

Activity Survey 2021: Observations in the second year of the SARS-CoV-2 Pandemic

Patient and Transplant Numbers

Teams: 694	Participating countries: 52												
	Allogeneic	Autologous	Total										
No. patients with 1st HCT	18 589	24 520	43 109										
Re/Additional transplants	1 217	3 086	4 303										
Total HCT	19 806	27 606	47 412										
Myeloablative HCT	59%												
Main Indication 1 st HCT													
Myeloid malignancies	10 745	227	10 972										
Lymphoid malignancies	5 127	22 129	27 256										
Solid tumours	52	1 635	1 687										
Bone marrow failure	986	2	988										
Other non-malignant disorders	1 515	501	2 016										
Other	164	26	190										
Myeloid malignancies													
AML 1 st . CR	4266	183	4 449										
not 1 st . CR	1 775	26	1 801										
tAML/MDS related changes	1 082	3	1 085										
CML 1 st . cP	200	3	203										
not 1 st . cP	198	1	199										
MDS or MDS/MPN, MPN	3224	11	3 235										
Lymphoid malignancies													
ALL 1 st . CR	1 991	53	2 044										
not 1 st . CR	1 153	3	1 156										
CLL	189	55	244										
Plasma cell disorders	269	13 375	13 644										
Hodgkin lymphoma	410	2 295	2 705										
Non-Hodgkin lymphoma	1 115	6 348	7 463										
Solid tumours													
Neuroblastoma	26	543	569										
Soft tissue sarcoma/Ewing	8	255	263										
Germ cell tumour	2	436	438										
Other solid tumour	16	401	417										
Non malignant disorders													
Bone marrow failure - SAA	720	1	721										
Bone marrow failure - other	266	1	267										
Thalassemia	289	16	305										
Sickle cell disease	324	5	329										
Primary immune deficiency	673	8	681										
Inherited disorder of metabolism	209	4	213										
Auto immune disease	20	468	486										
Others	164	26	190										
Paediatric patients													
Family			Unrelated			Autologous							
HLA-id/twin			Haplo-id			Other relative							
BM	PB	CB	BM	PB	CB	BM	PB	CB	BM	PB	CB		
912	410	30	304	559	61	55	0	701	840	156	34	1 375	0
2 331						1 697			1 409				

Patients with un-manipulated DLI: N= 3 245.												
Graft enhancement/failure: 848; residual disease: 540; relapse: 1 377; per protocol: 480.												

Non HCT Cellular therapies using manipulated or selected cell in 2021: CAR-T therapies:

- Total CAR-T reported since 2018: 5 834
- No. in 2021: 2 524: Lymphoma: 1 851; ALL: 379, others: 294.
- Data reported from 197 centres in 24 countries.
- Notable increase of 123% since 2019 despite SAR-CoV2 pandemic.
- Other CT in 2021: 970 (MSC: 349, selected T cells: 224, other: 361)

Main trends seen in the numbers of HCT reported in 2021.

- Number of HCT started to increase again despite the ongoing SARS-CoV-2 pandemic.
- Allogeneic HCT: +5.4% (-5.1% in 2020), autologous HCT: +3.9% (-7.5% in 2020).
- Increase seen in the majority of indications for both allogeneic and autologous HCT.
- Increase in unrelated donor use (+9%) and sibling donor (+4%). The increase seen in use of haploidentical donors in 2020 (+6%) decreased again in 2021 by -1%.
- The shift in allogeneic HCT from marrow towards peripheral blood observed in 2020 (-16% for sibling donors, -37% for unrelated donors and -13% for haploidentical donors) was no longer observed in 2021, where each increased by +4.5%, +18.9% and +0.6% respectively.
- The decrease of -11% in myeloablative conditioning HCT seen in 2020 has now increased by +8.3% to similar numbers reported in earlier years.
- Autologous HCT: re-starting activity in autoimmune diseases was observed (+57%)

