CONFIDENTIAL

MODULAR REVIEW FORM (MRF2)

for

Retrospective Case Record Review

Directions:

1. Complete stage A in full
2. Complete stage B in full
3. Complete the relevant subsection(s) in Stage C (as identified in A7)
4. Complete the relevant subsection(s) in Stage D (as identified in Stage C)
5. Complete stage E in full
6. “AE” means adverse event
7. Please print or write responses or notes legibly
8. Please return this form to the team leader on completion
9. A manual is available with definitions
### Stage A: PATIENT INFORMATION AND BACKGROUND TO ADVERSE EVENT

#### A1 REVIEWER INFORMATION

<table>
<thead>
<tr>
<th>Reviewer ID Number:</th>
<th>Date of Review:</th>
<th>Time Commenced Review:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Case Number:</th>
<th>Time Review Finished:</th>
</tr>
</thead>
</table>

#### A2 PATIENT INFORMATION

<table>
<thead>
<tr>
<th>Patient's age:</th>
<th>Sex: M/F</th>
<th>Pregnancy: Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Admission:</td>
<td>Date of Discharge:</td>
<td></td>
</tr>
<tr>
<td>or Date of Death</td>
<td>Degree of emergency at time of admission</td>
<td></td>
</tr>
</tbody>
</table>

- 1 Critical (life at risk)
- 2 Urgent (emergency)
- 3 Semi-urgent
- 4 Routine (non-urgent / waiting list)

#### A3 NATURE OF ILLNESS

**Prognosis from the primary illness?** To answer tick relevant **Yes** or **No** responses to 3A, 3B and 3C

<table>
<thead>
<tr>
<th>Primary diagnosis</th>
<th>3A Complete recovery back to patient's normal health</th>
<th>3B Recovery with residual disability</th>
<th>3C Terminal illness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>If yes, then complete recovery is:</td>
<td>1 Probable</td>
<td></td>
<td>1 Non-progressive</td>
</tr>
<tr>
<td></td>
<td>2 More likely than not</td>
<td></td>
<td>2 Slowly progressive</td>
</tr>
<tr>
<td></td>
<td>3 Possible (20-50% chance)</td>
<td></td>
<td>3 Rapidly progressive</td>
</tr>
<tr>
<td></td>
<td>4 Unlikely</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### A4 CO-MORBIDITIES

Please tick all of the following co-morbidities that apply to this patient or **No co-morbidities Not known**

- **Cardio-vascular**
  - Coronary artery disease
  - Peripheral vascular disease
  - Cardiac insufficiency or dysrhythmia
  - Hypertension

- **Respiratory**
  - Asthma
  - COPD (chronic obstructive pulmonary disease)
  - Other serious lung problem (e.g. *severe tuberculosis scarring, pneumonectomy*) (specify)

- **Gastro-intestinal**
  - Chronic or recurrent dyspepsia
  - Inflammatory bowel disease (Crohn's / colitis
  - Chronic liver disorder

- **Endocrine**
  - Diabetes
  - Endocrine disorder (e.g. *thyroid, adrenal*) (specify)

- **Neurological**
  - Epilepsy
  - Stroke
  - Parkinson's
  - Dementia
  - Other serious neurological disorders (e.g. *MS, MND*) (specify)

- **Renal**
  - Chronic renal disease

- **Haematological**
  - Anaemia
  - Leukaemia
  - Lymphoma
  - Other (specify)

- **Existing cancer**
  - Specify

- **Bone/joint disorders**
  - Osteoporosis
  - Severe rheumatoid arthritis
  - Severe osteoarthritis

- **Disability**
  - Wheel chair bound
  - Blind
  - Deaf
  - Learning difficulty
  - Other (specify)

- **Psychiatric**
  - Schizophrenia
  - Affective disorder
  - Other (specify)

- **Psychosocial**
  - Alcoholism
  - Drug abuse
  - Smoker
  - Homeless
  - Other (specify)

- **Infection**
  - AIDS
  - Chronic infection (e.g. Hep C, MRSA) (specify)

- **Trauma**
  - Multiple Traumas (e.g. *RTA*)

- **Nutritional status**
  - Obese
  - Cachetic
  - Other (specify)
Other co-morbidity

☐ Specify ______________________________

Allergies

☐ Specify ______________________________
## A5 SPECIALTY CARING FOR PATIENT

Indicate with a tick (✓) under which specialty the patient was admitted.
Indicate with a cross (✗) which specialty was responsible for the patient when the AE occurred.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident &amp; Emergency (A&amp;E)</td>
<td>1</td>
</tr>
<tr>
<td>General Intensive Care</td>
<td>2</td>
</tr>
<tr>
<td>Anaesthesiology</td>
<td>3</td>
</tr>
<tr>
<td>Cardiac Surgery</td>
<td>4</td>
</tr>
<tr>
<td>Colon/Rectal Surgery</td>
<td>5</td>
</tr>
<tr>
<td>General Surgery</td>
<td>6</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>7</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>8</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>9</td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>10</td>
</tr>
<tr>
<td>Paediatric Surgery</td>
<td>11</td>
</tr>
<tr>
<td>Thoracic Surgery</td>
<td>13</td>
</tr>
<tr>
<td>Urological Surgery</td>
<td>15</td>
</tr>
<tr>
<td>ENT Surgery</td>
<td>16</td>
</tr>
<tr>
<td>Eye Surgery</td>
<td>17</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>18</td>
</tr>
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## A6 IDENTIFYING MAIN FEATURES OF THE ADVERSE EVENT

An adverse event has to fulfil all three criteria:

a) an unintended injury or complication,

b) temporary or permanent disability and/or increased length of stay or death

c) caused by health care management

### a) INJURY or COMPLICATION

Was there a patient injury or complication?  
- Yes  
- No

### b) DISABILITY / EXTENDED STAY

Did the injury or complication result in disability at the time of discharge and/or a prolonged hospital stay (or re-admission or out-patient treatment) or death?

