EXPLANATORY LETTER

This letter sets out, for those not already aware, the aims and process of the 3rd National Anaesthesia Audit: A National Audit of Major Complications of Spinal and Epidural Anaesthesia.

Spinal and epidural anaesthetic techniques are undoubtedly effective forms of pain relief after surgery with considerable associated benefits. Occasionally they lead to major complications, as recent newspaper articles have highlighted. What is not clear is just how frequent these complications are. Most hospitals see less than one of these complications per year.

The Royal College of Anaesthetists has undertaken to try to enumerate this problem. The audit sets out to determine both the number of spinal and epidural procedures performed per year and the number of major complications arising from them.

To determine the number of complications arising we have sought support and endorsement from

- spinal surgeons
- neurosurgeons
- neuroradiologists
- neurologists
- pain clinic clinicians
- acute pain anaesthetists.

The project will be widely advertised and many specialist organisations are contacting their members directly, in support of the project.

The procedures we are interested in are

- All epidurals, spinals (subarachnoid block), combined spinal epidurals and caudal blocks.
- We will include adults and children, and procedures performed by non-anaesthetists.

The complications we are interested in are

- spinal infections (e.g. epidural haematoma, meningitis)
- spinal bleeding (e.g. spinal haematoma)
- major nerve damage (e.g. paraplegia, spinal cord damage, spinal cord infarction, major neuropathy)
- wrong route errors (intravenous drugs given epidurally/intrathecally or vice versa)
- death where the anaesthetic/analgesic procedure is implicated in the cause.

We estimate that approximately 200 cases may be identified in one year. This is less than one per hospital. So in most cases each hospital would report 0-1 case in the year of data collection.

From 18 September 2006 a two-week audit will identify the number of procedures performed in the country (two-week snapshot audit). Starting at the same time we will collect data on the above complications for one year (prospective 12-month audit). Data will be collected relating to procedures performed from September 1st 2006 until August 31st 2007. Data may be reported up to six months after the latter date. The two audits will allow us to determine the prevalence and incidence of the listed complications.
An example of how the system will work is as follows. A patient develops an epidural haematoma in a DGH and is referred to a neurosurgeon at a regional centre. The neurosurgeon or the referring hospital (or both) report this occurrence to the project team by phone or email **without sending patient-specific data**. The data required is limited to the reporter’s name and contact details, the hospital they are reporting from and the hospital where the procedure was performed. The project team then contacts the local reporter of the hospital where the procedure was performed. The local reporter gathers relevant information, including information from the neurosurgeon. The local reporter submits a report on that patient using the secure third party website (NCAPCIA: the National Confidential Acute Pain Critical Incidents Audit) which is independent from the College. The data will be validated and fully anonymised and duplication of reporting eliminated. The data will then be summarised. The College will have no way (or interest) in identifying individual hospitals, patients or anaesthetists.

The identified cases, fully anonymised and summarised, will then be reviewed by a small assessment group.

We plan to report both incidence/prevalence data for the complications and an analysis of the cases identified. Reports, we anticipate, will be produced in 2008. We will of course been keen to feed this information back to all those who have assisted in the project.

The project has been reviewed by COREC (Central Office for Research Ethics Committee) who have agreed that this audit does not require ethical approval. The process of data collection and transfer has been approved by the Patient Information Advisory Group of the Department of Health (PIAG). To this end it is essential that **no patient–specific data should be sent when reporting events to the project team**.

The project has the endorsement of the Association of Anaesthetists of Great Britain and Northern Ireland, the British Pain Society, the Obstetric Anaesthetists Association, the European Society of Regional Anaesthesia (Great Britain and Ireland) and the Association of Paediatric Anaesthetists and is supported by the Association of British Neurologists, the Society of British Neurosurgeons, the British Association of Spinal Surgeons, the Royal College of Radiologists, the National Patient Safety Agency, the NHS Litigation Authority, the Medical Protection Society and the Medical Defence Union.

For us this is an important investigation. Anaesthetists at present genuinely do not know the incidence of major complications of these procedures. The figures quoted vary up to 20-fold (1 in 5000 to 1 in 100,000). This makes communication of risk to patients difficult or impossible. It also makes it difficult to balance risk and benefit when selecting an anaesthetic technique for individual patients. We would greatly appreciate your support of this project and help in gaining the support of your colleagues.

