# DEATHS IN ACUTE HOSPITALS STUDY

National Confidential Enquiry into Patient Outcome and Death (NCEPOD)

## ANAESTHETIC QUESTIONNAIRE

**CONFIDENTIAL**

**Hospital number of patient:** | | | | | | | | | | | | | | |

**Name of NCEPOD Local Reporter:** _____

### What is this study about?

NCEPOD is examining remediable factors in the process of care for patients who died in an acute hospital.

### Who should complete this questionnaire?

This questionnaire should be completed by the anaesthetist responsible for the patient at the time of surgery.

**To ensure confidentiality of the data, completed questionnaires must be returned directly to NCEPOD.**

You must not copy any part of this form.

Please use the SAE provided.

### Specific inclusions:

- All patients that died within 96 hours (4 days) of admission.

### Specific exclusions:

- Neonates (28 days since birth).

### Questions or help

If you have any queries about the study or this questionnaire, please contact NCEPOD at:

**hospitaldeaths@ncepod.org.uk**

**0207 631 3444**

Thank you for taking the time to complete this questionnaire. The findings of the full study will be published in late 2009.

### How to complete this questionnaire

Information will be collected using two methods: Box cross and free text, where your clinical opinion will be requested.

This form will be electronically scanned. Please use a black or blue pen. Please complete all questions with either block capitals or a bold cross inside the boxes provided e.g.

Does this hospital admit patients as:

☒ Inpatients ☐ Outpatients

If you make a mistake, please "black-out" the incorrect box and re-enter the correct information, e.g.

■ Inpatients ☒ Outpatients

**Unless indicated, please mark only one box per question.**

### CPD Accreditation for completing NCEPOD questionnaires.

Consultants who complete NCEPOD questionnaires make a valuable contribution to the investigation of patient care. Completion of questionnaires also provides an opportunity for consultants to review their clinical management and undertake a period of personal reflection. These activities have a continuing medical and professional development value for individual consultants. Consequently, NCEPOD recommends that consultants who complete NCEPOD questionnaires, keep a record of this activity which can be included as evidence of internal/ self directed Continuous Professional Development in their appraisal portfolio.

**FOR NCEPOD USE ONLY** | | | | | | |



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| DEFINITIONS | |
|---|---|
| **Medical Assessment Unit (MAU, SAU, etc)** | An area where emergency patients are assessed and initial management undertaken by inpatient hosptial teams. The patient is only in this area while early assessment is made and is then moved to another ward or discharged. The working of these units varies; some are purely for medical or surgical cases (MAU, SAU etc.) while some function across various specialties (CCU, AAU) |
| **Recovery Area** | An area to which patients are admitted following an operation or procedure, and where they remain until consciousness is regained, respiration and circulation are stable and postoperative analgesia is established. |
| **Level of Care (Critical Care is Level 2 and Level 3)** | Critical care includes Level 2 and Level 3 patients:<br>Level 0: Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care whose needs can be met on an acute ward with additional advice and support from the critical care team.<br>Level 1: Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care whose needs can be met on an acute ward with additional advice and support from the critical care team.<br>Level 2: (e.g. HDU) Patients requiring more detailed observation or intervention including support for a single failing organ system or postoperative care, and those stepping down from higher levels of care.<br>Level 3: (e.g. ICU) Patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organs. This level includes all complex patients requiring support for multi-organs failure. |
| **Initital Assessment (excluding triage)** | The patient's first assessment by a healthcare member of staff (medical or nursing) to identify healthcare needs. |
| **Appropriate** | The expected health benefit's to an average patient exceed the expected health risks by a sufficiently wide margin to make the intervention worthwhile and that intervention is superior to alternatives (including no intervention). |
| **Clinical Adverse events** | An unintended injury caused by medical management rather than by the disease process and which is sufficiently serious to lead to prolongation of hospitalisation or to temporary or permanemt impairment or disability to the patient at the time of discharge. |
| **Other Adverse Events** | e.g. Fall off a trolley. |
| **Critical Incidents** | Any incident or event which has caused or could have caused an adverse outcome for the patient. |

If you were not involved in any way with this anaesthetic and have filled out this questionnaire on behalf of someone else, please indicate your position:

- ☐ Chair of division
- ☐ College tutor
- ☐ Duty consultant
- ☐ Other consultant
- ☐ Other (please specify) _____

## A. PATIENT DETAILS

**1.** Age at time of death: ☐☐☐ years ☐☐ months
(if less than 1 year old)

**2.** Gender: ☐ Male ☐ Female

**3. a** What was the date of admission? ☐☐ ☐☐ ☐☐
d d m m y y

**b** What was the time of admission? (please use 24-hr clock) ☐☐ ☐☐
h h m m

## B. CASE SUMMARY

Please use this section to provide a brief summary of this case. You may also type on a separate sheet if this is easier for you.

