Hospital Mutua de Terrasa (hem-onco), T Marti (7 (7) 0/7)

Barcelona, Hospital Universitario Germans Trias i Pujol, CIC 613, J Ribera (37 (38) 18/19)  
Barcelona, Hospital Sant Joan de Deu, CIC 668, J Estella Aguado (9 (13) 0/9)  
Barcelona, Hospital Duran i Reynals (Hem), Institut Catala d'Oncologia, CIC 759, R Duarte Palomino, C Ferra, J Berlanga, A Fernández (25 (26) 8/17)  
Caceres, Hospital San Pedro de Alcantara, M Luz Amigo Lozano (12 (13) 0/12)  
Cadiz, Hospital del SAS de Jerez (hem), CIC 612, A Leon (24 (28) 7/17)  
Cadiz, Hospital Universitario 'Puerta del Mar' (hem), CIC 679, J Gil (10 (11) 0/10)  
Canary Isles, Las Palmas, Hospital Insular (hem), CIC 335, J Gonzalez-San Miguel (9 (10) 0/9)  
Canary Isles, Las Palmas, Hospital Materno-Infantil (haem, onco), J Lodos Rojas, A Molinés (no report)  
Canary Isles, Las Palmas, Hospital Universitario de Gran Canaria 'Dr Negrin', CIC 537, T Molero, R Mataix, C Campo, S Jiménez (29 (31) 12/17)  
Canary Isles, Tenerife, Hospital Universitario de Canarias, L Hernandez Nieto, MT Hernandez Garcia (20 (20) 0/20)  
Canary Isles, Tenerife, University Hospital, J Garcia-Talavera, J Breña, P Rios Rull (10 (10) 0/10)  
Castellon de La Plana, Hospital General de Castellon (haem), R Garcia-Boyero (7 (7) 0/7)  
Cordoba, Hospital Reina Sofia (hem), CIC 238, A Torres Gomez (46 (52) 25/21)  
Cordoba, Hospital de la Cruz Roja de Cordoba (haem), J-M Garcia-Castellano (0 (0) 0/0)  
Cruces-Barakaldo, Hospital de Cruces (hem), CIC 393, I Zuazua-Verde, F Floristan (31 (35) 0/13)  
Galdakao, Hospital de Galdakao, Hem, CIC 975, J Ojanguren, K Atutxa (no report)  
Granada, Hospital Virgen de la Nieves (hem), CIC 559, JM de Pablos Gallego (30 (30) 20/10)  
Jaen, Hospital Ciudad de Jaen (haem), A Alcala (no report)  
La Coruna, Complejo Hospitalario Juan Canalejo, CIC 361, FJ Battle, C Ramirez, P Torres, R Rodriguez, R Varela (37 (43) 5/32)  
Lérida, Hospital Arnau de Villanova, J Macia (no report)  
Lugo, Hospital Xeral-Calde, M Gonzales-Lopez (14 (14) 0/14)  
Madrid, Hospital de la Princesa (hem), CIC 236, JM Fernández Rañada, A Figuera, A Alegre (56 (57) 35/21)  
Madrid, Hospital Doce de Octubre, CIC 382, JJ Lahuerta (hem), H Cortés Funes (onco), J Lopez Perez (peds) (60 (61) 13/47)  
Madrid, Hospital Ramon y Cajal (ads), CIC 615, J Odriozola, J Pérez de Oteyza, J Lopez, J Garcia Larana (35 (37) 6/29)  
Madrid, Hospital Ramon y Cajal (peds), CIC 615, A Munoz Villa (7 (7) 6/1)  
Madrid, Clinica Puerta de Hierro (hem), CIC 728, MN Fernandez (30 (32) 20/10)  
Madrid, Hospital Nino Jesus (peds, onco), CIC 732, MA Diaz (42 (47) 30/12)  
Madrid, Hospital Universitario San Carlos (hem), CIC 733, J Diaz Mediavilla, L Llorente, R Martinez (26 (26) 0/26)  
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 (43 (49) 19/24)  
Madrid, Unidad de TMO-ONC 4, Hospital Gregorio Marañon, CIC 819, JL Diez Martin (36 (38) 14/22)  
Madrid, Clinica Moncloa (hem), JM Fernandez-Ranada, A Escudero (12 (12) 0/12)  
Madrid, Clinica Ruber, JM Fernandez-Ranada, A Escudero (26 (26) 0/26)  
Madrid, Hospital Ruber Internacional (onco), P Aramburo (0 (0) 0/0)  
Madrid, Hospital Universitario de Getafe (hem), F Oña Compan, N Somolinos (10 (10) 0/10)  
Madrid, Fundacion Jimenez Diaz (hem, onco), CIC 309, JL Lopez-Lorenzo, F Lobo, M Callejas (12 (12) 1/11)  
Madrid, Hospital Militar Gomez Ulla, F Sancho-Cuesta, S Enrech-Frances (no report)  
Malaga, Hospital Regional (hem), CIC 576, M Gonzalez, M Pascual (28 (28) 10/18)



