Surgery for coronary artery disease

Overall, there were 14,994 operations for coronary artery disease in 1994: 14,941 with bypass grafts and 53 without. This was an increase of 2.1% in the total number of bypass graft operations performed compared with 1993, with mortality rising slightly to 2.5%. The average number of grafts per patient remained at 3.1. The results over the last 7 years indicate that this average number of grafts has stabilised at just over 3 per patient.

In 1994, 8.5% of coronary artery bypass operations were reoperations. The mortality rate for these reoperations was 5.9%.

Tables 8 and 9 show numbers of operations with and without concomitant procedures, according to the number of distal anastomoses.

Table 8: Coronary artery bypass graft operations (including operations with concomitant procedures), 1991–94

	1991			1992			1993			1994		
No. of distal anastomoses	**No. of patients**	**% of total**	**Dths**	**No. of patients**	**% of total**	**Dths**	**No. of patients**	**% of total**	**Dths**	**No. of patients**	**% of total**	**Dths**
1	1,150	9.1	32	1,247	9.6	38	1,471	10.0	37	1,252	8.4	55
2	2,842	22.5	63	2,831	21.9	69	3,242	22.1	59	3,292	22.0	78
3	4,134	32.7	72	4,279	33.1	82	4,794	32.7	93	4,998	33.5	101
4	3,113	24.6	64	3,153	24.4	64	3,526	24.1	60	3,792	25.4	101
5	1,106	8.7	19	1,140	8.8	29	1,298	8.9	23	1,322	8.8	30
6	255	2.0	4	237	1.8	5	259	1.8	7	248	1.7	6
7	44	0.3	0	46	0.3	0	46	0.3	2	32	0.2	4
8	5	0.0	0	2	0.0	0	1	0.0	0	4	0.0	0
9	—	—	—	—	—	—	1	0.0	1	1	0.0	0
Total	**12,649**	**100**	**254**	**12,935**	**100**	**287**	**14,638**	**100**	**282**	**14,941**	**100**	**375**
Average no. of grafts per patient	3.1			3.1			3.1			3.1		
Overall mortality	2.0%			2.2%			1.9%			2.5%		
Reoperations	7.1%[a]			7.8%			7.7%			8.5%		

[a] One unit could not provide information on reoperations; the total percentage of reoperations given here is calculated from a denominator minus that unit's total (with grafts) operations.

Table 9: Operations for coronary artery disease, 1994

No. of distal anastomoses	Concomitant procedures											
	None		Valve surgery		Excision of infarct or aneurysm		Ventricular septal defect		Other		Total	
	No.	Deaths	No.	Deaths	No.	Deaths	No.	Deaths	No.	Deaths	No.	Deaths
1	829	22	371	27	11	0	4	1	37	5	**1,252**	**55**
2	2,915	58	299	12	30	1	4	2	44	5	**3,292**	**78**
3	4,677	71	229	23	36	1	2	1	54	5	**4,998**	**101**
4	3,612	83	122	10	12	2	0	0	46	6	**3,792**	**101**
5	1,254	25	29	2	6	0	1	0	32	3	**1,322**	**30**
6	243	6	1	0	1	0	0	0	3	0	**248**	**6**
7	30	2	1	1	0	0	0	0	1	1	**32**	**4**
8	4	0	0	0	0	0	0	0	0	0	**4**	**0**
9	0	0	0	0	0	0	0	0	1	0	**1**	**0**
Total with grafts	*13,564*	*267*	*1,052*	*75*	*96*	*4*	*11*	*4*	*218*	*25*	***14,941***	***375***
Without grafts	0	0	0	0	18	1	21	7	14	0	**53**	**8**
Overall total	**13,564**	**267**	**1,052**	**75**	**114**	**5**	**32**	**11**	**232**	**25**	**14,994**	**383**
Reoperations	1,166	59	75	10	4	0	0	0	18	3	**1,263**	**72**

Table 10 presents information on the types of graft used in these operations in 1994. Not all units could supply the information, so results have been calculated as percentages of bypass graft operations that involved the use of at least one of the types of graft. The table shows that nearly all (91.5%) bypass graft operations used at least one saphenous vein graft, with internal mammary artery graft the next major type at 77.8%. Other, more recently introduced types of graft were much less common.

Table 10: Types of grafts used, 1994

Type of graft	No. of patients having type of graft	% of patients having type of graft
Saphenous vein	12,893	91.5
Internal mammary artery	10,962	77.8
Cephalic vein	108	0.8
Radial artery	22	0.2
Gastro-epiploic artery	9	0.0
Prosthetic	3	0.0

Notes:

1. Not all units could supply this information, so results have been calculated as percentages of bypass graft operations which involved the use of at least one of the types of graft.
2. Each patient can have more than one type of graft.

Figure 6 illustrates the marked increase in the number of bypass operations without concomitant procedures since 1985.

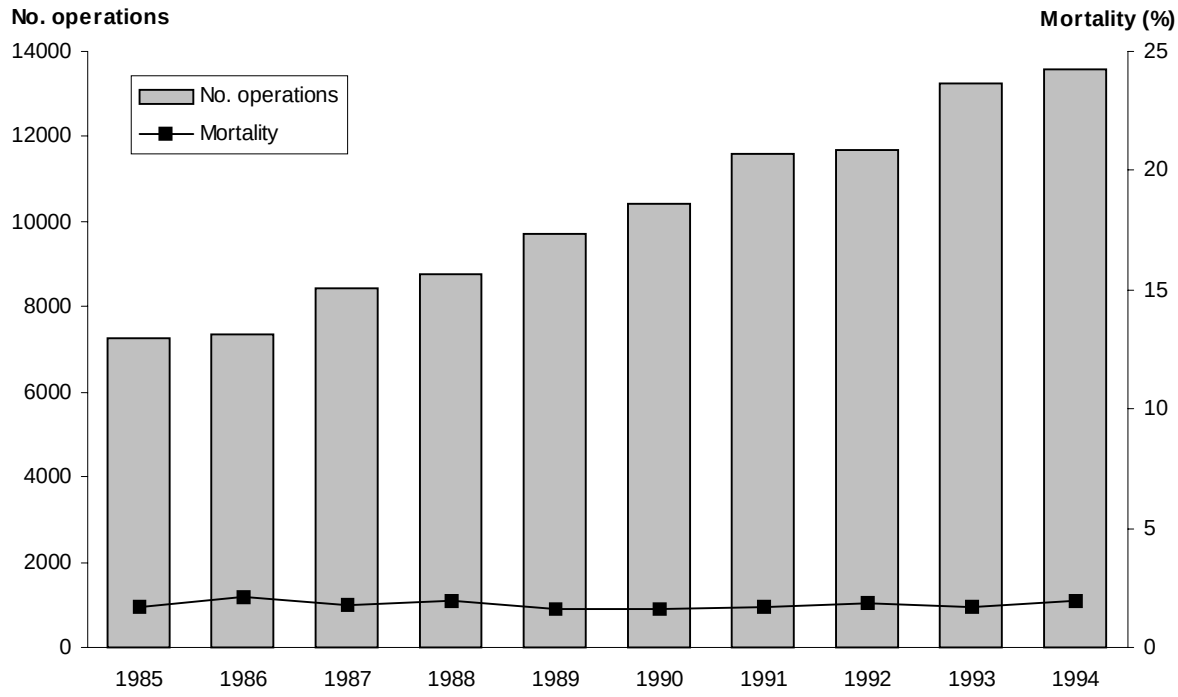

Figure 6: Coronary artery bypass graft operations (without concomitant procedures), 1985–94