**NCEPOD attaches great importance to this summary. Please give as much information about the peri-operative care of this patient.**

## C. PHYSICAL STATUS

**4.** Please indicate the patient's ASA status immediatley prior to the first operation of this admission

- ☐ **ASA 1** a normal healthy patient
- ☐ **ASA 2** a patient with mild systemic disease
- ☐ **ASA 3** a patient with severe systemic disease that limits activity but is not incapacitating
- ☐ **ASA 4** a patient with incapacitating systemic disease that is a consant threat to life
- ☐ **ASA 5** a moribund patient not expected to survive for 24 hours with or without an operation
- ☐ **Unknown**

**5. a.** Please indicate which comorbidities the patient had at the time of the first operation?

- ☐ Insulin dependent diabetes
- ☐ Renal disease
- ☐ Hypertension
- ☐ Cardiac disease
- ☐ Respiratory disease
- ☐ Other (please specify) ☐

**b.** In your opinion were these adequately managed prior to surgery? ☐ Yes ☐ No

**c.** If no please expand on your answer:

☐

**6. a** Was a record of the patient's weight available? ☐ Yes ☐ No

**b** If Yes what was this weight? ☐☐☐ **kg**

**c** If No what was the estimated weight? ☐☐☐ **kg**

**7.** Was a record of the patient's preoperative blood pressure available? ☐ Yes ☐ No

**8.** Was it necessary to delay the operation to improve the patient's medical state? ☐ Yes ☐ No

**9.** If Yes please indicate which system(s) needed attention:

- ☐ Cardiac
- ☐ Respiratory
- ☐ Metabolic
- ☐ Haematological
- ☐ Other ☐ (please specify)



**10. a.** In your opinion was the patient adequately prepared for the procedure? ☐ Yes ☐ No

**b.** If No, please expand upon your answer:

## D. PREOPERATIVE DRUG TREATMENT

**11. a.** Were therapeutic drug treatments started to optimise the patient before this operation (excluding premedication)? ☐ Yes ☐ No

**b.** If Yes, please specify:

**12.** Were prophylactic antibiotics administered to cover the surgical procedure pre-operatively, on induction, or during the operation? ☐ Yes ☐ No

**13. a.** Were DVT prophylaxis measures taken? ☐ Yes ☐ No

**b.** If Yes, please indicate which measures?

- ☐ Heparin/unfractionated heparin
- ☐ TED stockings
- ☐ Other (please specify)

## E. PREOPERATIVE FLUID MANAGEMENT

***Please send photocopies of fluid balance charts for the duration of the admission***

**14. a.** During the 24 hours before surgery did the patient have problems with fluid balance? ☐ Yes ☐ No

**b.** If Yes was this:

- ☐ Dehydration
- ☐ Hypovolaemia
- ☐ Fluid overload
- ☐ Other

**c.** What methods were used to correct the fluid inbalance? (answers may be multiple)

- ☐ Oral fluid administration
- ☐ IV fluid administration
- ☐ CVP monitoring
- ☐ Diuretics
- ☐ Other
- ☐ None

**15.** Before the operation, did the patient enter HDU/ICU specifically for resuscitation?

☐ Yes ☐ No

☐ Not applicable, patient already in HDU/ICU

## F. THE OPERATION

**Please send photocopies of the pre-operative assessment record, anaesthetic record, and recovery room record**

**16. a.** What was the date of the patient's first operation during their final episode?

☐☐ ☐☐ ☐☐
d d m m y y

**b.** What time did the operation start? (please use 24-hr clock)

☐☐ ☐☐
h h m m

**17.** Please classify the operation using the following NCEPOD definitions:

☐ **Immediate:** Immediate limb or life-saving surgery. Resuscitation, simultaneous with surgical treatment

