Resuscitation Orders in the Perioperative Setting

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Introduction

❖ Advance Healthcare Directives are gaining more clarity in state legislation in Ireland
  • Assisted Decision-Making (Capacity) Act, 2015

❖ Greater prioritisation of a patient’s decision-making capacity
  • HSE’s National Consent Policy, 2019

❖ Resuscitation orders containing do not attempt resuscitation (DNAR) decisions are encountered in the perioperative setting

❖ Variable perceptions among anaesthesiologists towards the binding nature of resuscitation orders

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Study Objective

- To ascertain knowledge, perception and practices of anaesthesiologists working in Ireland with respect to resuscitation orders containing DNAR decisions in the perioperative setting.

- Resuscitation orders include:
  - Medical practitioner-documented not for resuscitation (NFR) orders
  - Patient-led Advance Healthcare Directives (AHDs) containing DNAR decisions
Study Design

Cross-sectional online survey
- Cloud-based software
- 30 questions
- Five key areas:
  - demographics
  - knowledge
  - training
  - discussion
  - practice

Ethics approval via MMUH Institutional Review Board
- Local-level pilot survey

Nationwide survey
- Adult, public training hospitals
- Email invitations to participate

Results collection and data analysis
- Collated using encrypted de-identified URL address
- Compared responses from consultants and trainees
- Chi-square test, two-sided P value of <0.05
Results
Demographics

- 11 training hospitals
- 555 recipients
- 29% response rate (n=161)
- 76.4% completion rate (n=123)
  - only completed responses analysed
  - n = 123

Consultants (n = 62)

Trainees (n = 61)

Knowledge

What is your level of knowledge on AHDs in Ireland?

<table>
<thead>
<tr>
<th>Level</th>
<th>Trainees</th>
<th>Consultants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Low</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>Neutral</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>High</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Very High</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

$X^2 (4, n = 123 ) = 5.69, p = .220$

No statistically significant difference

In your current hospital, is there local hospital policy for the perioperative management of:

<table>
<thead>
<tr>
<th>Policy</th>
<th>Trainees</th>
<th>Consultants</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHDs containing a DNAR decision</td>
<td>52%</td>
<td>28.4%</td>
</tr>
<tr>
<td>NFR orders</td>
<td>65.9%</td>
<td>57.7%</td>
</tr>
</tbody>
</table>

$X^2 (2, n = 123 ) = 18.18, p = .001$

Statistically significant difference

$X^2 (2, n = 123 ) = 9.29, p = .009$

Statistically significant difference
My sources of knowledge on the applicability of resuscitation orders in the perioperative period include:

- **Previous clinical experience**: 62.6%
- **Personal reading**: 43.9%
- **Formal training from college**: 12.2%
- **Workplace training**: 4.9%

Are there published guidelines for resuscitation orders in the perioperative period?

- Yes: 74.8%
- No: 19.5%
- Don't know: 5.7%

I receive adequate training on resuscitation orders and their applicability in the perioperative setting from my workplace/college?

- Strongly disagree: 30.1%
- Disagree: 29%
- Neutral: 18.7%
- Agree: 4.1%
- Strongly agree: 2.4%

Formal training on resuscitation orders and their applicability in the perioperative setting would be beneficial to my practice?

- Strongly disagree: 35%
- Disagree: 35%
- Neutral: 5.7%
- Agree: 48.8%
- Strongly agree: 23%
Discussion

A statement of the patient’s wishes and understanding of treatment limitations including preferred resuscitation status is an important part of perioperative care

X² (4, n = 123 ) = 4.51
p = .341
No statistically significant difference

I initiate discussions with patients about their potential treatment limitations or goals in the perioperative period

X² (4, n = 123 ) = 9.39
p = .052
No statistically significant difference

A lack of familiarity with resuscitation orders and their applicability in the perioperative period is a barrier to a discussion with the patient

X² (4, n = 123 ) = 10.04
p = .039
Statistically significant difference
Practice

AHDs containing DNAR orders should be suspended in the perioperative period

- Always: 8.9% (Trainees: 6, Consultants: 5)
- Usually: 30.9% (Trainees: 22, Consultants: 16)
- Sometimes: 32.5% (Trainees: 21, Consultants: 19)
- Rarely: 10.6% (Trainees: 5, Consultants: 4)
- Never: 9.8% (Trainees: 8, Consultants: 8)
- Other: 7.3% (Trainees: 6, Consultants: 4)

\[ X^2 (4, \, n = 114) = 3.13 \]
\[ p = .536 \]
No statistically significant difference

NFR orders should be suspended in the perioperative period

- Always: 10.6% (Trainees: 8, Consultants: 5)
- Usually: 28.4% (Trainees: 20, Consultants: 15)
- Sometimes: 19% (Trainees: 15, Consultants: 19)
- Rarely: 10.6% (Trainees: 7, Consultants: 6)
- Never: 10.6% (Trainees: 6, Consultants: 7)
- Other: 5.7% (Trainees: 5, Consultants: 4)

\[ X^2 (4, \, n = 116) = 1.81 \]
\[ p = .771 \]
No statistically significant difference
In the event of **any** arrest in theatre or recovery, theatre staff should initiate resuscitation irrespective of an order stating otherwise.

<table>
<thead>
<tr>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>21</td>
<td>20</td>
<td>6</td>
<td>16</td>
</tr>
</tbody>
</table>

χ² (4, n = 123 ) = 10.43

\[ p = 0.034 \]

Statistically significant difference

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In the event of arrest **secondary to iatrogenic complications**, theatre staff should initiate resuscitation irrespective of an order stating otherwise.

<table>
<thead>
<tr>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>23</td>
<td>17</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

χ² (4, n = 123 ) = 5.97

\[ p = 0.201 \]

No statistically significant difference
Conclusions

• Self-reported knowledge is low

• Familiarity with local hospital policy & published guidelines is poor

• Limited perioperative engagement in conversations with patients about potential treatment limitations or goals

• Perception of adequacy of training is low

• A statement of the patient’s preferred resuscitation status is an important part of perioperative care

• Trend towards suspension of orders

• Preference for the initiation of resuscitation in theatre despite presence of a documented DNAR decision
Recommendations

- Education on published guidelines 4,5
- Meaningful communication
- Patient-centred conversations
- Structured, formal training
- Re-iterate patient’s right to self-determination
- Reconsider ethical and legal implications of automatic suspension of DNAR decisions
- Understand what the law requires of us

References


