

# 5 Comparison of cardiovascular and non-cardiovascular encounters and patients

## 5.1 Type of encounter

The characteristics of the 31,161 cardiovascular encounters are compared with those of the 171,939 non-cardiovascular encounters in Table 5.1. There were four statistically significant differences between them.

**Table 5.1: Distribution of services for cardiovascular and non-cardiovascular encounters**

Encounter type	Cardiovascular encounters (n = 31,161)				Non-cardiovascular encounters (n = 171,939)			
	Number	Rate per 100 encounters	95% LCL	95% UCL	Number	Rate per 100 encounters	95% LCL	95% UCL
General practitioners	2,022	..	..	..	2,031	..	..	..
Direct consultations	28,835	96.9	96.6	97.2	157,482	96.1	95.9	96.4
No charge	97	0.3	0.0	2.8	1,323	0.8	0.5	1.1
Medicare claimable	27,949	93.9	93.3	94.5	147,916	90.3	89.7	90.9
Short surgery	172	0.6	0.0	2.2	2,218	1.4	1.0	1.7
Standard surgery	21,837	73.4	72.4	74.4	122,296	74.6	73.9	75.4
Long surgery	3,510	11.8	10.9	12.7	13,176	8.0	7.6	8.5
Prolonged surgery	221	0.7	0.0	3.3	1,442	0.9	0.0	2.0
Home visits	1,158	3.9	2.7	5.1	2,529	1.5	1.0	2.1
Hospital	261	0.9	0.0	4.6	711	0.4	0.0	1.7
Nursing home	435	1.5	0.0	3.3	1,417	0.9	0.2	1.5
Other items	355	1.2	0.0	3.1	4,127	2.5	2.0	3.0
Workers compensation	92	0.3	0.0	1.5	3,580	2.2	1.9	2.4
Other paid (hospital, State etc.)	697	2.3	0.0	8.4	4,663	2.9	1.3	4.4
Indirect consultations	919	3.1	2.2	4.0	6,362	3.9	3.5	4.3
Script	624	2.1	1.1	3.1	3,264	2.0	1.7	2.3
Referral	78	0.3	0.0	1.7	906	0.6	0.4	0.7
Certificate	11	0.0	0.0	2.8	232	0.1	0.0	0.3
Other	238	0.8	0.0	1.8	2,140	1.3	1.0	1.6
Missing	1,407	..	..	..	8,095	..	..	..

Note: Shading indicates statistically significant differences between the groups. LCL—lower confidence limit, UCL—upper confidence limit.

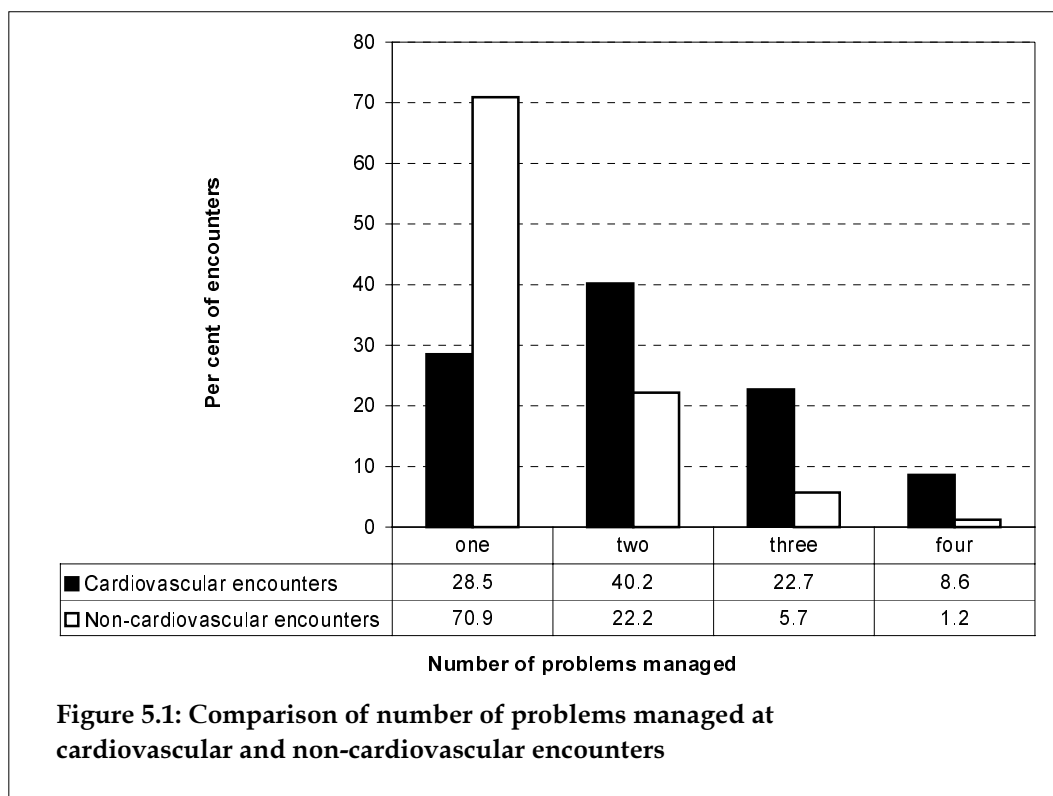
- Cardiovascular encounters were more likely to be claimable through Medicare (93.9%) than were non-cardiovascular encounters (90.3%) and less likely to be claimable through workers compensation (0.3% compared with 2.2%).
- Cardiovascular encounters were more likely to be charged as long surgery consultations (11.8%) than were non-cardiovascular encounters (8.0%) and more likely to be home visits (3.9% compared with 1.5%).