Tim Cook (tcook@rcoa.ac.uk)
Consultant Anaesthetist, Bath
Project Lead, 3rd National Anaesthetic Audit.
3RD NATIONAL ANAESTHESIA AUDIT -
NATIONAL AUDIT OF MAJOR COMPLICATIONS OF SPINAL AND EPIDURAL ANAESTHESIA

SNAPSHOT PHASE

This section explains the process of the SNAPSHOT PHASE of the audit.

This is a snapshot audit of the numbers of SPINALS, EPIDURALS, CAUDALS and CSEs performed in your hospital over a two week period.

- Please include all peri-operative, obstetric, chronic pain and paediatric cases
- Include all procedures performed by non-anaesthetists
- Do not include attempts that failed.
- Do not include lumbar punctures and intrathecal chemotherapy administration

The documentation is attached.
It is important that the data are collected for a TWO WEEK (14 day) period. However the actual weeks are not critical. We have suggested you collect data from Monday 18th September to Sunday 1st October, but if holidays or other factors interfere any two-week period in September (or if necessary early October) will be satisfactory.

The forms are printed on a number of pages: we hope this will ease collection of data for different areas. It may be that you will need to delegate some areas of collection but it is important that you send all the parts of the paperwork back together as your hospital data. These pages will also be sent to you as a word document, if you wish to reply electronically.

Please return your completed forms by mid-October, to avoid reminders!
May I stress that the more accurate the data you supply the more representative the results will be, please make every effort to collect accurate data for as many techniques as possible during the two week period.

Tim Cook (tcook@rcoa.ac.uk)
Consultant Anaesthetist, Bath
Project Lead, 3rd National Anaesthetic Audit.
3RD NATIONAL ANAESTHESIA AUDIT -
NATIONAL AUDIT OF MAJOR COMPLICATIONS OF SPINAL AND EPIDURAL ANAESTHESIA

PART 1 - SNAPSHOT PHASE
TWO WEEK SNAPSHOT AUDIT OF NUMBERS OF SPINALS, EPIDURALS, CAUDALS AND COMBINED-SPINAL-EPIDURALS

Please complete this form for a two week period (14 DAYS)
• Please include all peri-operative, obstetric, chronic pain and paediatric cases
• Please include all procedures performed by non-anaesthetists
• Do not include attempts that failed*.
• Do not include lumbar punctures and intrathecal chemotherapy administration

Please complete this form for your hospital.
The preferred dates for data collection are Monday 18th September to Sunday 1st October 2006. If this is not practical please collect the data over a different time period.
In order for us to calculate the number of procedures performed per year it is essential the data is as complete as possible and equally essential that 100% of local reporters return completed forms.

Please return the completed forms by 30th October 2006, in the sae provided, to
3RD NATIONAL ANAESTHESIA AUDIT
ROYAL COLLEGE OF ANAESTHETISTS
CHURCHILL HOUSE
RED LION SQUARE
LONDON
WC1R 4SG

Many thanks for your support of this project.

Tim Cook
Consultant Anaesthetist, Royal United Hospital, Bath
Audit Lead, Royal College of Anaesthetists 3rd National Audit

* We believe it is impractical to collect this data accurately in the snapshot audit. We will of course want all complications arising from such cases to be reported in the prospective audit.
Hospital..................................................

Local Reporter.........................................

ABOUT YOUR HOSPITAL

Is your hospital ............... surgical/ medical / mixed?

Approximately how many beds are there in your hospital (to the nearest hundred)?

..............................................

PERI-OPERATIVE ADULTS (non-obstetric)
The more accurate the data you supply the more representative the results will be, please make every effort to collect accurate data for as many techniques as possible during the two week period.

How many EPIDURALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many SPINALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many CSEs were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many CAUDAL EPIDURALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

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LONDON
WC1R 4SG
CHRONIC PAIN PROCEDURES
The more accurate the data you supply the more representative the results will be, please make every effort to collect accurate data for as many techniques as possible during the two week period.

How many EPIDURALS were performed in the two week period?
   a) ______________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many SPINALS were performed in the two week period?
   a) ______________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many CAUDAL EPIDURALS were performed in the two week period?
   a) ______________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

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WC1R 4SG
OBSTETRICS
The more accurate the data you supply the more representative the results will be, please make every effort to collect accurate data for as many techniques as possible during the two week period.

How many EPIDURALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many SPINALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many CSEs were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many CAUDAL EPIDURALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

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LONDON
WC1R 4SG
Hospital…………………………………………

Local Reporter…………………………………

PAEDIATRICS
The more accurate the data you supply the more representative the results will be, please make every effort to collect accurate data for as many techniques as possible during the two week period.

