

News: A Decade of the Thoracic Aortic Aneurysm Service (2007-2017)

The thoracic aortic aneurysm service at LHCH will celebrate 10 years as a formal service in December 2017. This is a poignant time as we also celebrate 200 patients (Link) having undergone emergency repair of acute Type A aortic dissection and 2000 patients (Link) having undergone aortic surgery in total since records began in 1998. The service has gone through many iterations with a growing number of surgeons who specialise in aortic surgery as well as improvements in anaesthesia, intensive care and the entire perioperative pathway.

Clinical Leads of Aortic Surgery since 2017

Abbas Rashid 2007-2009

Aung Oo 2009-2015

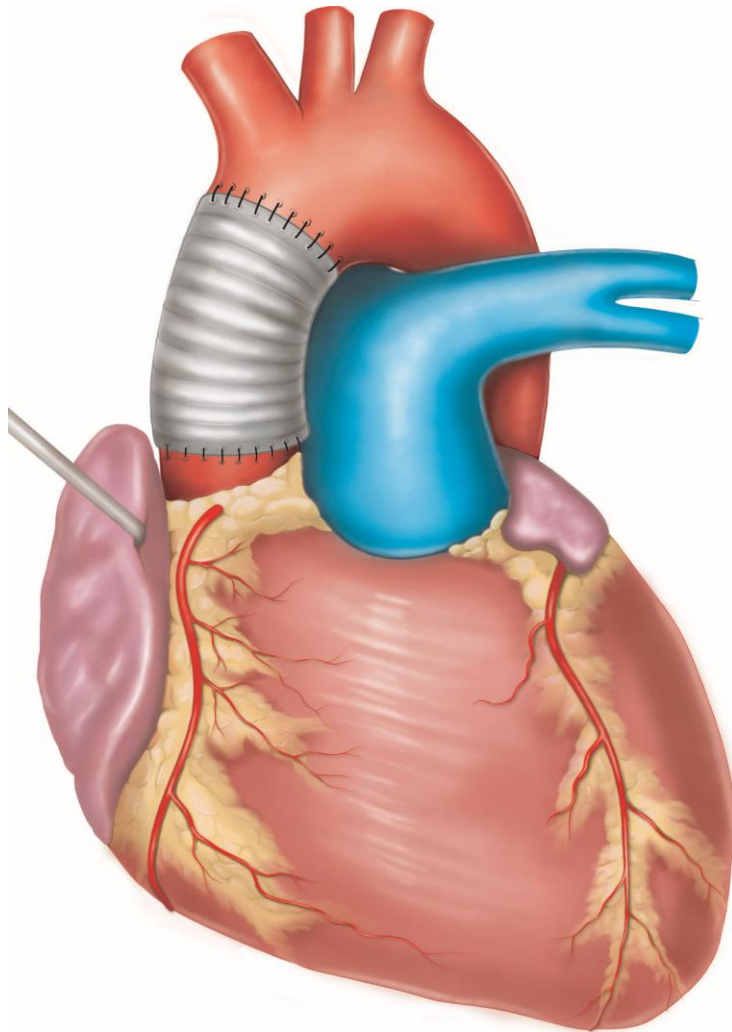
Manoj Kuduvalli 2015-2017

Mark Field 2017- present

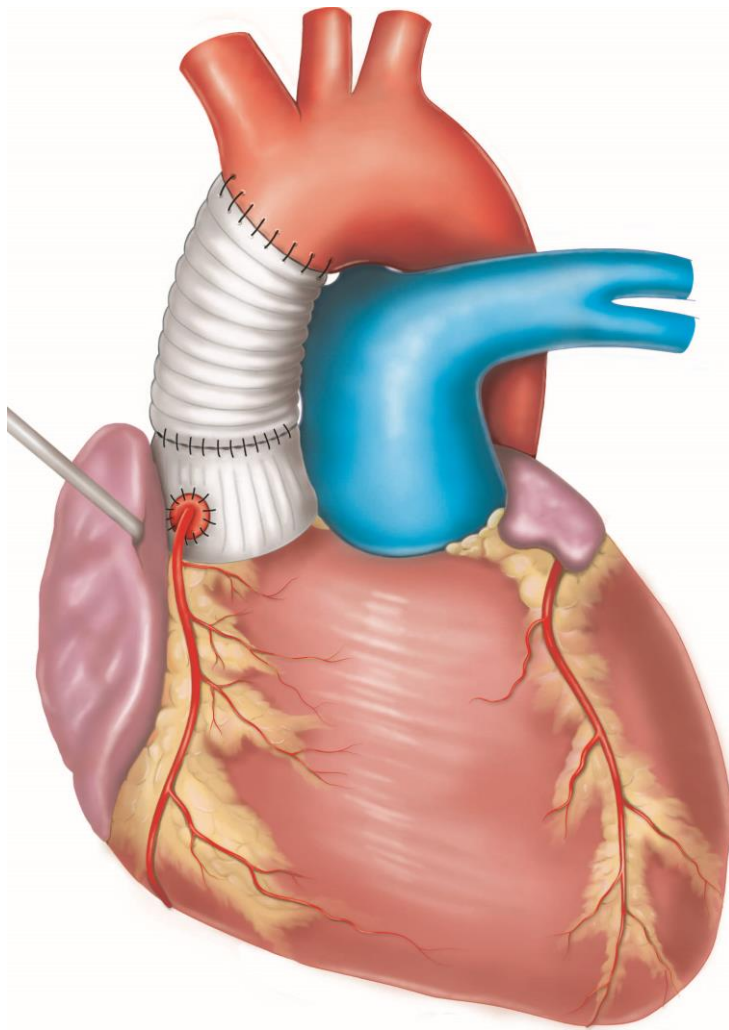
Prior to 2007 an informal aortic surgery service was lead initially by Ian Weir and then Abbas Rashid.

Surgery offered is often complex and the extent of surgery may vary:

