

1. REPORT SUMMARY

1.1 Introduction

Same day admissions are an important component of the ACT public health system. When used effectively, same day admissions provide appropriate treatment to patients at less cost and less inconvenience than treatment involving an overnight stay in hospital.

1.2 Audit Objective

The objective of the audit was to provide an opinion to the Legislative Assembly on whether or not the rate of same day admissions in the ACT's public hospitals is adequate to enable the advantages potentially available from an efficient level of same day admissions to be achieved.

The audit opinion formed from the audit is presented in the shaded box below.

AUDIT OPINION

- *The rate of same day admissions in the ACT public hospitals compares favourably with those in NSW hospitals and other States and the Northern Territory.*
- *The rate of same day admissions in the ACT public hospitals is sufficient for the potential benefits of same day admissions to be achievable.*

1.3 Audit Approach and Scope

The audit relied on a comparison of the rates of same day admission in the ACT with those occurring interstate and in NSW hospitals.

The rationale was that if the ACT rates were higher than in NSW a reasonable conclusion could be drawn that the ACT rate of same day admissions is sufficient for the potential benefits of same day admissions to be achievable.

The audit did not extend to an examination of whether the management procedures for same day admissions resulted in the benefits actually being obtained. More detail on the approach is provided in *Chapter 2*.

1.4 Bases For Audit Opinion

The audit opinion is based on the following findings:

- for 1993-94 and 1994-95 the ACT had the highest proportion of same day admissions across all states and territories.
- Canberra Hospital had higher rates of same day admissions than comparable public hospitals in NSW;
- Calvary Hospital's rates of same day admissions were similar to those in comparable hospitals in NSW;
- in a sample of same day procedures examined, the ACT same day admission rates for more than half of the procedures exceeded the best rate achieved in NSW major referral hospitals included in the survey; and
- in the same sample, the overall ACT same day admission rate in more than three quarters of the sample exceeded the NSW average rate.

1.5 Other Issues

The following was noted during the audit::

- within the ACT the same day rates for selected procedures were generally higher for Canberra Hospital than for Calvary Hospital. The overall rate of same day admissions at Calvary Hospital is less than the rate at Canberra Hospital;
- the proportions of same day admissions have increased over the past three years in both Canberra and Calvary Hospitals; and
- there are some deficiencies in public reporting of same day admission rates in the ACT.

1.6 Summary

The audit has found that the level of same day admissions in the ACT public hospitals is higher than in States and the Northern Territory. This finding was confirmed by comparisons of same day admission rates for similar hospitals in NSW and by comparisons of the rates for a sample of typical same day procedures.

Within the ACT, the higher level is mainly confined to Canberra Hospital. Calvary's rates are closer to the rates in comparable hospitals. The same day admission rates have

SAME DAY ADMISSIONS

increased at Canberra and Calvary Hospitals over recent years.

All other things being equal, the higher same day admission rates should lead to relative cost efficiencies in Canberra Hospital. The use of same day procedures should lead to reductions in nursing costs and hotel type costs in hospitals. The audit did not however extend to ensuring that these cost efficiencies are actually being achieved.

1.7 Future Action

The audit's findings led to the following being formulated for consideration for future action:

- information should be presented in public reporting on the proportion of same day admissions to total admissions;
- data should be presented for several years in order to provide information on trends;
- renal dialysis admissions should be separated in the calculated rates in order to provide more accurate information on movements in other medical same day admissions; and
- Calvary Hospital should determine why its same day admission rates differ from those at Canberra Hospital and take appropriate action if necessary.

2. AUDIT APPROACH

2.1 Introduction

This chapter provides information on how information was collected and analysed for the audit

2.2 Report of the NSW Auditor-General

In December 1995, the NSW Auditor-General released a report of a performance audit titled *Department of Health - Same day admissions*. The NSW report was based on a comprehensive analysis of data for a basket of same day procedures (that is, procedures which are commonly performed as same day procedures) across a sample of NSW hospitals. The data used was mainly for 1993-94.

As well, the Report commented on strategic planning for same day admissions, information systems, clinical practices and hospital practices.

The (ACT) Auditor-General's Office utilised some of the data included in the report and was given access by the NSW Auditor-General to some data compilations carried out for the NSW audit.

2.3 Institute of Health and Welfare

Information on levels of same day admissions in other States and the Northern Territory were obtained from the Institute of Health and Welfare.

