Evaluation Findings

A Symposium by the Western Australian Audit of Surgical Mortality

The Perth Emergency Laparotomy Audit – Where to Now?

Thursday, 24 August 2017
Pan Pacific Hotel, Perth
Contents

1.0 Overview of the Western Australian Audit of Surgical Mortality (WAASM) ................. 1
2.0 Background and context of The Perth Emergency Laparotomy Audit (PELA) .......... 1
3.0 Overview of Symposium ................................................................. 2
4.0 Overview of Evaluation .................................................................. 2
5.0 Evaluation Findings ...................................................................... 3
  5.1 Registrants .................................................................................. 3
  5.2 Venue and Symposium Outline .................................................. 3
    5.2.1 Venue ................................................................................... 3
    5.2.2 Symposium Outline ............................................................. 4
  5.3 Symposium Topics ....................................................................... 5
  5.4 Symposium Outcomes ................................................................. 8
  5.5 Format and Topics for Future Events .......................................... 11
6.0 Conclusion .................................................................................. 11

Appendix A: Symposium Programme .................................................. 13
Appendix B: Symposium Evaluation Form ........................................... 14

Figures

Figure 1: Registrants ........................................................................ 3
Figure 2: Venue suitable for symposium ........................................... 3
Figure 3: Easy accessibility to venue ................................................ 4
Figure 4: Adequate length of programme for subject matter ............. 4
Figure 5: Suitable programme sequence ......................................... 5
Figure 6: National Australian data in an international context .......... 5
Figure 7: Emergency laparotomy audit in NSW ............................... 6
Figure 8: Outcome of emergency laparotomy in Victoria – Dr Foster’s diagnosis 6
Figure 9: A hospital’s response ......................................................... 6
Figure 10: An emergency department’s response ............................... 7
Figure 11: Who should operate on emergency laparotomies? .......... 7
Figure 12: What a Department of Health would want from a national audit 7
Figure 13: A proposed Australian and New Zealand emergency laparotomy audit 8
Figure 14: Concluding discussion ...................................................... 8
Figure 15: Found subject matter informative .................................... 9
Figure 16: Gained necessary knowledge to identify issues amenable to improvement 9
Figure 17: Greater awareness of strategies to improve areas of suboptimal care 9
Figure 18: Better understanding of the importance of a multispecialty approach 10
Figure 19: See PELA advance into a national quality improvement program 10
Figure 20: Format for future events ................................................... 11
1.0 Overview of the Western Australian Audit of Surgical Mortality

The WA Audit of Surgical Mortality (WAASM) was established in 2001 as an external, independent body to audit all Western Australian (WA) in-hospital surgically-related deaths and to analyse clinical incidents identified by assessors. Initially starting as a pilot project based on the Scottish Audit of Surgical Mortality, the management of the audit was transferred over to the Royal Australasian College of Surgeons (RACS) in 2005, and is funded by the WA Department of Health.

The principal aim of the WAASM is to improve the safety and quality of surgical care through the feedback of information to surgeons which can inform, educate, facilitate change and improve practice.

The collection of information over time, allows for the detection of emerging trends in outcomes from surgical care. The aim is to identify any system or process errors and develop strategies to address them.

The WAASM provides an education learning platform for surgeons and related health professionals. This aims to better inform improvement of health care through the utilisation of surgical mortality data for education purposes and to bring about quality improvement activities and management of clinical risk.

2.0 Background and context of The Perth Emergency Laparotomy Audit

At the end of 2016, WA general surgeons undertook a prospective 12-week Perth Emergency Laparotomy Audit (PELA). This has generated a lot of interest in WA hospitals. Some hospitals are putting processes in place to address the various issues raised by the PELA. The WA Department of Health has shown considerable interest in the PELA and is very keen that any changes be co-ordinated.

The WAASM invited hospital executives to attend the symposium, as the management of emergency laparotomies requires a whole hospital response. Data from both the PELA and the United Kingdom (UK) National Emergency Laparotomy Audit (NELA) suggests that organisations have not adapted recommendations as rapidly as would be ideal. Furthermore, many of the processes required to manage emergency laparotomies are applicable to other patients and departments. Examples include the prompt identification and treatment of sepsis, and clear documentation of goals of care.

To place the PELA in context, we now have emergency laparotomy data for the whole of Australia. This national data shows wide risk-adjusted inter-hospital variation in outcomes, including mortality, average length of stay (AvLoS), Intensive Care Unit (ICU) use, anastomotic rates during an emergency laparotomy involving a left side resection etc.

