What is the potential for organ donation in patients presenting to Emergency Departments not admitted to Intensive Care?

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Key aims

• Identify all potential for organ and tissue donation
• Create and maintain excellent, nationally consistent processes for donation
Objective

• To establish the extent of missed opportunity for organ donation in those patients with severe brain injury attending Emergency Departments
• Required collaboration and flexibility
Method

• A retrospective audit in four tertiary NZ hospitals across North and South Island
• Site selection by consensus between ODNZ and local ICU Link staff, approached willing ED staff
• Dataset constructed by ODNZ and discussed with working party: modified because local variation mandated different approaches to data collection
Inclusion and exclusion criteria

• Any adult patient admitted through ED in 2015 with severe brain injury who died on that admission and was not admitted to an Intensive Care Unit
• Severe brain injury by ICD coding
• Exclusions: none
## Results

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Number</th>
<th>Stroke</th>
<th>Age median</th>
<th>Age range</th>
<th>Age &gt;70</th>
<th>ED attendances p.a.</th>
<th>ICU deaths 2015</th>
<th>% ED attendances</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>39</td>
<td>27</td>
<td>78</td>
<td>46-92</td>
<td>20</td>
<td>65000</td>
<td>129</td>
<td>0.06</td>
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<tr>
<td>B</td>
<td>7</td>
<td>0</td>
<td>85</td>
<td>68-99</td>
<td>6</td>
<td>52000</td>
<td>146</td>
<td>0.01</td>
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<tr>
<td>C</td>
<td>43</td>
<td>N/A</td>
<td>75</td>
<td>59-79</td>
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<td>92000</td>
<td>144</td>
<td>0.05</td>
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<td>D</td>
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<td>12</td>
<td>57</td>
<td>37-81</td>
<td>3</td>
<td>112000</td>
<td>80</td>
<td>0.01</td>
</tr>
</tbody>
</table>
Results

• No uniform way of
  - a) classifying severe neurological injury or
  - b) detecting those not admitted to ICU
• Small number potential donors
  - 3 in 10,000 ED attendances
  - Additional relative 20% increase in ICU deaths
Results

Not all of these would be admitted

1. 68% aged over 70 y (fewer organs retrievable)
2. Organ specific medical contra-indications e.g. cirrhosis, CRF
3. Family agreement to admission and donation is unknown
Conclusions

• This method could inform development of audit system: would need to evolve to give confidence of uniformity
• To prospectively identify patients we will start with a trigger tool generated by expert opinion
• ODNZ has a role in recommending which patients should be excluded
Questions?