1. Disability at discharge  
   - Yes  
   - No
2. Prolonged/subsequent stay or treatment  
   - Yes  
   - No
3. Death  
   - Yes  
   - No

### c) CAUSE OF INJURY OR COMPLICATION

This question relates to circumstances that led to the injury such as a procedure or treatment that caused the injury or whether there was some omission in management or ordinary standard of care. One way to help understand this question is to consider whether the injury or complication would have occurred if the procedure had not been carried out. For example where a patient suffered a wound infection following surgery there is strong evidence that healthcare management is responsible (the wound infection would not have occurred without the surgery). Where the patient may have been predisposed to wound infections then the confidence score for will be reduced.

Was the patient's injury/complication caused by

- 1 health care management
- 2 health care management interacting with disease process
- 3 solely by disease process
After consideration of the clinical details of the patient's management, irrespective of preventability, what level of confidence do you have that the HEALTH CARE MANAGEMENT caused the injury?

- 1 Virtually no evidence for management causation/system failure. Injury entirely due to patient's pathology (no AE: then STOP)
- 2 Slight to modest evidence for management causation
- 3 Management causation not likely; less than 50-50 but close call
- 4 Management causation more likely than not, more than 50-50 but close call
- 5 Moderate/strong evidence for management causation
- 6 Virtually certain evidence for management causation

If more than one AE is identified, please see instructions in the manual

A7 ADVERSE EVENT SUMMARY

Describe AE in context of overall illness

Date of adverse event

Give details of the pre-admission assessment / waiting period relevant to AE

Give details of contributory events leading up to the AE

Give details of any key action/inaction that played a significant part in the causation of the AE

Give details of the injury or complication caused by the AE

Give any other details relevant to the AE (e.g. time of event if known)

With this clinical scenario indicate, if possible, how often this sort of injury or complication may occur?

- 1 very rarely (<1%)
- 2 rarely (1-9%)
- 3 occasionally (10-24%)
- 4 frequently (> 25%)
Describe the principal problem in the patient’s care that led to the AE (e.g. was it a diagnostic error, technical mishap, failure to monitor, etc.) _________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
A7 (cont.)

Identify any other problems (major lapses in care) related to this AE and when these occurred in relation to the principal problem

1. ___________________________________________________________________________
2. ___________________________________________________________________________
3. ___________________________________________________________________________

Specify the period(s) during which the principal problem in care occurred. Tick as many as apply to the principal problem. This will identify which sub-section in Stage C you will need to complete.

- C1. Care on admission to a ward (includes pre-operative assessment and assessment in A&E department and emergency care before full assessment)
- C2. Care during a procedure (including surgery and anaesthesia)
- C3. Post-operative care or post-procedure/High dependency or ITU care
- C4. General ward care (after operation; or after full assessment and commencement of medical care)
- C5. End of admission assessment and discharge care

Was there an error in handling the AE?  
- ☐ Yes  ☐ No  ☐ Not clear

If so, give details ___________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

A8  ADEQUACY OF RECORDS FOR JUDGEMENT OF AE

How adequate were the records in providing information to enable judgements of AE?

- ☐ 1 Medical records were adequate to make a reasonable judgement
- ☐ 2 Some deficiencies in the records (specify) _____________________________________
- ☐ 3 Major deficiencies (specify) _______________________________________________
- ☐ 4 Severe deficiencies, impossible to make judgements about AE (specify) ___________
Stage B: THE INJURY AND ITS EFFECTS

B1 DISABILITY CAUSED BY ADVERSE EVENT

Describe the impact of the adverse event on the patient (e.g. increased pain and suffering for x days; delayed recovery from primary illness; patient not given adequate care and support; contributed to or caused death)

_________________________________________________________________________________________________
_________________________________________________________________________________________________
_________________________________________________________________________________________________

Please use your judgement to assess the degree of disability (tick the relevant number)

Physical impairment

- 0 No physical impairment or disability (still an AE if hospital stay was prolonged)
- 1 Minimal impairment and/or recovery in one month
- 2 Moderate impairment, recovery in one to six months
- 3 Moderate impairment, recovery in six months to a year
- 4 Permanent impairment, disability 1-50%
- 5 Permanent impairment, disability > 50%
- 6 Permanent nursing
- 7 Institutional care
- 8 Death (specify what was the contribution of AE to the death)
  - 8.1 Death unrelated to AE
  - 8.2 Minimal contribution from AE
  - 8.3 Moderate contribution from AE
  - 8.4 Death entirely due to AE
- 9 Cannot reasonably judge

Emotional trauma

- 0 No emotional trauma
- 1 Minimal emotional trauma and/or recovery in one month
- 2 Moderate trauma, recovery in one to six months
- 3 Moderate trauma, recovery in six months to a year
- 4 Severe trauma effects lasting longer than a year
- 5 Cannot reasonably judge

B2 THE EFFECT OF THE ADVERSE EVENT ON HOSPITAL RESOURCES

Was a portion of, or the entire hospitalisation, due to the AE (including transfer to another hospital where known)

- 1 No increase in hospital days
- 2 Portion of hospital stay
- 3 Re-admission (entire subsequent hospital stay)

Estimate how many additional days, or partial days, were spent in hospital because of the AE? _______ days (*)

Estimate the total number of days attributable to the AE.