## 5.2 The content of the encounters

Table 5.2 (p. 45) provides a comparison of the overall content of cardiovascular encounters and non-cardiovascular encounters. At cardiovascular encounters:

- there were significantly more patient reasons for encounter recorded (181.3 per 100 encounters) than at non-cardiovascular encounters (142.7)
- the problems managed were significantly less likely to be designated as new problems to the patient (17.4%) than those at non-cardiovascular encounters (37.5%)
- significantly more problems were managed and the difference was considerable (211.3 compared with 137.2 per 100 encounters). Figure 5.1 gives a graphic view of the distribution of problems across cardiovascular and non-cardiovascular encounters.

One problem was managed at 70% of non-cardiovascular encounters and only 6.9% involved three or four problems. In contrast, only 28.5% of cardiovascular encounters involved the management of a single problem, and over 30% involved three or four problems.



**Figure 5.1: Comparison of number of problems managed at cardiovascular and non-cardiovascular encounters**

## Medications

Significantly more medications were prescribed, advised or supplied at cardiovascular encounters (170.8 per 100 encounters compared with 97.6 per 100 non-cardiovascular encounters), but this large difference in medication rates reduced when considered in terms of the number of problems managed at the encounters (80.8 medications per 100 problems managed at cardiovascular encounters compared with 71.1 per 100 at non-cardiovascular encounters) (Table 5.2).

The manner in which medications were provided to patients differed markedly at cardiovascular encounters and non-cardiovascular encounters. The higher overall medication rate at cardiovascular encounters was due wholly to the significantly higher prescribing rate (75.3 per 100 problems managed compared with 58.8). In contrast, the rates at which GPs advised over-the-counter medications and supplied medications directly to the patient were significantly lower at cardiovascular encounters (2.0 and 3.6 per 100 problems managed respectively) than at non-cardiovascular encounters (7.0 and 5.3 respectively).

## Other non-pharmacological management

The overall rate of non-pharmacological treatments recorded per 100 encounters was significantly higher at cardiovascular encounters (49.4) than at non-cardiovascular encounters (46.1). Non-pharmacological managements are divided into two groups: clinical treatments (such as advice and counselling) and procedures.

The overall difference in non-pharmacological management rates was reflected in the rate of recording of clinical treatments, the rate being 39.7 per 100 encounters at cardiovascular encounters and 33.2 per 100 encounters at non-cardiovascular encounters. However, procedures were less frequently recorded at cardiovascular encounters (9.7 per 100 encounters) than at non-cardiovascular encounters (12.9).

