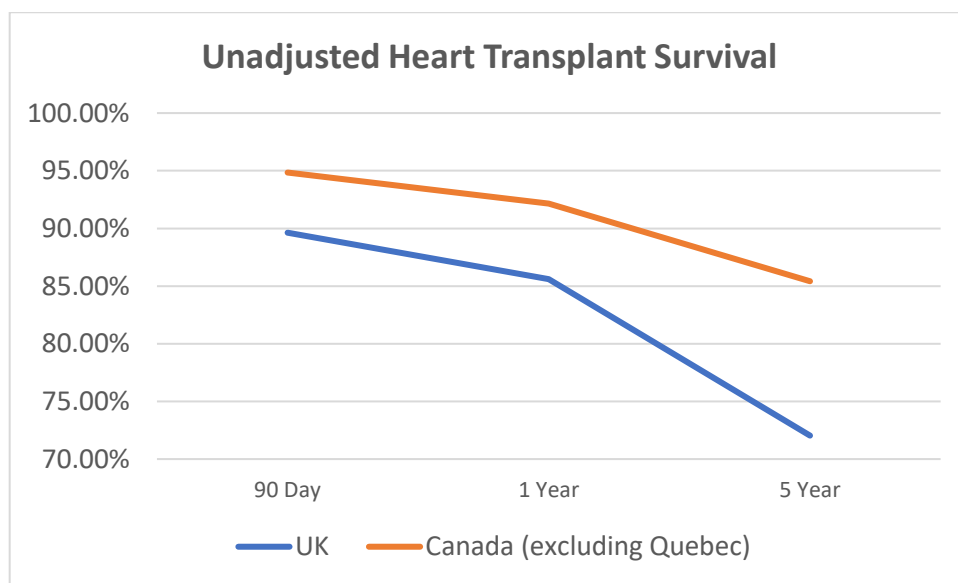


Cardiac Allograft Vasculopathy

1. Background

- 1.1 Cardiac allograft vasculopathy (CAV) is the leading cause of morbidity and mortality in heart transplant patients beyond the first post-transplant year, accounting for 30% of all cause mortality in this patient group (1).
- 1.2 It is recognised that the UK does not always have world leading outcomes following transplantation and NHSBT along with each nation's health services have committed to increase their focus on long term outcomes after transplantation (2)
- 1.3 The chart below compares UK post-transplant survival to Canada at different timepoints (3)



2. Heart Transplant Patient Community

- 2.1 The CTPG Chair has been contacted by the patient community asking if they will approach CTAG Hearts to advocate for a coordinated and increased focus on CAV. The patient community recognises the significant impact CAV has on not only on their long-term survival but also their quality of life.
- 2.2 The patient community has anecdotally noted differences in the approach taken by centres to the diagnostic monitoring and therapeutic techniques employed with regards to CAV.
- 2.3 The patients recognise that CAV is a complex issue which has a limited evidence base. They acknowledge that multiple variables influence the development and progression of CAV with many of these being donor or transplantation related. However, across the world there is a growing number of trials relating to post transplant diagnostics and therapies.
- 2.4 The following issues have been noted by the patient community as areas where either different protocols exist between centres or research opportunities may lie;

- Diagnostic techniques and frequencies; Angiography +/- IVUS or OCT, CT etc
- Hypertension diagnostic techniques (e.g. 24 hour) and target blood pressures
- Use of statins and target lipid levels
- Use of antiplatelet therapy
- Early switching to a mTOR Inhibitor upon diagnosis

3. Summary

3.1 The patient community would advocate for CTAG Hearts to establish a key workstream relating to CAV with possible aims including;

- Ensure consistent diagnostic and therapeutic regimes across the UK which are congruent with the best evidence base
- Establish a national monitoring regime and database to facilitate research and development
- Instigate key research projects to develop optimal preventative and therapeutic regimes

3.2 The patient community would appreciate a representative on any workstream established

4. References

- 1) Reddy A, Khialani B, Lambert B, *et al* 123 Coronary imaging of cardiac allograft vasculopathy predicts current and future ventricular dysfunction in patients with orthotopic heart transplantation. *Heart* 2021;**107**:A92-A93
- 2) Organ Donation and Transplantation 2030: Meeting the Need, NHS Blood and Transplant, Welsh Government, Department of Health & Social Care England, Department of Health NI, Scottish Government, 2021
- 3) NHSBT Annual Report on Cardiothoracic Organ Transplantation 2020-21 and Canadian Organ Replacement Register

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