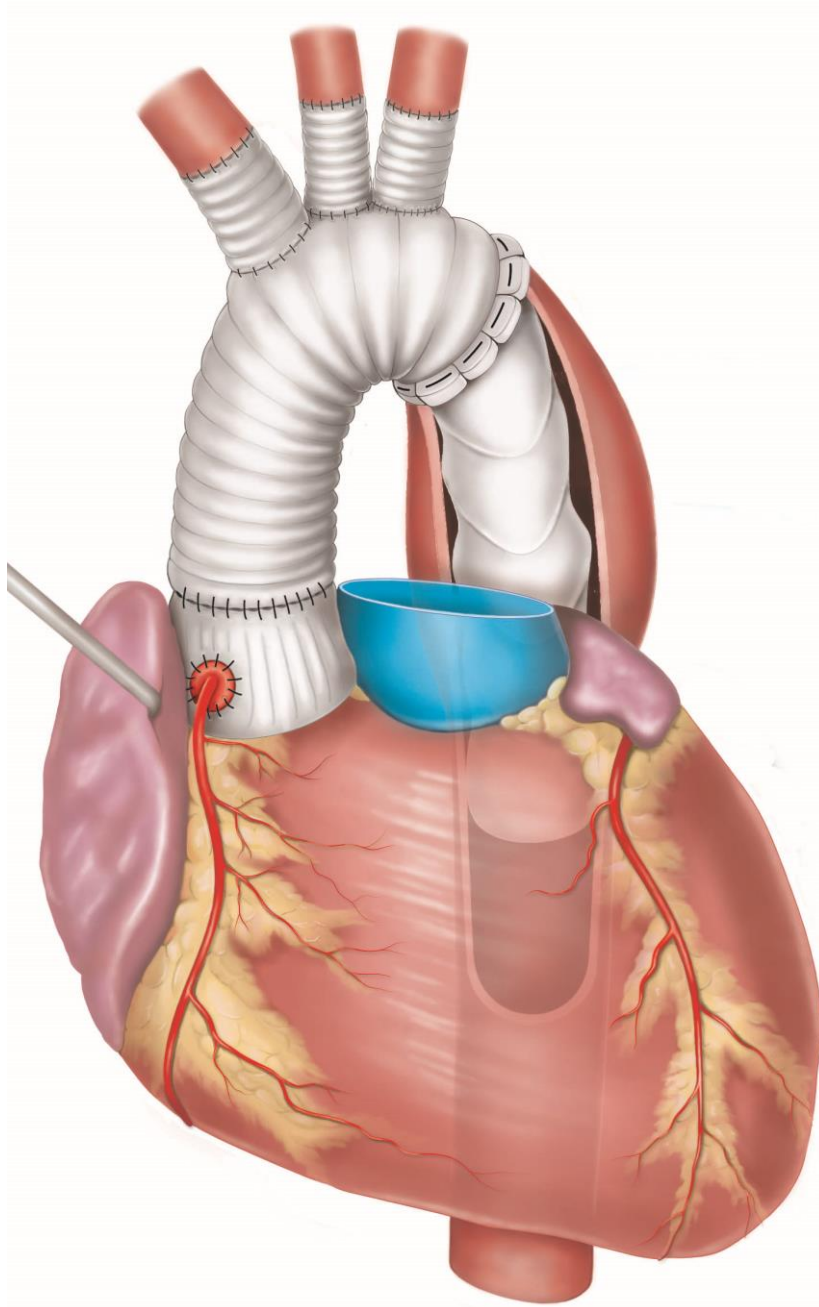
1) Ascending aortic surgery



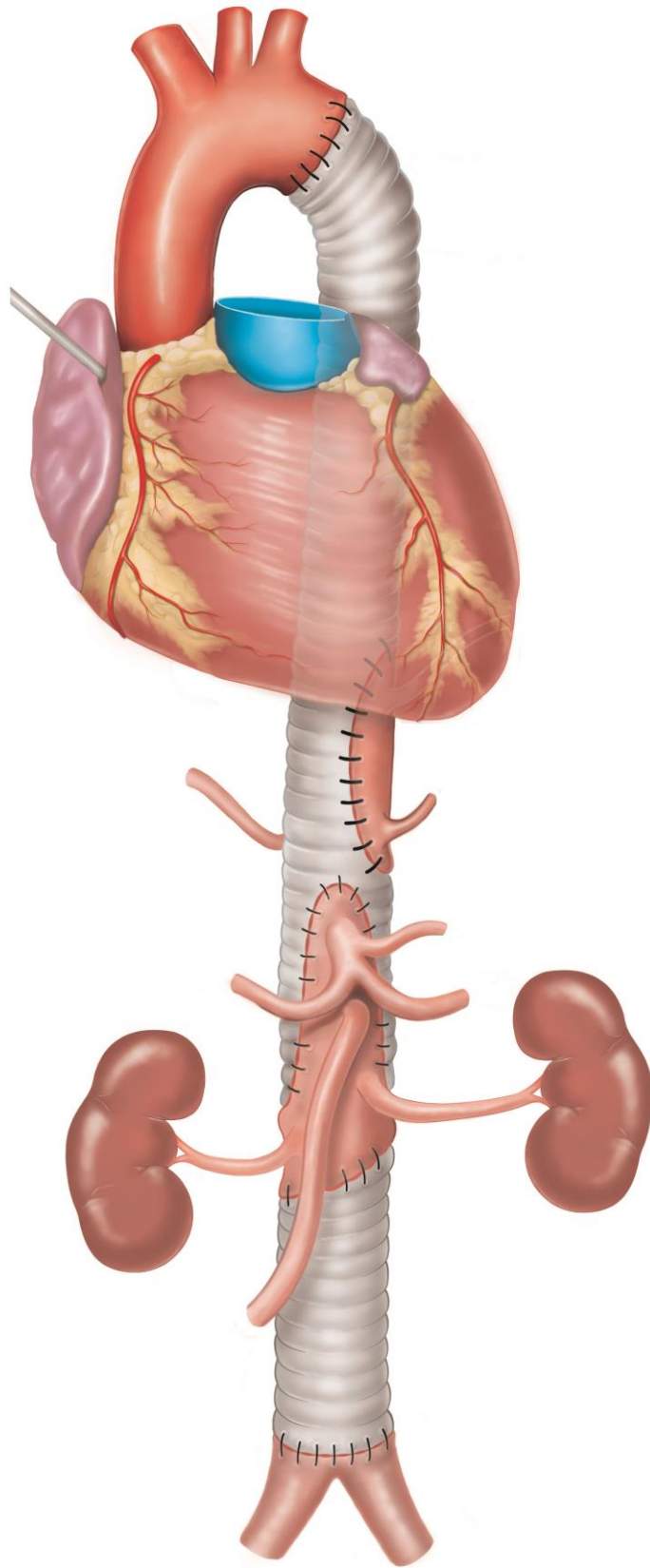
