Beat Box

An overview of Ex-Vivo Perfusion in Donor Organs

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Organ Donation at TPCH

• Major Cardio-Thoracic Hospital in Chermside, north of Brisbane.
• Referral hospital for complex heart, lung conditions
• Performs several types of transplant
  o Heart
  o Single or Bilateral Lung
  o Heart and Lung
  o “Triple Transplant” – Heart, Lung, Liver
  o “Domino Heart”
• Patients often in the end stages of their disease
• Utilised several other options of managing their condition
• Debilitating to physical, emotional and social health.
• Rely on invasive and expensive technologies to support their lives.
Organ Donation Facts and Statistics

• Every deceased organ donor has the potential to save 10 lives.
• Organs able to be donated include heart, liver, both lungs, both kidneys, the pancreas, intestines, eyes and other tissue.
• 1,400 are on the waiting list at any time
• In 2016, 503 organ donors helped 1,447 people.
• Australia’s organ donation rate is 20.8 donors per million people
  o Queensland rate is the lowest nationally

<table>
<thead>
<tr>
<th>State</th>
<th>2015 Donation Rates (dpmp)</th>
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<tbody>
<tr>
<td>New South Wales</td>
<td>17.2</td>
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<tr>
<td>Victoria</td>
<td>21.2</td>
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<tr>
<td>Queensland</td>
<td>15.1</td>
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<tr>
<td>South Australia</td>
<td>24.7</td>
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<tr>
<td>Western Australia</td>
<td>16.2</td>
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<tr>
<td>Tasmania</td>
<td>17.4</td>
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<td>Northern Territory</td>
<td>16.4</td>
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<tr>
<td>Australian Capital Territory</td>
<td>21.2</td>
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Ex-Vivo Systems for Explanted Organs - Lungs

• https://www.youtube.com/watch?v=06-lCzxBu-Q
Ex-Vivo Systems for Explanted Organs - Heart

• https://www.youtube.com/watch?v=hlIIPRNSJwDA
Ex-Vivo Systems for Explanted Organs
Ex-Vivo Systems for Donated Organs

• Looking forward:
  o Shift in attitude of “Cold” to “Warm”
    – Increase Organ Viability
    – Success rates of surgery

• Organ donation register is not a reflection on those who would benefit from transplantation

• Please talk about organ donation with your loved ones.

• https://register.donatelifegov.au
Resources

- Columbia University (http://columbiasurgery.org/conditions-and-treatments/ex-vivo-lung-perfusion)
- Transmedics (http://www.transmedics.com/wt/home/index)