2.4 NSW Health

NSW Health publishes key activity, staffing and financial measures for each NSW hospital. This information includes information on same day admissions as well as other indicators.

3. SAME DAY ADMISSIONS

3.1 Introduction

This chapter describes same day admissions and outlines some of their advantages.

3.2 What Is a Same Day Admission?

A same day admission occurs when a patient is admitted, treated and discharged on the same calendar day. Same day admissions include:

- medical procedures such as
 - diagnostic procedures like endoscopies and laparoscopies;
 - renal dialysis, a treatment for patients suffering from kidney failure; and
 - chemotherapy, used in the treatment of cancer;
- day surgery.

3.3 Are Same Day Admission Procedures Different To Overnight Procedures ?

There are many non-emergency surgical and medical procedures carried out in hospital which can be treated as either in-patients or day cases. For appropriate procedures and properly selected patients there is no difference in the outcomes of the two methods of treatment.

As the Royal College of Surgeons said in its 1985 Guidelines on Day Case Surgery,

“... it should be clear to all concerned, the surgeon, the nursing staff, and in particular the patient, that day surgery is in no way inferior to conventional admission for those procedures for which it is appropriate, indeed it is better.”

3.4 Advantages of Same Day Admissions

Other differences, however, make day surgery and other same day admissions advantageous:

- patients are often treated sooner because more procedures can be performed for the same money and waiting lists are shorter;

SAME DAY ADMISSIONS

- same day procedures do not require the level of “hotel” type services or nursing care as that provided for patients who stay overnight at hospital;
- many people prefer to spend less time away from home. This is especially important for children for whom hospitalisation should be avoided wherever possible; and
- day surgery can be provided in a self-contained ward or unit which closes down at night.

4. COMPARISONS: OTHER STATES AND NSW HOSPITALS

4.1 Introduction

This chapter presents information which compares:

- the level of same day admissions in the ACT with rates in the States and the Northern Territory; and
- rates of same day admissions in Canberra and Calvary Hospitals with comparable hospitals in NSW.

4.2 Significant Findings

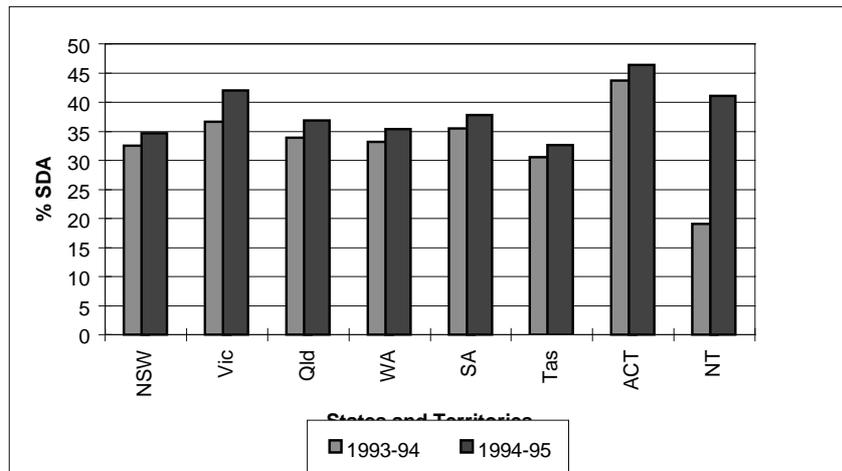
- *for 1993-94 and 1994-95 the ACT public hospitals had the highest proportion of same day admissions across all states and the Northern Territory;*
- *Canberra Hospital had higher rates of same day admissions than comparable public hospitals in NSW; and*
- *Calvary Hospital's rates of same day admissions were similar to those in comparable hospitals in NSW.*

4.3 Interstate Comparisons

The Australian Institute of Health and Welfare collects and publishes information on the level of admissions (including same day admissions) across the states and territories. The table below was compiled from information obtained from the Institute.

SAME DAY ADMISSIONS

Figure 4.1 Same Day Admission Rates in States and Territories 1993-94 and 1994-95



On the basis of this information, the ACT had the highest proportion of same day admissions across all states and territories.

4.4 Comparison with NSW Hospitals

NSW Health publishes key activity, staffing and financial measures for each NSW hospital. This information includes information on same day admissions as well as other indicators.

Hospitals are grouped by category depending on the level and range of services provided and the location of the hospital.