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

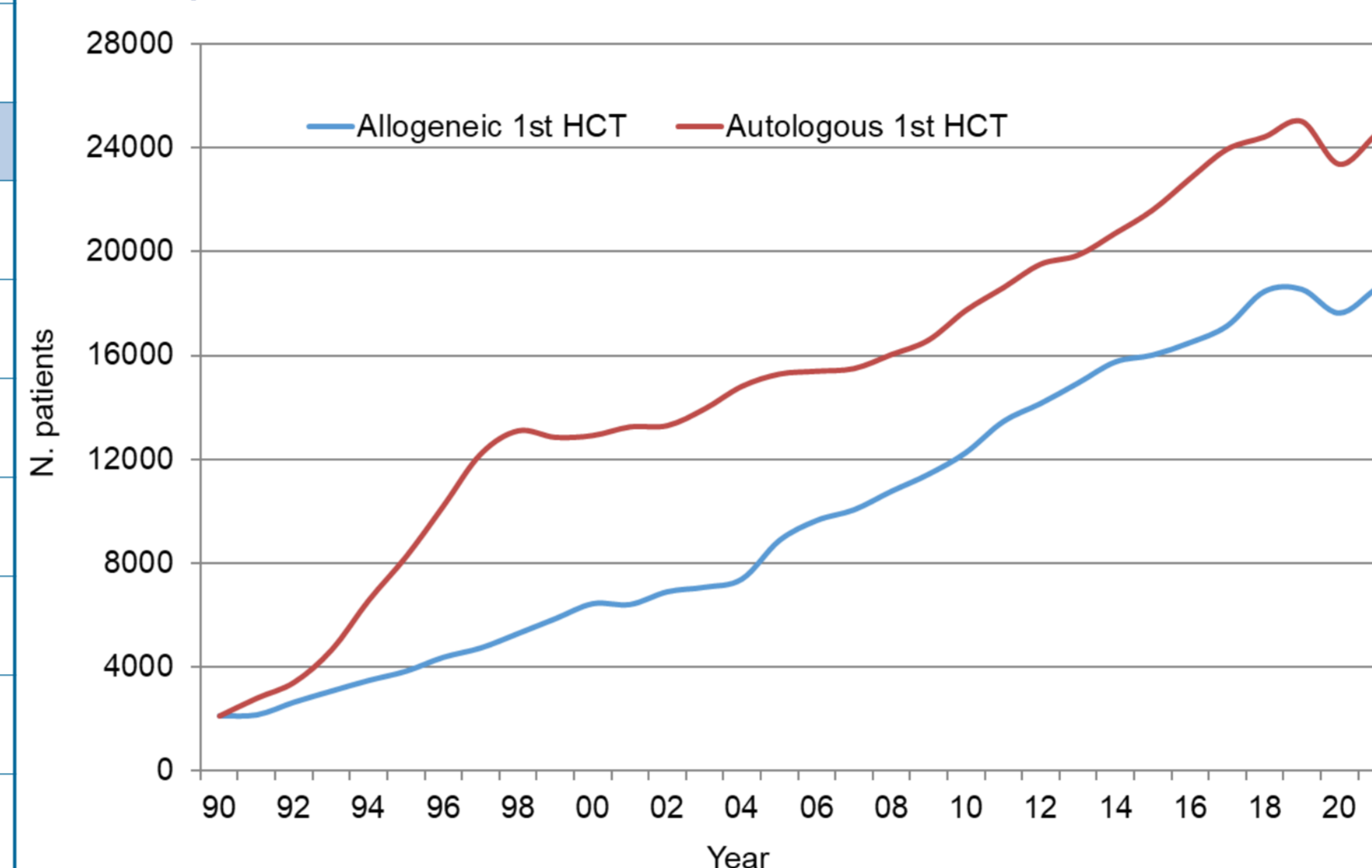


Figure 2: Change in donor choice since 1990

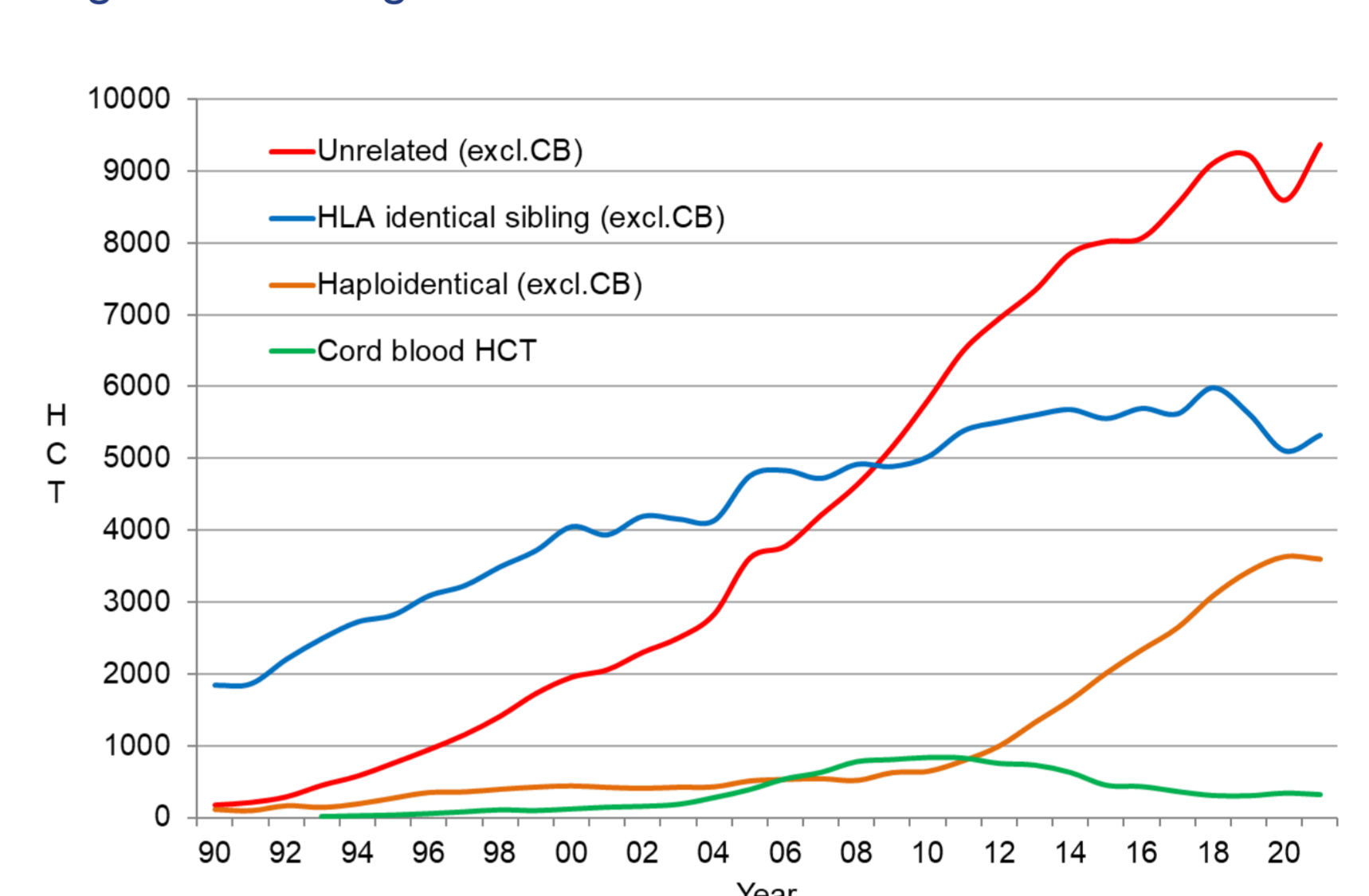


Figure 3: Percentage difference in the numbers of allogeneic (3a) and autologous (3b) HCT by diagnosis reported between the years 2019 and 2020 (left) and the years 2020 and 2021 (right).