How many EPIDURALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many SPINALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many CSEs were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

How many CAUDAL EPIDURALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure.

Please return the completed forms by 30th October 2006, in the sae provided, to
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ROYAL COLLEGE OF ANAESTHETISTS
CHURCHILL HOUSE
RED LION SQUARE
LONDON
WC1R 4SG
PROCEDURES PERFORMED BY NON-ANAESTHETISTS

How many EPIDURALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure?
   c) Who performed these? Rheumatologists/ orthopaedic surgeons/ sports medicine doctor

How many SPINALS were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure?
   c) Who performed these? Rheumatologists/ orthopaedic surgeons/ sports medicine doctor

How many CSEs were performed in the two week period?
   a)________________________
   b) This is a broad estimate/ a close estimate / an accurate figure?
   c) Who performed these? Rheumatologists/ orthopaedic surgeons/ sports medicine doctor

How many CAUDAL EPIDURALS were performed in the two week period?
   a)
   b) This is a broad estimate/ a close estimate / an accurate figure?
   c) Who performed these? Rheumatologists/ orthopaedic surgeons/ sports medicine doctor

Please return the completed forms by 30th October 2006, in the sae provided, to
3RD NATIONAL ANAESTHESIA AUDIT
ROYAL COLLEGE OF ANAESTHETISTS
CHURCHILL HOUSE
RED LION SQUARE
LONDON
WC1R 4SG
This sheet sets out the inclusion data for the second part of the audit and the process for reporting cases.

Inclusion criteria
Complications associated with a spinal, epidural, combined-spinal epidural or caudal anaesthetic, whether performed by anaesthetist or other.

- Spinal infections (e.g. epidural haematoma, meningitis)
- Spinal bleeding (e.g. spinal haematoma)
- Major nerve damage (e.g. paraplegia, spinal cord damage, spinal cord infarction, major neuropathy)
  - Major neuropathies should only be reported if they are definitely or likely to be a result of the procedure
  - We define a major neuropathy as one that has an important effect on the patient, most of these are likely to have a significant motor component.
  - When these are reported it will not be possible to determine whether they are temporary or permanent. We suggest they are not reported within the first 6 weeks after presentation. We will aim to contact reporters of these events several months later to determine subsequent progress
- Wrong route errors (intravenous drugs given epidurally/intrathecally or vice versa)
- Death where the anaesthetic/analgesic procedure is implicated in the cause.

Data collection period
- All relevant complications that follow procedures performed between 1 SEPTEMBER 2006 and 31 AUGUST 2007
- Data may be reported up to 6-months after the end of this period (Until MARCH 2008)

Process
- We have notified anaesthetists, neurologists, spinal/neurosurgeons and radiologists of the project, as complications may present to any of these specialties. Any of these individuals may report ‘an event’ to the Audit Team either by email (tcook@rcoa.ac.uk) or by telephone 020 7092 1694 (9am-5pm)
- IT CANNOT BE EMPHASISED ENOUGH, THAT NO PATIENT-SPECIFIC DATA SHOULD BE REPORTED TO THE AUDIT TEAM.
- All we ask the initial person who identifies an event to report is:
  a) their name and contact details
  b) their hospital
  c) the hospital where the anaesthetic procedure that led to the event took place (which may be the same or different from where the case is reported).
- The college will then alert the local reporter and ask them to liaise with the event reporter in a) above, to gather details of the complication. The local reporter will then upload a report on the event to the NCAPCIA website (www.ncapcia.org.uk).
- NCAPCIA (National Confidential Acute Pain Critical Incident Audit) is an independent organisation that will receive reports and further anonymise them before reporting this anonymised, collated data to the Audit Project team. NCAPCIA is part funded for one year by the RCoA to facilitate this project but otherwise is entirely independent of the RCoA.
- Access to the NCAPCIA website is secure and is only granted through a password and unique identifier. These will be distributed to local reporters with separate documentation relating to the NCAPCIA project. If your hospital does not have this information by early September please contact the NCAPCIA administration department via the public part of their website at www.ncapcia.org.uk.
- Using data from the two-week snapshot audit and the twelve-month prospective audit we will be able to calculate numerator and denominator data on procedures performed and complications detected. Thus allowing calculation of complication prevalence and incidence.
- In addition a cohort of reports on complication will be generated by the project. These will be analysed by an invited, expert panel in an attempt to learn any lessons that can be about good and bad practice, genesis, prevention, treatment and outcome of complications.
- We will feed back on the results of the project to all anaesthetic departments in the United Kingdom and also to those associations and organisations whose help we have enlisted during this project.
- We anticipate that reports on the above data will be published in mid-late 2008.