4.5 NSW Acute Hospital Categories

There are eight categories of acute hospital in NSW:

- principal referral
- major metropolitan referral
- major non-metropolitan referral
- district metropolitan
- large non-district metropolitan
- small district non-metropolitan
- community acute ungrouped acute

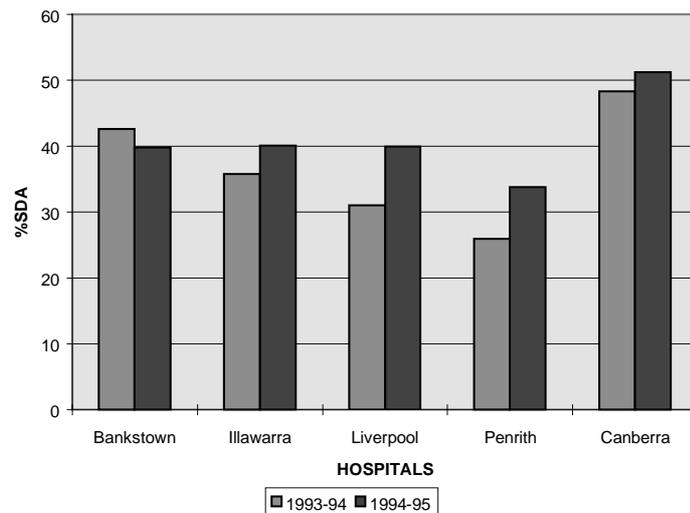
For the purposes of comparison, Canberra Hospital has been treated as equivalent to a major metropolitan referral hospital.

SAME DAY ADMISSIONS

4.6 Canberra Hospital

Comparing Canberra Hospital with four *major metropolitan referral hospitals* in NSW - Bankstown, Illawarra, Liverpool and Penrith - shows that the same day admission rate at Canberra is higher than that in the NSW hospitals.

Fig 4.2 - % Same Day Admissions NSW Major Metropolitan Referral Hospital Category

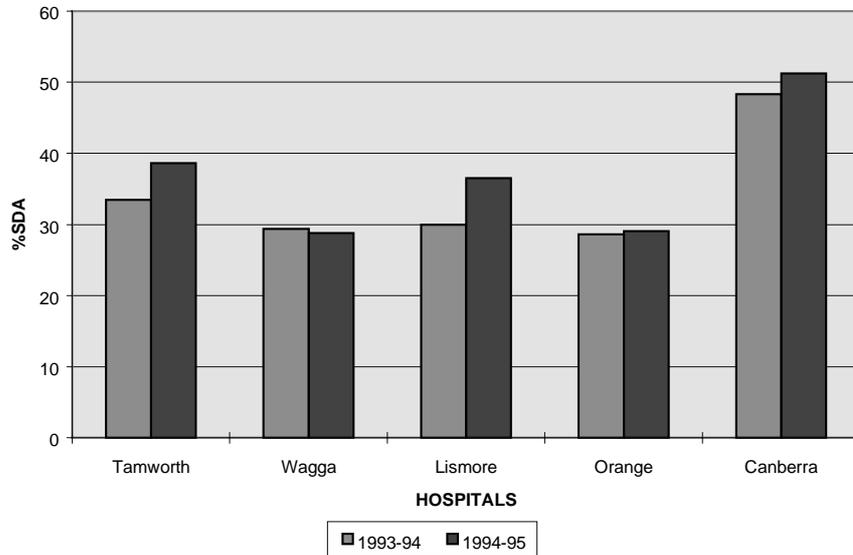


Although NSW *major non-metropolitan hospitals* are smaller than Canberra, they share some common responsibilities in being medical regional centres.

The graph below compares Canberra with Tamworth, Wagga, Lismore and Orange hospitals. Again the same day admission rate is significantly higher in Canberra than in the other hospitals.

