

**STATEMENT OF PAUL CASSIUS JANSZ 11 JUNE 2024****PROCEEDING DETAILS**

Matter: Special Commission of Inquiry into Healthcare Funding

**WITNESS DETAILS**

Name Paul Cassius Jansz  
Address 390 Victoria Street, Darlinghurst  
Occupation Cardiothoracic and Transplant Surgeon

**STATEMENT**

On 11 June 2024, I Dr Paul Cassius Jansz, state:

1 This Statement made by me accurately sets out the evidence that I would be prepared, if necessary, to give to the Special Commission of Inquiry into Healthcare Funding (**Special Commission**) as a witness. The Statement is true to the best of my knowledge and belief and I make it knowing that, if it is tendered in evidence, I will be liable to prosecution if I have wilfully stated in it anything that I know to be false, or do not believe to be true.

**My background**

2 I have been a Cardiothoracic and Transplant Surgeon at SVHS since 2003.  
3 I am the Director Heart & Lung Transplant Surgery, Director of Cardiothoracic Surgery, and Surgical Director Mechanical Circulatory Assist Program at SVHS.  
4 I hold a B.Med, FRACS and a PhD.

**SVHS Heart and Lung Program**

5 SVHS delivers an extensive suite of Heart and Lung (**HL**) services, extending to HL transplantation and the complex procedures I describe in paragraph 8 below. This includes all types of cardiothoracic surgery, cardiology, interventional cardiology, electrophysiology studies, and respiratory and sleep medicine at a tertiary and quaternary level.  
6 These services include HL medical and surgical inpatient services, same-day procedures, inpatient and outpatient consultations, diagnostics and cardiac rehabilitation.

- 7 The HL Program has a strong reputation across Australia and internationally for achieving superior outcomes for patients who have complex care needs. This includes national recognition for our leading heart and lung failure program and a range of minimally invasive cardiac services and percutaneous structural heart procedures.
- 8 The services provided by SVHS, many of which have been designated by the state as 'Supra LHD', meaning that they are statewide services or those provided on a basis that is agnostic to the area where the patient resides, are often highly complex rather than routine cardiothoracic services. The services generally involve a range of complex interventions prior to, during and after the procedure, and include:
- a. Heart, Lung and Heart & Lung transplantation, which involves organ retrieval. SVHS is the only hospital in NSW designated activity through the service level agreement with the Ministry for the procurement of cardiothoracic organs for transplantation, due to its level of training and expertise. Organ retrieval often involves sending the SVHS organ retrieval team interstate, as organs can be procured from anywhere in Australia or New Zealand. SVHS occasionally collaborates with interstate transplant units, but the specialised nature of cardiothoracic organ retrieval means that the SVHS team usually needs to be involved;
  - b. Mechanical circulatory assistance, which includes the Left and Right Ventricular Assist Device (**LVAD**) program and the total artificial heart program;
  - c. Extracorporeal Membrane Oxygenation (**ECMO**) – a form of life support for people suffering from severe heart or lung failure. SVHS shares a one in two roster with Royal Prince Alfred Hospital for the retrieval of patients who are either on ECMO or need to be put on ECMO for cardiorespiratory failure. This can be from any hospital in the state. Any patient who fails to recover and is unable to be weaned from ECMO is ultimately transferred to SVHS for further management;
  - d. Percutaneous structural heart interventions such as MitraClip, TriClip, Transcatheter Aortic Valve Implantation (**TAVI**), as the NSW referral centre;
  - e. Medical care to end stage heart and lung failure patients referred to the heart and lung failure services which sit within the transplant program; and
  - f. High risk non-transplant cardiothoracic surgery.