Indicate which specialty and number of days, or partial days, per specialty attributable to the AE.

- Medical specialty (specify) ___________________________ No. of extra bed days per specialty _______
- Surgical specialty (specify) ____________________________
- ICU/CCU/HDU* (specify) ____________________________
- Other (specify) ____________________________

Total number of extra days attributable to the AE ________

* Intensive Care Unit / Coronary Care Unit /
B3 ADDITIONAL TREATMENT AS A RESULT OF THE AE

What additional procedures (medical or surgical procedures, including any unnecessary investigations) were performed as a result of the AE?
__________________________________________________________________________________
__________________________________________________________________________________

What additional medications (including intravenous fluids and blood transfusion) were administered as a result of the AE?
__________________________________________________________________________________
__________________________________________________________________________________

What additional treatment (e.g. physiotherapy, counselling) was given as a result of the AE?
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
## Stage C: PERIOD OF HOSPITALISATION DURING WHICH ADVERSE EVENT OCCURRED

Complete: Section(s) relevant to the adverse event (see A7) AND Section C6

### C1 ADVERSE EVENT RELATED TO CARE ON ADMISSION WARD (Including PRE-OP ASSESSMENT)

#### When did the principal problem occur?

- [ ] 1. in A&E (accident & emergency department) before admission to the ward
- [ ] 2. during the initial ward assessment (up to first working diagnosis and initial treatment)
- [ ] 3. during the pre-operative assessment

#### Who was responsible for the initial care?

**in A&E**
- [ ] 1. Casualty officer unsupervised
- [ ] 2. Casualty officer supervised
- [ ] 3. A&E registrar
- [ ] 4. A&E consultant
- [ ] 5. Other (specify) ________________________

**On the ward**
- [ ] 1. Ward doctor (house officer) apparently unsupervised
- [ ] 2. Ward doctor supervised
- [ ] 3. SHO (senior house officer)
- [ ] 4. Registrar
- [ ] 5. Consultant
- [ ] 6. Other (Specify, e.g. anaesthetist for pre-op assessment) ________________________

#### For patients requiring surgery, who was responsible for the pre-op assessment?

- [ ] 1. As for initial assessment on the ward
- [ ] 2. Anaesthetist
- [ ] 3. Assistant anaesthetist
- [ ] 4. Other (specify) ___________________________________________________

#### What was the nature of the principal problem in this phase of care (indicate as many as apply)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Failure to diagnose primary condition correctly</td>
</tr>
<tr>
<td>2</td>
<td>Overall assessment (e.g. Failure to perform a satisfactory assessment of patient’s overall condition including appropriate tests; No evidence of focussed assessment such as of cardio-respiratory system)</td>
</tr>
<tr>
<td>3</td>
<td>Management/monitoring incl. Nursing/Ancillary care (e.g. Failure to act upon results of tests or findings; Failure to set up adequate monitoring; Failure to provide prophylactic care (e.g. physiotherapy); Failure to provide high-dependency/ITU care)</td>
</tr>
<tr>
<td>4</td>
<td>Infection-related</td>
</tr>
<tr>
<td>5</td>
<td>Technical problem related to a procedure (including inappropriate/unnecessary procedures, e.g. urinary catheterisation)</td>
</tr>
<tr>
<td>6</td>
<td>Failure to give correct medication/maintain correct hydration / electrolytes / blood (including failure to provide prophylactic medication e.g. anti-coagulants/antibiotics)</td>
</tr>
<tr>
<td>7</td>
<td>Resuscitation</td>
</tr>
<tr>
<td>8</td>
<td>Other (e.g. falls; specify) ________________________</td>
</tr>
</tbody>
</table>

#### Were there any other problems during this period/section of care not covered by the above?  

- [ ] Yes
- [ ] No

If so, specify ______________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

---

(Modular Adverse Events Review Form  
Clinical Safety Research Unit, Imperial College, London)
C2 PROCEDURE RELATED PRINCIPAL PROBLEM (including surgical operations, anaesthesia, manipulation of fractures, invasive medical/endoscopic/radiological procedures)

To which procedure was the AE related?

1. Administration of anaesthetic  
   (specify type; e.g. inhalation, local, epidural)
2. Surgical operation
3. Manipulation of fracture
4. Endoscopic procedure
5. Needle biopsy
6. Vascular catheterisation
7. Interventional radiology
8. Other specialist procedure (specify)
9. Gaining IV access
10. Setting up CVP line
11. Catheterising bladder
12. Draining fluid from body cavity
13. Thoracic drain for pneumothorax
14. Lumbar puncture
15. Administering drugs other than orally
16. Siting a naso-gastric (or naso-enteric) tube
17. Other ward-based procedure (specify)

When was the procedure (or the administration of anaesthesia) carried out?

Date ________ Time of start ___________
Time of finish ___________

Specify patient's medical condition that required the procedure if different from the primary diagnosis indicated in A3

Was the procedure

1. Emergency
2. Semi-emergency
3. Elective
4. Not clear

Who undertook the procedure or anaesthesia?