When the greater number of problems managed at cardiovascular encounters was considered, the clinical treatment rates were significantly lower at cardiovascular encounters (18.8 per 100 problems) than at non-cardiovascular encounters (24.2). The procedural rate remained lower at cardiovascular encounters (4.6 per 100 problems managed) than at non-cardiovascular encounters (9.4).

## Referrals

Referrals were more frequently recorded at cardiovascular encounters (14.0 per 100 encounters) than at non-cardiovascular encounters (11.6). However, this was entirely due to the high number of problems managed at cardiovascular encounters. When referrals were considered in terms of the numbers of problem, a reversal occurred, referral rates being higher at non-cardiovascular encounters (8.4 per 100 problems) than at cardiovascular encounters (6.6).

Referrals to medical specialists reflected this pattern, with higher rates per 100 encounters at cardiovascular encounters (9.3 per 100 encounters compared with 7.6) but lower rates per 100 problems managed (4.4 compared with 5.5). Although there was no significant difference in rates of referral to allied health services per 100 encounters, referrals for such services were lower in terms of the number of problems managed at cardiovascular encounters (1.7 per 100) than at non-cardiovascular encounters (2.3).

There were no significant differences between the two groups in rates of hospital admissions or referrals to emergency services.

### **Pathology ordering**

Orders for pathology tests were made at a far higher rate at cardiovascular encounters (38.7 test orders per 100 encounters) than at non-cardiovascular encounters (25.3), but this difference again reflected the complexity of these cardiovascular encounters. When considered in terms of the numbers of problems managed, the pathology-ordering rate was almost identical at cardiovascular and non-cardiovascular encounters (18.3 compared with 18.5 per 100 problems respectively).

### **Imaging ordering**

Orders for imaging tests were significantly less common at cardiovascular encounters than at non-cardiovascular encounters, both in terms of the number ordered per 100 encounters (6.3 compared with 7.9) and per 100 problems (3.0 versus 5.8).

**Table 5.2: Morbidity and management at cardiovascular and non-cardiovascular encounters**

Data element	Cardiovascular encounters					Non-cardiovascular encounters					
	Number	Rate per 100 encounters (n = 31,161)	95% LCL	95% UCL	Rate per 100 problems (n = 65,843)	95% LCL	95% UCL	Number	Rate per 100 encounters (n = 171,939)	95% LCL	95% UCL
Reasons for encounter	56,503	181.3	179.4	183.2	..	..	..	245,290	142.7	141.7	143.6
Problems managed	65,843	211.3	209.1	213.5	..	..	..	235,916	137.2	136.3	138.2
New problems	11,427	36.7	35.5	37.9	17.4	16.8	17.9	88,456	51.5	50.5	52.4
Work-related	352	1.1	0.3	2.0	0.5	0.2	0.9	7,019	4.1	3.8	4.3
Medications	53,227	170.8	166.9	174.7	80.8	79.2	82.5	167,779	97.6	96.4	98.8
Prescribed	49,550	159.0	155.0	163.0	75.3	73.5	77.0	138,802	80.7	79.5	81.9
Advised over-the-counter	1,284	4.1	3.5	4.8	2.0	1.7	2.2	16,595	9.7	9.2	10.1
GP supplied	2,393	7.7	5.2	10.2	3.6	2.5	4.7	12,382	7.2	6.6	7.8
Other treatments	15,396	49.4	47.5	51.3	23.4	22.5	24.2	79,220	46.1	43.0	49.1
Clinical	12,369	39.7	38.1	41.3	18.8	18.0	19.6	57,092	33.2	32.2	34.2
Procedural	3,027	9.7	9.3	10.1	4.6	4.3	4.9	22,128	12.9	12.5	13.3
Referrals	4,365	14.0	13.4	14.7	6.6	6.3	6.9	19,894	11.6	11.3	11.9
Emergency department	27	0.1	0.0	2.8	0.0	0.0	1.3	123	0.1	0.0	0.3
Hospital	328	1.1	0.0	2.1	0.5	0.0	1.0	1,264	0.7	0.6	0.9
Specialist	2,881	9.3	8.7	9.8	4.4	4.1	4.6	13,025	7.6	7.4	7.8
Allied health services	1,129	3.6	3.1	4.2	1.7	1.5	1.9	5,482	3.2	3.0	3.3
Pathology	12,045	38.7	36.9	40.4	18.3	17.5	19.1	43,518	25.3	24.5	26.1
Imaging	1,954	6.3	5.7	6.9	3.0	2.7	3.2	13,606	7.9	7.6	8.2

Note: Shading indicates statistically significant differences between patients at cardiovascular and non-cardiovascular encounters, UCL=upper confidence limit, LCL=lower confidence limit.