At the most recent Annual Scientific Congress, Phil Truskett, then Royal Australasian College of Surgeons (RACS) President, chaired a meeting of senior RACS officers and related societies that considered the results of both the PELA and this national data. There was unanimous and strong support for a prospective Australian and New Zealand Emergency Laparotomy Audit (ANZELA). A business case is being put together for government funding.
Healthcare variation is now a major consideration across Australia and the Australian Commission on Safety and Quality has released its second *Atlas of Healthcare Variation*. The third report of the UK NELA is now also available along with results from two large prospective studies that have assessed outcomes following the introduction of a ‘bundle of care’. An article on the PELA has been published in the *Australian and New Zealand (ANZ) Journal of Surgery*, August 2017.

### 3.0 Overview of Symposium

The WAASM presented a symposium entitled ‘*The Perth Emergency Laparotomy Audit – Where to Now?’* following on from the 2016 PELA conducted by WA general surgeons. Held on Thursday, 24 August 2017 in conjunction with the Northern Territory (NT) / South Australian (SA) / WA Annual Scientific Meeting (ASM) at the Pan Pacific Hotel in Perth, all ASM attendees were invited to participate.

The two hour programme (see Appendix A), incorporated nine speakers and discussion time by the WA Department of Health, WA hospitals, and colorectal and emergency specialists. The event attracted 79 attendees and had RACS approval for Continuing Professional Development (CPD) points.

### 4.0 Overview of Evaluation

Symposium attendees were each provided with a hardcopy evaluation form (see Appendix B) as they arrived at the event, as well as being given the option to complete the form online via Survey Monkey. A return box for paper forms was placed on the registration table at the event.

It was requested that evaluation forms be returned no later than 2 weeks following the symposium, and reminder emails were sent to attendees at 4 and 11 days after the event. All respondents returning the evaluation form were provided with a Certificate of Attendance. A total of 45 evaluation forms were returned (a response rate of 57%), 21 of which were completed online.

The evaluation form included 10 questions, comprising a combination of open-ended and close-ended questions and several Likert scales.
5.0 Evaluation Findings

5.1 Registrants

The majority of attendees were Surgeons (55.6%) with a good attendance from Surgical Trainees (11.1%). The ‘Other’ group (24.4%) was varied and included a variety of RACS staff, Anaesthetists, Service Registrars and ICU staff (Figure 1).

5.2 Venue and Symposium Outline

5.2.1 Venue

![Figure 2: Venue suitable for symposium](image)
The NT/SA/WA ASM was a three day event with a variety of workshops and meetings being held. It was therefore viewed as a valuable opportunity for the WAASM to hold the symposium in conjunction with the ASM and to create awareness and promote the activities of the audit.

The majority of attendees strongly agreed or agreed that the venue was suitable and easy to access, at 86.7% and 88.9% respectively.

However, almost half of the attendees were already in attendance at the Pan Pacific Hotel for the ASM activities, therefore it could be speculated that these higher percentages of suitability and accessibility of the venue were due to attendance at the ASM.

### 5.2.2 Symposium Outline

![Figure 4: Adequate length of programme for subject matter](chart)

N/A= Not applicable
A large majority of attendees (88.9%) felt the length of the programme was adequate in covering the content provided on the evening. The suitability of the sequence of topics presented was also highly favoured at 88.9%.

5.3 Symposium Topics

Overall, attendees found the subject matter across the evening’s programme to be ‘very useful’ or ‘somewhat useful’. The content of ‘An emergency department’s response’ was highly received combining at 97.8%, along with the ‘Concluding discussion’ at 97.7%. This was followed by ‘A proposed Australian and New Zealand emergency laparotomy audit’ at 95.5%; with ‘National Australian data in an international context’ and ‘Outcome of emergency laparotomy in Victoria – Dr Foster’s diagnosis’ both at 88.9%. An ‘Emergency laparotomy audit in NSW’ was well received at 86.6%; ‘What a Department of Health would want from a national audit’ at 84.4%; followed by ‘A hospital’s response’ and ‘Who should operate on emergency laparotomies?’ at 82.2% and 77.8% respectively.
Figure 7: Emergency laparotomy audit in NSW

- N/A: 4.4%
- Very useful: 44.4%
- Somewhat useful: 42.2%
- Neutral: 8.9%
- Not very useful: 0.0%
- Not at all useful: 0.0%

N/A = Not applicable

Figure 8: Outcome of emergency laparotomy in Victoria - Dr Foster’s diagnosis

- N/A: 2.2%
- Very useful: 40.0%
- Somewhat useful: 48.9%
- Neutral: 8.9%
- Not very useful: 0.0%
- Not at all useful: 0.0%

N/A = Not applicable

Figure 9: A hospital’s response

- N/A: 4.4%
- Very useful: 40.0%
- Somewhat useful: 42.2%
- Neutral: 8.9%
- Not very useful: 4.4%
- Not at all useful: 0.0%

N/A = Not applicable
Figure 10: An emergency department’s response

- N/A: 0.0%
- Very useful: 40.0%
- Somewhat useful: 57.8%
- Neutral: 2.2%
- Not very useful: 0.0%
- Not at all useful: 0.0%

N/A= Not applicable

Figure 11: Who should operate on emergency laparotomies?