1. Consultant or fully trained operator with assistant
2. Consultant or fully trained operator without assistant
3. Supervised trainee
4. Unsupervised trainee
5. Other (specify) _______________________________________________________________
6. Not clear

What was the nature of the principal problem underlying the AE

1. Diagnosis → D1
2. Overall assessment (incl. Pre-op assessment) → D2
4. Infection-related related to a procedure → D4
5. Technical problem related to a procedure
   (e.g. Intubation; Equipment failure; Monitoring during procedure) → D5
6. Drugs/ Fluids (incl. anaesthetic agent) / Blood → D6
7. Resuscitation → D7
8. Other (specify) __________________________________________________________________

Were there any other problems during this period/section of care not covered by the above?  
Yes  No

If so, specify ______________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
**C3 PRINCIPAL PROBLEM DURING IMMEDIATE POST-PROCEDURAL CARE, HIGH DEPENDENCY CARE or ITU CARE**

**When did the principal problem occur?**
- [] 1. during the immediate post-procedural care (i.e. whilst in the recovery area)
- [] 2. during high dependency care
- [] 3. during care in the intensive care unit

**Who was responsible for post-procedural, HDU or ITU care?**
- [] 1. Doctor who carried out procedure
- [] 2. HDU or ITU Team
- [] 3. Assistant (specify) ________________________________
- [] 4. Specific doctor (specify) ________________________________
- [] 5. Anaesthetist
- [] 6. Ward doctor
- [] 7. Other (specify) ________________________________
- [] 8. Not clear

**What is the nature of the principal problem?**
- [] 1. Diagnosis → D1
- [] 2. Overall assessment → D2
- [] 3. Management/monitoring (incl. Nursing/Ancillary care) → D3
  (e.g. Failure to monitor adequately; Failure to treat appropriately; Failure to ensure condition stable before handover)
- [] 4. Infection-related → D4
- [] 5. Technical problem related to a procedure → D5
- [] 6. Drugs (including anaesthetic agent) / Fluids / Blood → D6
- [] 7. Resuscitation → D7
- [] 8. Other (specify) ________________________________

**Were there any other problems during this period/section of care not covered by the above?**
- [] Yes  [] No

If so, specify ____________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

---

Modular Adverse Events Review Form
Clinical Safety Research Unit, Imperial College London 12
C4 PRINCIPAL PROBLEM RELATED TO WARD CARE (Including errors in clinical management)

If the principal problem was in ward care, was it due to (Tick all that apply)

- [ ] 1 a failure in medical care (i.e. care by ward doctors)
- [ ] 2 a failure in nursing care
- [ ] 3 a failure in care from professions allied to medicine:
  - 3.1 Physiotherapy
  - 3.2 Dietician/nutritionist
  - 3.3 Pharmacist
  - 3.4 Chiropody
  - 3.5 Social worker
  - 3.6 Other (specify) _____________________________________________

Describe the principal problem: __________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

Who was responsible for the episode of ward care related to the principal problem?

- [ ] 1 Ward doctor (house officer or SHO status) who ‘knew’ the patient
- [ ] 2 Ward doctor unlikely to ‘know’ patient
- [ ] 3 Ward doctors under guidance of specialist registrar
- [ ] 4 Trained specialists (specialist registrar/consultant)
- [ ] 5 Senior nurse
- [ ] 6 Junior nurse
- [ ] 7 Agency nurse
- [ ] 8 Other allied professional (specify) _____________________________________________
- [ ] 9 Other (specify) ____________________________________________________________
- [ ] 10 Cannot determine from record

What was the nature of the principal problem? (tick the appropriate number(s))

- [ ] 1 Diagnosis → D1
- [ ] 2 Overall assessment → D2
- [ ] 3 Medical management/monitoring (incl. Nursing/Ancillary care) → D3
- [ ] 4 Infection-related → D4
- [ ] 5 Technical problem related to a procedure → D5
- [ ] 6 Drugs/ Fluids / Blood → D6
- [ ] 7 Resuscitation after collapse → D7
- [ ] 8 Other (specify) ____________________________________________________________

Were there any other problems during this period/section of care not covered by the above?  [ ] Yes  [ ] No

If so, specify _______________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

Modular Adverse Events Review Form
Clinical Safety Research Unit, Imperial College London
C5  FAILURE TO ASSESS ADEQUATELY AT THE TIME OF DISCHARGE

Which doctor was directly responsible for assessing the patient before discharge?

1. House-officer
2. Registrar
3. Consultant
4. Other (specify)______________________________

What is the nature of the principal problem?

1. Diagnosis → D1
2. Overall assessment → D2
3. Medical Management/monitoring/ Nursing care → D3
   (e.g. Clinical condition not under good control; Patient not well enough to be discharged, e.g. mobilised; Failure to teach patient about their condition; Failure to communicate adequately with services in community care, including GP)
4. Infection-related → D4
5. Technical problem related to a procedure → D5
6. Drug problem/ Fluids e.g. Medications not appropriate) / Blood → D6
7. Resuscitation → D7
8. Other (specify)________________________________________

Were there any other problems during this period/section of care not covered by the above? □ Yes □ No

If so, specify _____________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

C6  NATURE OF THE PRINCIPAL PROBLEM

From your responses to all sections completed above indicate which section(s) in D are to be completed