2) Aortic root surgery



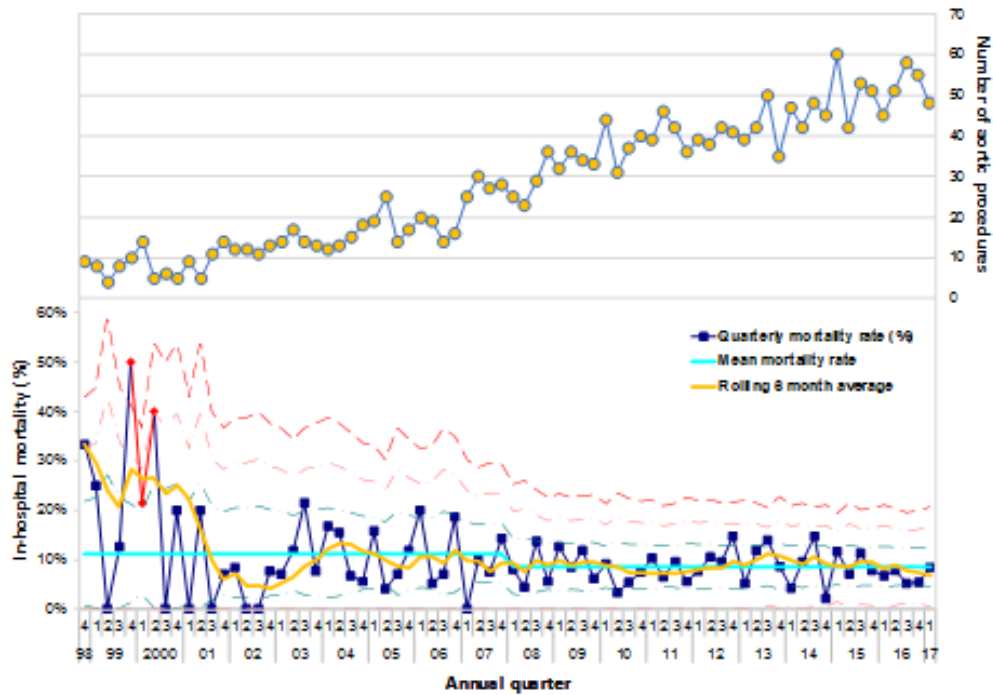
3) Aortic root, arch and frozen elephant trunk surgery



