

## A summary of rates from the organ donation pathway over time and hypothetical consent/authorisation rates

Joanne Allen, William Hulme

Statistics and Clinical Studies, NHS Blood and Transplant, Bristol, UK, BS34 8RR

### Background

The national Potential Donor Audit (PDA) has played a crucial role in achieving the 50% increase in deceased donors. Key Performance Indicators (KPIs) and Trust/Board reports highlighted areas for improvement and will continue to do so as we move into the era of a new strategy (*Taking Organ Transplantation to 2020*). Although increases have been observed in most elements of the organ donation pathway in recent years, improvements are still required in consent/authorisation rates and there is still variation in the rates achieved for potential donors after brain death (DBD) and potential donors after circulatory death (DCD).

### Methods

Key rates were obtained from the PDA and UK Transplant Registry (UKTR) from April 2010 to March 2013 (PDA data as at 6 June 2013). For consistency with the PDA, donor data from the UKTR has been restricted to donors aged  $\leq 75$  years, and cardiothoracic ICUs and wards have been excluded.

The number of extra donors and extra patients who could have received a transplant per year if hypothetical consent/authorisation rates were achieved have been estimated by averaging over the three year period. For the purposes of these estimations, the testing, referral, approach and proceeding rates and the average number of patients transplanted per donor have remained as observed in the relevant years.

### Key rates over three years

As shown in **Table 1**, over the three year period there has been an increase from 72% to 78% in the neurological death testing rate. The referral rate has increased from 52% to 68% and the approach rate has increased from 60% to 68%. The involvement of the Specialist Nurse in the approach has increased from 60% to 71%. **Although a slight increase has been observed in the DBD consent/authorisation rate from 64% to 68%, the equivalent DCD rate remains at 51%.** Consent/authorisation is therefore a key feature of the new strategy.

**Table 1:** DBD and DCD key metrics from the Potential Donor Audit by financial year, 1 April 2010 to 31 March 2013.

Eligible donor type	Financial year	Number of patients who met referral criteria <sup>1</sup>	Neurological death testing rate (%)	Referral rate (%)	Number of eligible donors	Number of eligible donors whose family were approached	Approach rate (%)	Proportion of family approaches involving a SN-OD (%)	Number of families who consented to/ authorised donation	Consent/ authorisation rate (%)	Number of actual donors <sup>2</sup>
DBD	2010-11	1,676	72.1	84.5	1,144	1,059	92.6	67.5	683	64.5	617
	2011-12	1,661	74.2	90.7	1,169	1,090	93.2	71.1	694	63.7	636
	2012-13	1,631	77.7	91.5	1,188	1,100	92.6	78.9	744	67.6	676
DCD	2010-11	7,221		44.3	2,883	1,359	47.1	53.5	693	51.0	342
	2011-12	6,902		52.6	2,933	1,598	54.5	57.9	794	49.7	390
	2012-13	6,960		62.4	3,114	1,816	58.3	66.7	931	51.3	449
TOTAL	2010-11	8,897		51.9	4,027	2,418	60.0	59.6	1,376	56.9	959
	2011-12	8,563		60.0	4,102	2,688	65.5	63.2	1,488	55.4	1,026
	2012-13	8,591		67.9	4,302	2,916	67.8	71.3	1,675	57.4	1,125