D1
D2
D3
D4
D5
D6
D7
### Stage D: PRINCIPAL PROBLEMS IN THE PROCESS OF CARE

**Go to the relevant sections in Stage D as identified in Stage C (C6)**

<table>
<thead>
<tr>
<th>D1 ADVERSE EVENT RELATED TO DIAGNOSTIC OR ASSESSMENT ERROR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Was the adverse event the result of diagnostic error?</strong></td>
</tr>
<tr>
<td>□ Yes  □ No</td>
</tr>
<tr>
<td>If yes, give details ____________________________________________</td>
</tr>
</tbody>
</table>
| ________________________________________________________________________

| **Was the adverse event the result of a delay in diagnosis?** |
| □ Yes  □ No  |
| If yes, what was the length of delay? ____________________________ |
| ________________________________________________________________________

| **Was the person responsible for the diagnostic assessment (at which there was unacceptable error or delay) of appropriate seniority or experience?** |
| □ Yes  □ No  |
| If no, explain ________________________________________________ |
| ________________________________________________________________________

**Factors contributing to the diagnostic error** (tick as many as apply).

- 1  Failure to take an adequate history and/or to perform a satisfactory physical examination.
- 2  Failure or delay to employ indicated test.
- 3  Test was incorrectly performed
- 4  Test was incorrectly reported
- 5  Failure or delay to receive report
- 6  Failure or delay to act upon results of tests or findings.
- 7  Failure to draw sensible/reasonable conclusions or make a differential diagnosis
- 8  Failure or delay to get expert opinion from:
  - 8.1 more senior member of team
  - 8.2 specialist clinical team
  - 8.3 non-clinical specialist (e.g. radiologist) (specify) ____________________________
- 9  Expert opinion incorrect
- 10 Other (specify) ___________________________________________________________

**Did other factors contribute to AE?**

- 1  Led to inappropriate or inadequate treatment
- 2  Risk:benefit ratio of treatment was not assessed/appreciated
- 3  Patient’s degree of vulnerability was not recognised
- 4  Other (specify) ______________________________________________________________________

**Were there any other problems related to diagnostic assessment?**  □ Yes  □ No

If yes, give details _____________________________________________________________________
<table>
<thead>
<tr>
<th><strong>D2 ADVERSE EVENT FROM FAILURE TO APPRECIATE PATIENT’S OVERALL CONDITION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Was the person responsible for the care of this patient of appropriate seniority or experience?</strong></td>
</tr>
<tr>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>If no, explain (e.g. lack of appropriate supervision)</td>
</tr>
<tr>
<td>__________________________________________</td>
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<td>__________________________________________</td>
</tr>
</tbody>
</table>

**In what respect was overall assessment inadequate?**

- ☐ 1. Failure to take a full clinical history
- ☐ 2. Failure to examine carefully
- ☐ 3. Failure to take account of co-morbidity
- ☐ 4. Failure to monitor adequately
- ☐ 5. Failure to record
- ☐ 6. Failure to communicate to the rest of the team (clinical and multi-disciplinary)
- ☐ 7. Other (specify) ______________________________________________________________

**How did this contribute to AE?**

- ☐ 1. Patient’s degree of vulnerability was not recognised
- ☐ 2. Risk:benefit ratio of treatment was not assessed/appreciated
- ☐ 3. Led to inappropriate or inadequate treatment
- ☐ 4. Other (specify) ______________________________________________________________

**Were there any other problems related to assessment or management of the patient’s overall condition?**

- ☐ Yes ☐ No

If yes, give details __________________________________________

___________________________________________________________

___________________________________________________________
D3  AE ARISING FROM A FAILURE IN CLINICAL MONITORING / MANAGEMENT
(incl. DISCHARGE ARRANGEMENTS, NURSING/ANCILLARY SERVICES)

Indicate if the patient was:

1  Post operative (including post-delivery, postmanipulation of fracture)
2  Undergoing medical (non-surgical) treatment
3  Undergoing rehabilitation
4  Other (specify) ________________________________

Was the adverse event the result of problems in the monitoring / observation of this patient?  [ ] Yes  [ ] No

If yes, give details _______________________________________________________________
______________________________________________________________________________

Was the adverse event the result of failure in overall management (acting on observations) of the patient?  [ ] Yes  [ ] No

If yes, what was the problem in management? _________________________________________
______________________________________________________________________________

Was the AE the result of failure to ensure condition stable before handover to other areas?  [ ] Yes  [ ] No

If yes, give details _______________________________________________________________
______________________________________________________________________________

Was the person responsible for the care of this patient of appropriate seniority or experience?  [ ] Yes  [ ] No

If no, explain ___________________________________________________________________
______________________________________________________________________________

Was the inadequate monitoring/management related to failure to recognise:

1  Abnormal vital signs (including neurological status)
2  Problems with fluids/electrolytes including renal function
3  Side-effects of medication
4  Cardio-pulmonary dysfunction
5  Damage to skin and pressure areas
6  Adequate mobilisation
7  Infection
8  Poor progress in healing (e.g. checking gut function after abdominal operation; care of wounds/canular sites)
9  Changes to the patient’s general condition (e.g. patient develops a medical condition, e.g. CHF)
10 Other (specify) ________________________________

Continue overleaf
In what respects was clinical management unsatisfactory?

