

CARDIOLOGY SERVICES

CHAPTER 9

All hospitals in SWSAHS care for patients with cardiac conditions. Cardiology Services include inpatient care, non-invasive investigations (echo, stress testing, holter monitors), invasive investigations (angiography, EPS), invasive treatments (percutaneous coronary intervention, coronary bypass surgery, pacemakers), and cardiac rehabilitation programs.

Cardiac Rehabilitation Services across the Area are vital to maintaining health and improving patient outcomes.

SWSAHS is 86% self-sufficient in the provision of non-invasive cardiology services, and 72% self-sufficient in the provision of interventional cardiology. The private sector captures only 5% of total resident demand for non-interventional cardiology. By contrast, private sector hospitals capture 32% of total resident demand for interventional cardiology.

In 2002/03, SWSAHS delivered a total of 6,813 episodes of care in non-interventional cardiology, and 1,954 episodes of care in interventional cardiology. These episodes of care accounted for a total of 26,721 and 9,941 beddays respectively. This is equivalent to 106 beds for interventional and non-interventional Cardiology at 95% occupancy. (118 beds at 85% occupancy.)

Most outflows for non-interventional cardiology were to Auburn and Westmead Hospitals. The majority of outflows for interventional cardiology were to Westmead, St. Vincent's and Royal Prince Alfred Hospitals.

The demand for non-interventional cardiology services is expected to increase by 11.4% to 2006 and by a further 14.5% to 2011. The demand for interventional cardiology is expected to increase by 17.4% to 2006 and by an additional 15.6% to 2011.

In 2006, at 85% occupancy and assuming no change in flow patterns, it is projected that there will be a need for approximately 88.4 cardiology beds and 31.4 cardiology interventional beds for adults.

Current Service Provision

Comprehensive non-invasive services are provided at Bankstown and Liverpool, whilst limited services are provided at Campbelltown Fairfield and Bowral. Liverpool and Bankstown Hospitals have a formal Cardiology roster with patients in other SWSAHS hospitals cared for predominantly by General Physicians. One general physician in Bowral is a fully trained Cardiologist, whilst Fairfield and Campbelltown have access to consultative cardiologists.

Increased numbers of cardiologists and trained nurses will provide opportunities for expanded specialist care at Fairfield and Macarthur, improved access to Liverpool for invasive cardiology together with 24 hour services for urgent Percutaneous Coronary Intervention [PCI].

A Director of Heart failure services will allow all sectors to have comprehensive cardiac rehabilitation and heart failure services to meet the outcomes targets of the NSW Clinical Service framework for Heart Failure.

Bankstown

Bankstown Hospital offers a level 5 cardiac services, which includes all cardiac management and diagnostic support apart from catheterisation and cardiac surgery. Comprehensive cardiac diagnostic services operate including tilt table, signal average ECGs, Dobutamine, cardioversions, 24 hour ambulatory blood pressure, Holter monitoring, echo cardiography, transoesophageal echocardiography and stress testing.

Bankstown operates 6 CCU and 24 step-down beds, 8 of which are telemetry beds.

Liverpool

Liverpool Hospital provides a cardiology service at role delineation of level 6 and cardiothoracic surgery at role delineation of level 6. The service provides diagnostic and interventional services including transthoracic echocardiography, transoesophageal echocardiography, stress echocardiography, stress testing, Holter monitoring, permanent pacemaker implantation and follow-up, cardiac catheterization and angiography and percutaneous coronary interventions, including intra-vascular ultrasound.

Liverpool has an 8 bed acute Coronary Care Unit and a 20 beds subacute step-down unit. There are 10 inpatient cardiology ward beds.

Fairfield

Fairfield combined HDU/CCU has 10 beds. Cardiac patients usually occupy 7 of these beds.

Campbelltown

Campbelltown has 6 CCU beds located within a 24hr Acute Medical Unit.

Camden

There are currently no HDU beds in use at Camden Hospital.

Bowral

At Bowral the majority of the 8 HDU/CCU beds are occupied by cardiac patients.

Outpatients

Bankstown performs transthoracic echocardiography (TTE), transoesophageal echocardiography (TOE), exercise stress test (EST), Holters, ambulatory BP and tilt testing. Liverpool does outpatient angiography, TOE, Holter monitors, EST, TTE, stress echos, DC cardioversions, Pacemaker Clinic and outpatient ECGs. Campbelltown has TTE and EST capability, while Fairfield and Bowral do ESTs.

Comprehensive outpatient cardiac rehabilitation programmes are provided to cardiac patients with primary or secondary prevention CHD, angina, myocardial infarction, pre and post cardiac surgery and angioplasty. These include exercise and multidisciplinary educational programmes. Supervised exercise classes and/or home visits to patients who cannot attend the outpatient services are also offered.

Cardiac Rehabilitation Services across the Area have developed Cardiac Rehabilitation Continuum of Care Guidelines. Phase 1 of the Guidelines includes rehabilitation for inpatients, phase 2 includes the provision of 6-8 week multidisciplinary educational programs for clients post discharge and phase 3 includes the ongoing maintenance of health for cardiac patients. In addition, a Cardiac Shared Care Program has been established with the Fairfield Division of General Practice.

High Cost Equipment Needs

A third cardiac catheter laboratory will enable increased provision of Pacemakers, Peripheral intervention and electrophysiology services to improve patient flow across SWSAHS. This will require capital works at Liverpool.

Research and Teaching

As the service develops there will be additional integrated focus on professional development and research. Individuals within the cardiac services have made great strides in research over the last few years, taking part in multi-centre trials and developing internal research. Further fellowships will be developed in interventional and non-invasive cardiology to allow the development of postgraduate “students”. Closer academic links to the University and a more robust research culture will also be developed.

RECOMMENDATIONS

- An Area Cardiac service be developed with locations at Bankstown, Fairfield, Liverpool, Campbelltown and Bowral.
- Liverpool be the centre for interventional cardiology and electrophysiology services. A third cardiac catheter laboratory and a 24 hour / seven days per week Primary Coronary Intervention Service be established.
- Enhanced non-invasive services (such as stress testing) be provided at Fairfield, Campbelltown, and Bowral.
- Liverpool, Fairfield and Campbelltown Hospitals expand cardiologist presence.
- A cardiac laboratory be provided at Campbelltown to enable non-invasive cardiology procedures such as transoesophageal echocardiography to be performed, with a view to providing interventional cardiology in the future.
- Campbelltown develop as the centre for Heart Failure with a Director appointed.
- An Area Cardiology Patient Flow Manager.