

Section 11: Pain Medicine

Edited by Dr Andrew Vickers and Dr Kate Grady

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11.1 Education and training by the inpatient/acute pain team

Mrs H Willson, Dr J Quinlan

Why do this audit?

Effective education and training is an important aspect of the In-patient/Acute Pain Service role. This education should be based on best available evidence to prevent patients from suffering harm.¹ The Chief Medical Officer's report 'Pain: breaking through the barrier'² highlighted the inadequacy of current pain management education for healthcare professionals, with effective education and training for all healthcare professionals as a key recommendation. It is important to establish, update and provide this training on a regular basis to maintain competence and improve quality of care.^{3,4}

Best practice: research evidence or authoritative opinion

Regular education and training by In-patient/Acute Pain Teams has a positive effect on professional practice and healthcare outcomes.⁵

Education of medical and nursing staff is essential if more sophisticated forms of analgesia are to be managed safely and effectively.^{3,6}

Suggested indicators

- D Staff education must include a focus on the anticipation and prevention of pain as well an understanding of the complexity of pain management.
- D There is documented evidence of pain assessment and efficacy of pain management strategies.
- D Medical staff have attended a pain management induction tutorial.
- D Nurses have attended a pain management tutorial in the last 3 years.
- D Trained nurses on wards designated to care for patients with advanced analgesic devices (PCA, epidural or nerve infusion) have been passed as competent.
- D Patients with epidural analgesia are cared for on designated wards/departments by qualified nurses with specific training and skills in the care and management of epidural complications. For patients in theatre environments, operating department practitioners (ODP) must also have specific epidural training. Nurses/ODPs who directly care for patients with epidural analgesia have attended education and training in the last 3 years.
- D Patient feedback (satisfaction surveys, complaints) is used to influence education and training programmes.

Proposed standard or target for best practice

- D 100% foundation year 1 and 2 doctors have attended a pain management induction tutorial.
- D 100% healthcare professionals new to the Trust have received information on accessing the In-patient/Acute Pain Team.
- D 100% healthcare professionals new to the Trust have received information on accessing pain management protocols.
- D 66% of nurses/ODPs on wards/departments where epidural infusion is administered have attended training in the last 3 years.
- D 100% of nurses/ODPs caring for patients with advanced analgesic devices have demonstrated competency in specific management.

Suggested data to be collected

- D Number of hospital-wide pain education and training events available for healthcare professionals.
- D Frequency and type of training provided (in-service training sessions, e-learning packages, ward-based tutorials and pain ward rounds) and subjects covered (analgesics, PCA, epidural analgesia, regional blocks; intravenous bolus, subcutaneous and intramuscular algorithms).
- D Attendance records for all training provided.
- D Ward/department attendance records and competency assessment documentation.

Common reasons for failure to meet standard

- D Lack of communication, advertising, or resources to provide training sessions.
- D Lack of study time available for staff to attend training.
- D Lack of mandatory training in induction or preceptorship programmes.
- D Insufficient management focus on training needs.
- D Assessment and documentation, efficacy, and safety of acute pain management. Patient satisfaction with pain management.

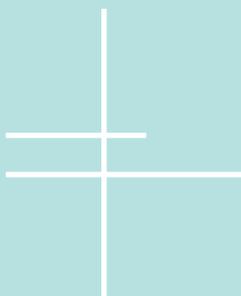
CPD and Curriculum mapping

CPD matrix codes: D01, ID02, 2E01, 2E02

Training curriculum competence: PM_BK_01–08, BS_01–08, PM_IK_01–03, IS_01–05, IO, PM_HK_06, PM_HK_08

References

- 1 <http://www.nmc-uk.org/Nurses-and-midwives/The-code>.
- 2 Pain: breaking through the barrier. In: Chief Medical Officer's Annual Report 2008. DH, London 2008 (http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/AnnualReports/DH_096206).
- 3 Patient Safety Alert 21: Safer practice with epidurals injections and infusions. NPSA, London 2007 (<http://www.nrls.npsa.nhs.uk/resources/?entryid45=59807&p=12>).
- 4 Best practice in the management of epidural analgesia in the hospital setting. *Faculty of Pain Medicine of the RCoA*, London 2010 (<http://www.rcoa.ac.uk/node/639>).
- 5 Forsetlund L et al. Continuing education meetings and workshops: effects on professional practice and health care outcomes. *Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No: CD003030.
- 6 Macintyre PE, Schug SA. Acute pain management: a practical guide (3rd edition). *Saunders Elsevier*, Philadelphia 2007.