- 9 For most of these services, SVHS is the largest or only provider in NSW. For example, SVHS has the only HL transplant program in NSW. It is also consistently in the top three units in the country in terms of volume of ECMO patients seen. It is the only hospital capable of providing a patient permanent mechanical circulatory support (a mechanical heart) in NSW. It is the only state-wide complete ECMO/Circulatory assist service in NSW and as such the only quaternary referral centre for end stage heart and lung failure in NSW. ECMO is a temporary treatment with a finite timeline. If the heart or lungs do not recovery in this finite time period the patient will require the implantation of a permanent mechanical device, or a transplant. If that patient has been receiving the ECMO treatment at RPA, for example, they are transferred to SVHS for the further permanent treatment. SVHS is also a referral centre for high risk, high complexity, non-transplant cardiothoracic surgery in NSW and nationally.
- 10 In my role as a clinician in the HL service I observe that, due to the highly specialised services provided by SVHS clinicians, SVHS' multi-disciplinary and multi-specialty teams treat patients that are referred to SVHS from many public hospitals across NSW, including other tertiary and quaternary service providers. A significant proportion of these patients result in admissions to SVHS' ICU and are patients with high acuity illnesses being transferred from regional and, importantly other tertiary metropolitan hospitals, who require multiple days of treatment in the ICU and weeks of treatment in SVHS.
- 11 In addition to providing cardiothoracic support to high risk and complex patients across metropolitan Sydney and rural and regional Australia, SVHS clinicians work closely with The Children's Hospital, Westmead to enable heart transplants to be provided to paediatric patients.
- 12 Without this support, children requiring heart transplants need to relocate to Victoria to receive transplant and organ retrieval services. This was of critical concern during the COVID-19 pandemic. In order to ensure that children in NSW could receive this life saving treatment during the pandemic, a partnership model was agreed to enable the provision of paediatric heart transplants at The Children's Hospital, Westmead, utilising SVHS's transplant expertise, donor coordination and organ retrieval services.

### **Complex cardiothoracic services at SVHS**

- 13 The patients receiving the services described at paragraph 8 above require far more complex care relative to both other patient cohorts across the hospital and to routine cardiac services.

- 14 While patient volumes in complex cardiothoracic surgery are relatively low (in comparison to high volume surgical procedures), these patients generally present more complex clinical issues that require more complex treatment or intervention. Patients also generally:
- a. stay longer as in-patients at SVHS due to longer recovery times and the need for inpatient post-surgical care and rehabilitation; and
  - b. require more frequent outpatient services, particularly pre-and-post transplantation, over a longer period of time due to the need for highly complex ongoing care.
- 15 As medical advancements continue, these complex, multi-morbid patients are living longer, often becoming 'lifelong' patients.
- 16 The treatments SVHS provides for complex patients are also far more expensive than routine cardiothoracic treatment. This is generally because they are more resource intensive. For example:
- a. when HL organs becomes available somewhere in NSW, the HL Program mobilises up to 20 people: 4 – 5 people to travel (often interstate) to procure the organs and then, whilst back at SVHS, the remaining staff stand up 2 operating theatres, one for the heart and one for the lungs. At times this activity is not well recorded as it is not considered an episode of care, given that there is a percentage of retrieval work that is carried out that does not result in a transplant.
  - b. a heart transplant will take a minimum team of 2 donor surgeons, 2 donor coordinators, 2-3 implanting surgeons, 3 operating room nurses, 2 anaesthetists, 2 perfusionists, take approximately 8 – 12 hours in theatre. The patient will spend on average 7 days in ICU and their total length of stay as an inpatient will be on average 30 days as an inpatient. Outpatient care will be on average 24 visits in the first 12 months which will involve multiple medical, nursing and allied health interactions with the accompanying investigations including cardiac biopsies, MRI's and right heart catheter procedures. They are then seen quarterly for a year and then annually for the rest of their life. This is the case if everything goes well.
- 17 One of the benefits of the HL Program is that, given the volume of high acuity disease that we treat, surgeons at SVHS become specialised in complex and difficult surgeries, which in turn increases the success rates for those surgeries over time. SVHS has a reputation for managing these difficult cases, prompting

greater levels of referral of a variety of HL services. The surgeons at SVHS perform these surgeries multiple times per day or week.

### **Funding of public health services**

- 18 I have a basic awareness of the way in which SVHS is funded, being a combination of funding by NSW Health based on predicted activity – the National Weighted Activity Unit (**NWAU**) model and philanthropic donations.
- 19 I am aware that SVHS relies primarily on the NWAU model, or activity based funding, to provide the HL Program. This funding is essential to ensuring that SVHS can:
- a. continue to provide the services in the HL Program to patients as demand for its services increases; and
  - b. achieve superior clinical outcomes whilst remaining a pioneer in the treatment it provides to patients.
- 20 For the reasons I have described at paragraph 16 above, activity based funding may not always be apt for high acuity, complex cardiothoracic surgery. While this could, to some extent, be addressed through increased cost weightings for these services, this change would still not truly reflect the cost of providing these services, because of the intensive resourcing required for example to procure and transplant organs and because HL program patients are generally patients for life, whereas activity based funding focuses on episodic care. As I describe at 16a above, there are some complex services such as organ retrieval that do not presently translate to an AR-DRG.
- 21 The routine surgery performed at SVHS is far less complex than the services I describe above. It is comparable to that provided by other cardiothoracic units across the state, with relatively predictable lengths of stay and treatment pathways. These procedures are also performed in higher volumes. Once discharged, the treatment pathway follows a predictable pattern of outpatient clinics and referral back to the primary healthcare provider. ABF funding is probably appropriate for services of this nature.

