

File No.:
 WITS No.: 89573

Comments from Secretary: <i>Pip</i>	Approved / Not Approved / <u>Noted</u>
<i>Can the essential priority of them please be drafted into a letter to TMS Chair, CEO & cc. to Chair of CABs + Cardio Care + TSSC.</i>	
	Michael Pervan Secretary Date: 30/11/15

Critical Date: 27 November 2015

Minute to Secretary

Subject: Cardiothoracic Surgery – Estimate Scale of Interstate Treatment of Tasmanian Residents

Purpose

To:

- provide information on cardiothoracic activity both locally and interstate, and on what proportion of interstate activity could potentially have been undertaken in Tasmania.

Summary of Key Issues

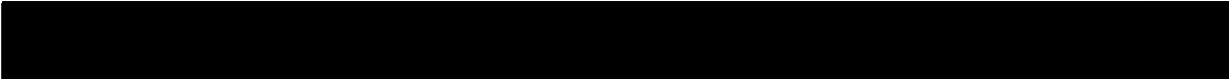
- Comprehensive data on private cardiothoracic surgical activity performed on Tasmanian residents in every state and territory is not currently available. However, we do have comprehensive information on volumes of all public interstate activity, and activity undertaken in Victorian private hospitals.
- That data indicates that around 100 interstate cases performed in public hospitals nationwide and private hospitals in Victoria could technically be provided in Tasmania each year, in addition to 280 public and private cases already undertaken locally at the Royal Hobart Hospital (RHH). Additional private cases may be treated in other states, but the volumes of such cases are not currently known.
- This analysis has identified a number of deficiencies in the Department of Health and Human Services (DHHS) current holdings of and ability to access data on Tasmanian residents treated interstate.
- Attachment I provides details of this analysis and key findings.

Background

- An initial examination of cardiothoracic activity has been undertaken in response to a question on the volume of cardiothoracic surgery performed on Tasmanian residents locally and interstate; and the extent to which clinically those cases could potentially have been performed within Tasmania.

- It is understood that this issue relates critically to proposed developments in cardiothoracic surgery involving local private hospital providers. Some stakeholders have made the assertion that large numbers of Tasmanian residents are referred interstate for private cardiothoracic treatment, on a scale sufficient to support the opening of a second (private sector) cardiothoracic surgery alongside the current single statewide service at the RHH.

Analysis of Issues

- The information currently available to DHHS on overall cardiothoracic surgical activity shows that volumes have not altered significantly over the past few years in Tasmania. Analysis has focussed on valve replacements and Coronary Artery Bypass Grafts, as cardiothoracic surgery procedures that could be performed in Tasmania, and constitute the majority of overall workload.
- The public wait list of Cardiothoracic “ready for care” cases also has not changed significantly in Tasmania over the past number of years.
- Removals from the Tasmanian Elective Surgery Cardiothoracic cases wait list have declined in recent years.
- Unfortunately, comprehensive data on all interstate activity (i.e. highly detailed public and private activity undertaken on Tasmanian residents in all other states and territories) is not currently available.
- Interstate public and private activity for cardiothoracic services has increased only a small amount in the past year according to data provided from Victoria in their public hospitals.
- The available data indicates that there were 27 public cardiothoracic cases performed interstate (nationwide) in 2013-14 and 70 private cases (Victorian data only) that could have potentially been performed in Tasmania. In addition to a locally delivered public and private caseload of 283 cases in 2014-15, this exercise has identified approximately 100 interstate cases that could (on technical grounds alone, and irrespective of patient preferences) potentially be delivered locally. This is a conservative estimate, given that we currently have no private data from any state other than Victoria. It is, however, clear to us that no other local stakeholders do possess broader interstate data.
- In reality, it is highly unlikely that all the identified private cases going to Victoria could be repatriated to Tasmania. Even if it is assumed that they could be retained locally, this analysis suggests that the total available caseload would be close to the margin of a viable 200 case annual volume per unit were a new private cardiothoracic centre to open in Tasmania, and would require the RHH to effectively cease undertaking private cardiothoracic cases to divide the available caseload across two centres, one public and one private.
- There is insufficient data available interstate to identify the individual cases being treated, therefore, we are unable to determine exactly who these patients are locally from our Tasmanian data.
- There is no interstate private sector episode level data available for examination at this time (i.e. information on patient characteristics, diagnoses, procedures etc.).
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- Overall, it is unclear what is driving the slight increase in Tasmanian patients seeking public or private cardiothoracic services in Victoria (or possibly any other jurisdictions at present).