11.2

Provision of written patient information on pain management

Mrs K Butterworth

Why do this audit?

Successful pain management depends on many factors. One is the understanding by patients of the importance of pain relief particularly following surgery. Other factors include explaining the problems that can arise if pain relief is not effective, the different types of pain relief available and the importance of taking regular analgesia.

Best practice: research evidence or authoritative opinion

Pre-operative education improves patient or carer knowledge of pain and encourages a more positive attitude towards pain relief.¹ Information regarding pain relief in hospital is available from specialist national professional bodies and from many local hospital acute pain services.^{2,3} Information should be general with the option of providing procedure specific information where appropriate.

Written pre-operative information is considered more thorough than verbal and helps promote discussion with the anaesthetist about post-operative pain management options.⁴ Whilst evidence for the benefits of patient education in terms of better pain relief is inconsistent,¹ there is evidence supporting increased patient satisfaction.⁵

The hospital Patient Information Group or equivalent should check locally developed leaflets before the final draft. This is to ensure the use of comprehensible language and answer frequently asked questions. Consideration should be given to providing written material in languages prevalent in the catchment population of individual institutions.

Information about pain relief should be given to patients in pre-operative assessment, antenatal clinics or distributed by admission services. Where possible patients should receive information at an appropriate time and not in the immediate period before surgery.⁶ This gives them time to assimilate the information and allows time to raise questions.

Suggested indicators

- D % of elective patients receiving written pre-operative information about pain management.
- D % of unplanned admission patients requiring surgery receiving information regarding pain management.
- D % of carers of non-communicative patients receiving pre-operative written information.

Proposed standard or target for best practice

- D 100% elective patients receive pre-operative information.
- D 100% of carers of non-communicative elective patients receive information on pain management.
- D 90% of unplanned admission patients (or carers if non-communicative) receive some information on pain management.

Suggested data to be collected

- D Audit acute pain service (APS) information leaflets are received by all elective patients.
- D Periodic audits to check information is distributed by the pre-operative assessment service or admission office.
- D Audit nurses' knowledge of leaflets, location and contents.
- D Periodically audit the availability of leaflets on surgical wards.
- D Collection of data by anaesthetists and nurses by asking patients or carers if they received written information about pain management.



Common reasons for failure to meet standard

- D Failure of pre-operative nurses and admission staff to provide information leaflets.
- D Failure to inform patients requiring unplanned surgery of pain management options because of time limits.
- D Language difficulties.
- D Some patients do not wish to receive information.

Related audits

I.1 – Patient information about anaesthesia

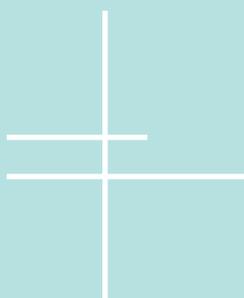
CPD and Curriculum mapping

CPD matrix codes: ID01, ID02, IF01, IF02, IF04

Training curriculum competence: PM_BK_08, PM_IS_10, PM_HK_07–08, PM_HS_04

References

- 1 Australia and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute Pain Management: scientific evidence (3rd Edn). ANZCA, Melbourne 2010.
- 2 Epidurals for pain after surgery. RCoA and AAGBI, London 2008 (<http://www.rcoa.ac.uk/node/1854>).
- 3 Pain relief in labour. OAA, London 2008 (<http://www.oaaformothers.info>).
- 4 Binhas M et al. Impact of written information describing post-operative pain management on patient agreement with proposed treatment. *Eur J Anaesthesiol* 2008;**25(11)**:884–890.
- 5 Sjoling M et al. The impact of pre-operative information on state anxiety, post operative pain and satisfaction with pain management. *Patient Educ Couns* 2003;**51(2)**:169–176.
- 6 Quality and Service Improvement Tools. NHS Institute for Innovation and Improvement (http://www.institute.nhs.uk/option,com_quality_and_service_improvement_tools/Itemid,5015.html).



11.3

Pain management in the recovery room

Mrs F Duncan, Mrs J Marshall

Why do this audit?

