

Improving robot access to achieve better surgical outcomes

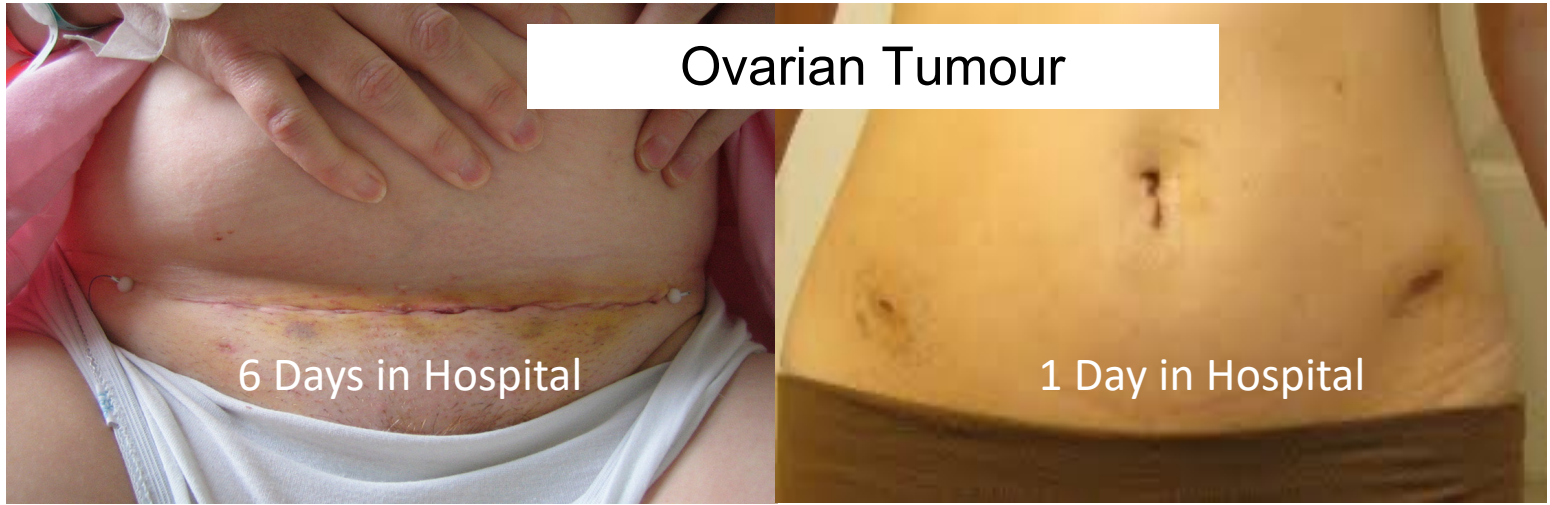