Attachments

- I Examination of Cardiothoracic Activity

Recommendation(s)

That you:

I note the findings of this analysis

Clearances

Proper attention has been given to critical timeframes and sufficient time has been allowed for consideration of the issues and/or for briefings to occur to enable decisions to be made. Consultation on the issues has occurred. Consequently this Minute has been approved for transmission, and accuracy and content of the document is endorsed by:

Pip Leedham, A/Deputy Secretary – Planning, Purchasing and Performance on Date.

Contact number: Phone No..

Agreement with the document and the content within it has been provided by:

Martin Hensher, Director – Monitoring, Reporting and Analysis

Kevin Ratcliffe, Senior Advisor – Casemix Risk, Costing and Funding

This Minute was prepared by:

John Marrone, Casemix Risk Officer on 20 November 2015. Contact number: 61661013

Attachment 1: Examination of Cardiothoracic Activity

MRA - PPP

Summary

An initial examination of cardiothoracic activity has been undertaken in response to a question on the volume of cardiothoracic surgery performed on Tasmanian residents locally and interstate; and the extent to which clinically those cases could potentially have been performed within Tasmania.

It is understood that the context for this question involves recent proposals for the provision of cardiothoracic surgery by private providers based in Hobart. It is understood these proposals are founded on the assumption that there exists a sufficient interstate private or public cardiothoracic volume which – if diverted to local providers – could support a private service alongside the current single cardiothoracic surgery service based at the Royal Hobart Hospital.

Method

The initial examination is made at an aggregated level examining primarily Coronary Artery Bypass graft surgery and Heart Valve replacement surgery as these are the most common procedures undertaken and represent more than 90% of Cardiac surgery. Hence, they can be regarded as procedures that could – on clinical and technical grounds, at least – potentially have been provided in Tasmania.

The DRGs were also selected as coding is unchanging over time and admission practices are unlikely to vary. Other procedures such as pacemakers (included in the cardiothoracic Service Related [SRG] group) can also be undertaken by cardiologists and admission practices can vary, making counts subject to change.

In short, this is an examination of Coronary Artery Bypass surgery and Valve Replacement surgery cases, which constitute a stable classification and counting cohort, and constitutes the majority of cardiothoracic activity. It is intended specifically to examine whether the situation of demand and provision of these surgeries has altered over the recent years sufficient to warrant dramatic reconfiguration of service provision. It provides a compelling view of a stable service.

Findings

The following points are noted

- Tasmanian Cardiothoracic Surgical activity has not altered significantly over the past few years.
- The public wait list of Cardiothoracic “ready for care” cases has not changed significantly.
- Removals from the Tasmanian Elective Surgery Cardiothoracic cases wait list have declined in recent years.
- Comprehensive and authoritative data on all interstate activity (i.e. public and private activity undertaken on Tasmanian residents in all other states and territories) are not currently available.

- Interstate public activity has increased a little in the past year according to data provided from Victoria on their public hospitals.
- Interstate private hospital activity for Tasmanian patients has increased over the past year in Victorian private hospitals.
- There is insufficient data available to identify the postcode location of cases being treated in Victoria.
- There is no interstate private sector episode level data available for examination at this time (i.e. information on patient characteristics, diagnoses, procedures etc.).



Definitions

This is an initial DRG level examination of data relating to Cardiothoracic Surgery.

Valve replacements and Coronary Bypass surgery has been used to represent the majority of Cardiothoracic elective surgery, and as the bulk of “cases that could have been undertaken in Tasmania”, for the following reasons:.

- These represent the great majority of cases requiring heart lung bypass pump.
 - Victorian data were available at this level.
 - These cases must be admitted overnight –
 - This ensures that counting is consistent across years and jurisdictions.
- Other cardiothoracic procedures were not used in this analysis as these DRGs include Pacemakers which can be performed by either cardiothoracic or cardiology.
 - Some Cardiothoracic cases go into A-DRG A06 (Tracheostomy) but these are a small number
- Use of the same Bypass and valve replacement data ensure consistency over years and systems

Data sources

- FYI data
 - activity and
 - wait list tables
- Interstate Charging data
 - Excel data provided to Tasmania by other jurisdictions for purposes of interstate charging payments for Tasmanian public patients treated interstate.
- Table of data provided by Victoria.