SAME DAY ADMISSIONS

Fig 4.3 - % Same Day Admissions NSW Major Non Metropolitan Referral Category



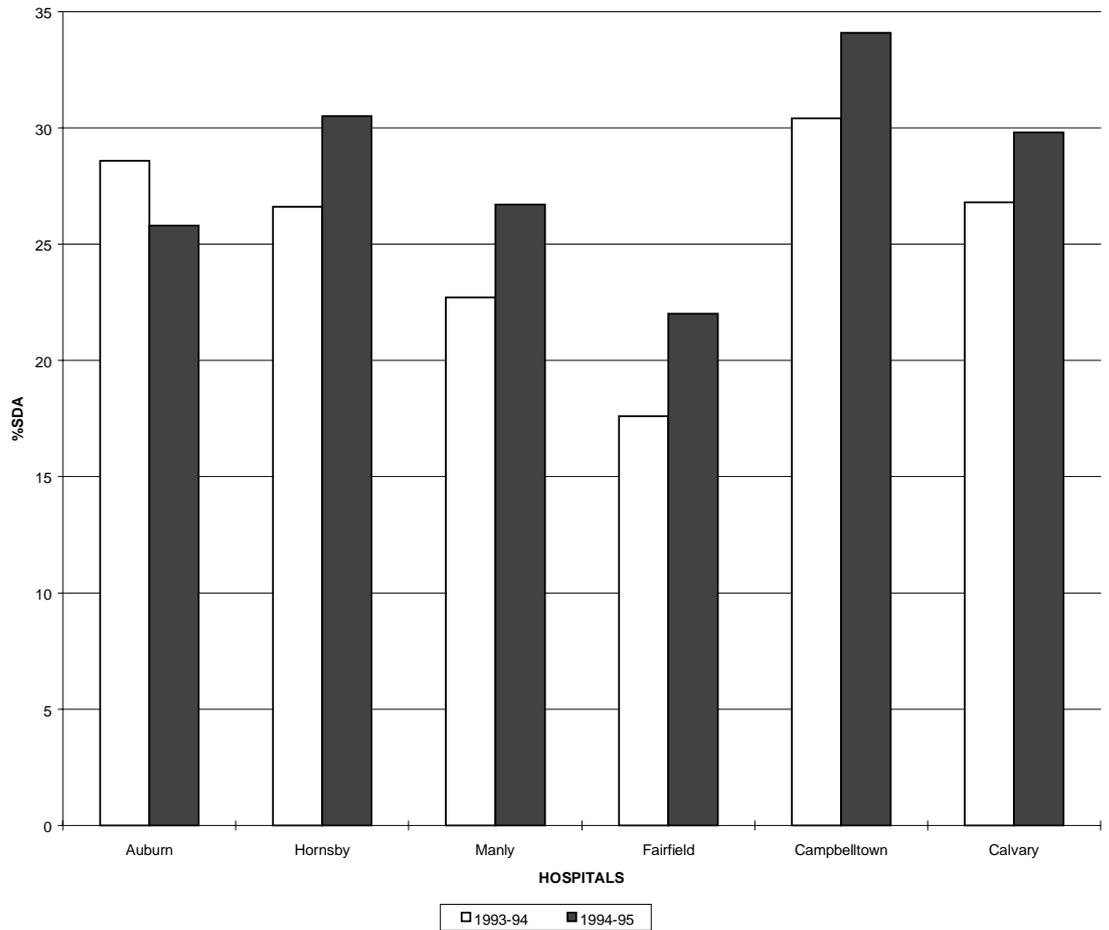
4.7 Calvary Hospital

Calvary Hospital's rate of same day admissions is comparable with hospitals in the ***NSW district metropolitan*** category. The table below presents the same day admission rates for Auburn, Hornsby, Manly, Fairfield and Campbelltown hospitals and Calvary Hospital.

In this comparison, Calvary's rates for 1993-94 and 1994-95 are less than Campbelltown's rates but equal to or higher than the rates for the other hospitals - see Fig 4.4.

SAME DAY ADMISSIONS

Fig 4.4 % Same Day Admissions NSW District Metropolitan Category



Although Calvary's rates are lower than Canberra's (see *Chapter 6*), they compare favourably with the rates in similar NSW hospitals.

5. REVIEW OF SAMPLE OF PROCEDURES

5.1 Introduction

The audit compared rates of admission for 20 typical same day procedures for Canberra and Calvary Hospitals with information collected for hospitals in NSW.

5.2 Significant Findings

- *In approximately half of the sample of procedures examined, the ACT same day admission rate exceeded the best rate achieved in NSW major referral hospitals; and*
- *in more than three quarters of the sample, the overall ACT same day admission rate exceeded the NSW average rate.*

5.3 Basket of Procedures Examined

This audit selected the same 20 same day admission procedures as those used in the audit by the NSW Auditor-General (see *Chapter 2*). The procedures were selected on the basis of high volumes of activity and their established status, or their potential suitability for same day treatment.