- 1. Failure to take note of ‘routine’ observations e.g. TPR charts, neurological assessment, fluid balance (check if charts completed)
- 2. Delay in noting lab/test results
- 3. Not aware of significance of lab/test results
- 4. Failure to act appropriately on lab/test results
- 5. Poor note-keeping
- 6. Inadequate handover
- 7. Lack of liaison with other staff
- 8. Inadequate ‘out-of-hours’ cover/working practice
- 9. Guideline/protocol failure (either not available or not followed)
  (specify) ___________________________
- 10. Apparent failure to recognise deterioration
- 11. Deterioration recognised but additional care not provided (specify, e.g. was high dependency care indicated) __________________________________________________
- 12. Failure to recruit help
  - 12.1 Medical
  - 12.2 Nursing
  - 12.3 Ancillary (specify) ___________________________
- 13. Other (specify) __________________________________________________

Was there a failure in discharge procedure?  ☐ Yes  ☐ No

If yes, indicate which of the following apply to this patient regarding and give details

- 1. Failure to educate the patient including use of protocols (e.g. for asthma, diabetes, post MI)
  (specify) __________________________________________________
- 2. Failure to show evidence that discharge status was appropriate to home conditions (e.g. careplan)
  (specify) __________________________________________________
- 3. Failure to liaise adequately with community carers (e.g. GP, district nurse, social worker)
  (specify) __________________________________________________
- 4. Other (specify)
  (specify) __________________________________________________

What other factors interacted with failure in monitoring/management, handover or discharge to cause the AE?

- 1. Condition not treated or not treated adequately
- 2. Patient’s degree of vulnerability was not recognised
- 3. Risk:benefit ratio of treatment was not assessed/appreciated
- 4. Other (specify) ___________________________

Were there any other problems related to monitoring/management including handover and discharge?  ☐ Yes  ☐ No

If yes, give details ____________________________________________________________________________
D4 ADVERSE EVENT IN RELATION TO FAILURE TO PREVENT/CONTROL/MANAGE INFECTION

What was the site of infection/infection related to?

1. Surgical wound
2. Internal invasive procedure
3. Urinary tract
4. Respiratory tract
5. Blood
6. Other (specify) ___________________________________________________________

What was the nature of the infection?

1. Contaminated wound
2. Side-effect of drugs (specify type):
   a. Antibiotic-induced C. difficile
   b. Yeast infection
   c. Immuno-suppressive drugs
   d. Other (specify) _______________________________________________________
3. Cross-infection (specify type):
   a. MRSA (describe) ______________________________________________________
   b. Salmonella
   c. Other (specify) _______________________________________________________
4. Foreign body (specify type):
   a. Urinary catheter
   b. Venflon or intravenous catheter
   c. Swab
   d. Drainage tube
   e. Shunt
   f. Other (specify) _______________________________________________________
5. Stasis (specify type):
   a. Respiratory depression
   b. Urinary retention
   c. Other (specify) _______________________________________________________
6. Other type of infection (specify) ___________________________________________

Was the person responsible for the prevention/control/management of infection of appropriate seniority or experience?  □ Yes  □ No

If no, explain _________________________________________________________________

____________________________________________________________________________

What were the errors in managing the AE due to infection? Give details.

1. Failure to drain pus or remove necrotic material _____________________________________
2. Failure to give appropriate antibiotics (including overuse) __________________________
3. Failure to give appropriate physiotherapy (e.g. chest) ______________________________
4. Failure to maintain care of catheters/canulas/drainages/wounds ______________________
5. Other (specify) __________________________________________________________________

How did this contribute to AE?

1. Failure to minimise risk in a vulnerable patient
2. Risk:benefit ratio of treatment was not assessed/appreciated
3. Led to inappropriate treatment
4. Other (specify) __________________________________________________________________
D4. (Cont.)

Were there any other problems related to the management of infection?  ☐ Yes  ☐ No

If yes, give details __________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
D5 ADVERSE EVENTS DIRECTLY RELATED TO A PROBLEM WITH AN OPERATION OR PROCEDURE

Was the procedure

- 1 ward-based
- 2 in operating theatre suite
- 3 elsewhere (e.g. radiology; specify) ________________________________

Do you consider the procedure was performed by a person of appropriate seniority?  

☐ Yes  ☐ No

If no, give reasons ____________________________________________________________

___________________________________________________________________________

Choose one of the following that best describes the nature of the adverse event (give details where possible)

- 1 Avoidable delay in undertaking procedure ________________________________
- 2 Inappropriate procedure – specify alternative ________________________________
- 3 Inadequate assessment/treatment/preparation before procedure (specify) ________________________________

- 4 Anaesthetic incident
  - 4.1 Intubation (specify) _____________________________________________________
  - 4.2 Anaesthetic agent _____________________________________________________
  - 4.3 Equipment failure _____________________________________________________
  - 4.4 Monitoring during procedure (e.g. oxygenation, CO2, airway pressure) ________________________________
  - 4.5 Other (specify)________________________________________________________

- 5 Operation/procedure accident
  - 5.1 Difficulty in defining anatomy (specify) ________________________________
  - 5.2 Inadvertent organ damage (specify) _______________________________________
  - 5.3 Bleeding (specify, e.g. from slipped ligature; from vascular puncture) ______
  - 5.4 Perforation. (specify nature)____________________________________________
  - 5.5 Anastomotic breakdown (specify contributory factors) ______________________
  - 5.6 Wound problem (e.g. dehiscence). (specify) ______________________________
  - 5.7 Siting prosthesis ______________________________________________________
  - 5.8 Equipment failure (e.g. inappropriate use, misuse, failed; specify) __________
  - 5.9 Other (specify) __________________________________________________________________

- 6 Inadequate monitoring during procedure (specify) ____________________________

- 7 Infection-related
  - 7.1 Wound (including trip-related cellulitis) ________________________________
  - 7.2 Internal infection (e.g. abscess, specify) ________________________________
  - 7.3 Other (e.g. cholangitis, specify) _________________________________________

- 8 Other, including inefficacious result (specify) ________________________________

Continue overleaf
D5. (Cont.)