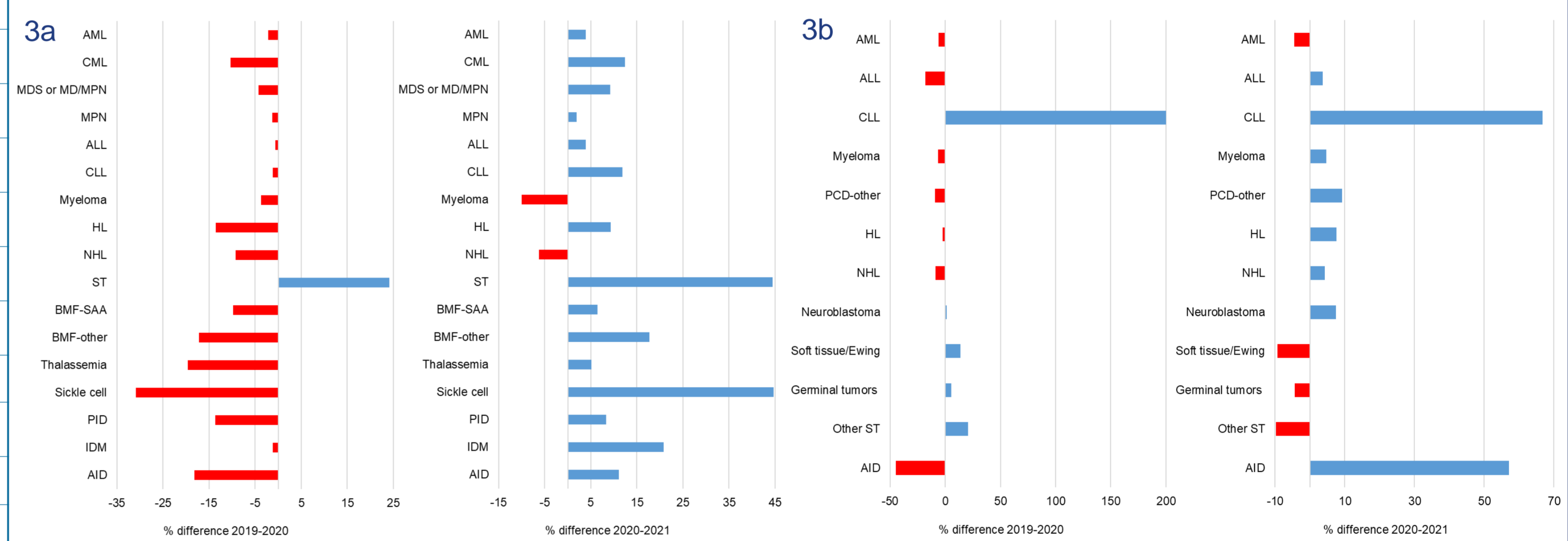


Fig 4: Trend in the transplant rates of HCT for five populous countries in the years 2000 to 2021

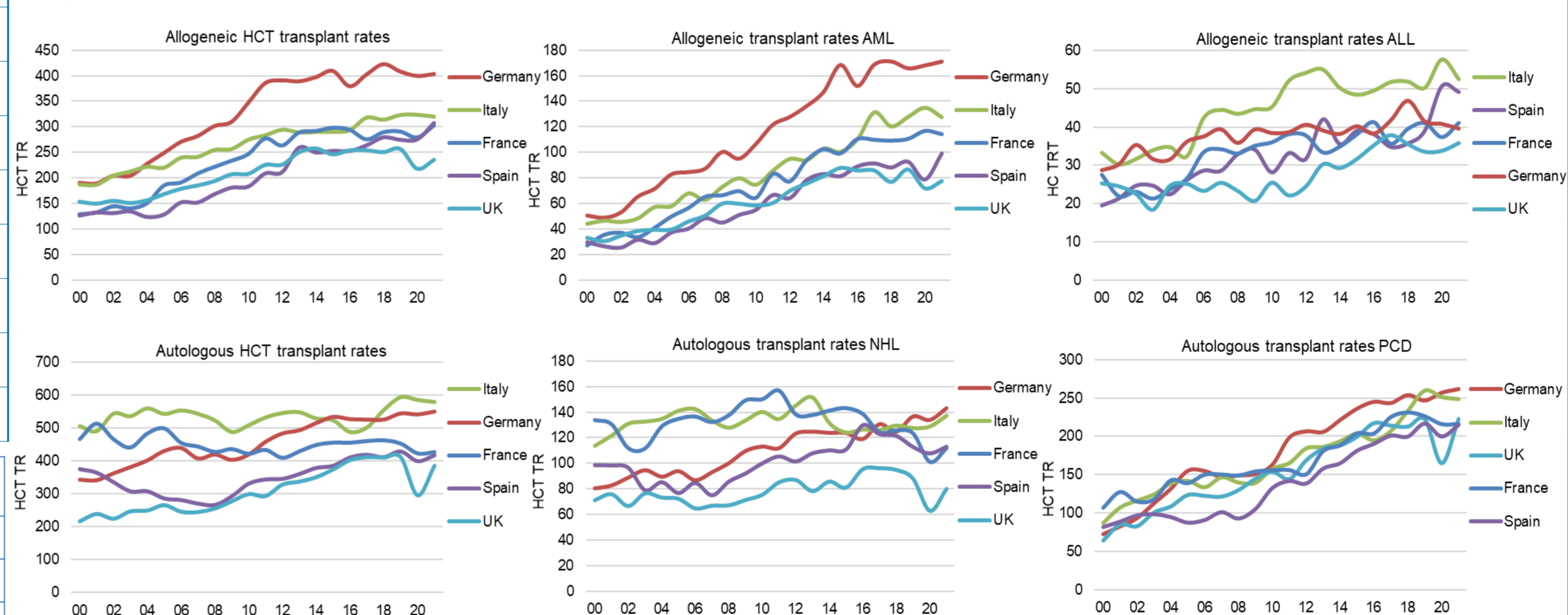


Fig 5: No. patients receiving a CAR-T cellular therapy by indication in Europe 2019 – 2021