Once more I would like to encourage you to disseminate information about the project locally to all anaesthetists and also to local neurologists, radiologists and spinal/neurosurgeons.

It is likely that you may be asked to report on none, one or two cases arising from your trust in the 12-months of data collection. These individual cases may be somewhat tiresome to report, but it is essential to the success of the project that we have a report filed on every case occurring in the 12-month period. Without these reports the effort of all contributing to this project will be diminished.

I would like to thank you once more for your support of this project.

Tim Cook
Consultant Anaesthetist, Royal United Hospital, Bath
Audit Lead, Royal College of Anaesthetists 3rd National Audit
Do you, or your patients, worry about the major complications of spinals and epidurals?
Can you balance their risk and benefit accurately?
Are you confident in the figures you quote to patients?

The 3rd National Anaesthesia Audit seeks to help with these questions

There are two planned phases:

1. To determine the denominator (snapshot phase)
   Over two weeks from 18th September 2006 we will count all central neuraxial procedures performed in UK NHS hospitals.

2. To determine the numerator (prospective phase)
   We will seek to prospectively identify all major complications of central neuraxial procedures. Data will be collected on complications of procedures performed from September 1st 2006 until August 31st 2007. Data may be reported up to 6 months after the latter date. The two audits will allow us to determine the prevalence and incidence of the listed complications.

The procedures we are interested in are:
- Epidurals
- Combined spinal epidurals
- Spinals (subarachnoid block)
- Caudal blocks.

We will include procedure in adults and children, and those performed by non-anaesthetists.

The complications we are interested in are:
- Spinal infections (e.g. epidural haematoma, meningitis)
- Spinal bleeding (e.g. spinal haematoma)
- Major nerve damage (e.g. paraplegia, spinal cord damage, spinal cord infarction, major neuropathy)
- Wrong route errors (IV drugs given epidurally/intrathecally or vice versa)
- Death where the anaesthetic/analgesic procedure is implicated as causal.

Any such complication can be reported to the project team by emailing tcook@rcoa.ac.uk. NO PATIENT-SPECIFIC DATA SHOULD BE SENT. Each hospital has a local reporter (a consultant anaesthetist) for the project and they will be contacted to produce a report on the event. This report will be filed to an independent, secure website where the report will be fully anonymised and ‘cleaned’ before being summarised and reported to the project team. This process has been approved by COREC and the Department of Heath’s Patient Information Advisory Group. The College will have no way (or interest) in identifying individual hospitals, patients or anaesthetists.

Your local reporter is:

Further information can be obtained from your local reporter or the project team.
Thank you for your co-operation and I hope you will get involved!

Dr Tim Cook (tcook@rcoa.ac.uk)
Consultant Anaesthetist, Royal United Hospital, Bath
Lead for the 3rd National Anaesthesia Audit
Do you, or your patients, worry about the major complications of spinals and epidurals? Can you balance their risk and benefit accurately? Are you confident in the figures you quote to patients?

The 3rd National Anaesthesia Audit, starting in September 2006, seeks to help with these questions

The project aims to determine both the prevalence and incidence in the UK of serious complications of central neuraxial blockade. This is an ambitious project and requires the co-operation and involvement of many specialties across the UK.

There are two planned phases:

1 To determine the number of procedures performed per year.
   A two-week ‘snapshot survey’ will identify how many spinals, epidurals, CSEs and caudals are performed in the UK. This will include peri-operative cases (adult and children), obstetric cases, and blocks in pain clinics.

2 To determine the number of serious complications occurring per year.
   A 12-month period prospective audit to identify all cases of major complications associated with central neuraxial block (spinal haematoma, epidural abscess, paraplegia, other permanent neurological injuries and death). Cases to be identified by regular contact with anaesthetists, neurologists, neurosurgeons, spinal surgeons and radiologists. Each identified case then reviewed by an expert panel.

We will be recruiting ‘local reporters’ in every UK hospital in the next few months. With their assistance we will perform the snapshot audit in September. These reporters, central to the project, will then act as reporters for any cases of complications that arise in their Trust. With over 300 hospitals and an estimate of fewer than 200 cases to report, we anticipate local reporters will need to report on 0–1 cases in the year.

Please contact Dr Tim Cook for further information: tcook@rcoa.ac.uk