4) Replacement of the thoracoabdominal aorta

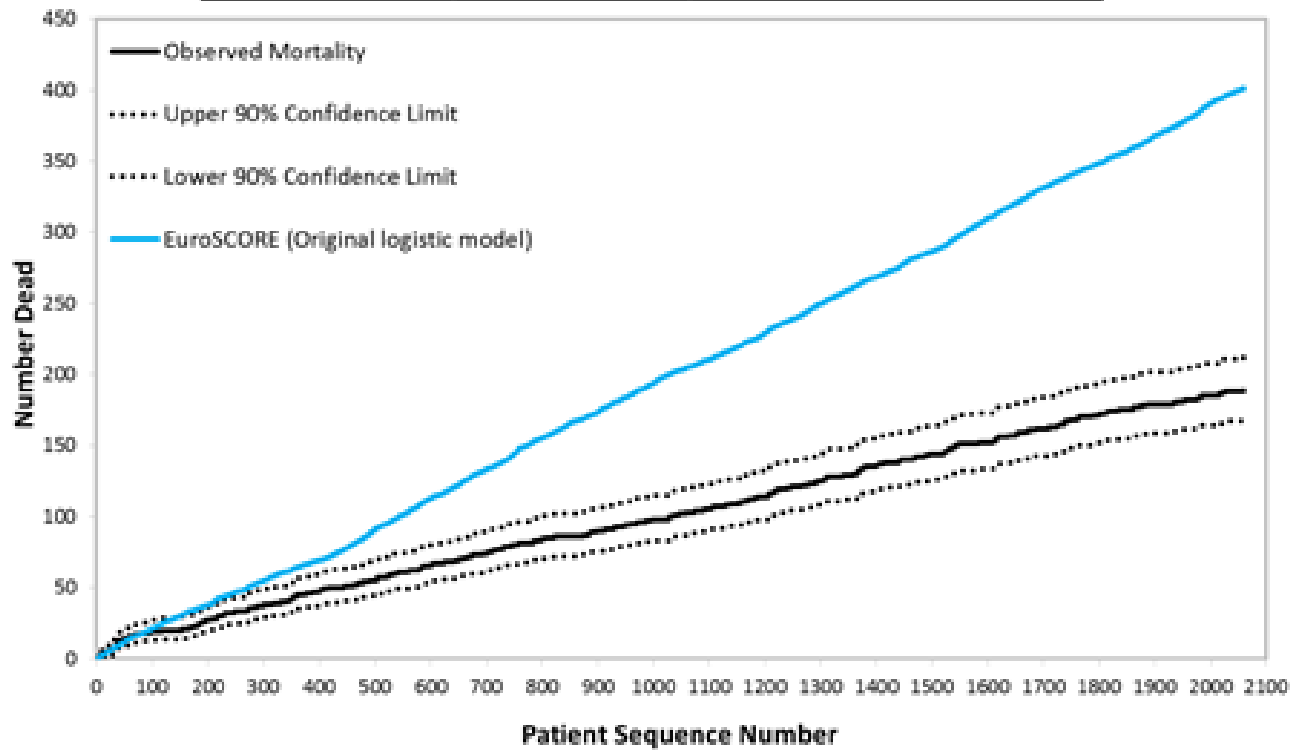


Our results have continued to improve and become more consistent with the increasing experience. This is demonstrated in the graph below.



When compared to expected mortality outcomes (EUROScore) our teams have consistently out performed expectation. In the graph below this effect is