

Who should be considered for Maastricht 3 DCD?

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Introduction

Controlled DCD has increased tenfold in the UK over the last decade. (The number of DCD donors in the UK from 1 April 2001 to 31 March 2012 is shown in Figure 1). Many consider this form of donation to occur after patients die with severe brain injury, but other patients may also be suitable.

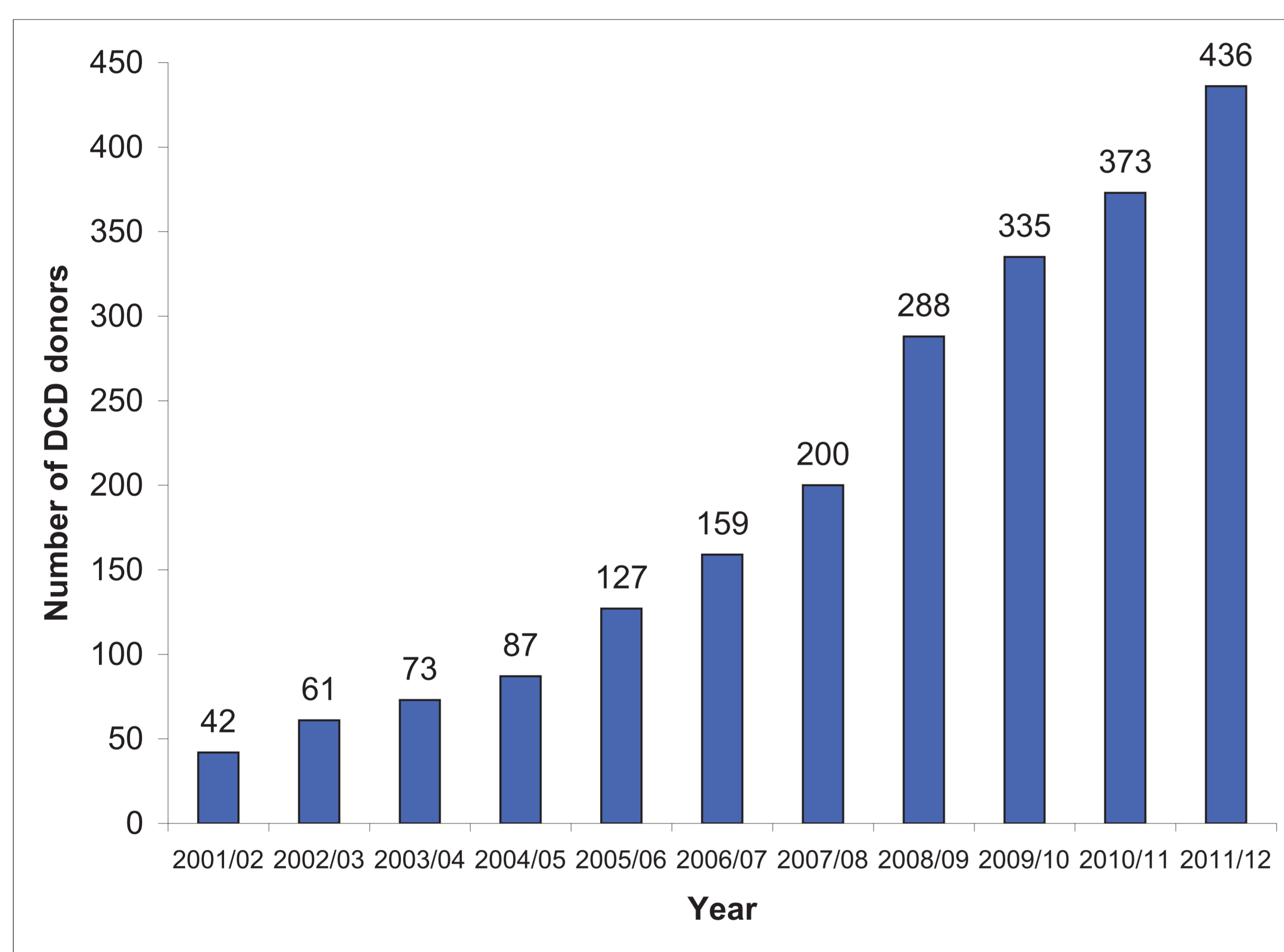


Figure 1 Number of deceased donors after circulatory death (DCD) in the UK, April 2001 to March 2012

Methods and Results

Patients for whom imminent death was anticipated and treatment was withdrawn with no absolute or relative medical contraindications to solid organ donation, ie potential DCD (n=7504), and those who became actual DCDs (n=877) between 1 October 2009 and 31 March 2012 were identified from the UK Potential Donor Audit (PDA). The PDA collects information on patient deaths in ICUs and emergency departments but excludes cardiothoracic ICUs. Patients aged 76 years or over are also excluded from the national audit criteria.

