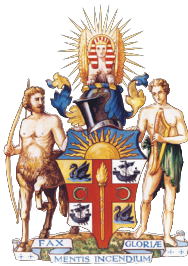


WA Audit of Surgical Mortality
M308 University of Western Australia
35 Stirling Highway
Crawley, WA 6009



Neurosurgical Case Form



ROYAL AUSTRALASIAN
COLLEGE OF SURGEONS

Important

- 1) Please do not destroy this form
- 2) Please do not copy this form
- 3) Please return this form to the audit office

By submitting this form to the Mortality Audit, I agree that the Australian and New Zealand Audit of Surgical Mortality (ANZASM) may inform the Professional Standards Department of my involvement with the Surgical Mortality audit, to confirm my compliance with Continuing Professional Development (CPD) requirements

Contact WAASM

Telephone: 08 6389 8650

Facsimile: 08 6389 8655

Email: waasm@surgeons.org

Address: M308, University of Western Australia
35 Stirling Highway, Crawley, WA 6009

Web: www.surgeons.org

ANZASM inclusion criteria:

ANZASM defines a surgeon as a medical practitioner who performs surgical operations; that is, consultants, SET trainees, locums, GP surgeons and Fellows (who are not consultants but are continuing their Fellowship).

Case Inclusion

The ASM audits all deaths that occur in a hospital when:

- 1) The patient was under the care of a surgeon (surgical admission),
whether or not an operation was performed, or
- 2) The patient was under the care of a physician (medical and non-surgical admissions) and there was a surgical procedure performed.

All identifiers will be removed by the Audit Office on receipt of this completed form:

Exclusion for terminal patients:

Please complete this section for all patients

Was terminal care planned for this patient **prior to or on** admission?

YES

If **YES** please describe the terminal condition:

.....
.....

NO (go to page 2 and complete ALL questions on this form)

If **YES**, was an operation performed on this terminal care patient?

YES - go to page 2 and complete ALL questions on this form

NO (this patient is EXCLUDED from the audit; do NOT complete this form)

Return this form to the Audit Office.

Please classify the death into one of these categories

- 1(a) Anticipated death due to terminal illness
- 1(b) Death following cardiac or respiratory arrest prior to arrival in hospital
- 2. Death which occurred despite known preventative measures taken in an adequate and timely fashion
- 3. Death which may not have been reasonably preventable with medical intervention
- 4. Further review of this case is recommended
- 5. Death which may have resulted from healthcare team intervention
- 6. Unexpected and unexplained death

<p>1 Status of surgeon completing form:</p> <p><input type="checkbox"/> Consultant</p> <p><input type="checkbox"/> Fellow</p> <p><input type="checkbox"/> International Medical Graduate</p> <p><input type="checkbox"/> SET trainee</p> <p><input type="checkbox"/> Service Registrar</p> <p><input type="checkbox"/> GP surgeon</p> <p><input type="checkbox"/> YES { Consultant confirms they have agreed to contents of the form</p>	<p>Specialty of consultant surgeon in charge of patient:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> General</td> <td style="width: 33%;"><input type="checkbox"/> Ophthalmology</td> </tr> <tr> <td><input type="checkbox"/> Colorectal <input type="checkbox"/> Trauma</td> <td><input type="checkbox"/> Paediatrics</td> </tr> <tr> <td><input type="checkbox"/> Vascular</td> <td><input type="checkbox"/> Obstetrics and Gynaecology</td> </tr> <tr> <td><input type="checkbox"/> Urology</td> <td><input type="checkbox"/> Plastic</td> </tr> <tr> <td><input type="checkbox"/> Neurosurgery</td> <td><input type="checkbox"/> Oral/Maxillofacial</td> </tr> <tr> <td><input type="checkbox"/> Orthopaedics</td> <td><input type="checkbox"/> Cardiothoracic</td> </tr> <tr> <td><input type="checkbox"/> Otolaryngology Head and Neck</td> <td><input type="checkbox"/> Other (specify)</td> </tr> </table> <p>.....</p>	<input type="checkbox"/> General	<input type="checkbox"/> Ophthalmology	<input type="checkbox"/> Colorectal <input type="checkbox"/> Trauma	<input type="checkbox"/> Paediatrics	<input type="checkbox"/> Vascular	<input type="checkbox"/> Obstetrics and Gynaecology	<input type="checkbox"/> Urology	<input type="checkbox"/> Plastic	<input type="checkbox"/> Neurosurgery	<input type="checkbox"/> Oral/Maxillofacial	<input type="checkbox"/> Orthopaedics	<input type="checkbox"/> Cardiothoracic	<input type="checkbox"/> Otolaryngology Head and Neck	<input type="checkbox"/> Other (specify)
<input type="checkbox"/> General	<input type="checkbox"/> Ophthalmology														
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<input type="checkbox"/> Urology	<input type="checkbox"/> Plastic														
<input type="checkbox"/> Neurosurgery	<input type="checkbox"/> Oral/Maxillofacial														
<input type="checkbox"/> Orthopaedics	<input type="checkbox"/> Cardiothoracic														
<input type="checkbox"/> Otolaryngology Head and Neck	<input type="checkbox"/> Other (specify)														