Murcia, Hospital Univ. 'Virgen de la Arrixaca', CIC 323, A Morales-Lazaro, MJ Majado-Martinez (10 (12) 0/10)

Murcia, Hospital Morales Meseguer, CIC 735, JM Moraleda Jimenez, V Vicente-Garcia, I Heras (40 (47) 13/27)

Orense, Hospital Cristal-Pinor (hem), J-L Sastre-Moral (no report)

Oviedo, Hospital Covadonga (hem), CIC 642, D Carrera Fernandez (30 (30) 5/25)

Palma de Mallorca, Hospital Son Dureta (hem), CIC 722, J Besalduch, M Canaro (32 (36) 2/30)

Palma de Mallorca, Policlínica Miramar, J Besalduch, A Sampol (3 (3) 0/3)

Palma de Mallorca, Hospital son Llatzer, CIC 110, J Bargay-Lleonart (8 (9) 0/8)

Pamplona, Hospital Provincial de Navarra (hem), CIC 577, M Orue, MJ Uriz (26 (26) 0/26)

Pamplona, Clínica Universitaria de Navarra, CIC 737, J Rifon (51 (65) 7/44)

Pontevedra, Hospital Montecelo (onco), CIC 549, M Constela (3 (3) 0/3)

Salamanca, Hospital Clinico (hem), CIC 727, D Caballero (72 (77) 23/49)

San Sebastian, Hospital Nostra Senora de Aranzazu, CIC 598, R Lasa, J Marin, D Martinez (29 (36) 8/21)

Santander, Hospital Universitario M de Valdecilla (hem), CIC 242, A Iriondo, E Conde (55 (63) 24/31)

Santiago de Compostela, Hospital Xeral de Galicia (hem), CIC 570, JL Bello (26 (26) 9/17)

Sevilla, Hospital Universitario Virgen del Rocío, CIC 769, I Espigadot (57 (58) 14/43)

Tarragona, Hospital de Tarragona Joan XXIII (hem), A Llorente Cabrera (20 (20) 0/20)

Valencia, Hospital Clinico Universitario (hem, onco), CIC 282, J Garcia-Conde, CSolano (47 (48) 17/30)

Valencia, Hospital Infantil La Fe (peds, onco), CIC 653, V Castel, A Verdeguer, J M Fernandez (15 (15) 6/9)

Valencia, Hospital Universitario La Fe (hem), CIC 663, MA Sanz, GF Sanz (84 (89) 38/46)

Valencia, Hospital Doctor Peset (hem), P Ribas Garcia (9 (9) 0/9)

Valencia, Instituto Valenciano de Oncología, I Picón (no report)

Valladolid, Hospital Rio Hortega, CIC 611, J Garcia Frade (13 (16) 0/13)

Vigo, Hospital Xeral-Cies, A Martinez-Dalmau (21 (25) 4/17)

Zaragoza, Clinico Universitario Lozano Blesa (hem, onco), CIC 531, L Palomera, M Gutierrez, A Tres, J Mayordomo (1 (1) 0/1)

Zaragoza, Hospital Miguel Servet (hem + onco) M Giralt, G Pérez-Lugmus, D Rubio-Félix, A Anton (19 (19) 2/17)

**Sweden:** (8 teams: 485 (537) 178/307)

Goteborg, CHECT (ads + peds), CIC 289, M Brune, A Fasth (82 (97) 29/53)