### **Impacts of funding on clinical service delivery**

- 22 Routine cardiothoracic surgeries are performed at SVHS on Monday to Friday between 8am and 5pm.
- 23 At times, routine surgeries may be delayed or cancelled due to a lack of available beds in the Intensive Care Unit (**ICU**) for post-operative care, which means that

procedures which could otherwise be carried out by the surgeons on shift cannot proceed as scheduled.


- 24 It can also happen because of urgent or emergency cases, including when organs become available for a transplant or there is an emergency referral from another hospital. For example, a patient suffering from heart failure could be referred to us from a hospital such as Royal North Shore Hospital for a mechanical heart or transplant, in which case ECMO equipment, surgical theatre and an ICU bed is required for that patient immediately.
- 25 The demand for HL treatment at SVHS continues to increase due to a number of factors, including:
- a. the prevalence of cardiovascular diseases in NSW, as it currently accounts for almost 25.3% of deaths in NSW in 2021 and in the financial year 2022-23, there were 160,902 hospitalisations due to cardiovascular diseases in NSW. These figures can be found on the HealthStats NSW website - [www.healthstats.nsw.gov.au](http://www.healthstats.nsw.gov.au);
  - b. national reform strategies to increase organ and tissue donation; and
  - c. advances in technology supporting more complex surgeries and resulting in patients living longer and requiring more treatment.
- 26 SVHS will not be able to respond to that increase in demand in a way that enables continued equitable and timely access to specialised cardiothoracic services without significant investment in SVHS' infrastructure, particularly ICU beds.

### **The Health Innovation Precinct**

- 27 SVHS is a cornerstone of the St Vincent's Sydney Health Innovation Precinct, alongside its three primary partners: the St Vincent's Centre for Applied Medical Research, the Garvan Institute of Medical Research and the Victor Chang Cardiac Research Institute (**VCCRI**).
- 28 The co-location of SVHS in the Precinct means that clinicians and researchers are able to collaborate closely on a day to day basis, including the surgeons being able to regularly perform important surgical research in the research institutes. This collaboration has enabled leading international translational research, which is research that is taken from the laboratory into the clinical setting, providing real world advances for patients in Australia and internationally, such as the "Heart in a Box" technology and mechanical circulatory assist devices.

- 29 In August 2014, surgeons at SVHS performed the first ever heart transplant from a donor heart that had stopped beating after death using the "Heart in a Box" technology. This was possible because of the long standing and close relationship between SVHS and the VCCRI, including many clinicians and students who perform both clinical work at the hospital and research work at VCCRI.
- 30 I am currently training two heart surgeons who are working on their PhDs at the VCCRI. Both students are working towards new treatments to improve cardiothoracic outcomes for patients in the transplant setting.
- 31 These arrangements are enormously important in attracting world class clinicians to Australia, who want to work in innovative unit and research centres.
- 32 We often have international surgeons working with us at SVHS, either as part of our workforce or on scholarships to learn about the cutting-edge technology used in the HL Program at SVHS. These clinicians will take that information back to their home country to start or contribute to their own HL programs.
- 33 SVHS works with the VCCRI and the St Vincent's Curran Foundation to fundraise for these research projects, in addition to supporting innovation, research and new technologies, and many of the PhD students are funded by philanthropic research grants.
- 34 Increasingly, I am involved in seeking philanthropic contributions to support and maintain SVHS' core assets and infrastructure, such as theatre upgrades. If this essential infrastructure was publicly funded, philanthropic contributions could be wholly put toward innovative and transformative research.

Signature of witness

A handwritten signature in black ink, appearing to read "Paul Kersy", is written over a horizontal line. The signature is cursive and includes a period at the end.