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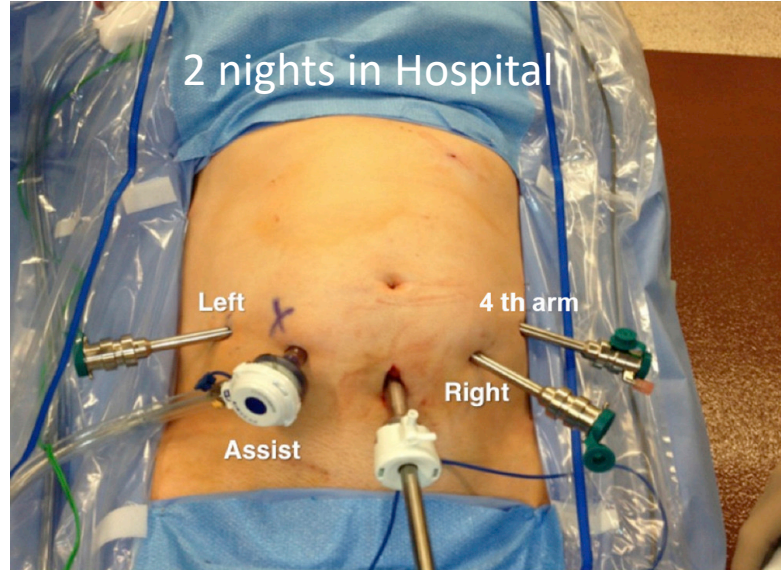
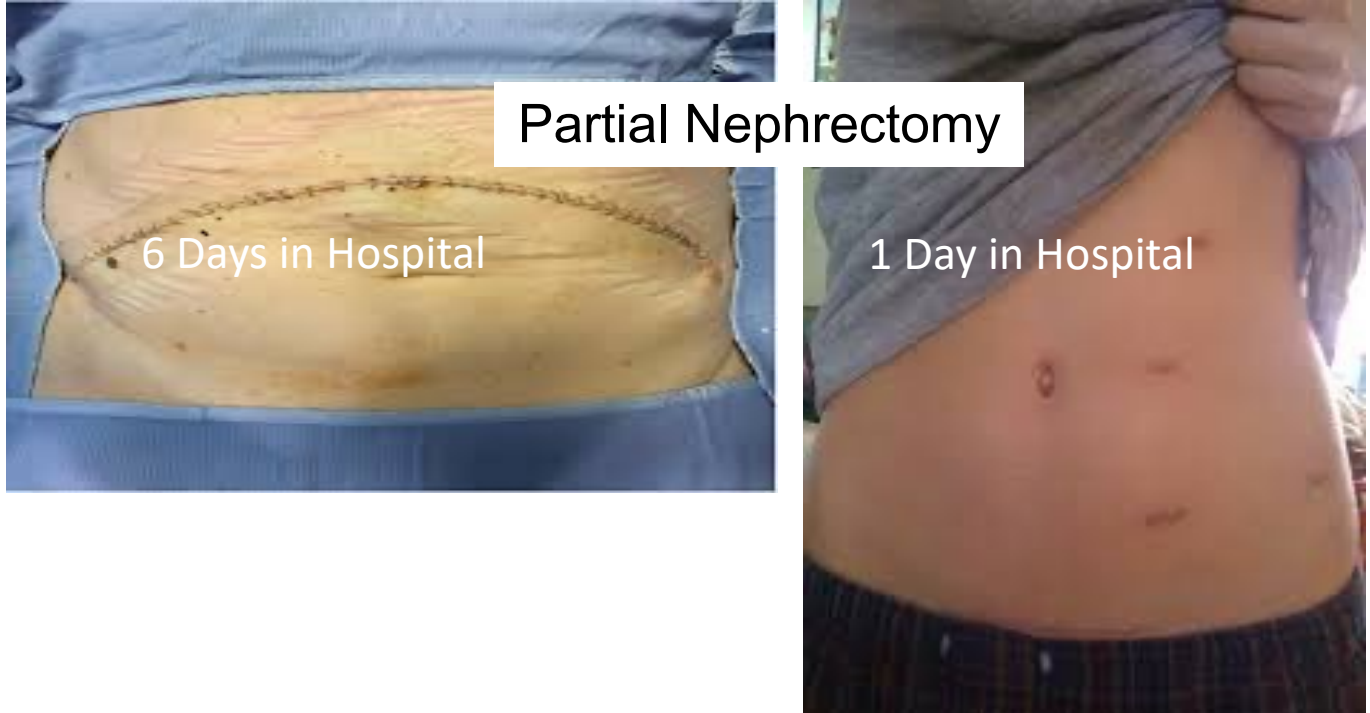
Key Messages