☐ **Urgent:** Acute onset or detorioration of conditions that threaten life, limb or organ survival; fixation of fractures; relief of distressing symptoms including acute surgical admissions not requiring an operation

☐ **Expedited:** Stable patient requiring early intervention for a condition that is not an immediate threat to life, limb or organ survival

☐ **Elective:** Surgical procedure planned or booked in advance of routine admission to hospital

**18. a.** Was consent for the anaesthetic obtained by an anaesthetist?

☐ Yes ☐ No ☐ Unknown

**b.** If Yes, how was the consent recorded?

☐ Documented on the anaesthetic chart

☐ Documented in the patient's notes

☐ Documented in the patient's consent form

☐ Not documented

☐ Unable to obtain consent, please indicate why

☐ Other (please specify)

**19. a.** Were there deficiencies in any aspect of the environment or facilities where the procedure was undertaken (e.g equipment or personnel)?

☐ Yes ☐ No

**b.** If Yes, please specify

**20.** What surgical procedure(s) were performed during the patient's first operation in their final episode?

## G. THE ANAESTHETIST

**21. a.** Were you or the anaesthetist who gave the anaesthetic for this patient involved in the decision to operate? ☐ Yes ☐ No

**b.** Do you believe the decision to operate was appropriate? ☐ Yes ☐ No ☐ Unable to answer

If No, please explain why:

**22. a.** Did you or another anaesthetist make a preoperative asssessment of the patient before their first operation? ☐ Yes ☐ No

If No, please explain why not:

**b.** If Yes, where did the assessment take place?

- ☐ Ward
- ☐ Outpatient department
- ☐ Emergency department
- ☐ ICU/HDU
- ☐ Other (please specify)

**c.** If Yes, when was the patient reviewed?

- ☐ On the day of surgery
- ☐ The day prior to surgery
- ☐ Pre-assessment clinic
- ☐ Other (please specify)

**d.** If Yes, was this anaesthetist present at the start of the operation? ☐ Yes ☐ No

**23.** What grade was the most senior anaesthetist in theatre at the start of the anaesthetic?

- ☐ Consultant
- ☐ Specialist Registrar (SpR) with CCT
- ☐ Specialist Registrar (SpR) without CCT Year ☐☐
- ☐ Non Consultant Career Grade (NCCG)
- ☐ Locum Appointment Training *(Please state grade)*
- ☐ Locum Appointment Service *(Please state grade)*
- ☐ Nurse Practitioner
- ☐ F2 or SHO
- ☐ F1 or HO
- ☐ Other

**24. a.** Were other anaesthetists present in theatre? ☐ Yes ☐ No

**b.** What grade was the most senior anaesthetist in theatre at the start of the anaesthetic?

- ☐ Consultant
- ☐ Specialist Registrar (SpR) with CCT
- ☐ Specialist Registrar (SpR) without CCT Year ☐☐
- ☐ Non Consultant Career Grade (NCCG)
- ☐ Locum Appointment Training *(Please state grade)* ☐
- ☐ Locum Appointment Service *(Please state grade)* ☐
- ☐ F2 or SHO
- ☐ F1 or HO
- ☐ Other ☐

**25. a.** Which higher diplomas in anaesthesia were held, by the most senior anaesthetist, at the time of the operation?

- ☐ No qualifiaction
- ☐ FRCA qualification
- ☐ Post FRCA qualification

**b.** If the most senior anaesthetist at the start of the anaesthetic was NOT a consultant, where was consultant help available?

- ☐ Came to theatre before the end of the procedure
- ☐ In operating suite but not directly involved
- ☐ In the hospital but was not present in the operating suite
- ☐ By telephone
- ☐ Not available
- ☐ Other *(Please state)* ☐

**26. a.** Was advice sought at any time, from another anaesthetist who was not present during the anaesthetic? ☐ Yes ☐ No

**b.** If Yes from which grade of anaesthetist was advice sought?

- ☐ Consultant
- ☐ Specialist Registrar (SpR) with CCT
- ☐ Specialist Registrar (SpR) without CCT Year ☐☐
- ☐ Non Consultant Career Grade (NCCG)
- ☐ Locum Appointment Training *(Please state grade)* ☐
- ☐ Locum Appointment Service *(Please state grade)* ☐
- ☐ Nurse Practitioner
- ☐ F2 or SHO
- ☐ F1 or HO
- ☐ Other ☐