demonstrated with the actual number of patients who did not make it through surgery (black line) being far lower than predicted (blue line).

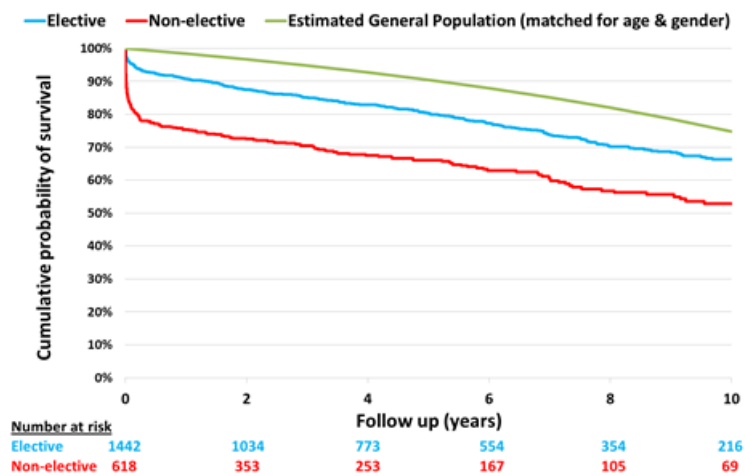
**All Aortic Surgery (22/10/1998 to 31/03/2017):
Observed and expected mortality with 90% confidence limits**



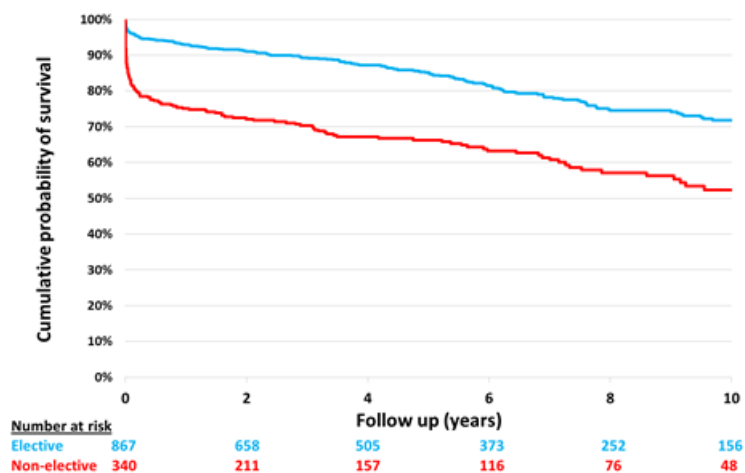
Long term survival following aortic surgery