Linköping, University Hospital (hem), CIC 740, N Theorin (51 (60) 13/38)

Lund, University Hospital (hem), CIC 283, S Lenhoff (78 (89) 25/53)

Malmö, University Hospital, T Ahlgren (6 (8) 0/6)

Örebro, University Hospital (hem, onco), CIC 738, U Tidefelt (17 (19) 0/17)

Stockholm (Huddinge), Karolinska University Hospital (hem, onco), CIC 212, P Ljungman (127 (133) 57/70)

Umea, Norrland University Hospital, CIC 731, A Wahlin, V Lazarevic, J Lindh, B Markevärn (42 (46) 20/22)

Uppsala, University Hospital (ads + peds), CIC 266, G Oberg, I Hassan (82 (85) 34/48)

**Switzerland:** (9 teams: 354 (434) 117/237)

Aarau, Kantonsspital (hem, onco), CIC 316, M Wernli, M Bargetzi (22 (27) 0/22)

Basel, Kantonsspital (hem, onco), CIC 202, A Gratwohl, T Kühne, R Herrmann (73 (87) 52/21)

Bellinzona, Ospedale San Giovanni (hem, onco), CIC 829, F Cavalli, M Ghielmini L Leoncini (20 (25) 0/20)

Bern, Inselspital (ads, peds, hem, onco), CIC 221, K Leibundgut, C Zwicky, M Fey (39 (48) 0/39)

Geneva, Hôpital Cantonal Universitaire (hem, onco), CIC 261, J Passweg, Y Chalandon, P Wacker (19 (24) 19/0)

Lausanne, CHUV (hem, onco), CIC 820, M Schapira, T Kovacsics, S Leyvraz, N Ketterer (64 (80) 0/64)

St Gallen (hem, onco), Kantonsspital, CIC 324, U Hess (31 (40) 0/31)

Zurich, University Hospital (ads, hem, onco), CIC 208, U Schanz, C Renner (66 (81) 32/34)

Zurich, University Hospital (peds, hem, onco), CIC 334, R Seger (20 (22) 14/6)

**Tunisia:** (1 team: 96 (114) 46/50)

Tunis, Centre National de Greffe de Moelle Osseuse, CIC 183, B Othman-Tarck (96 (114) 46/50)

**Turkey:** (26 teams: 608 (631) 291/317)

Adana Yuregir, Baskent University Adana Research and Training (hem), CIC 589, H Ozdogu (5 (5) 2/3)

Ankara-Sihhiye, Hacettepe University (hem), CIC 168, H Goker, O Ozcebe, I Haznedaroglu, S Dundar (15 (16) 13/2)

Ankara-Besevler, Gazi University (hem), CIC 169, R Haznedar (31 (34) 18/13)

Ankara, Hacettepe University, Institute of Oncology, CIC 292, E Kansu, Y Koc, E Ozdemir (44 (46) 9/35)

Ankara-Etlik, GATA BMT Center, CIC 372, F Arpacı, A Özet, C Beyan, A Ural (49 (51) 9/40)

Ankara, Ihsan Dogramaci Childrens Hospital, CIC 399, ATuncer, D Uckan (17 (21) 17/0)

Ankara, University School of Medicine Ibni Sina Hospital (hem), CIC 617, G Gürman, M Arat (96 (99) 43/53)

Ankara, University of Ankara (peds), CIC 620, E Unal (16 (17) 15/1)

Ankara, Numune Education and Research Hospital, CIC 691, M Ayli (32 (32) 23/9)

Antalya, Akdeniz University Hospital (peds), CIC 618, MA Yesilipek, V Hazar, O Yegin (31 (31) 29/2)

Antalya, Akdeniz University Hospital (hem), CIC 685, L Undar (19 (21) 17/12)

Aydin, Adnan Menderes University Medical Faculty (hem), CIC 187, Z Bolaman (5 (5) 0/5)

Balcali (Adana), Cukurova University Hospital (ads, onco), CIC 821:2, B Sahin (0 (0) 0/0)

Balcali (Adana), Cukurova University Hospital (peds, onco), CIC 821:1, A Tanyeli (0 (0) 0/0)