**27.** When was this advice sought?

- ☐ Before the anaesthetic
- ☐ During the anaesthetic
- ☐ After the anaesthetic

## H. THE ANAESTHETIC CHART

**28.** Is there an anaesthetic record for this operation in the patient's notes? ☐ Yes ☐ No

## I. FLUID MANAGEMENT DURING THE OPERATION

**29.** Did the patient receive IV fluids during the operation? ☐ Yes ☐ No

If Yes please indicate which:

- ☐ Crystalloid total volume ☐☐☐☐ ml
- ☐ Colloid total volume ☐☐☐☐ ml
- ☐ Blood products (please complete table below)

| Blood product | Number of units: | Total volume (ml) | |
|---|---|---|---|
| Red cells | ☐☐☐ | ☐☐☐☐ | |
| Platelets | ☐☐☐ | ☐☐☐☐ | |
| Fresh frozen plasma | ☐☐☐ | ☐☐☐☐ | |
| Other | ☐☐☐ | ☐☐☐☐ | Please specify ☐ |

**30. a.** Was there any difficulty obtaining blood/blood products? ☐ Yes ☐ No

**b.** If Yes please specify:

☐

**31.** What was the estimated blood volume of the patient? ☐☐☐☐ ml

**32.** What was the estimated blood loss during the operation? ☐☐☐☐ ml

## J. MONITORING

**33.** What parameters were monitored during anaesthetia ? (please mark all that apply for the anaesthetic room and the theatre/investigation room)

**Anaesthetic room**

- ☐ ECG
- ☐ Pulse oximeter
- ☐ Indirect BP
- ☐ Direct BP
- ☐ Expired Carbon Dioxide analyser
- ☐ Oxygen analyser
- ☐ Anaesthetic vapour
- ☐ Airway pressure
- ☐ Ventilation volume
- ☐ Ventilation disconnect
- ☐ Neuromuscular blockade
- ☐ Temperature (state site) ____
- ☐ Urine output
- ☐ CVP
- ☐ Pulmonary arterial pressure
- ☐ Cardiac output
- ☐ Other (please specify) ____

**Theatre/investigation room**

- ☐ ECG
- ☐ Pulse oximeter
- ☐ Indirect BP
- ☐ Direct BP
- ☐ Expired Carbon Dioxide analyser
- ☐ Oxygen analyser
- ☐ Anaesthetic vapour
- ☐ Airway pressure
- ☐ Ventilation volume
- ☐ Ventilation disconnect
- ☐ Neuromuscular blockade
- ☐ Temperature (state site) ____
- ☐ Urine output
- ☐ CVP
- ☐ Pulmonary arterial pressure
- ☐ Cardiac output
- ☐ Other (please specify) ____

**34. a.** Did anything hinder full monitoring? ☐ Yes ☐ No

**b.** If Yes please specify:

**35. a.** Was there lack of monitoring equipment? ☐ Yes ☐ No

**b.** If Yes please specify:

**36. a.** Were there any equipment malfunctions? ☐ Yes ☐ No

**b.** If Yes please specify:

**37.** What measures were taken to maintain body temperature?

- ☐ None
- ☐ IV fluid warmer
- ☐ Warm air system
- ☐ Heated blanket under the patient
- ☐ Blankets/foil wraps
- ☐ Overhead heater
- ☐ Other (please specify)

## K. TYPE OF ANAESTHESIA

**38.** What type of anaesthesia was used? (please mark one box only)

- ☐ General alone
- ☐ General and regional
- ☐ Regional alone
- ☐ Regional and sedation
- ☐ General and local infiltration
- ☐ Sedation and local infiltration
- ☐ Sedation alone
- ☐ Local infiltration alone
- ☐ Other (please specify)

**39.** If a general anaesthetic was given, what method was used to maintain the patient's airway?

- ☐ Face mask (please specify)
- ☐ Laryngeal mask airway
- ☐ Other supraglottic device (please specify)
- ☐ Oral tracheal tube
- ☐ Nasal tracheal tube
- ☐ Other (please specify)

