

**NHS BLOOD AND TRANSPLANT**  
**OCULAR TISSUE ADVISORY GROUP**  
**EYE PROCUREMENT FROM SOLID ORGAN DONORS**  
**ACTIVITY REPORT**

**SUMMARY**

**INTRODUCTION**

- 1 This paper summarises results of eye procurement from solid organ donors for the period 1 April 2015 to 31 March 2016, along with comparisons with previous years where applicable.

**RESULTS**

- 2 The eye donation rate from medically suitable donors was 40% in 2015/16 and this is lower than the previous two years, but higher than four of the five years prior to 2013/14. Variation between teams showed that donation rates ranged from 30% in the Northern, Northern Ireland and Midlands teams to 69% in the South Central team. The fall in eye donors is mainly attributable to a lower eye donation rate from DBD donors, with donation rates remaining higher for DCD donors (43%) than DBD donors (37%). Similarly, there has been a greater reduction in the eye donation rate for DBD donors (from 42% to 37%) with only a small reduction for DCD donors (from 43.8% to 43.2%).
- 3 The main reason for non-eye donation is still due to family refusal, but this has fallen from 51% to 42% since last year with the proportion not donated due to medical reasons increasing from 29% to 35%. There is also a continued increase in eyes that were medically unsuitable, regardless of whether this was the main reason for non-eye donation and this has increased from 7% of all organ donors in 2008/09 to 32% in 2015/16.

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# NHS BLOOD AND TRANSPLANT

## OCULAR TISSUE ADVISORY GROUP

### EYE PROCUREMENT FROM SOLID ORGAN DONORS ACTIVITY REPORT

#### INTRODUCTION

- The group concerned with Tissue and Eye Procurement from Solid Organ Donors (TEPSOD) are due to hold their latest meeting on 6 July 2016 to review the latest data on eye procurement by Specialist Nurse Organ Donation (SN-OD) teams. This paper focuses on eyes from organ donors. Additional data are supplied quarterly on an Excel spreadsheet by each of the SN-OD teams and these include detailed reasons for non-eye donation. The results for the period from 1 April 2015 to 31 March 2016 are presented below, along with comparisons with previous years where applicable.

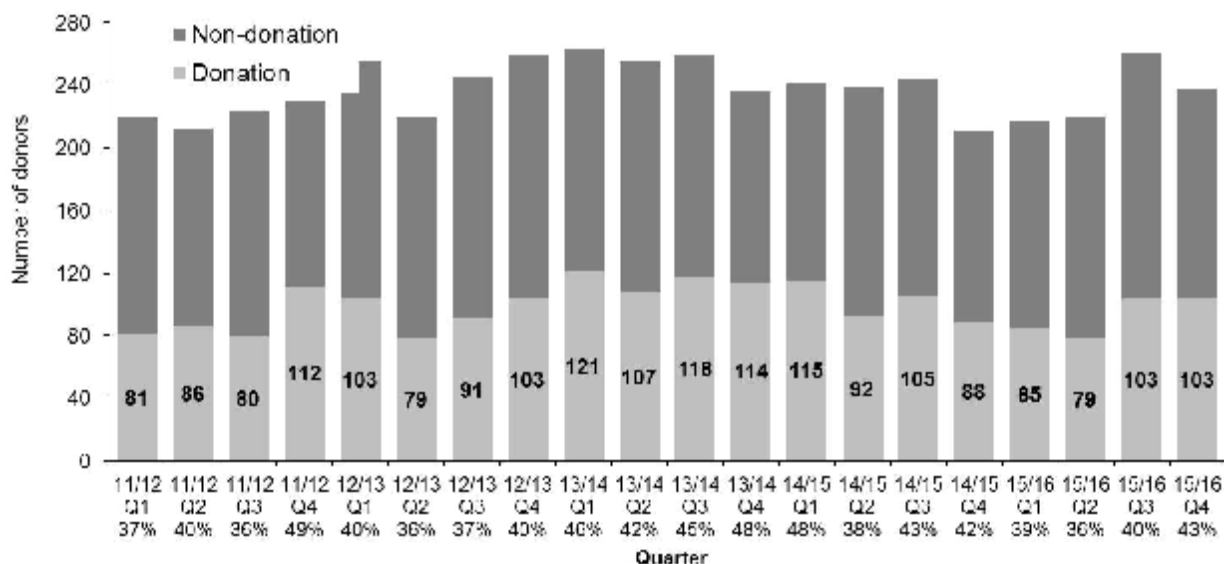
#### RESULTS

- Table 1** shows the number of organ donors, those that were medically suitable to donate eyes and those that donated eyes, by financial year since 1 April 2008. Of the 1364 deceased organ donors in the UK in 2015/16, 933 (68%) of these were medically suitable for eye donation. This represents a continued fall over the last eight years in organ donors that were medically suitable to donate eyes from 93% in 2008/09 to 68% in the 2015/16. The percentage of all donors who donated eyes is lower than any of the previous seven years at 27% in 2015/16, but the percentage of medically suitable donors who donated eyes is 40% and, although lower than the previous two years, is higher than four of the previous seven years summarised.