## Patient sex and age group

Patients at cardiovascular encounters were more likely to be male (42.8%) than those at non-cardiovascular encounters (40.8%). Also, a greater proportion of encounters with male patients (16.0%) involved the management of at least one cardiovascular problem than those with female patients (14.9%) (calculated from Table 5.3).

Patients at cardiovascular encounters were also significantly older than patients at non-cardiovascular encounters, almost 60% of them aged 65 years and over. In contrast, almost 60% of patients at non-cardiovascular encounters were aged less than 45 years. Figure 5.2 provides a graphic representation of the age distribution of the patients at cardiovascular encounters. Females predominated in all age groups. However, when the relative rate of cardiovascular encounters was considered in terms of the total number of encounters for each age-sex group it was apparent that the relative frequency of cardiovascular encounters was higher for males than it was for females in all except the youngest age group (Figures 5.3) where there was little difference between the sexes.

**Table 5.3: Characteristics of patients at cardiovascular and non-cardiovascular encounters**

Patient variable	Cardiovascular encounters (n = 31,161)				Non-cardiovascular encounters (n = 171,939)			
	Number	Rate per 100 encounters <sup>(a)</sup>	95% LCL	95% UCL	Number	Rate per 100 encounters <sup>(a)</sup>	95% LCL	95% UCL
Sex Male	13,152	42.8	42.0	43.5	69,131	40.8	40.2	41.3
Female	17,615	57.3	56.5	58.0	100,493	59.2	58.7	59.8
Missing	(394)	..	..	..	(2,315)	..	..	..
Age < 25 years	474	1.5	0.9	2.2	48,302	28.3	27.8	28.9
25–44 years	2,703	8.7	8.2	9.2	49,941	29.3	28.8	29.8
45–64 years	10,031	32.5	31.7	33.2	39,438	23.1	22.8	23.5
65–74 years	8,392	27.2	26.6	27.7	16,415	9.6	9.3	9.9
75+ years	9,307	30.1	29.2	31.0	16,345	9.6	9.2	10.0
Missing	(254)	..	..	..	(1,498)	..	..	..
New to practice	1,162	3.8	2.9	4.6	16,543	9.7	9.2	10.2
Healthcare card holder	17,197	55.2	54.1	56.2	63,276	36.8	35.9	37.7
Veterans' Affairs card holder	2,271	7.3	6.7	7.9	4,498	2.6	2.4	2.8
Non-English-speaking background	3,542	11.5	9.2	13.9	17,025	10.0	8.8	11.3
Aboriginal and/or Torres Strait Islander	232	0.7	*	3.9	1,835	1.1	0.4	1.7

(a) Missing data removed.

\* Less than 0.05 per 100 encounters.

Note: Shading indicates statistically significant differences between patients at cardiovascular and non-cardiovascular encounters. UCL=upper confidence limit, LCL=lower confidence limit.

## Other patient characteristics

The patients at cardiovascular encounters were far less likely to be new patients to the practice (3.8%) than those at non-cardiovascular encounters (9.7%), reflecting the chronic

nature of cardiovascular disease. They were significantly more likely to hold a healthcare card or a Veterans' Affairs card. In total 62.5% of cardiovascular encounters were with patients who held a card of some sort whereas only 39.4% of the patients at non-cardiovascular encounters held a card. There were no significant differences between patients attending cardiovascular encounters and those attending non-cardiovascular encounters in terms of ethnicity (as measured by non-English-speaking background status) or their Aboriginality or Torres Strait Islander status (Table 5.3).