- N/A: 0.0%
- Very useful: 42.2%
- Somewhat useful: 35.6%
- Neutral: 17.8%
- Not very useful: 4.4%
- Not at all useful: 0.0%

N/A= Not applicable

Figure 12: What a Department of Health would want from a national audit

- N/A: 0.0%
- Very useful: 42.2%
- Somewhat useful: 42.2%
- Neutral: 15.6%
- Not very useful: 0.0%
- Not at all useful: 0.0%

N/A= Not applicable
Some feedback provided on the content included:

“Especially [need] clarification that ANZELA Quality Improvement will not be subject to Qualified Privilege”

“Great presenting data collected by interstate studies”

“…… It was interesting and well presented”

5.4 Symposium Outcomes

Most attendees either ‘strongly agreed’ or ‘agreed’ the symposium was of benefit to them in some way, with over 86.7% having a greater awareness of useful strategies to improve areas of suboptimal care. Attendees also ‘strongly agreed’ to seeing PELA advance into a national quality improvement program and also to having gained a better understanding of the importance of a multispecialty approach to patient care (86.6% and 84.4% respectively).
<table>
<thead>
<tr>
<th>Figure 15: Found subject matter informative</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td>Agree</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Disagree</td>
</tr>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

N/A = Not applicable

<table>
<thead>
<tr>
<th>Figure 16: Gained necessary knowledge to identify issues amenable to improvement</th>
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</thead>
<tbody>
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<td>N/A</td>
</tr>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td>Agree</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Disagree</td>
</tr>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

N/A = Not applicable

<table>
<thead>
<tr>
<th>Figure 17: Greater awareness of useful strategies to improve areas of suboptimal care</th>
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</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td>Agree</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Disagree</td>
</tr>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

N/A = Not applicable
It was also noted:

“Go for it!”

However, one respondent stated:

“PELA is not a reasonable baseline. It is only 12 weeks of data, it has some strange inclusions and some of the data is missing. We need to be very careful that this data does not become the national benchmark as it is not truly representative. ANZELA-QI will need to be better than this”
5.5 Format and Topics for Future Events

Approximately 74% of attendees would like to see a similar format for future WAASM events (Figure 20). Please note that some attendees ticked more than one format for future WAASM events. Some suggested topics for future events were:

- Risk assessment tools;
- Effective quality improvement activities;
- Septicaemia;
- System surgery planning.

6.0 Conclusion

The 2017 WAASM symposium entitled ‘The Perth Emergency Laparotomy Audit – Where to Now?’ was well attended with a favourable evaluation return rate. There appears to be a general consensus of the need for a nation-wide laparotomy audit for improved patient care. The approximate cost of $300,000 in setting up the audit and the savings in excess of $25 million to the Australian economy cannot be ignored (not including New Zealand [NZ] costs).

To ensure the security of government funding, it is recognised that the audit and quality of the data needs to be robust. Currently, Australia is sitting about where the UK was in 2011, in relation to the quality of available data.

As stated in Mr James Aitken’s (Clinical Director, WAASM; Clinical Lead PELA; General Surgeon, SCGH) presentation from the symposium, Australia has limited data. Firstly, the Independent Hospital Pricing Authority (IHPA) administrative data demonstrates variation but lacks the quality of a prospective audit. Secondly, PELA, a single state prospective audit, shows low mortality but fails to demonstrate evidence based standards of care. Overall, the mortality is low when looking at comparisons to the UK data. Given the limitations of administrative data, further analysis of such data is unlikely to be contributory. Mr Aitken suggests the need for a nation-wide audit in order to be able to specify procedure type and look at the standards of 30 and 90 day mortality - rather than using the current administrative
data in Australia. This data does not include post-discharge deaths; assessing the process of care; risk assessment of patients pre-operatively; and comprehensive risk adjustments. Given what is known from the UK’s NELA and the subsequent reduction in AvLoS, reduced bed-days and the resulting savings, would make an audit such as ANZELA extremely cost effective.
The Perth Emergency Laparotomy Audit - Where to Now?