Did other factors contribute to the procedure-related AE?  
☐ Yes  ☐ No

If yes, specify
☐ 1 Patient’s degree of vulnerability was not recognised
☐ 2 Risk:benefit ratio of treatment was not assessed/appreciated
☐ 3 Led to inappropriate or inadequate treatment
☐ 4 Other (specify) ______________________________

Were there any other problems related to the management of a procedure?  
☐ Yes  ☐ No

If yes, give details ______________________________
  ___________________________________________________________________________
  ___________________________________________________________________________

How long was any extended operation time as a result of the AE?  _____ minutes
How long was any additional operation time as a result of the AE?  _____ minutes
D6 ADVERSE EVENT RELATED TO PRESCRIBING, ADMINISTRATION OR MONITORING OF DRUGS OR FLUIDS (including BLOOD)

How was the drug / fluid administered?  
1 Intravenous  
2 Intra-muscular  
3 Subcutaneous  
4 orally  
5 sublingual  
6 intrathecal  
7 topical  
8 rectal  
9 Other (specify) ____________________

Was there an error in the prescription/preparation of drugs/iv fluids/blood?  ☐ Yes  ☐ No
If so, specify ________________________________________________________________
___________________________________________________________________________

Was there an error or accident in administering drugs/iv fluids/blood?  (e.g. too high dose, incorrect site, haematoma)  ☐ Yes  ☐ No
If so, specify ________________________________________________________________
___________________________________________________________________________

Was there a failure to monitor drug action/toxicity/fluid balance?  ☐ Yes  ☐ No
If so, specify ________________________________________________________________
___________________________________________________________________________

What was the drug?

1 antibiotic  
2 antineoplastic  
3 anti-seizure  
4 anti-diabetes  
5 cardiovascular  
6 antiasthmatic  
7 sedative or hypnotic  
8 peptic ulcer medication  
9 antihypertension  
10 antidepressant  
11 antipsychotic  
12 anti-coagulant  
13 potassium  
14 NSAID  
15 Narcotic (e.g. morphine/pethidine)  
16 Diuretics  
17 Other (specify) ___________

Name of drug:________________________________________________________________________

Describe the drug’s adverse effect: ________________________________________________________
_____________________________________________________________________________________

What was the nature of the drug-related injury?

1 Drug less effective than expected (e.g. as result of delayed treatment; dose too little)  
2 Side-effect of drug  
3 Effect of high dose for this patient in this circumstance  
4 Idiosyncratic (allergic) re-action  
5 Drug-drug interaction  
6 Other (specify) __________________________

Was the person responsible for managing the drug regimen for this patient of appropriate seniority or experience?  ☐ Yes  ☐ No
If no, explain ________________________________________________________________
_____________________________________________________________________________

Would a doctor using reasonable medical judgement prescribe the drug, even with knowledge beforehand that this adverse effect could occur?  ☐ Yes  ☐ No

Continue overleaf
### D6. (cont.)

**What was the cause of the drug-related injury?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 No underlying cause (other than patient’s response)</td>
</tr>
<tr>
<td></td>
<td>2 Delay in prescribing (specify) ____________________________</td>
</tr>
<tr>
<td></td>
<td>3 Delay in administering (after prescribing) _____________________</td>
</tr>
<tr>
<td></td>
<td>4 Wrong drug prescribed (specify) ____________________________</td>
</tr>
<tr>
<td></td>
<td>5 Right drug but wrong dose or length of treatment _______________</td>
</tr>
<tr>
<td></td>
<td>6 Right drug but wrong route (specify) _________________________</td>
</tr>
<tr>
<td></td>
<td>7 Error in administration (describe) __________________________</td>
</tr>
<tr>
<td></td>
<td>8 Inadequate monitoring (describe) ____________________________</td>
</tr>
<tr>
<td></td>
<td>9 Other (specify) __________________________________________</td>
</tr>
</tbody>
</table>

**Did other factors contribute to the drug-related AE?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Patient’s degree of vulnerability was not recognised</td>
</tr>
<tr>
<td></td>
<td>2 Risk:benefit ratio of treatment was not assessed/appreciated</td>
</tr>
<tr>
<td></td>
<td>3 Led to inappropriate treatment</td>
</tr>
<tr>
<td></td>
<td>4 Other (specify) __________________________________________</td>
</tr>
</tbody>
</table>

**Were there any other problems related to the management of fluids or blood?**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

If so, specify ____________________________________________
## D7 ADVERSE EVENT ARISING FROM A RESUSCITATION PROCEDURE

**What was the condition which led to the need for resuscitation?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cardiac arrest (cause)</td>
</tr>
<tr>
<td>2</td>
<td>Respiratory failure/arrest (cause)</td>
</tr>
<tr>
<td>3</td>
<td>Coma (specify)</td>
</tr>
<tr>
<td>4</td>
<td>Fits</td>
</tr>
<tr>
<td>5</td>
<td>Bleeding (specify)</td>
</tr>
<tr>
<td>6</td>
<td>Multiple trauma</td>
</tr>
<tr>
<td>7</td>
<td>Metabolic disorder (e.g. hypoglycaemia) (specify)</td>
</tr>
<tr>
<td>8</td>
<td>Overwhelming infection (specify)</td>
</tr>
<tr>
<td>9</td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

**Was the person responsible for the care of this patient during resuscitation of appropriate seniority or experience?**

- Yes
- No

If no, explain ________________________________________________________________

**Was there delay in dealing with the problem?**

- Yes
- No

If yes, what was the reason?