<p>2 Patient Age</p>
<p>Patient Sex: Male <input type="checkbox"/> Female <input type="checkbox"/> Hospital Status: Private <input type="checkbox"/> Public <input type="checkbox"/> Co-Located <input type="checkbox"/></p>
<p>Aboriginal/ Torres Strait Islander descent? Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>Admission Type: Elective <input type="checkbox"/> Emergency <input type="checkbox"/> Patient Status: Private <input type="checkbox"/> Public <input type="checkbox"/> Veteran <input type="checkbox"/></p>
<p>Patient admitted by a surgeon? Yes <input type="checkbox"/> No <input type="checkbox"/></p>

3	<p>Main surgical diagnosis on admission <i>(as suspected by clinicians after initial assessment)</i></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
	<p>Confirmed main surgical diagnosis <i>(taking into account test results, operations, post mortem etc)</i></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
	<p>Final cause of death <i>(taking all information into account, including post mortem)</i></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

4

Were there significant co-existing factors increasing risk of death? Yes No (*tick all that apply*)

Cardiovascular Hepatic Diabetes Age
 Respiratory Neurological Obesity Advanced malignancy
 Renal Other (specify)

5

ASA 1 – A normal healthy patient ASA 4 – A patient with an incapacitating systemic disease that is a constant threat to life
 ASA 2 – A patient with mild systemic disease ASA 5 – A moribund patient who is not expected to survive 24 hours, with or without an operation
 ASA 3 – A patient with severe systemic disease which limits activity, but is not incapacitating ASA 6 – A brain-dead patient for organ donation
 E (emergency)

6

Was the patient **transferred pre-op**? Yes No If **NO**, go to Q7

Transferred from hospital

Transferred to hospital..... Distance (km).....

Was there a delay in transfer? Yes No Was the level of care appropriate? Yes No

Was the transfer appropriate? Yes No Was there sufficient clinical information? Yes No

7

Was there a **pre-op delay** in confirmation of main surgical diagnosis? Yes No

If **NO**, go to Q8a

Was the delay associated with: GP Medical Unit Surgical Unit Other (specify)

Was this due to: (*tick all that apply*)

Inexperience of staff Misinterpretation of results Unavoidable factors
 Failure to do correct test Results not seen Other (specify)

8a

Was this patient **treated** in a critical care unit (ICU or HDU) during this admission? Yes (go to Q8b) No (continue)

Should this patient have been provided critical care in:

Intensive Care Unit (ICU)? Yes (continue) No (go to Q9)

High Dependency Unit (HDU)? Yes (continue) No (go to Q9)