- There is limited robotic surgery available for public patients in the northern/ eastern metropolitan community of Melbourne compared to other parts of Melbourne and regional areas
- The use case for key hole robotic surgery for a wide range of surgical procedures is well established in Australia and overseas
- There are significant health, economic and social benefits arising from this equipment
 - The patient
 - The hospital and health system
 - Wider community benefits
- Both public and private hospitals have invested in this equipment due to its benefits
 - Public hospitals in Victoria supplied by DHHS – Geelong and Ballarat
 - Public hospitals in Victoria supplied by Philanthropy – Peter MacCallum / RMH
 - Private hospitals in Victoria with surgical robots - 19
- It is conservatively estimated the cost benefit in savings per case treated by robot surgery is \$5000. This is why so many private hospitals use this equipment.

Illustrations: The uses of key hole robotic surgery and its benefits



Metastatic Testis cancer



The use case for key hole robotic surgery is well established in Australia and overseas

Surgical Procedures

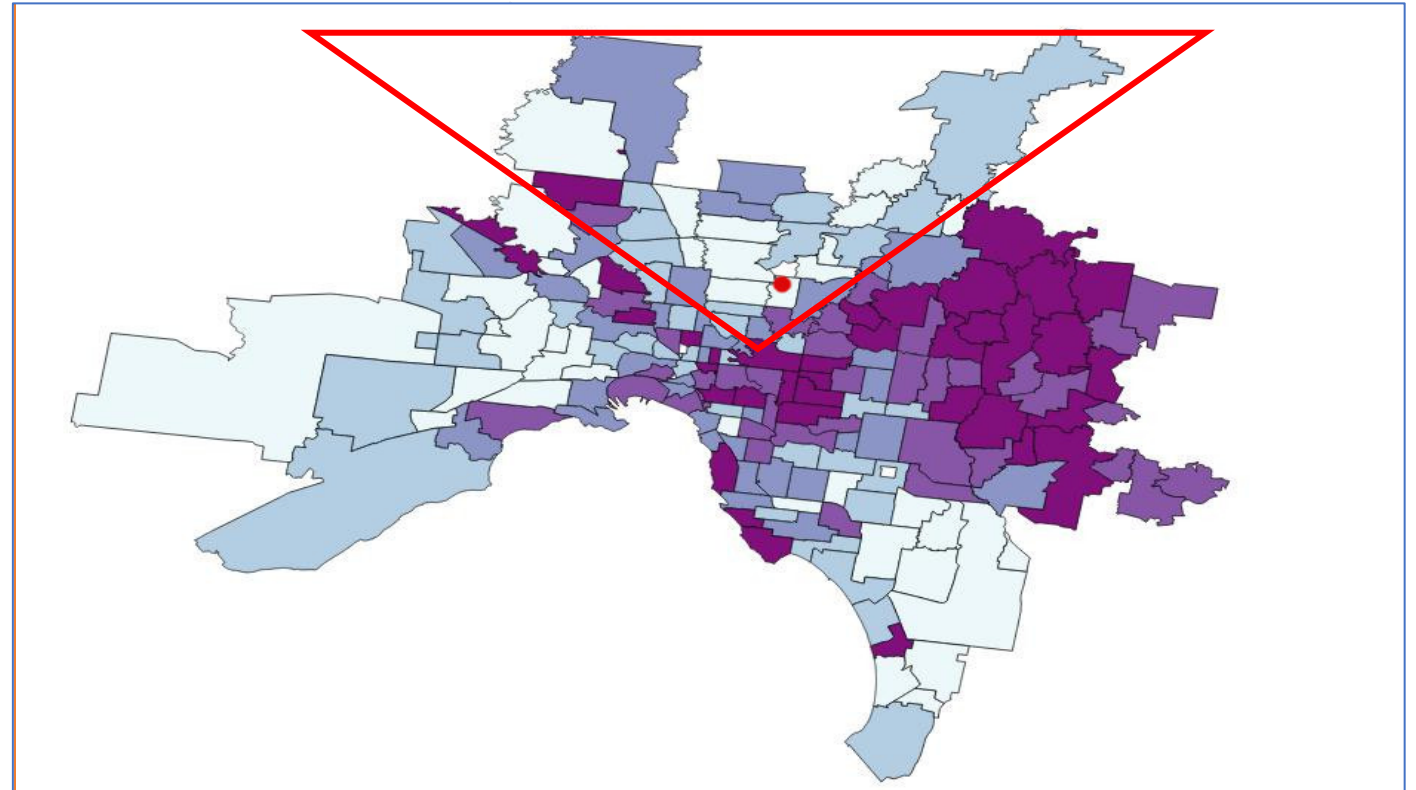
- Gynaecology (e.g., ovarian/ uterine cancer, endometriosis),
- Prostate
- Testicular cancer
- Heart
- Kidney
- Renal Transplant

Forecast

- The demand for such procedures is growing despite investment in preventative, public health measures at a rate estimated to be 5% per year

The community of northern metropolitan Melbourne is currently under-represented in robotic, key hole surgery

- This community of Melbourne on a population adjusted basis is not receiving robotic key hole surgery available elsewhere
- This community comprises the local government areas of Banyule, Darebin, Hume, Maroondah, Manningham, Moreland, Nillumbik and Whittlesea - some of which are designated growth area councils
- It forms the basis of the DHHS North Eastern Integrated Cancer Service, which currently has no allocated equipment for surgical robotics, as opposed to smaller networks
- Features of this community are:
 - Growing population
 - Aging population
 - Diverse ethnic mix
 - Wide range of social and economic indicators