The procedures in the sample were:

- Arthroscopy
- Bronchoscopy
- Cataract extraction (with or without insertion of prosthetic lens at the time of extraction).
- Cardiac catheterisation
- Cervical procedures
- Circumcision
- Colonoscopy
- Cystoscopy
- Diagnostic dilation and curettage
- Excision of breast lump
- Gastroscopy
- Haemorrhoidectomy
- Inguinal herniorrhaphy
- Diagnostic laparoscopy

SAME DAY ADMISSIONS

- Myringotomy
- Release of carpal tunnel
- Skin lesions
- Tooth extraction
- Varicose veins
- Vasectomy

Information was collected from Canberra Hospital and Calvary Hospital for 1993-94. This year was chosen as it is the same as the year used in the NSW study. More recent information is available.

5.4 Results of Examination of Data

Table 5.1 below on page 14 presents a summary of the information collected from Canberra and Calvary Hospitals and the NSW hospitals.

In this table, the NSW best practice benchmarks are the rates which were actually achieved in major referral hospitals in the study. The NSW average rate was the weighted rate across all of the hospitals in the study.

5.5 Audit Observations

Some broad observations can be made about the results of the comparison:

- out of the sample of 20 procedures, the ACT total rate (i.e. Canberra and Calvary combined) exceeded the NSW best practice rate (i.e. the best rate achieved in NSW major referral hospitals) in 11 procedures;
- in another 5 procedures, the ACT rate was between the NSW best practice and the NSW average;
- in 4 procedures (Bronchoscopy, Circumcision, Cytoscopy NEC and Inguinal Herniorrhaphy) the ACT rate was less than the NSW average.

SAME DAY ADMISSIONS

Table 5.1 Same Day Admission Rates - Selected Procedures

	WVH overall % rate	Calvary overall % rate	ACT overall % rate	NSW "best practice" % rate	NSW average % rate
Arthroscopy	63	64	63	80	54
Bronchoscopy	35	50	39	60	47
Cardiac catheterisation	46	0	46	39	15
Cartaract extraction	78	6	65	67	30
Cervical procedures	96	67	96	85	85
Circumcision	47	2	30	83	62
Colonoscopy	87	92	89	82	71
Cytoscopy	46	39	45	60	60
Diagnostic D & C	92	77	90	88	77
Local excision breast lesion	78	30	53	75	46
Gastroscopy	73	80	76	74	59
Haemorrhoidectomy	68	8	52	48	36
Inguinal herniorrhaphy	46	5	31	70	56
Diagnostic laparoscopy	66	56	65	72	56
Myringotomy	94	71	93	84	65
Carpal tunnel release	82	100	87	75	47
Other local destruction skin lesions	86	73	86	68	60
Tooth extraction	96	86	92	90	76
Varicose veins	21	6	15	50	11
Vasectomy	91	0	91	88	83

6. SAME DAY ADMISSIONS IN THE ACT

6.1 Introduction

This chapter compares the level of same day admissions at Canberra and Calvary Hospitals and reviews the level of same day admissions in specialty groups at Canberra Hospital.

6.2 Significant Findings

- *the rate of same day admissions at Canberra and Calvary Hospitals has increased over the last four years;*
- *the rate of same day admissions at Canberra Hospital is higher at Canberra Hospital than at Calvary Hospital; and*
- *the proportions of same day admissions to total admissions at Canberra Hospital have increased over the past three years for each of the major specialty groups.*

6.3 Same Day Admissions in Canberra and Calvary Hospitals

Canberra and Calvary Hospitals have been providing services to patients on a same day basis for a considerable period of time. It is understood that a same day surgery unit operated at the former Royal Canberra Hospital in the 1970s. Calvary has had a specialised same day unit for several years

6.4 Where Are the Services Provided?

In both hospitals, medical same day procedures take place in specialist clinics. A specialised day surgery unit in Canberra Hospital is able to handle about 20 cases per day, operating through the day into the evening. In Calvary, a specialised day surgery unit handles some cases; others are treated through the ordinary wards.

6.5 Data On Same Day Admissions

Information on same day admissions at Canberra and Calvary Hospitals is included in the Annual Reports of the Department of Health and Community Care.