Data limitations

Victoria Data provided to DHHS Secretary

Table 1 Data provided to Tasmania from Victoria Dept. Health

Tasmanian residence admitted to Victorian public hospitals 5 years						
Source: VAED 2009-10 to 2014-15						
Selection criteria: If patient is a resident of Tasmania			if substr(pstcode,1,1)='7';			
Excludes: 0-14 year olds						
agegroup (Multiple Items)						
mcrgname Cardiothoracic Surgery						
Sum of sepn		finye				
hosptype	crgrname	2010-11	2011-12	2012-13	2013-14	2014-15
PU	003-Valve Surgery	7	10	5	10	16
	053-Coronary Bypass	1	3		1	11
	054-Other Cardiothoracic Surgery	12	13	18	24	34
PU Total		20	26	23	35	61
PR	003-Valve Surgery	12	17	16	24	37
	053-Coronary Bypass	5	3	12	14	33
	054-Other Cardiothoracic Surgery	4	17	21	40	34
PR Total		21	37	49	78	104
Grand Total		41	63	72	113	165

These data are summarised at the ESRG level and represent a collection of DRGs for patients who have a postcode starting with 7.

- No episode data are provided
- No postcode data is provided

It is not possible to determine;

- Actual Tasmanian postcode and local region
- Actual AR-DRG
- Underlying condition
- Match with Tasmanian morbidity data
- Source of referral

The data cover the period 2010-11 to 2014-15

Looking at the Coronary Artery bypass graft and Valve replacement ESRGs, an increase in activity is evident for 2014-15 particularly in the private hospital sector mostly for Coronary artery bypass graft surgery.

Public Interstate Charging Data

Public hospital interstate charging data was provided by DHHS Health Information Team

It provides episode level data containing State treated, Hospital MRN code, DOB, Admission and Separation dates AR-DRG, ICD diagnosis and Procedure codes in MS excel format.

Limitations of interstate provided data:

- Most recent data is 2012-13 in provided dataset
- Not all fields are populated for all jurisdictions
- Formatting is inconsistent
- No postcode data was provided
Public hospital patients only

Table 2: Interstate Charging data - Episode volumes Annual Cases

Year	Pub: (all cardiothoracic SRGs)	Pub: Valves and Coronary Artery surgeries
09_10	24	13
10_11	43	27
11_12	27	17
12_13	30	13

Comparison of Table 2 with Table 1 shows that Victorian public hospitals account for the majority of interstate cases in most years (20/43 in 2010-11, 26/27 in 2011-12, and 23/30 in 2012-13).

Tasmanian Elective Surgery Waiting List data

Table 3: Average ready for cases cardiothoracic

Patient ready for care	
Year	Avg
2010	46
2011	44
2012	53
2013	40
2014	28
2015	39

Table 4: Tasmanian removals from Wait List

Procedure	2013	2014	2015 (Est.)
Aortic Valve Surgery	68	74	57
Coronary Artery Bypass Graft	171	122	123
Mitral Valve Replacement	42	38	34
Total	281	234	214

Tasmanian Morbidity Data

Data from FYI was examined

Cardiothoracic Adjacent DRGs selected including

- F03 – Valve replacement with investigation procedures
- F04 – Valve replacement
- F05 – Coronary Artery Bypass with Investigation procedures
- F06 – Coronary Artery Bypass without Investigation procedures.

Account class was used as the identifier to select between public and private cases.

Public cases were selected as being identified as Public in the Account class field

All others were selected as being private, however this will include some DVA, MAIB, Overseas and other types; so is more correctly “not public”