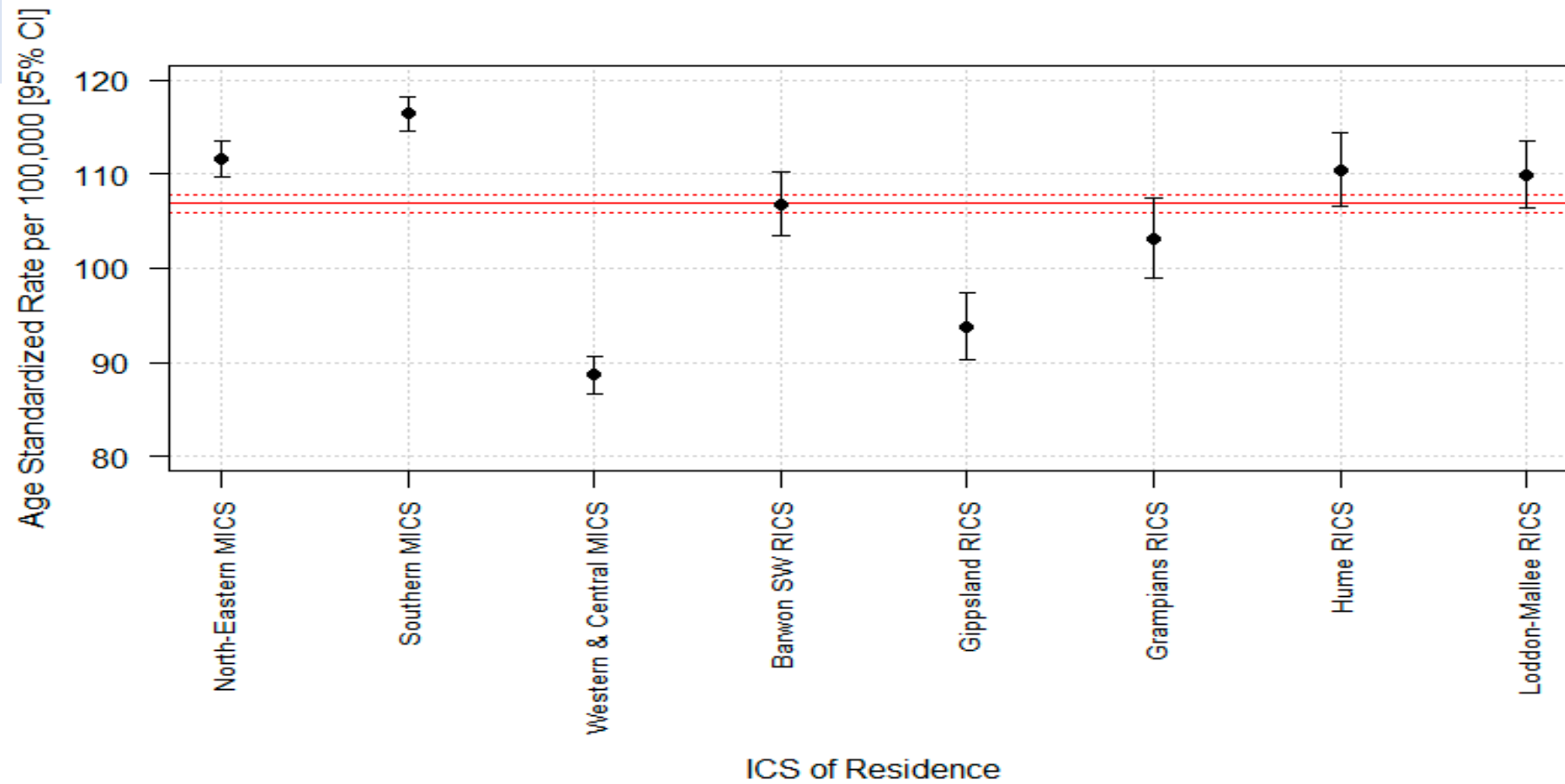


Key

- Olivia Newton-John Cancer Centre/ Austin/ Mercy Hosp for Women
- Shading denotes levels of treatment. The darker regions are higher quintiles of robotic surgery, (population adjusted) The Austin is in the lighter coloured region

Source: Prostate Cancer Registry by postcode 2017

Prostate cancer (C61) incidence (2001-2013) by ICS of residence N=56,272



There are significant health, economic and social benefits arising from this equipment

Patient

- No large open incisions requiring up to 30 -40 staples to close
- Reduction in amount of pain/swelling
- Fewer complications and less blood loss
- More accurate and less cancer recurrence
- Reduces retraction time of usually >2 hours
- Less use of narcotic analgesia post operation and reduced risk of drug dependence
- Return to normal life and work more quickly instead of requiring 6 weeks off from manual work/lifting

Hospital and Health system

- Increased bed availability and hospital utilisation
- Reduce time in hospital by 80% (six nights to one)
- Operation takes less time
- Less needle stick risk to staff
- Less blood exposure risk

Wider benefits

- Quality of life improved for patient and community of care circle
- More rapid return to work means reduced financial impact of cancer diagnosis

What is required:

- Purchase cost of equipment = \$3.2M
- Operational time from arrival – 2 months as no training required on this platform.
- Number of robotic operations
 - Year 1 = 120
 - Year 2 = 200
 - Year 3 = 250 thereafter
- Reduced bed day stays
 - From 6 nights to 1
- Released capacity
 - Year 1 = 1,000 bed nights
- Final point : Can anyone tell me why this should not be done?
- Patients from all areas of Victoria should have a similar standard of care.

The Benefits:

- Better outcomes for patients
- Finally in Victoria onsite robotic surgery for women with gynaecologic pathology