SAME DAY ADMISSIONS

**Table 6.1 Same day Admissions at Canberra and Calvary Hospitals
1992-93 - 1995-96**

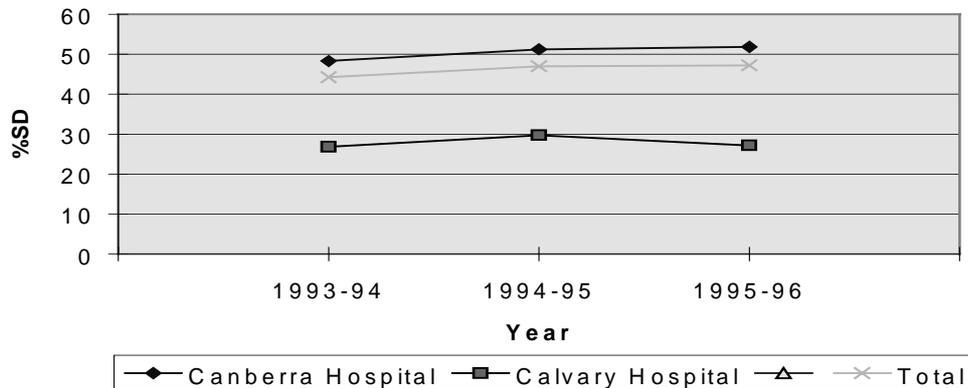
	1992-93	1993-94	1994-95	1995-96
Canberra Hospital				
Total admissions	39,652	42,728	43,951	45,458
Same day admissions	15,483	20,649	22,513	23,566
% same day admissions	39.0	48.3	51.2	51.8
Calvary Hospital				
Total admissions	9,507	9,960	10,823	10,433
Same day admissions	2,377	2,674	3,221	2,837
% same day admissions	25.0	26.8	29.8	27.2
Total				
Total admissions	49,159	52,688	54,774	55,891
Same day admissions	17,860	23,323	25,734	26,403
% same day admissions	36.3	44.3	47.0	47.2

Note that data for 1992-93 is not consistent with data for 1993-94 onwards because of the inclusion of renal admissions as admissions from 1993-94.

This data is presented in the graph below:

SAME DAY ADMISSIONS

**Fig 6.1 - % Same Day Admissions: Canberra and Calvary Hospitals
1993-94 - 1995-96**



The overall rate of same day admissions has increased from approximately 44% in 1993-94 to 47% in 1995-96.

It will be seen that the rate of same day admissions for Canberra Hospital has increased from approximately 48% to approximately 52% over the three years.

Calvary Hospital's overall rate has increased over the last four years from 25% in 1992-93 to 29.8% in 1994-95 and 27.2% in 1995-96.

6.6 Renal Dialysis Admissions

A considerable number of Canberra Hospital same day admissions are for renal dialysis.

Renal dialysis is provided to persons whose kidneys are unable to provide sufficient function to allow independent living. Treatment involves the patient's blood being passed through a machine which mimics the action of the kidneys in filtering and removing toxic products and other impurities. Treatment typically takes eight hours and is provided weekly to each patient.

Major hospitals in other states also provide high levels of renal dialysis.

The demand for renal dialysis is largely a function of the number of machines available. The more machines which become available, the more patients can be treated and the more frequently existing patients can be treated.

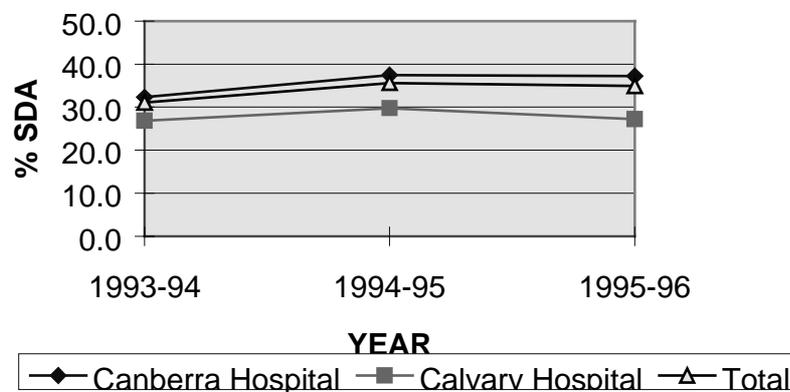
Although renal dialysis is regarded as a same day procedure, the large number of renal cases can distort the

SAME DAY ADMISSIONS

numbers for the other more discretionary treatments and procedures. Removing renal dialysis admissions from the numbers provides a more realistic picture of the situation. It should also be noted that Calvary Hospital does not provide renal dialysis.