Why did this patient not receive critical care? (*tick all that apply and then go to Q9*)

No ICU/ HDU bed available Active decision not to refer to critical care unit
 Admission refused by critical care staff Not applicable
 No critical care unit in the hospital

10

Was an operation performed within 30 days of death or during the last admission? Yes No

If **YES**, go to Q11. If **NO**: (tick as necessary)

It was not a surgical problem

Active decision not to treat or operate → Was this a consultant's decision? Yes No

Patient/family refused operation

Rapid death

If NO operation was performed, please go to Q18

11

Surgeon's view (before any surgery) of overall risk of death

Minimal Small Moderate Considerable Expected Futile

12

Description of operation(s) (including relevant radiological or endoscopic procedures)

Operation (1) Date / / Start time.....:..... (24hr clock) Estimated length (hours) of operation

.....

.....

.....

Operation (2) Date / / Start time.....:..... (24hr clock) Estimated length (hours) of operation

.....

.....

.....

Operation (3) Date / / Start time.....:..... (24hr clock) Estimated length (hours) of operation

.....

.....

.....

13

Timing of operation

	1st Op	2nd Op	3rd Op
Elective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Immediate (< 2 hours)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency (< 24 hours)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scheduled emergency (> 24 hours after admission)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14

		1st Op	2nd Op	3rd Op
Was there a consultant anaesthetist present at the operation?	Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the operation abandoned on finding a terminal situation?	Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15

Grades of surgeons making decisions, operating, assisting and present in theatre

	1st Op				2nd Op				3rd Op			
	Decide	Operate	Assist	In Theatre	Decide	Operate	Assist	In Theatre	Decide	Operate	Assist	In Theatre
Consultant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fellow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
International Medical Graduate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SET trainee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service Registrar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GP surgeon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16

Was there a definable post-operative complication? Yes No If **NO**, go to Q17

Surgical complications relating to present admission (please tick all that apply)

Procedure related sepsis	<input type="checkbox"/>	Haemorrhagea	<input type="checkbox"/>	Infection	<input type="checkbox"/>
Significant post-op bleeding	<input type="checkbox"/>	CSF Leak	<input type="checkbox"/>	Other (specify)	<input type="checkbox"/>
Neurological deficiency	<input type="checkbox"/>	Cerebral swelling	<input type="checkbox"/>		

Was there a delay in recognising post-operative complications? Yes No

17

Was there an anaesthetic component to this death?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Possibly	<input type="checkbox"/>
Was death within 48 hours of last anaesthetic?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Don't know	<input type="checkbox"/>

18

Was a post-mortem examination performed?

Yes – Hospital Yes – Coroner No Refused Unknown

19 Was DVT prophylaxis used during this admission? Yes No

If **YES** (tick all that apply)

Heparin (any form) Aspirin TED Stockings
 Warfarin Sequential compression device Other (specify)

If **NO**, state reasons: Not appropriate Active decision to withhold Not considered

and please comment on why **NOT** used

.....

20 Was there an **unplanned return** to theatre? Yes No Unknown

Was there an **unplanned admission** to a critical care unit? Yes No Unknown

Was there an **unplanned readmission** within 30 days of surgery? Yes No Unknown

Was **fluid balance** an issue in this case? Yes No Unknown

Would it be beneficial for this case to undergo **Root Cause Analysis**? Yes No Unknown

Was there an issue with **communication** at any stage? Yes No Unknown

If there was an issue with communication, please provide details:

.....

21a Did this patient die with a **clinically-significant infection**? Yes (continue) No (go to Q22)

Was this infection acquired: before this admission (go to Q21b) or during this admission (continue)

If acquired **during** this admission, was the infection: acquired pre-operatively or a surgical-site infection
 or acquired post-operatively or other invasive-site infection

21b Was the **infection**: Cranial /Spinal infection Pneumonia Intra-abdominal sepsis Septicaemia
 Other source

Was the infective organism identified? Yes No

If yes, what was the organism?

