

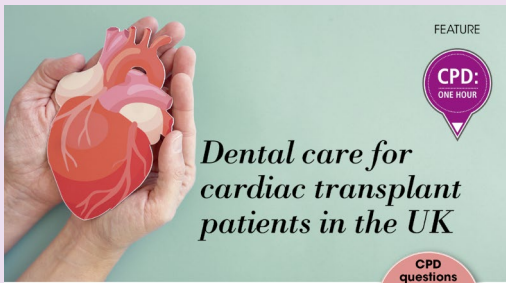
BDJ Team CPD



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Article: Dental care for cardiac transplant patients in the UK



Dental care for cardiac transplant patients in the UK

Emma O'Donnell, Shazia Kaka, Helen Patterson and Carole Ann Boyle provide dental teams with knowledge on the background and process of cardiac transplant and explain the implications for oral health and dental management.

Abstract

Cardiac transplantation replaces a severely damaged non-functioning heart with a healthy heart from a donor. Within the UK, the number of cardiac transplants being performed each year is increasing, with significant improvements in longer term survival. Dental professionals are therefore more likely to see and manage these patients in the pre- and post-transplant periods. This paper proposes

a protocol for the dental management of these patients, initiated by a case series from Scotland and London.

Introduction

What is a cardiac transplant? A cardiac transplant is a surgical procedure that replaces a severely diseased heart with a healthy heart from a recently deceased donor. It is most commonly indicated for people with advanced heart failure or those with recurrent, symptomatic life-threatening arrhythmias, which are unresponsive to maximal medical and/or surgical treatment. Coronary artery disease, congenital heart disease, valvular heart disease, or myocardial disease can all produce these end-stage complications where the diseased heart fails to support a physiological circulation. Poor quality of life ensues with symptoms including breathlessness, fatigue, dizziness, chest pain, cough and risk of sudden death (1% per year).

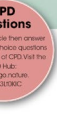
Cardiac transplantation is the recommended treatment option to help restore cardiac function and prolong life. In 2021/22, 179 heart transplants were performed across seven centres in the UK (Table 1) with five-year survival rates of 71%.

When donors are not immediately available, ventricular assist devices (VADs) can be used

as a short-term measure to help support life. These are battery-operated, mechanical pumps surgically implanted into the heart's left ventricle, to either partially or completely replace the function of a heart. While results are variable, a recent systematic review reported 12-, 31- and 18-month survival rates of 62%, 72% and 57%, respectively.

These high-risk individuals developing dangerous arrhythmias may have an implantable cardioverter defibrillator (ICD) in place. These devices, on detecting an abnormal rhythm, deliver either small rapid-pacing impulses or a larger electric shock to restore normal rhythm. For ICDs in place, it is useful to ascertain the frequency of shocks and how often they have occurred. This allows the clinician to risk assess the possibility of shocks in the dental surgery and ensure they are treated in the most appropriate environment.

Acceptance for cardiac transplantation The multidisciplinary cardiac transplant team carries out a thorough medical assessment and decides, within 18 weeks, whether to list the patient for a heart transplant. If deemed suitable, the patient is assigned to either the urgent, urgent, or non-urgent heart transplant list.



FEATURE

The number of heart transplant patients in the UK is increasing. These are people listed to be referred to a heart transplant centre (HTC) and will undergo a long waiting list. It is important to understand the implications for oral health and dental management.

Table 1: Centres for cardiac transplants within the UK

HTC	Location
Cardiff	Cardiff
Leeds	Leeds
Manchester	Manchester
Sheffield	Sheffield
London	London
Edinburgh	Edinburgh
Cardiff	Cardiff
Leeds	Leeds
Manchester	Manchester
Sheffield	Sheffield
London	London
Edinburgh	Edinburgh

Table 2: Centres for cardiac transplants providing paediatric services

HTC	Location	Paediatric services
Cardiff	Cardiff	Paediatric services
Leeds	Leeds	Paediatric services
Manchester	Manchester	Paediatric services
Sheffield	Sheffield	Paediatric services
London	London	Paediatric services
Edinburgh	Edinburgh	Paediatric services

Table 3: Cardiac transplant centre providing paediatric services

HTC	Location	Paediatric services
Cardiff	Cardiff	Paediatric services
Leeds	Leeds	Paediatric services
Manchester	Manchester	Paediatric services
Sheffield	Sheffield	Paediatric services
London	London	Paediatric services
Edinburgh	Edinburgh	Paediatric services

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Table 4: Cardiac transplant centre providing paediatric services

Table 5: Cardiac transplant centre providing paediatric services

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Table 100: Cardiac transplant centre providing paediatric services



Figure 1: A patient undergoing a cardiac transplant procedure.

CONCLUSIONS

KEY POINTS

REFERENCES

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1. Which of the following sets of data are correct for 2021/22 in the UK?

- A. 126 heart transplants were performed across three centres with five-year survival rates of 71%
- B. 179 heart transplants were performed across seven centres with five-year survival rates of 71%
- C. 179 heart transplants were performed across seven centres with five-year survival rates of 43%
- D. 73 heart transplants were performed across eight centres with five-year survival rates of 89%

2. In the work up for cardiac transplantation, dental assessments:

- A. make a significant contribution
- B. are a somewhat marginal consideration given the seriousness of the proposed treatment
- C. should be postponed until after the transplant is completed
- D. take absolute priority over all other tests and examinations with the potential for infection

4. In which of the three cases was, or were, the patient or patients regular dental attenders?

- A. both Cases 1 and 2
- B. Case 3
- C. Case 1
- D. Cases 2 and 3

3. Post-transplant, the patient, if stable, is generally appropriate for treatment in general practice after what period of time?

- A. 1 month
- B. 6 months
- C. 2 years
- D. 5 years

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