The graph below presents the data in Graph 6.1 with renal dialysis admissions excluded:

Fig 6.1 - % Same Day Admissions: Canberra (Less Renal Dialysis Admissions) and Calvary Hospitals 1993-94 - 1995-96



In this graph it can be seen that without renal dialysis patients the overall rate of same day admissions is approximately 37% for Canberra Hospital and approximately 35% for Canberra and Calvary combined.

6.7 Comparison of Canberra and Calvary Hospitals

The removal of the renal dialysis admissions also enables a better comparison of Canberra and Calvary Hospitals. Although the “gap” has narrowed, the level of same day admissions at Calvary Hospital is about 10 percentage points or a quarter below the level at Canberra Hospital.

Calvary Hospital advised that the difference is may be due to differences in the types of specialties handled at Canberra Hospital but not at Calvary e.g. oncology and paediatric cases are treated at Canberra Hospital.

The audit did not review the data in sufficient detail to determine the reasons for differences. However, it is noted that the data in Table 5.1 (*page 13*) suggests that the levels of same day admissions in Canberra across the specialties sampled are higher than in Calvary.

6.8 Canberra Hospital - Detailed Analysis

A more detailed analysis can be made of the data for Canberra Hospital. In Canberra, Hospital clinical services are provided in three groupings of specialties:

- **Women's and children's health** - comprises paediatrics, paediatric surgery, gynaecology surgery, and obstetrics.
- **Medical** - medical and radiation oncology, clinical haematology, infectious diseases, cardiology, thoracic medicine, endocrinology, dermatology, rheumatology, neurology, gastroenterology, general medicine, geriatrics and rehabilitation.
- **Surgical** - ophthalmology, ENT, plastic surgery, neurosurgery, vascular surgery, thoracic surgery, orthopaedics, urology, dental and general surgery.

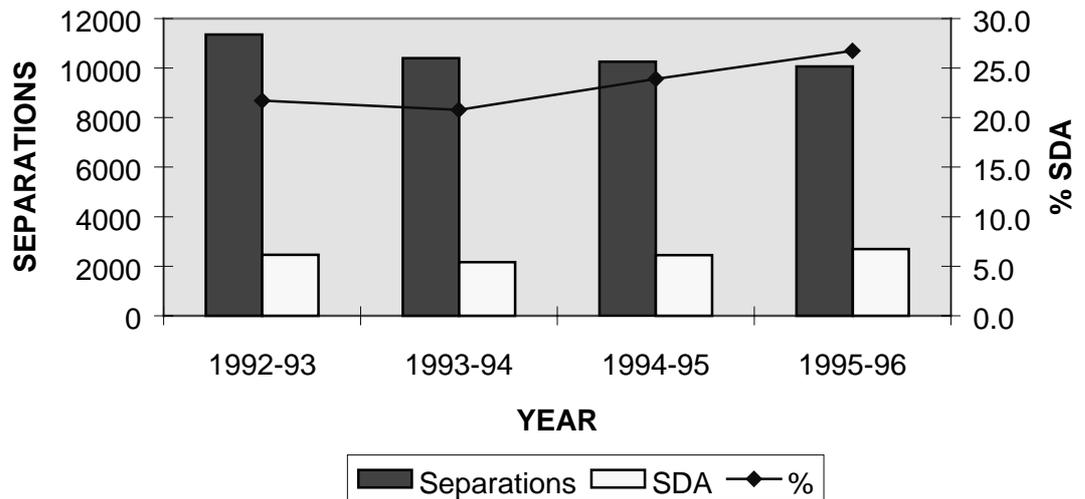
Relatively small numbers of inpatients are also treated in critical care (typically same day) and imaging and mental health (usually more than a single day).

The numbers of separations and the % of same day admissions for each of these service groups are presented in the graphs below:

SAME DAY ADMISSIONS

6.9 Women's and Children's Health

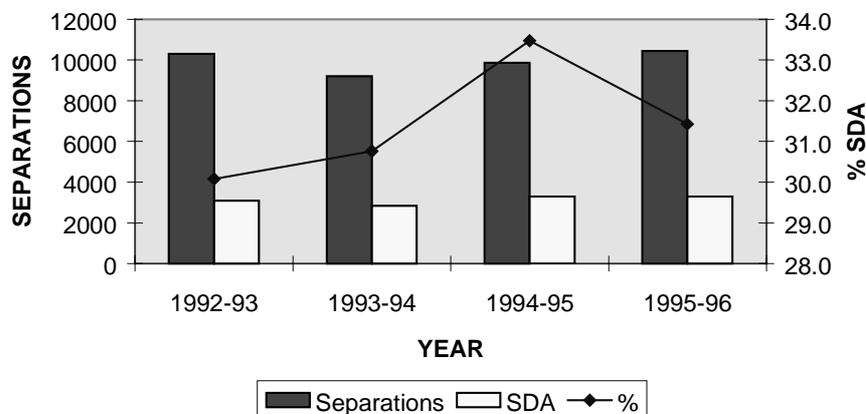
**Fig 6.2 Same Day Admissions: Women's and Children's Health
1992-93 - 1995-96**