Bornova-Izmir, Ege University Medical Faculty (peds), CIC 621, S Kansoy (13 (15) 10/3)

Bornova-Izmir, Ege University Medical Faculty (ads, hem), CIC 628, S Cagiran (77 (77) 18/59)

Eskisehir, Osmangazi University, CIC 686, Z Güblas (21 (21) 10/11)

Istanbul, Marmara University (hem), Altunizade, CIC 714, T Akoglu (11 (11) 1/10)

Istanbul, University of Istanbul, CIC 760, S Kalayoglu-Besik (24 (24) 10/14)

Istanbul, Cerrahpasa Medical School, CIC 761, B Ferhanoglu, T Soysal, Z Baslar (33 (34) 16/17)

Istanbul, Tip Fakultesi (peds, hem, onco), CIC 762, G Gedikoglu (no report)

Istanbul, GATA Haydarpasa Egitim Hast (hem, onco), CIC 687, A Öztürk (no report)

Istanbul, Yeditepe University Hospital (hem, onco), CIC 919, Y Koc (7 (7) 2/5)

Izmir, Dokuz Eylul University (onco), CIC 688, H Ozsan, U Yilmaz (11 (11) 7/4)

Kayseri, Erciyes University Hospital (hem, onco), CIC 627, A Unal, M Cetin (40 (42) 30/10)

Trabzon, Karadeniz Technical University (hem), CIC 170, E Ovali (11 (11) 2/9)

**Ukraine:** (2 teams: 25 (30) 1/24)

Kiev, Kiev City BMT Center, CIC 176, E Karamanescht, V Khomenko, I Korenkova, S Borodkin (25 (30) 1/24)

Kiev, Kiev Regional Oncologic Hospital (peds, hem, onco), CIC 177, S Donska, O Ryzhak (no report)

**United Kingdom:** (51 teams: 2475 (2628) 931/1544)

Aberdeen, The Royal Infirmary (hem), CIC 344, DJ Culligan (11 (11) 2/9)

