End of Life Matters
in Vascular Surgery

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SAAPM End of Life Matters seminar
25th October 2016
End of Life Matters

*The Advance Care Directives Act 2013*

empowers adults to make legal arrangements for their future health care, end of life, preferred living arrangements and other personal matters, and/or appoint one or more Substitute Decision Makers to make decisions on their behalf when they are unable to do so themselves. *It promotes a rights based patient centred approach to health care and supports the National Safety and Quality Service Standards: 2- Partnering with Consumers and 9- Recognising and Responding to Clinical Deterioration in Acute Health Care.*
Many surgeons feel that the use of Advance Care Directives is “incompatible with the goals of surgical treatment”
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Use of Advance Care Directive in Vascular Surgery

Abdominal Aortic Aneurysm - ruptured
   - elective

Other major vascular reconstructions with sudden postop deterioration

Critical Limb Ischaemia in debilitated patient
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Ruptured AAA

15th cause of death
10th in males >55 years

>95% mortality
May die prior to admission

Operative mortality 35% – 75%
RAH review: zero survival if aged >80 with hypotensive collapse

Loss of independent living is age dependent but significant
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Primary Above Knee Amputation

- pain relief
- control sepsis
- nurses/family reasons

But usually this is an End of Life event
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Use of Advance Care Directive in Vascular Surgery

Abdominal Aortic Aneurysm - ruptured
  if known AAA and decided against any repair

Critical Limb Ischaemia in debilitated patient - AKA
  if stipulated prior to loss of mental functions that patient
  would never consider major amputation

THEN PALLIATION IS THE PREFERRED OPTION
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Advance Care Directive practical issues

DATA is instantly available
current
realistic
based on fully informed decision
specific
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What are binding provisions?

A binding provision is a refusal of health care (including medical treatment and life-sustaining measures). To be binding the provisions must be relevant and applicable to the current circumstances as set out in the ACD.

Health practitioners must comply with a binding provision unless:
- There is reasonable evidence that the person had changed their mind, but didn’t update their ACD.
- It is an emergency and there is no time to consult the ACD/Substitute Decision-Maker or to work out the patient’s condition to determine whether the provision applies.
- They have a conscientious objection to complying with an ACD.

A refusal of health care means that you do not have consent to provide the health care. To provide health care without the person’s consent can be grounds for unprofessional conduct or assault and battery.

SA Health Policy and Commissioning Division, Factsheet, June 2014
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Who must follow a binding provision in an ACD?

Health practitioners **must** comply with a binding provision in an ACD if there is no Substitute Decision-Maker (SDM) appointed, or there is no time to contact a SDM if one is appointed.

If the ACD appoints a SDM, the SDM **must** follow the refusal in the ACD if they believe it is what the person would have done in the current circumstances. They **must** therefore refuse the health care on the patient’s behalf. The SDM stands in the patient’s shoes and their consent/refusal is legally valid as if it was the person making their own decision.
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Part 4: Binding refusals of health care

I make the following binding refusal/s of particular health care: *(If you are indicating health care you do not want, you must state when and in what circumstances it will apply as your refusal(s) must be followed, pursuant to section 19 of the Act, if relevant and applicable).*

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

SA Health Policy and Commissioning Division, Factsheet, June 2014
Elective Abdominal Aortic Aneurysms

Clinical presentation

INCIDENTAL FINDING

rupture
compression
embolism
thrombosis
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Risk of Rupture

**SIZE**

<table>
<thead>
<tr>
<th>Size</th>
<th>Risk Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 4cm</td>
<td>&lt;0.5%</td>
</tr>
<tr>
<td>4 - 5cm</td>
<td>0.5-1%</td>
</tr>
<tr>
<td>5 - 5.5cm</td>
<td>1-2%</td>
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</tbody>
</table>

More recent papers suggest lower rupture rates

<table>
<thead>
<tr>
<th>Size</th>
<th>Risk Rate</th>
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</thead>
<tbody>
<tr>
<td>5.5 – 6cm</td>
<td>3.5%</td>
</tr>
<tr>
<td>6 – 7 cm</td>
<td>4.1%</td>
</tr>
<tr>
<td>&gt;7cm</td>
<td>6.3%</td>
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</tbody>
</table>

Rupture rates of untreated large abdominal aneurysms in patients unfit for elective repair. Parkinson et al. J Vasc Surg 2015, 61, 6, 1606-1612
## End of Life Matters

<table>
<thead>
<tr>
<th>Risk of Rupture</th>
<th>v</th>
<th>Risk of Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIZE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>&gt;80</td>
<td></td>
</tr>
<tr>
<td>Life Expectancy</td>
<td>malignancy</td>
<td></td>
</tr>
<tr>
<td>Co-morbidities</td>
<td>cardiac renal respiratory</td>
<td></td>
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</tbody>
</table>
Mortality Elective open AAA Repair

**MORTALITY** has reduced over last 20 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Mortality Rate</th>
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<tbody>
<tr>
<td>1980</td>
<td>12-15%</td>
</tr>
<tr>
<td>2000</td>
<td>3-5%</td>
</tr>
<tr>
<td>2015</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

1% (in selected institutions)

- age
- renal failure, cardiac disease
- surgeon experience
- institution workload
Operative adjuncts

epidural catheter
autologous blood transfusion
blood salvage
intraoperative monitoring

ECG, BP, CVP, left heart pressure,
TOE
oxygenation, expired CO2
urine output

INTENSIVE CARE MANAGEMENT
ventilation
dialysis
inotropes
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Vascular Audit will soon be Surgeon specific in Australia

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Mortality (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Aortic procedures</td>
<td>2975</td>
<td>5.2</td>
</tr>
<tr>
<td>Open AAA-elective</td>
<td>542</td>
<td>4.6</td>
</tr>
<tr>
<td>Open AAA-ruptured</td>
<td>175</td>
<td>31.4</td>
</tr>
<tr>
<td>AAA-EVAR-elective</td>
<td>1426</td>
<td>0.6</td>
</tr>
<tr>
<td>AAA-EVAR-ruptured</td>
<td>66</td>
<td>13.6</td>
</tr>
</tbody>
</table>
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EVSG or OPEN REPAIR

EVAR-1 Trial  The 15 year results

AAA related deaths  better  with OPEN at 15 years  p=.006
Survival  better  with OPEN at 15 years  p=.05
Re-interventions  more  with EVSG at 15 years  p=.035

EVSG has given rise to a new set of complications and risks that may further delay the End of life discussion

Presented Charing Cross Meeting April 2016
What are binding provisions?

A binding provision is a refusal of health care (including medical treatment and life-sustaining measures).

Conclusions

“Many surgeons do not routinely discuss advanced directives preoperatively and more than one half reported they would decline to operate on patients whose directives limit postoperative care. This practice may limit the expression of patient preferences during decision making for high-risk operations”
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Use of Advance Care Directive in Vascular Surgery

Abdominal Aortic Aneurysm
- elective repair

Other major vascular reconstructions with sudden postop deterioration

Surgeons either opt not to offer open AAA surgery
or negotiate with patient to accept total care postop
IF they decide to proceed