- 1 Staff not available
- 2 Staff not competent
- 3 Equipment not available
- 4 Lack of suitable or needed drugs
- 5 Lack of control (management)
- 6 Other (specify) __________________________________________________________

**Was there confusion regarding correct action to take?**

- 1 Inappropriate action
- 2 Failure to obtain appropriate tests/investigations
- 3 Other (specify) __________________________________________________________

**How did this contribute to AE?**

- 1 Patient’s degree of vulnerability was not recognised
- 2 Risk:benefit ratio of treatment was not assessed/appreciated
- 3 Led to inappropriate treatment
- 4 Other (specify) __________________________________________________________

**Were there any other problems related to the management of the patient during resuscitation?**

- Yes
- No

If yes, give details ____________________________________________________________

____________________________________________________________________________

____________________________________________________________________________
E1 CAUSATIVE FACTORS

The occurrence of an adverse event, and the actions or omissions of those involved, may be influenced by many contributory factors. Many of these could only be assessed satisfactorily by interviewing the staff involved in the care of the patient. Please indicate, where possible, likely causative factors. Mark unlikely factors with $U$, possible factors with 1, 2 or 3.

Please rate each of the following factors according to its importance, as you see it, in the occurrence of this particular adverse event.

<table>
<thead>
<tr>
<th>Unlikely to be relevant</th>
<th>Possibly relevant</th>
<th>Somewhat important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

1. Patient characteristics

1.1 Patient was not able to understand/communicate with clinical/nursing team (e.g. deaf, stroke, language difficulties in absence of interpreter or cultural differences)
1.2 Personality or social factors
1.3 Was co-morbidity an important contributory factor?
1.4 Other patient characteristics (specify) ______________________________

2. Task factors

2.1 New, untested or difficult task or procedure
2.2 Evidence of lack of guidelines/protocols or their use
2.3 Test results unavailable, difficult to interpret or inaccurate
2.4 Poor task design/structure
2.5 Other task factors (specify) ______________________________________

3. Individual factors

3.1 Staff working outside their expertise
3.2 Lack of knowledge of individuals
3.3 Lack of skill of individuals
3.4 Attitude/motivation problem
3.5 Long shift/under pressure
3.6 Other individual staff factors (specify) ______________________________

4. Team factors

4.1 Poor teamwork
4.2 Inadequate supervision
4.3 Poor verbal communication
4.4 Inadequate handover
4.5 Poor written communication (e.g. defects in notes)
4.6 Other team factors (specify) _____________________________________

5. Work environment

5.1 Defective or unavailable equipment
5.2 Problems with provision or scheduling of services (e.g. theatre list, lab tests, x-rays)
5.3 Inadequate functioning of hospital support services (e.g. pharmacy, blood bank or housekeeping)
5.4 Inadequate staffing at the time of the AE
5.5 Out of hours (time of day/day of week) factors
5.6 Other work environmental factors (specify) _____________________________

6. Organisational/Management factors

6.1 Lack of essential resources (e.g. ITU beds)
6.2 Poor co-ordination of overall services
6.3 Inadequate senior leadership
6.4 Other organisational/management factors (specify)_____________________

E2 Give details on the 3 MOST IMPORTANT contributory factors to this AE

1. __________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
2. ______________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
3. ______________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

E3 ASSESS THE PREVENTABILITY OF THE ADVERSE EVENT

In your judgement, is there some evidence that the AE was preventable?  □ Yes □ No

Rate on a 6 point scale the strength of evidence for preventability.

□ 1 Virtually no evidence for preventability
□ 2 Slight to modest evidence for preventability
□ 3 Preventability not quite likely; less than 50-50 but close call
□ 4 Preventability more likely than not; more than 50-50 but close call
□ 5 Strong evidence for preventability
□ 6 Virtually certain evidence for preventability

If you ticked 2 - 6, answer the following questions:

Describe briefly the manner in which the AE could have been prevented. ____________________________
____________________________________________________________________________
____________________________________________________________________________
Can you identify any reason(s) for the failure to prevent this AE __________________________

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________
### A9 EXPERTISE OF REVIEWER

Was the reviewer's judgements limited or hampered by lack of subspecialty knowledge?  

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Mark Yes if you think a specialist's review is necessary and indicate which specialty or discipline (e.g. pharmacy) listing as many as necessary:

____________________
____________________
____________________

Describe the judgement which is limited or hampered by lack of subspecialty knowledge and the clinical question you would pose to a specialist:

________________________________________________________________________________________________________

________________________________________________________________________________________________________

________________________________________________________________________________________________________

Describe the resolution of the question(s) posed following consultation with a specialist:

________________________________________________________________________________________________________

________________________________________________________________________________________________________

________________________________________________________________________________________________________

Specialist's ID number:  

---