The diagnostic categories are presented in Figure 2.

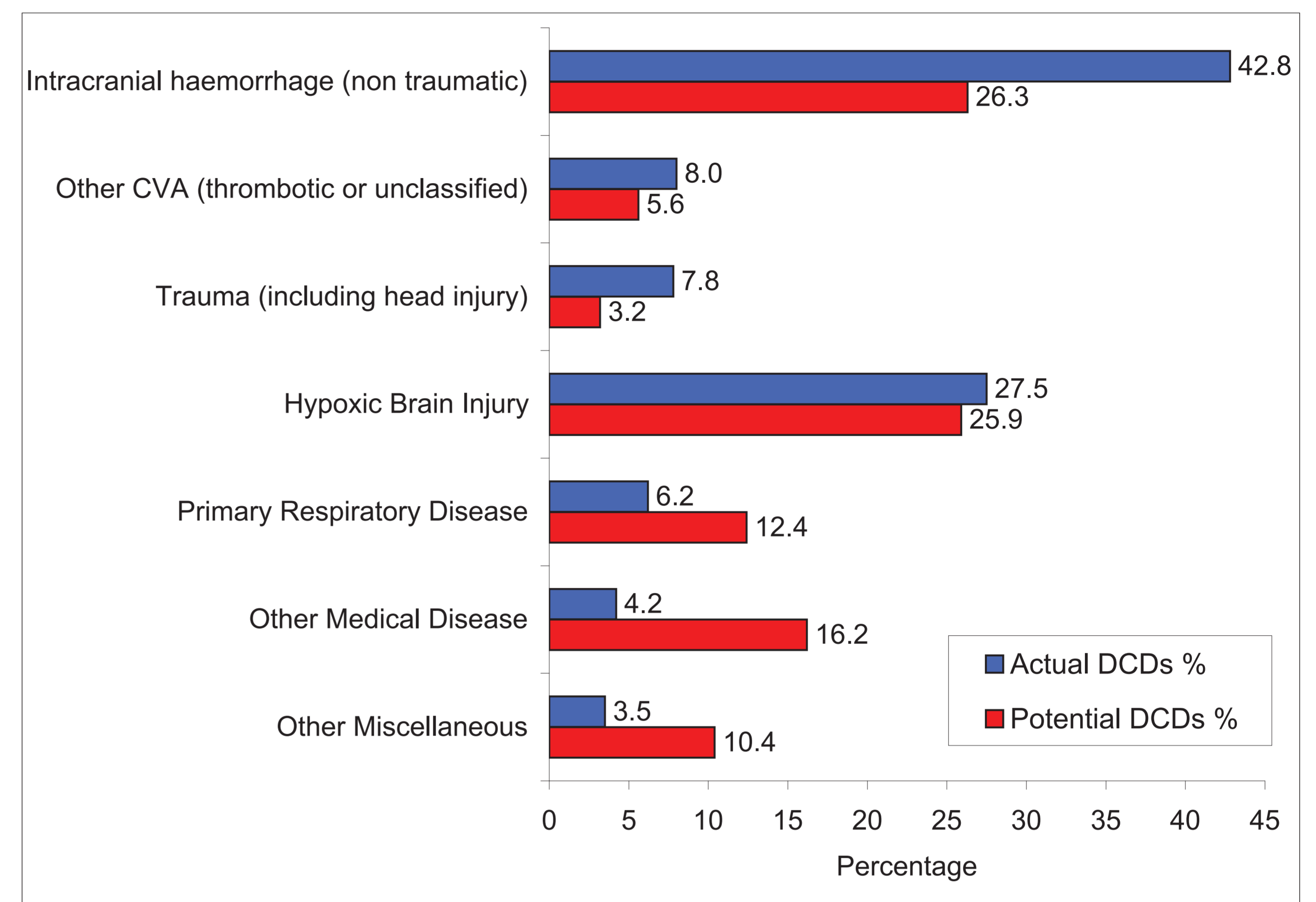


Figure 2 Diagnostic categories for all potential DCDs (n=7504) and those who became actual DCDs (n=877) between October 2009 and March 2012. Data from Potential Donor Audit (courtesy of NHSBT)

Conclusion

While brain injury is by far the most common diagnosis in actual DCDs, primary respiratory disease and other non-neurological diagnosis make a significant contribution (13.9%) to DCD number. Although patients with hypoxic brain injury have previously been considered to have a low potential for DCD because of the presence of contraindications to transplantation¹ such patients accounted for 241 of a total of 877 donors. The potential for DCD should be considered in any patient having treatment withdrawn irrespective of the diagnosis.

References

1. Gratrix AP, Pittard AJ, Bodenham AR. Outcome after admission to ITU following out-of-hospital cardiac arrest: are non-survivors suitable for non-heart beating organ donation? *Anaesthesia* 2007; 62: 434-7.