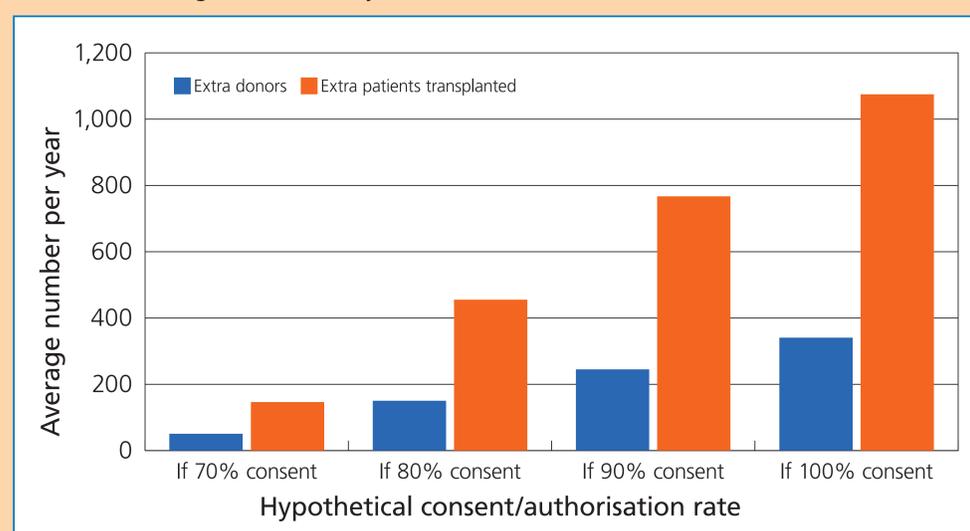
<sup>1</sup>DBD referral criteria: patients where neurological death was suspected; DCD referral criteria: patients for whom imminent death was anticipated.

<sup>2</sup>Actual donors resulting from eligible DBD donors includes six DCD donors in 2010-11, 11 DCD donors in 2011-12 and 18 DCD donors in 2012-13.

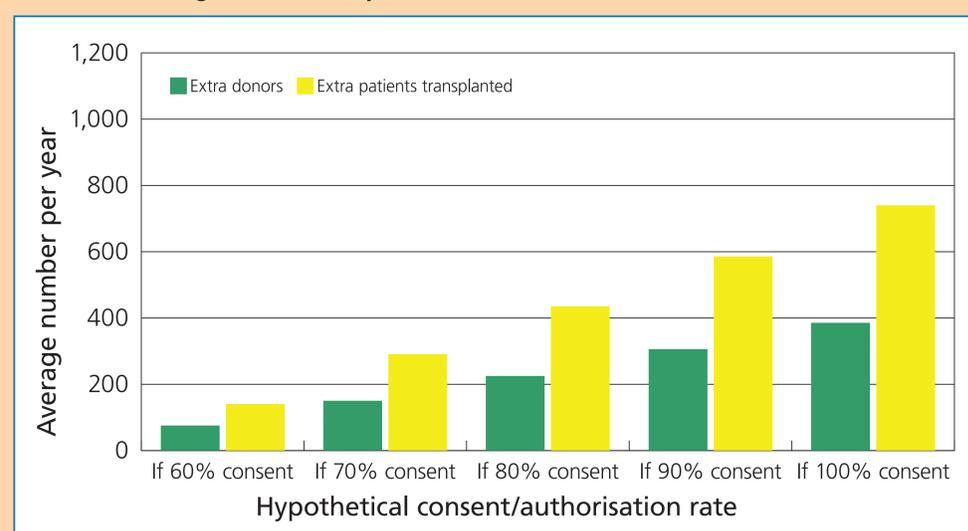
### Potential for extra transplants

**Figures 1 and 2** show the estimated number of extra donors and extra patients who could potentially have received a transplant per year if the consent/authorisation rate was 60% (for DCD only), 70%, 80%, 90% or 100%. Although these are hypothetical consent/authorisation rates, these charts provide a representative idea of the approximate number of extra patients who could benefit from improvements in consent/authorisation. For example, if a hypothetical consent/authorisation rate of 70% was achieved for both DBD and DCD, approximately 400 more patients could potentially benefit from a transplant each year (assuming all other rates remain unchanged). If the maximum hypothetical consent/authorisation rate of 100% was achieved, the number of extra patients who could potentially benefit reaches approximately 1,800.

**Figure 1:** The average number of extra DBD donors and resulting patient transplants per year, assuming hypothetical consent/authorisation rates (averaged over three years).



**Figure 2:** The average number of extra DCD donors and resulting patient transplants per year, assuming hypothetical consent/authorisation rates (averaged over three years).



### Conclusion

Improvements have been observed in most elements of the organ donation pathway. The DBD consent/authorisation rate reached 68% in 2012-13 but the DCD rate remains at 51%. Improvements are still needed in both the DBD and DCD consent/authorisation rates. This poster summarises the key rates over the last three years and estimates the number of extra patients who could potentially benefit from a transplant if consent/authorisation rates improve.