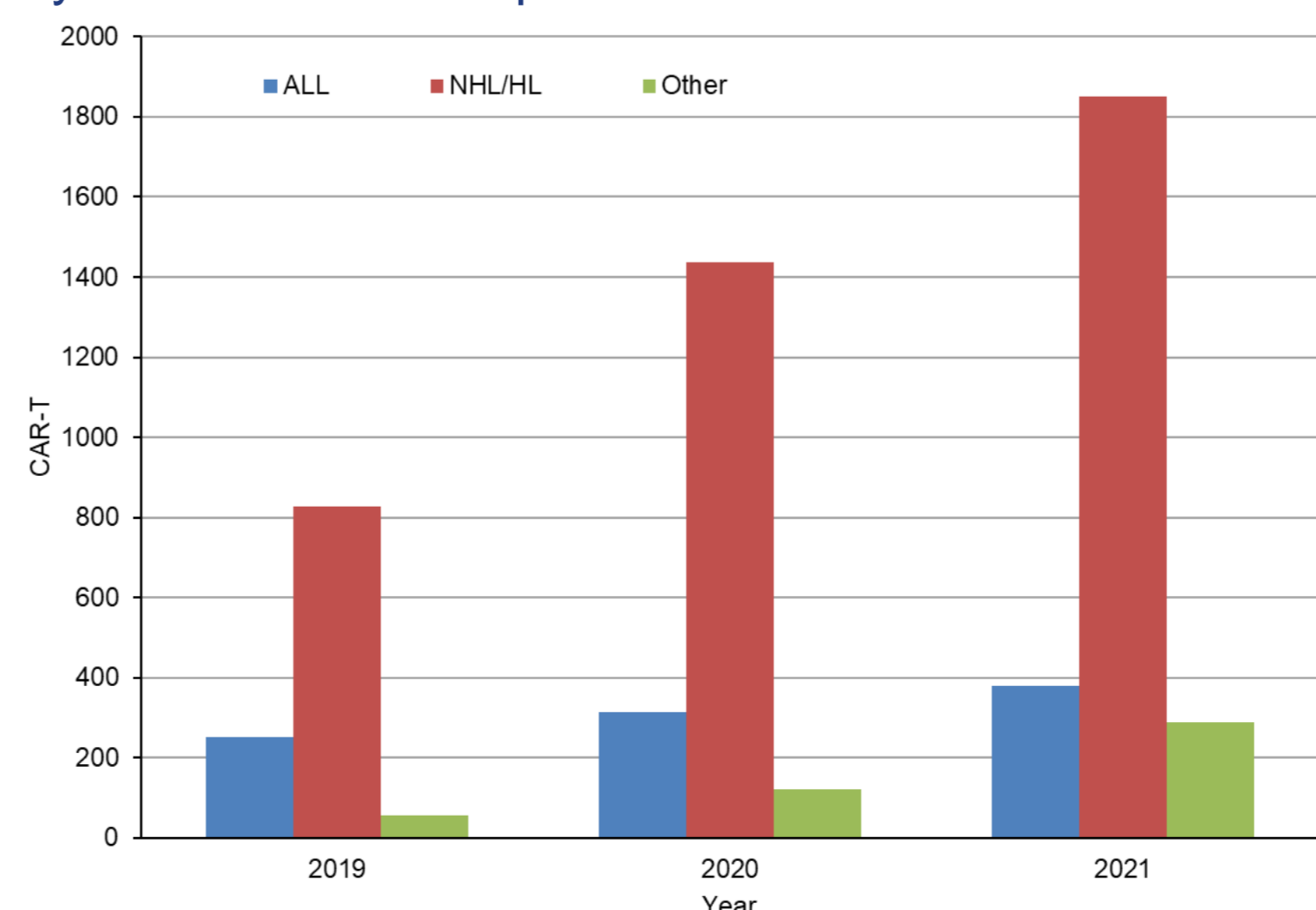


Fig 6: Patient rates per 10 million population for CAR-T therapies in Europe 2021 (right)