Year	All donors N	Medically suitable N (%)	N	Donated eyes	
				(% of all)	(% of medically suitable)
2008/09	899	834 (93)	249	(28)	(30)
2009/10	959	819 (85)	268	(28)	(33)
2010/11	1010	859 (85)	339	(33)	(39)
2011/12	1088	881 (81)	359	(33)	(41)
2012/13	1212	978 (81)	377	(31)	(39)
2013/14	1320	1013 (77)	461	(35)	(46)
2014/15	1281	934 (73)	400	(31)	(43)
2015/16	1364	933 (68)	370	(27)	(40)

- 3 **Figure 1** shows the number of medically suitable organ donors per quarter between 1 April 2011 and 31 March 2016 and the number and percentage of those that went on to donate eyes. Although the donation rate fell below 40% for both of the first two quarters of 2015/16, it has increased for the second half of the year and the donation rate for the final quarter of 2015/16 was 43%.

**Figure 1 Eyes from medically suitable organ donors, 1 April 2011 to 31 March 2016, by quarter**



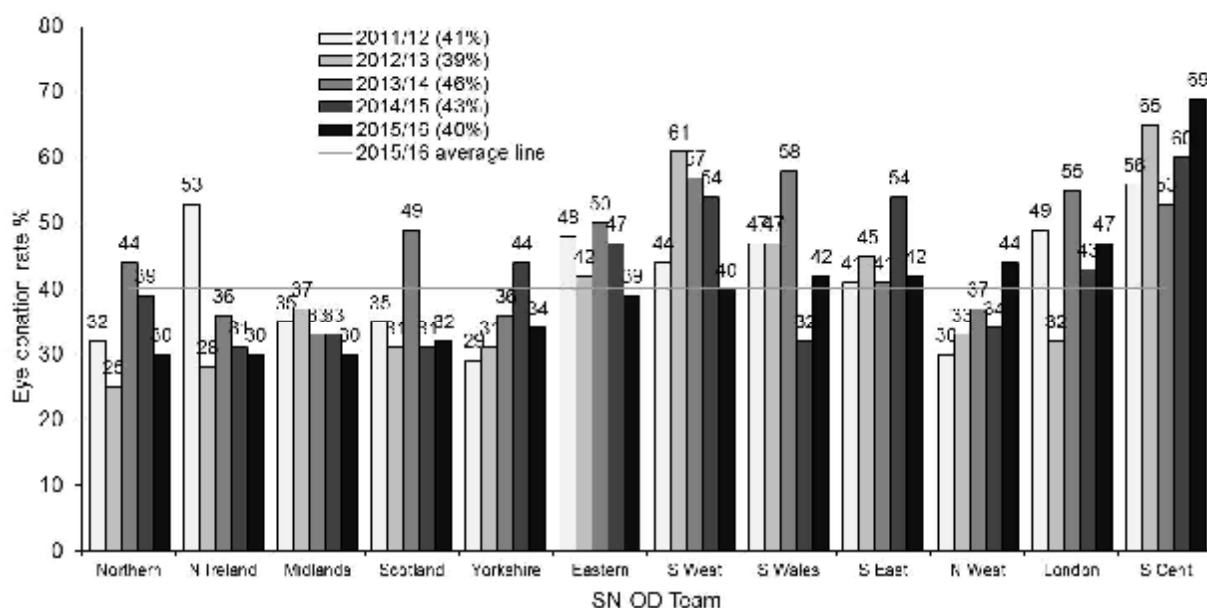
- 4 **Table 2** shows the eye donation rates per year since 1 April 2008 for both DBD and DCD donors. The percentage of eyes procured from medically suitable donors in 2015/16 was lower than the previous two financial years, but higher than four of the five years from 2008/09 to 2012/13 for both DBD and DCD donors. This reduction is mainly attributable to DBD donors, where there has been more of a reduction compared with 2014/15 (from 42% to 37%) than amongst DCD donors (from 43.8% to 43.2%).