Ensuring optimum analgesia in the recovery room is a key stage to ensuring the best long-term outcome for the patient.¹ Pain problems and associated complications will escalate if patients are discharged from recovery with ineffective pain relief. Chronic pain can develop if pain is not treated effectively at the time of surgery.^{2,3} Despite this understanding, a large gap exists between the evidence available to guide practitioners and current practice.¹⁻⁴ Pain continues to be poorly managed in the immediate post-operative period. Ineffective pain relief is the main cause of delayed discharge after day-case surgery.⁵ Failure of pain management in recovery can result in increased patient suffering, and increased calls for help to busy on-call anaesthetists. Optimising pain management in recovery (24 hours a day, 7 days a week) involves measuring a range of process and outcome indicators.

Best practice: research evidence or authoritative opinion

Excellent international guidelines are available to guide practitioners; best practice is described in detail in the third edition of the Australian and New Zealand College document.⁵ The Royal College of Anaesthetists have updated their guidance on the provision of acute pain management and have produced clear statements about requirements for optimal pain relief in the perioperative period.⁶

Pain should be recorded as the 5th vital sign, and evaluated, treated and re-evaluated frequently in recovery. Pain should be measured on movement (dynamic pain assessment). A score of 4 or more on an 11 point (0–10) verbal numerical rating scale is considered a threshold for intervention.⁵ Elderly patients are more likely to under-report pain and have difficulty in quantifying pain. The 2010 NCEPOD review of the care received by elderly patients undergoing surgery makes recommendations for practice and the organisation of pain services.⁷

Optimal pain management in the perioperative period should be planned as part of a surgical enhanced recovery programme. A procedure specific approach to pain relief, modified to the needs of individual patients, is now recommended.¹ Evidence is available for several common procedures on the PROSPECT website.⁸

Best practice guidelines for the management of respiratory depression associated with neuraxial opioid administration have been published by the American Society of Anesthesiologists.⁹

The Pain RADAR website is a very practical resource which was set up to encourage implementation of guidelines at a local level.¹⁰ The 'perioperative plan for high risk patients' is a particularly useful form to download and use for patients with longterm opioid exposure preoperatively.

Suggested indicators**Process**

- D The existence of standardized guidelines and protocols (including discharge protocol) based on national guidance
- D Availability of pain management advice and interventions at all times
- D The existence of an ongoing programme of education for all staff looking after patients in the recovery room and percentage of attendance.
- D Percent of referrals to the Acute Pain Service (and/or on-call anaesthetist) within 4 hours after discharge from recovery

Outcome

- D The percentage of patients who are reviewed by an anaesthetist to manage severe pain because the patient is not responding to a recovery room protocol¹¹

Proposed standard or target for best practice

- D Optimal postoperative pain relief (< 4 on a 0 to 10 scale or at a level acceptable to the patient) is established for >95% of patients before timely discharge from recovery.
- D 100% of patients have analgesia (multimodal when appropriate) prescribed before discharge from recovery.
- D Availability of up-to-date guidelines and protocols.
- D Attendance at mandatory education programmes for all staff involved in the management of patients in recovery.
- D Availability of acute pain management expertise at all times.
- D Evidence of individual anaesthetists auditing their peri-operative pain management practice.

Suggested data to be collected

- D Patient age (decades), gender, emergency/planned surgery.
- D Type of surgery.
- D Identifier of individual anaesthetist.
- D Measurement of pain and side effects as per local protocol.
- D The percentage of patients who are reviewed by an anaesthetist to manage severe pain because the patient is not responding to a recovery room protocol.
- D The percentage of referrals to the Acute Pain Service (and/or on-call anaesthetist) within 4 hours after discharge from recovery.
- D Local indicators decided as part of a quality improvement programme.

Common reasons for failure to meet standard

- D Failure to identify patients with long-term opioid exposure pre-operatively.
- D Failed local or regional block.
- D Inadequate pain assessment – particularly in patients with special needs.
- D Fear of respiratory depression, especially in the elderly.
- D Lack of recovery room protocols leading to inconsistent approach to managing pain and side effects.
- D Lack of multidisciplinary consensus on the importance of pain management.
- D Failure to prescribe multimodal analgesia.
- D Lack of education for nursing and medical staff.
- D Pressures to discharge patients from the recovery room.
- D No feedback on success of quality improvement efforts.
- D Surgical constraints on classes of drugs/techniques allowed.