**40.** Pre-operatively was this patient predicted to have a difficult airway to manage? ☐ Yes ☐ No

**41. a.** Were there any problems with airway maintenance? ☐ Yes ☐ No

**b.** If Yes please specify:

**42.** If the patient was intubated, what method was used?

- ☐ Direct laryngoscopy
- ☐ Fibreoptic intubation:
  - ☐ Awake
  - ☐ Asleep
- ☐ Intubation via a laryngeal mask airway
- ☐ Intubation via another supraglottic device (please specify) ☐
- ☐ Other (please specify) ☐

**43.** Was rapid sequence induction used? ☐ Yes ☐ No

**44.** If the anaesthesia included a regional technique, which method was used?

- ☐ Epidural - thoracic
- ☐ Epidural - lumbar
- ☐ Epidural - caudal
- ☐ Spinal (subarachnoid)
- ☐ Combined spinal/epidural
- ☐ Intrapleural
- ☐ Intravenous regional
- ☐ Regional nerve block (please specify) ☐
- ☐ Other (please specify) ☐

**45.** If an epidural blockade was used; when was it used?

- ☐ During the operation and for postoperative pain relief
- ☐ Only during the operation
- ☐ Only for postoperative pain relief

**46.** Which agent(s) was used?

- ☐ Local alone
- ☐ Opioid alone
- ☐ Local and opioid
- ☐ Other (please specify) ☐

**47.** Please specify the drug(s), concentration and volume used during the operation?

| Drug | Concentration/dose | Volume (ml) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

**48. a.** If a spinal anaesthesia was used which agent(s) was used?

- ☐ Local alone
- ☐ Opioid alone
- ☐ Local and opioid
- ☐ Other (please specify)

**b.** Please specify the drug(s), concentration and volume used during the operation?

| Drug | Concentration/dose | Volume (ml) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

**49. a.** Was a vasoconstrictor(s)/inotrope(s) used during the operation? ☐ Yes ☐ No

**b.** If Yes, which:

- ☐ Ephedrine
- ☐ Methoxamine
- ☐ Metaraminol
- ☐ Phenylephrine
- ☐ Adrenaline
- ☐ Other (please specify)

**50. a.** Were there any problems managing hypotension? ☐ Yes ☐ No

**b.** If Yes, please specify

## L. POSTOPERATIVE CARE

**51. a.** In your opinion was the patient recovered in an appropriate location? ☐ Yes ☐ No

**b.** If No, please specify

**52. a.** Were you unable at any time to transfer the patient to HDU or ICU when clinically indicated? ☐ Yes ☐ No

**b.** If Yes, please specify:

**53. a.** Was controlled ventilation used postoperatively? ☐ Yes ☐ No

**b.** If Yes, why?

- ☐ Routine manangement
- ☐ Respiratory inadequacy
- ☐ Cardiac inadequacy
- ☐ Control of intracranial pressure or other neurosurgical indications
- ☐ Part of the managment of pain
- ☐ Poor general condition of patient
- ☐ To allow recovery of body temperature
- ☐ Other reason (please specify)

## M. CRITICAL INCIDENTS

**54. a.** Did any critical incidents occur during the anaesthesia or in the immediate recovery period? ☐ Yes ☐ No

**b.** If Yes, please specify:

## N. POSTOPERATION ANALGESIA

**55.** At the time of the operation did the hospital have an adult acute pain service? ☐ Yes ☐ No

**56.** At the time of the operation did the hospital have a paediatric acute pain service? ☐ Yes ☐ No

**57.** Did this patient have a ward pain assessment chart? ☐ Yes ☐ No ☐ NA

**58. a.** Were drugs given in the first 48 hours after the operation for pain relief? ☐ Yes ☐ No

**b.** If Yes, which method/route?

- ☐ Intramuscular injection
- ☐ Oral
- ☐ Rectal
- ☐ Continuous IV infusion/nurse controlled analgesia
- ☐ Continuous subcutaneous infusion/nurse controlled analgesia
- ☐ Patient-controlled analgesia
- ☐ Patient-controlled epidural analgesia
- ☐ Continuous epidural infusion
- ☐ IV bolus
- ☐ Other (please specify)

**59. a.** Were there any complications as a result of postoperative analgesia ? ☐ Yes ☐ No

**b.** If Yes, please specify:

## O. DEATH

**60.** Please summarise the events leading to death:

Thank you for taking the time to complete this questionnaire.