Table 5: Volume of Cardiothoracic cases treated in Tasmania by year

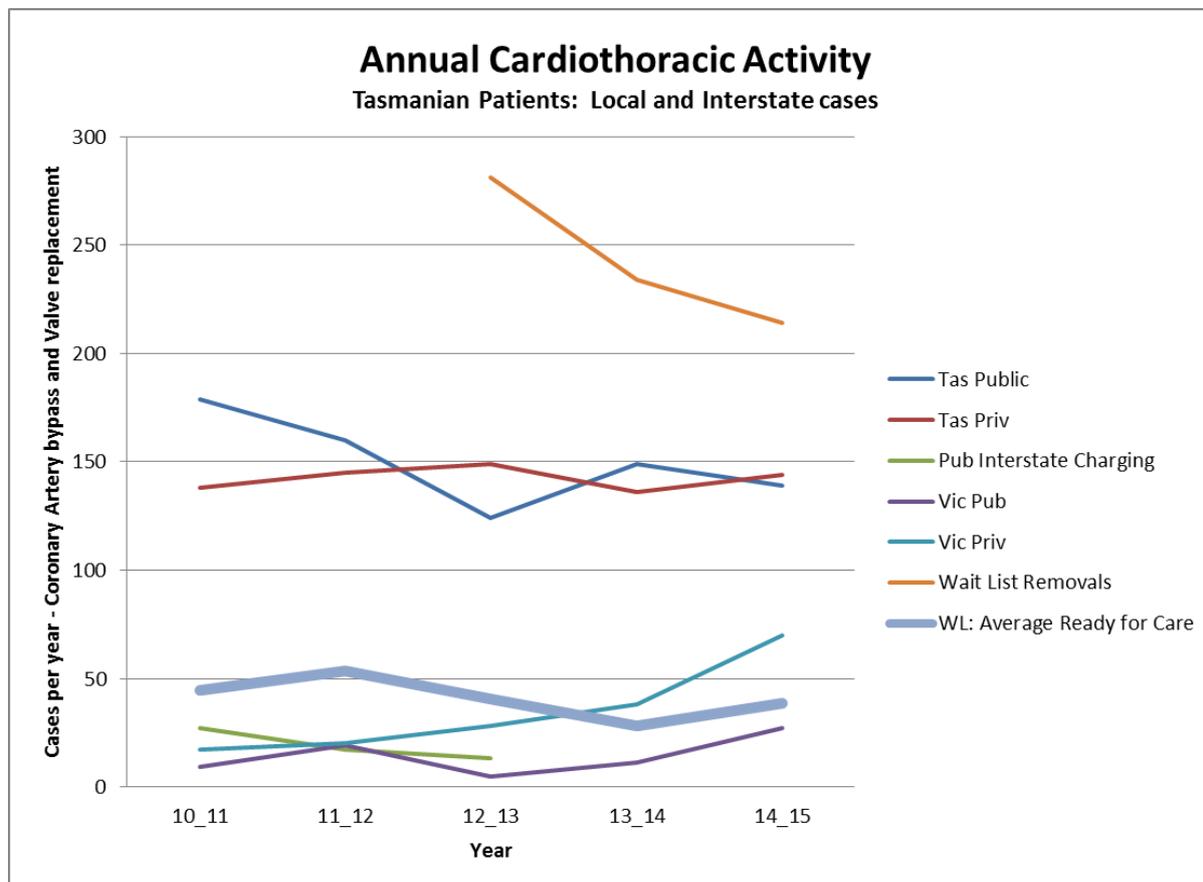
Year	Tas Public	Tas Private
10_11	173	137
11_12	158	144
12_13	122	146
13_14	144	135
14_15	136	144

Table 6: Overall volumes of Valve and CABG activity 2014-15

Year	Tas Public	Interstate Public (Interstate or Vic from 2013-14)	Total Public	Tas Private	Vic Private	Total Private	Grand Total
2014-15	139	27	163	144	70	214	377

Table 6 summarises known overall activity for valves and CABG (i.e. procedures which, on technical grounds, could be undertaken in Tasmania). It indicates that the total volume of cardiothoracic surgery on Tasmanian resident for these DRGs is approximately 380 cases. Given that some proportion of the interstate private cases represent an active choice by patients to travel interstate some of whom would not have changed their decision irrespective of service availability within Tasmania; this is likely to overstate the proportion of cases that might potentially be repatriated. Equally, it is accepted that total numbers of private interstate cases outside Victoria (e.g. in NSW or SA) are not currently known to DHHS.

Table 6: Summary table of Tasmanian cardiothoracic Surgery cases



Discussion

There is no real change in the number of Surgeries for the selected AR-DRGs, nor is there a significant change in the average number of wait list patients listed as being ready for care over the same timeframe.

There has been a significant drop in the number of wait list removals in the past 3 years which suggests that more cases are being undertaken as emergencies or not being placed on the wait list in the first instance. This requires additional analysis to provide some further insight.

The reporting of additional activity in Victoria and presumably other jurisdictions is shown to be increasing over the past year, but reasons are not possible to understand. Referral data and morbidity data would need to be examined. It is inconsistent with the wait list and Tasmanian activity data.

It is not possible to provide any analysis on the reasons for increases or changes of activity without episode level morbidity data including some demographic details for all patients treated interstate whether in pub or private facilities.

[REDACTED]

What is required is NMDS/PHDB data available at the end of each year (At the same time as we provide national NMDS data for all Tasmanian residents treated in other states). These data need to be incorporated into the FYI reporting environment so that analysis of Tasmanian patients treated interstate can be made at sufficient detail and in a timely fashion.

[REDACTED]

[REDACTED]