.....

Was there a delay in treatment? Yes No

22 Was the **antibiotic regimen** appropriate? Yes No Unknown Not applicable

23

If an operation occurred, do you consider **management** could have been **improved** in the following areas?

Pre-operative management/ preparation	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Intra-operative/technical management of surgery	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
Decision to operate at all	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Grade/experience of surgeon deciding	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
Choice of operation	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Grade/experience of surgeon operating	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
Timing of operation (<i>too late, too soon, wrong time of day</i>)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Post operative care	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
		Appropriate equipment	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

24a

An area for CONSIDERATION is where the clinician believes areas of care COULD have been IMPROVED or DIFFERENT, but recognises that it may be an area of debate.

An area of CONCERN is where the clinician believes that areas of care SHOULD have been better.

An ADVERSE EVENT is an unintended injury caused by medical management rather than by disease process, which is sufficiently serious to lead to prolonged hospitalisation or to temporary or permanent impairment or disability of the patient at the time of discharge, or which contributes to or causes death.

Were there any issues in the management of this patient? Yes (please describe below) No (go to Q25)

24b

Important: please describe the 3 most significant clinical management issues.

i). (please describe the most significant clinical management issue)

Area of:	Which:	Was the event preventable?	Associated with?
Consideration <input type="checkbox"/>	Made no difference to outcome <input type="checkbox"/>	Definitely <input type="checkbox"/>	Audited Surgical team <input type="checkbox"/>
Concern <input type="checkbox"/>	May have contributed to death <input type="checkbox"/>	Probably <input type="checkbox"/>	Another Clinical team <input type="checkbox"/>
Adverse event <input type="checkbox"/>	Caused death of patient who would otherwise be expected to survive <input type="checkbox"/>	Probably not <input type="checkbox"/>	Hospital <input type="checkbox"/>
		Definitely not <input type="checkbox"/>	Other (please specify) <input type="checkbox"/>

ii). (please describe the second most significant clinical management issue)

Area of:	Which:	Was the event preventable?	Associated with?
Consideration <input type="checkbox"/>	Made no difference to outcome <input type="checkbox"/>	Definitely <input type="checkbox"/>	Audited Surgical team <input type="checkbox"/>
Concern <input type="checkbox"/>	May have contributed to death <input type="checkbox"/>	Probably <input type="checkbox"/>	Another Clinical team <input type="checkbox"/>
Adverse event <input type="checkbox"/>	Caused death of patient who would otherwise be expected to survive <input type="checkbox"/>	Probably not <input type="checkbox"/>	Hospital <input type="checkbox"/>
		Definitely not <input type="checkbox"/>	Other (please specify) <input type="checkbox"/>

iii). (please describe the third most significant clinical management issue)

Area of:	Which:	Was the event preventable?	Associated with?
Consideration <input type="checkbox"/>	Made no difference to outcome <input type="checkbox"/>	Definitely <input type="checkbox"/>	Audited Surgical team <input type="checkbox"/>
Concern <input type="checkbox"/>	May have contributed to death <input type="checkbox"/>	Probably <input type="checkbox"/>	Another Clinical team <input type="checkbox"/>
Adverse event <input type="checkbox"/>	Caused death of patient who would otherwise be expected to survive <input type="checkbox"/>	Probably not <input type="checkbox"/>	Hospital <input type="checkbox"/>
		Definitely not <input type="checkbox"/>	Other (please specify) <input type="checkbox"/>

Additional comments:



THANK YOU

FOR OFFICE USE

Date sent	Date received
Date coded / entered	Entered by Entry checked by
Date sent to FLA	Date received from FLA
No further action <input type="checkbox"/>	For assessment <input type="checkbox"/>
Medical records requested	Medical records received
Date sent to SLA	Received from SLA
Case completed	Coding: Yes=1, No=2, Don't know=3



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