**Table 2 Eyes from medically suitable organ donors, 1 April 2008 to 31 March 2016, by donor type and year**

Year	DBD		DCD		Total	
	Medically suitable N	Donated eyes N (%)	Medically suitable N	Donated eyes N (%)	Medically suitable N	Donated eyes N (%)
2008/09	566	166 (29)	268	83 (31)	834	249 (30)
2009/10	538	170 (32)	281	98 (35)	819	268 (33)
2010/11	550	197 (36)	309	141 (46)	859	338 (39)
2011/12	541	220 (41)	340	139 (41)	881	359 (41)
2012/13	588	217 (37)	390	160 (41)	978	377 (39)
2013/14	600	244 (41)	413	217 (53)	1013	461 (46)
2014/15	571	241 (42)	363	159 (44)	934	400 (43)
2015/16	535	198 (37)	398	172 (43)	933	370 (40)

5 **Figure 2** shows the percentage of medically suitable organ donors that went on to donate eyes per SN-OD team and financial year between 1 April 2011 and 31 March 2016. The percentage in 2015/16 ranged from 30% in the Northern, Northern Ireland and Midlands teams to 69% in the South Central team. Six of the twelve teams achieved an eye donation rate above the national average in 2015/16; South West, South Wales, South East, North West, London and South Central. The highest rates of improvement were shown in the North West (34% to 44%), South Wales (32% to 42%), South Central (60% to 69%) and London teams (43% to 47%). Scotland’s eye donation rate has also improved from 31% to 32% while all the other teams experienced a reduction in their eye donation rates.

**Figure 2 Donation rates for eyes from medically suitable proceeding donors, 1 April 2011 to 31 March 2016, by SN-OD team and financial year**



6 **Table 3** summarises the reasons for non-eye donation for all donors in the last three years. Figures are provided by donor type (DBD/DCD) and also for all deceased donors (DD). A list of all the reasons for non-eye donation in 2015/16 is provided in **Appendix 1**. Family refusal is still the main reason for non-eye donation; however this has fallen from 51% in 2014/15 to 42% in 2015/16, whereas there has been a considerable increase where the main reason for non-eye donation is due to medical reasons (from 29% to 35%). A larger proportion of DCD donors did not donate eyes due to medical reasons; 36.7% compared with 33.5% for DBD donors, although the proportion of all donors that were medically suitable to donate their eyes was not dissimilar between DBD and DCD donors; 68.1% and 68.8% respectively. The shift in reasons for non-eye donation from family refusal to medical reasons is most apparent between 2014/15 and 2015/16 and less apparent between 2013/14 and 2014/15.

**Table 3 Main reason for non-eye donation (summarised)  
1 April 2013 to 31 March 2016, by year and donor type**

Donor type/reason	2013/14		2014/15		2015/16	
	N	(%)	N	(%)	N	(%)
<b>DBD</b>						
Deceased wishes	53	(9.9)	43	(8.1)	47	(8.0)
Family wishes	281	(52.4)	276	(52.0)	250	(42.5)
Coroner refused	31	(5.8)	41	(7.7)	32	(5.4)
Medical reasons	141	(26.3)	146	(27.5)	197	(33.5)
All other reasons	30	(5.6)	25	(4.7)	62	(10.5)
<b>TOTAL</b>	<b>536</b>		<b>531</b>		<b>588</b>	
<b>DCD</b>						
Deceased wishes	30	(9.3)	25	(7.1)	21	(5.2)
Family wishes	161	(49.9)	176	(50.3)	170	(41.9)
Coroner refused	14	(4.3)	17	(4.9)	19	(4.7)
Medical reasons	93	(28.8)	107	(30.6)	149	(36.7)
All other reasons	25	(7.7)	25	(7.1)	47	(11.6)
<b>TOTAL</b>	<b>323</b>		<b>350</b>		<b>406</b>	
<b>DD</b>						
Deceased wishes	83	(9.7)	68	(7.7)	68	(6.8)
Family wishes	442	(51.5)	452	(51.3)	420	(42.3)
Coroner refused	45	(5.2)	58	(6.6)	51	(5.1)
Medical reasons	234	(27.2)	253	(28.7)	346	(34.8)
All other reasons	55	(6.4)	50	(5.7)	109	(11.0)
<b>TOTAL</b>	<b>859</b>		<b>881</b>		<b>994</b>	

## SUMMARY

- 7 The eye donation rate of 40% for 2015/16 is lower than the previous two years, but higher than four of the five years from 2008/09 to 2012/13. There is still considerable variation between teams ranging from 30% in the Northern, Midlands and Northern Ireland teams to 69% in the South Central team. Similarly, there is also variation between DBD donors (37%) and DCD donors (43%), with the fall in the fall in eye donation mainly attributable to lower donation rates for DBD donors. The reduction in eye donation from 2014/15 to 2015/16 is greater amongst DBD donors (42% to 37%), with only a small reduction for DCD donors (43.8% to 43.2%).
- 8 Family refusal remains the main reason for non-eye donation, but this has fallen from 51% to 42% with a considerable increase in eyes not donated due to medical reasons from 29% to 35%. There is also a continued increase in eyes that were medically unsuitable, regardless of whether this was the main reason for non-eye donation and this has increased from 7% of all organ donors in 2008/09 to 32% in 2015/16.