The graph below shows long term survival after aortic surgery compared to age sex matched controls. This shows all types of aortic surgery and extents of surgery and all different diseases and different ages. As an average, some patients can much expect better outcomes than the average.

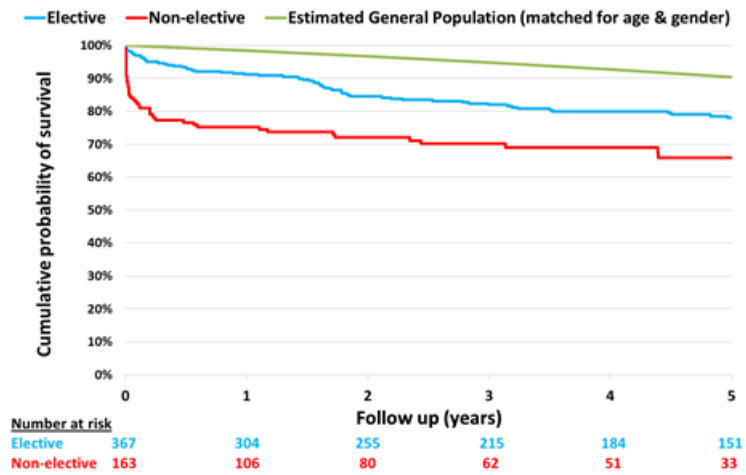
Post-operative 10-year survival by priority: All patients



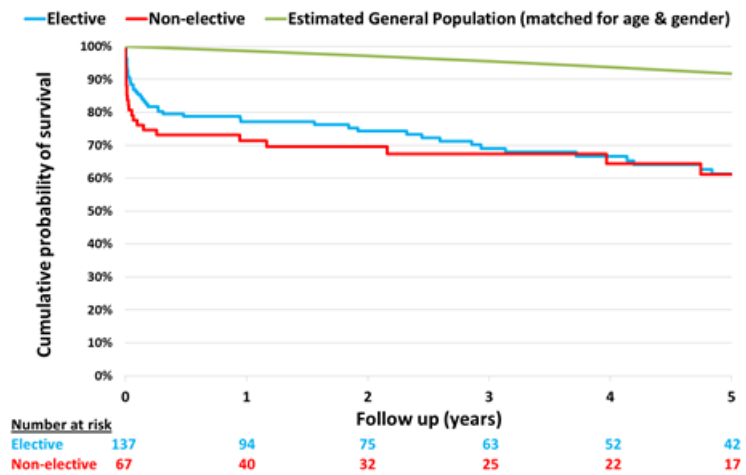
Post-operative 10-year survival by priority: Root/Ascending



Post-operative 5-year survival by priority: Arch/Hemiarch



Post-operative 5-year survival by priority: TAAA



Why have outcomes improved?

Successful thoracic aortic surgery is the result of no one individuals efforts but the effect of team work in all areas along the perioperative pathway. Liverpool Heart and Chest Hospital has long understood this fact and that the service is more than the sum of its parts when team harmony exists.

Outpatient Department

The Thoracic Aortic Clinic has allowed the team to focus on patients with aortic disease and optimise their management.

Multi-Disciplinary Team

The MDT has allowed input from all relevant specialities in order to make sure patients have all options available.

Preoperative Assessment

Optimisation of patients for complex aortic surgery has ensured patients are fit for surgery.

Theatre

Many improvements in treatment and monitoring have occurred including spinal cord management, clinical perfusion and surgical technique.

Intensive Care

Awareness of the specific issues with associated with these patients has ensured continued excellent care from theatre to ITU.

Follow-up

Appropriate follow-up has been key to ensuring diagnosis, surveillance of relatives and appropriate imaging in the long term.