- Bangor, Gwynedd Hospital (hem, onco), CIC 736, D Edwards (9 (10) 0/9)
- Bath, Royal United Hospital (hem), CIC 619, C Knechtli (12 (12) 0/12)
- Belfast, Belfast City Hospital (hem), CIC 268, F Jones, TCM Morris, P Abram (44 (44) 8(36))
- Birmingham, Heartlands Hospital (hem), CIC 284, DW Milligan (42 (45) 15/27)
- Birmingham, Queen Elizabeth Hospital (hem), CIC 387, C Craddock, P Mahendra (126 (129) 49/77)
- Birmingham, The Birmingham Childrens Hospital (hem), CIC 781, PJ Darbyshire (44 (46) 29/15)
- Bournemouth, Royal Bournemouth Hospital (hem), Poole Hospital, Dorset Cancer Centre and Salisbury District Hospital, CIC 765, S Killick, J Cullis (29 (29) 0/29)
- Bristol, Royal Hospital for Children (allo, ads, peds), CIC 386:1, JM Cornish, D Marks (109 (115) 70/39)
- Bristol, Avon Haematology Unit (auto), CIC 386:2, R Evelyn, J Bird (29 (30) 0/29)
- Cambridge, Addenbrooke's Hospital (hem), CIC 566, C Crawley, RE Marcus, J Craig, H Balsdon, T Chapman (70 (71) 17/53)
- Cardiff, University Hospital of Wales (hem), CIC 303, KMO Wilson, AK Burnett, JA Whittaker, CH Poynton (63 (64) 31/32)
- Cheltenham, Cheltenham General Hospital, E Blundell (14 (15) 0/14)
- Coventry, University Hospital & Warwickshire NHS Trust, J Mills (21 (21) 0/21)
- Dundee, Ninewells Hospital (hem), CIC 719, D Meiklejohn (3 (3) 0/3)
- Edinburgh, Western General Hospital, (hem) CIC 228, JMDavies, PRE Johnson, F Scott, PH Roddie, P Shepherd (38 (38) 13/25)
- Exeter, Royal Devon and Exeter Hospital (hem), CIC 571, C Rudin (27 (28) 1/26)
- Glasgow, Royal Infirmary, CIC 244, IG McQuaker, A Parker (78 (79) 43/35)
- Glasgow, The Western Infirmary (hem), CIC 325, T Fitzsimons (23 (23) 0/23)
- Glasgow, Royal Hospital for Sick Children (hem), CIC 707, B Gibson (16 (17) 11/5)
- Leeds, St James's University Hospital, The General Infirmary, Pinderfields Hospital CIC 254, G Cook, S Kinsey, M C Galvin (111 (112) 31/80)
- Leicester, Royal Infirmary (hem), CIC 713, AE Hunter (52 (57) 21/31)
- Liverpool, Royal Liverpool University Hospital (hem), CIC 501, RE Clark, A Pettitt (55 (56) 15/40)
- Liverpool, Alder Hay, CIC 773, M Caswell (13 (13) 8/5)
- London, Hammersmith Hospitals NHS Trust, CIC 205, J Apperley, E Olavarria, E Kanfer, A Rahemtulla, R Szydlo (94 (119) 42/52)
- London, Royal Free Hospital (hem), CIC 216, S Mackinnon (105 (108) 43/62)
- London, Royal Marsden Hospital (hem), CIC 218, M Potter (157 (165) 62/95)
- London, University College Hospital (onco), CIC 224, J Whelan (12 (12) 0/12)
- London, University College Hospital (hem), CIC 224, K Thomson (104 (106) 41/63)
- London, Great Ormond Street Hospital, CIC 243, P Veys (61 (69) 52/9)
- London, The London Clinic (hem), CIC 263 M Potter, P, Gravett (5 (10) 3/2)
- London, St George's Hospital (hem), CIC 539, J Marsh, S Ball, EC Gordon-Smith (26 (30) 17/9)
- London, Guy's Hospital (hem), CIC 721, M Kazmi (25 (29) 4/21)
- London, King's College (hem), CIC 763, GJ Mufti, A Pagliuca (116 (118) 62/54)
- London, St Bartholomew's, CIC 768 and the Royal London Hospital, J Gribben, J Cavenagh, S Agrawal, T Lister (76 (85) 26/50)
- Manchester, Royal Children's Hospital, CIC 521, R Wynn (26 (29) 20/6)
- Manchester, The Royal Infirmary, CIC 601, JA Yin (57 (58) 37/20)
- Manchester, Christie Hospital (hem), CIC 780, E Liakopoulou (67 (83) 16/51)
- Manchester, Trafford General Hospital, PA Carrington (2 (2) 0/2)
- 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 (90 (106) 39/51)
- Norwich, Norfolk and Norwich Hospital (hem), CIC 391, J Parker, G Turner (15 (17) 0/15)
- Nottingham, City Hospital, CIC 717, N Russell, JL Byrne, AP Haynes, A McMillan (122 (131) 38/84)
- Oxford, John Radcliffe Hospital (hem, onco), Headington and Wycombe General, CIC 255, TJ Littlewood, C Bunch, C Mitchell, CHatton, G Hall, J Wainscoat (58 (58) 22/36)
- Plymouth, Derriford Hospital, CIC 823, MD Hamon (31 (31) 9/22)
- Salford, Hope Hospital, PA Carrington (10 (10) 0/10)
- Sheffield, Royal Hallamshire Hospital – J Snowdon, Weston Park Hospital – L Evans, Rotherham General Hospital – H Barker and the Children's Hospital – A Vora, CIC 778: 1/2/3 (78 (79) 24/54)
- Somerset, Taunton and Somerset Hospital S Bolam, SA Johnson (10 (11) 0/10)
- Southampton, CRC Wessex, CIC 704, K Orchard, A Duncombe, J Kohler (64 (69) 18/46)
- Stoke-on-Trent, University Hospital of North Staffordshire (hem), CIC 394, R Chasty (12 (12) 0/12)
- Swansea, Singleton Hospital, Skett, S Al Ismail (8 (8) 0/8)
- Swindon, Great Western Hospital (Hem), CIC 608, NE Blesing, A Gray, S Green, A Koster (5 (5) 0/5)
- Total Europe 2005: 24168 (27941) 8890/15278  
October 2006