<b>Appendix 1                      Main reason for non-eye donation (all reasons)</b>		
<b>1 April 2015 to 31 March 2016</b>		
Reason for non-eye donation	N	(%)
<i>Decision based on deceased prior registered wishes</i>		
ODR	21	(2.1)
Passport	1	(0.1)
Discussion with family	22	(2.2)
Verbal or written statement in life	6	(0.6)
<b>Sub total</b>	<b>50</b>	<b>(5.0)</b>
<i>Decision based on deceased inferred wishes</i>		
Knew deceased wishes not to donate eyes	15	(1.5)
Perceived wishes with disfigurement	3	(0.3)
<b>Sub total</b>	<b>18</b>	<b>(1.8)</b>
<b>Deceased wishes</b>	<b>68</b>	<b>(6.8)</b>
<i>Decision made on personal views</i>		
Do not want eyes removed (discomfort reasons)	54	(5.4)
I do not like the idea of eye donation	69	(6.9)
Uncomfortable with removal of whole eye	10	(1.0)
Personal connection/link to deceased eyes	21	(2.1)
<b>Sub total</b>	<b>154</b>	<b>(15.5)</b>
<i>Decision made on disfigurement concerns</i>		
Squeamishness, yuk factor	40	(4.0)
Only organs	88	(8.9)
Face not to be touched	38	(3.8)
Concerns about how the deceased would look	13	(1.3)
Nothing above the neck	1	(0.1)
<b>Sub total</b>	<b>180</b>	<b>(18.1)</b>
<i>Decision made on current physical/emotional state</i>		
Family tired	1	(0.1)
Family disagreement	1	(0.1)
Family overwhelmed	5	(0.5)
Influencing voice making decisions	1	(0.1)
List shock	1	(0.1)
Wanted something left	3	(0.3)
<b>Sub total</b>	<b>12</b>	<b>(1.2)</b>
<i>Decision made on religious/cultural/spiritual grounds</i>		
Need eyes to see in the afterlife	12	(1.2)
<b>Sub total</b>	<b>12</b>	<b>(1.2)</b>
<i>Decision made on lack of knowledge</i>		
Family unaware that eyes can be donated	1	(0.1)
Family had questions about the process	1	(0.1)
<b>Sub total</b>	<b>2</b>	<b>(0.2)</b>
<i>Other/not specified family reasons</i>		
Family other reasons, please specify	26	(2.6)
Family, not specified	34	(3.4)
<b>Sub total</b>	<b>60</b>	<b>(6.0)</b>
<b>Family wishes</b>	<b>420</b>	<b>(42.3)</b>

<b>Appendix 1</b>		<b>Main reason for non-eye donation (all reasons)</b>	
		<b>1 April 2015 to 31 March 2016</b>	
Reason for non-eye donation	N	(%)	
<b><i>Coroner refused consent</i></b>			
Homicide / Murder / Manslaughter	10	(1.0)	
Sustained injury in custody/prison	2	(0.2)	
Police refusal	1	(0.1)	
Suspicious death	16	(1.6)	
Other coroner reasons, please specify	22	(2.2)	
<b>Sub total</b>	<b>51</b>	<b>(5.1)</b>	
<b><i>Medical reasons</i></b>			
High risk behaviour	58	(5.8)	
Haemodilution	24	(2.4)	
Neurological conditions of unknown cause	44	(4.4)	
Positive virology	10	(1.0)	
Above age criteria	10	(1.0)	
Other medical reasons, please specify	200	(20.1)	
<b>Sub total</b>	<b>346</b>	<b>(34.8)</b>	
<b><i>All other reasons</i></b>			
Concerns about storage	3	(0.3)	
Other reasons, please specify	39	(3.9)	
Not specified	67	(6.7)	
<b>Sub total</b>	<b>109</b>	<b>(11.0)</b>	
<b>TOTAL</b>	<b>994</b>	<b>(100.0)</b>	