5pm, Thursday 24 August 2017
Pan Pacific Hotel, 207 Adelaide Terrace, Perth

Speaker

Prof Guy Maddern
Chair of ANZASM & Surgical Director of Research & Evaluation (RACS); Professor of Surgery, University of Adelaide

Mr James Aitken
Clinical Director, WAASM; Clinical Lead PELA; General Surgeon, Sir Charles Gairdner Hospital

Dr Peter Pockney
Senior Lecturer, John Hunter Hospital, NSW

Dr Claire Stevens
General Surgeon, University of Adelaide

Dr Mary Theophilus
General Surgeon; Head of Dept., General Surgery, SJOG Midland Public & Private Hospitals

Assoc Prof David Mountain
Emergency Physician, Sir Charles Gairdner Hospital

Prof Marina Wallace
Colorectal Surgeon, Fiona Stanley Hospital

Dr Audrey Koay
Director of Quality & Safety, The WA Dept. of Health

Prof David Fletcher
Professor of Surgery, Fiona Stanley Hospital; Perth Member, RACS Sustainability in Healthcare Committee

Topic

Introduction and concluding discussion

National Australian data in an international context

Emergency laparotomy audit in NSW

Outcome of emergency laparotomy in Victoria – Dr Foster’s diagnosis

A hospital’s response

An emergency department’s response

Who should operate on emergency laparotomies

What a Department of Health would want from a national audit

A proposed Australian and New Zealand emergency laparotomy audit

For more information or to register:
E: waasm@surgeons.org
T: (08) 6389 8650
Appendix B: Symposium Evaluation Form

‘The Perth Emergency Laparotomy Audit – Where to Now?’

24 August, 2017 - 5.00pm – 7.00pm

For the purpose of reporting and continual improvement, we would appreciate any feedback relating to your recent attendance of this Symposium.

Alternatively, you can complete this form online at https://www.surveymonkey.com/r/RMKHB87

1. To receive a certificate of attendance, please provide your details below:

   Name: ____________________________
   Email address: ____________________
   Phone number: ____________________

2. Category of registrant:
   - ☐ Hospital Executive
   - ☐ Quality & Safety Representative
   - ☐ Surgeon
   - ☐ Surgical Trainee
   - ☐ Other ____________________________

3. Please rate the following statements on today’s venue and Symposium programme:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>The venue was easily accessible</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>The venue was suitable for the Symposium</td>
<td>●</td>
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<tr>
<td>The sequence of the programme was suitable</td>
<td>●</td>
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<tr>
<td>The length of the programme adequately covered the subject matters presented</td>
<td>●</td>
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</tbody>
</table>

4. Which aspects of the Symposium did you find most useful?

<table>
<thead>
<tr>
<th>Topic</th>
<th>Not at all useful</th>
<th>Not very useful</th>
<th>Neutral</th>
<th>Somewhat useful</th>
<th>Very useful</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Australian data in an international context</td>
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<tr>
<td>Emergency laparotomy audit in NSW</td>
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<tr>
<td>Outcome of emergency laparotomy in Victoria – Dr Foster’s diagnosis</td>
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<td>A hospital’s response</td>
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<td>An emergency department’s response</td>
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<td>●</td>
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<tr>
<td>Who should operate on emergency laparotomies</td>
<td>●</td>
<td>●</td>
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<tr>
<td>What a Department of Health would want from a national audit</td>
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<tr>
<td>A proposed Australian and New Zealand emergency laparotomy audit</td>
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<tr>
<td>Concluding discussion</td>
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</tbody>
</table>
5. If you answered ‘Not at all useful’ or ‘Not very useful’ to any statements in Question 4, please elaborate below:


6. Please rate the following statements:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found today’s subject matter informative</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
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</tr>
<tr>
<td>I have gained the necessary knowledge to identify issues amenable to improvement</td>
<td>〇</td>
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<tr>
<td>I now have a greater awareness of useful strategies to improve areas of suboptimal care</td>
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<td>〇</td>
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<td>〇</td>
</tr>
<tr>
<td>I now have a better understanding of the importance of a multispecialty approach to patient care</td>
<td>〇</td>
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<tr>
<td>I would like to see PELA advance into a national quality improvement program</td>
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7. If you answered ‘Strongly disagree’ or ‘Disagree’ to any statements in Question 6, please elaborate below:

8. What format would you prefer for future WAASM events? (you may tick more than one)
   - 〇 Same (evening symposium)
   - 〇 Evening workshop
   - 〇 Half-day event
   - 〇 Profession-specific event
   - 〇 Other

9. Are there any topics of interest you would like included in a future WAASM event?

Thank you very much for taking the time to complete our evaluation form and for attending the WAASM 2017 Symposium. We look forward to seeing you again.