



Promoting Science and Education in Transplantation



H&I Report cRF in Cardiothoracic Transplant

Presented by: Corinna Freeman and Carla Rosser

CTAG Heart 18/09/25

Case Study

- Female patient.
- Double lung transplant in 2022. Treated for acute cellular rejection. Developed DSA – evidence of AMR.
- Considered for re-transplant in early 2025.
- Patient's sample cRF ranges from 10-90 between 2020 and 2025.

What cRF% would be considered for next transplant?

Case Study

Date	Class I	Class II	HLA Antibody Specificities	cRF (%)
17/02/2020	POS	POS	B45, DR8, DR12	10
30/04/2021	POS	POS	B45, DR8, DR12	10
14/07/2021	POS	NEG	B45, DR8, DR12	10
22/10/2021	POS	NEG	B45, DR8, DR12	10
09/02/2022	POS	NEG	A29, A43, B37, B45, B76	11
24/02/2022	POS	POS	A11, A29, A43, B8, B37, B45, DQ2, DQ5, DQ6	90
10/03/2022	POS	POS	A11, A29, A43, B8, B37, B45, DQ2, DQ5	72
21/03/2022	POS	POS	A11, A29, A43, B37, B45, DQ2, DQ5, DQ6	89
30/05/2022	POS	POS	A11, A29, A43, B45, DQ5, DQ6	72
25/08/2022	POS	NEG	A29, A43, B45	9
20/03/2023	NEG	NEG	-	0
08/02/2024	NEG	NEG	-	0
07/10/2024	POS	NEG	A29, A43, B45	10
08/04/2025	POS	NEG	A43, B45	2
08/06/2025	POS	NEG	A29, A43, B45	9
04/08/2025	POS	NEG	B45, Cw17	3
Antibody defined specificities deemed unacceptable for re-transplantation		A11, A29, A43, B8, B37, B45, DR8, DR12, DQ2, DQ5, DQ6		92
Other mismatches from 1st graft, also deemed unacceptable for re-transplant		A3, A33, B14, Cw7, DR1, DR17, DR52, DP3		99
Total cRF for consideration for re-transplantation				99

- **Important to note differences in single time point test result cRF% vs total cRF% considered for transplant.**
- **Transplant unacceptable antigens may include all detected specificities and previous transplant mismatches, giving an increased cRF%**

For Discussion

- Awareness of BSHI and BTS UK guideline on the detection of alloantibodies in solid organ (and islet) transplantation (2023) to inform local practice.
- Is there an education/understanding gap around cRF?
- Recommend that local H&I team are included in patient discussions, MDTs and assessments to ensure understanding of individual requirements, risks and treatment plans.
- Consider a national joint meeting involving both clinical teams and H&I scientists to discuss ways to improve consistency.