Although the total number of separations has fallen over the past three years, the % of SDA to total separations has been increasing steadily from 20.85% in 1993-94 to 26.75% in 1995-96.

6.10 Surgical

Fig 6.3: Same Day Admissions: Surgical 1992-93 - 1995-96



The level of SDA fell by 2 percentage points in 1995-96 after rising from 1992-93. Although the number of separations

SAME DAY ADMISSIONS

has been increasing since 1993-94, the number of SDA fell slightly between 1994-95 and 1995-resulting in the reduction of the % of SDA.

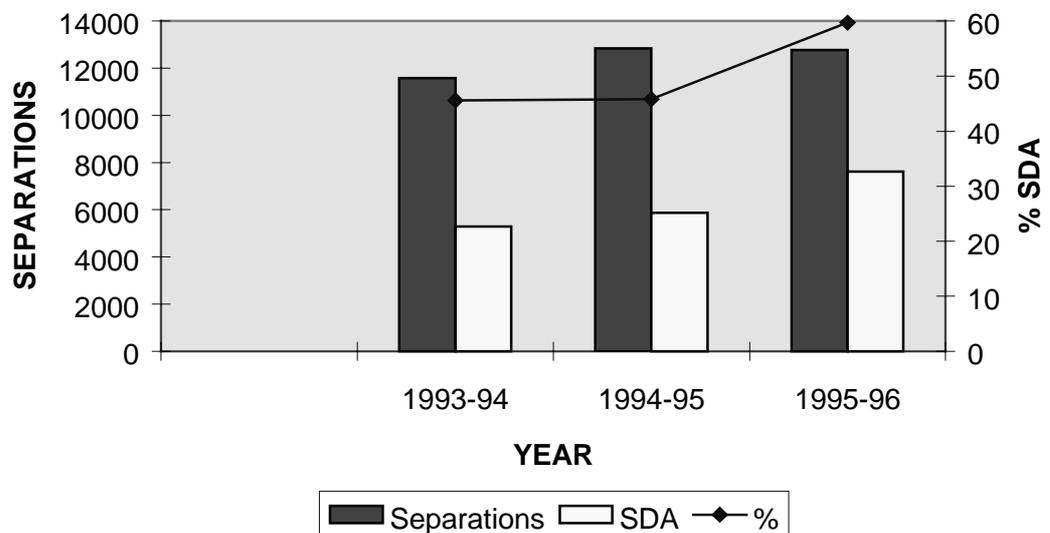
6.11 Medical Less Renal Dialysis

In this analysis, the renal dialysis admissions have been removed from the total medical admissions to present the underlying trends.

Although the total number of admissions fell slightly between 1994-95 and 1995-96, the significant increase in the number of SDAs caused the SDA rate to increase to 60%.

Overall, it appears that the proportions of same day admissions to total admissions has increased over the past three years for each of the major specialty groups.

Fig 6.4: Same Day Admissions: Medical Less Renal Dialysis 1993-94 - 1995-96



6.12 Reporting of Same Day Admission Rates

Same day admission rates for Canberra and Calvary Hospitals are reported in the Annual Report of the Department of Health and Community Care.

The information reported is:

- number of same day admissions
- total admissions

SAME DAY ADMISSIONS

- current year and previous year.

It is considered that this reporting has deficiencies:

- the proportion of same day admissions to total admissions is more important than the raw numbers of admissions. Although the rate can be calculated fairly easily, it would be useful for users of the report if the calculated rate was reported;
- data should be provided for more than two years to provide information on trends; and
- the inclusion of renal dialysis admissions in the data hides the impact of movements in same day admissions in other specialties.

6.13 Suggestions for Future Action

The following suggestions for future action address these matters:

- information on the proportion of same day admissions to total admissions should be presented in public reporting;
- data should be provided for several years in order to provide information on trends; and
- renal dialysis admissions should be removed from calculated rates in order to provide more accurate information on movements in other specialties.