Related audits

- 1.1 – Patient information about anaesthesia
- 1.4 – Premedication and management of chronic medication
- 3.7 – Discharge protocols
- 13.8 – Delivery, timing and quality of pain training for anaesthetists

CPD and Curriculum mapping

CPD matrix codes: IA02, ID01, ID02, IE03, IF05, IH02, II05, 2E01, 2G04
 Training curriculum competences: PM_BK_01–04, 08, 09, PM_BS_01–08, PM_IK_01, 03, 06, PM_IS_01, 02, 04, 05, 09, 10, PM_HK_01, PM_HS_01, 04, 06

References

- 1 White P, Kehlet H. Improving post-operative pain management. *Anesthesiology* 2010;**112**(1):220–225.
- 2 Niraj G, Rowbotham J. Persistent post-operative pain: where are we now? *Br J Anaesth* 2011;**107**(1):25–29.
- 3 Macrae W. Chronic postsurgical pain: 10 years on *Br J Anaesth* 2008;**101**(1):77–86.
- 4 Global Year against Acute Pain campaign. *International Association for the Study of Pain*, 2010 (<http://www.iasp-pain.org/Content/NavigationMenu/GlobalYearAgainstPain/GlobalYearAgainstAcutePain/default.htm>).
- 5 Australia and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute Pain Management: scientific evidence (3rd Edn). ANZCA, Melbourne 2010 (http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/cp104_3.pdf).
- 6 Guidance on the provision of anaesthesia services for acute pain management. RCoA, London 2010 (<http://www.rcoa.ac.uk/node/712>).
- 7 Elective and Emergency surgery in the elderly: an age old problem. NCEPOD, London 2010 (<http://www.ncepod.org.uk/2010eese.htm>).
- 8 Procedure specific post-operative pain management (PROSPECT) study group (<http://www.postoppain.org/frameset.htm>).
- 9 Practice guidelines for the prevention, detection and management of respiratory depression associated with neuraxial opioid administration. *Anesthesiology* 2009;**110**:218–230.
- 10 The RADAR approach (<http://www.painradar.co.uk/improving-acute-pain-management.aspx>).
- 11 Anaesthesia clinical indicator user manual. The Australian Council on Healthcare Standards 2011 (<http://www.anzca.edu.au/resources/college-publications/books-and-publications/ClinicalIndicators.pdf>).

11.4

Assessment and documentation in acute pain management

Mrs A Dwyer, Dr J Turner, Dr T Johnson

Why do this audit?

Regular clinical assessment is essential in order to inform decisions regarding acute pain management and resulting side effects. Comprehensive and systematic documentations will assure continuity of care.

Scoring levels of pain is only one component of a very wide range of quality assurance methods that ultimately will save time and effort for staff, avoid expensive legal cases for trusts and, most importantly, facilitate the best analgesia for our patients.

The availability and use of documentary systems within acute pain services is an excellent topic for audit.

Best practice: research evidence or authoritative opinion

Effective and safe acute pain services will be able to demonstrate:

- D local treatment protocols defining observations required
- D maintenance of equipment
- D appropriate documentation for charting observations
- D completion of documentation – leads to improved pain control¹
- D competency of staff
- D patient information
- D evidence of reporting, analysing and preventing adverse incidents.

These are all requirements of the NHSLA² and incorporate good medical practice.³

Suggested indicators

Protocols

- D Protocols should be specific to the techniques used and based on the highest level of recent evidence that is available.¹
- D The protocols should be dated and have a date for review. There should be an agreed and unique formal arrangement for recording the directions of the anaesthetist (e.g. minimum acceptable blood pressure) together with contingency recommendations for action.

Charts

- D Clinical data for pain and analgesia and its side effects may be integrated with other observations to avoid duplication but the directions must be explicit. The type and frequency of observations required should be clearly stated. Pain scores should be appropriate to patient culture, language and development and take into account cognitive and emotional states.¹

Other documents

- D A clear, concise operating manual should be available for each piece of equipment that is used (can this be easily located?).
- D Electronic prescribing or adhesive labels and order sheets may be helpful to guide prescription, provide standardised prescribing and avoid prescribing errors (are these available?).
- D Written information can assist patients in understanding post-operative analgesia – there should be evidence that these have been used (ask the patients).
- D Ward staff should be able to demonstrate training and competence with the techniques (have they got evidence of training/certificates?).
- D There should be evidence of and documentation of action regarding adverse incident reports (ask the team leader).

Proposed standard or target for best practice

This audit should confirm that all of the above audit standards are met. It is difficult to justify support for services that do not strive towards this goal.

Suggested data to be collected

- D As above in suggested indicators.

Common reasons for failure to meet standard

- D Lack of leadership.
- D Lack of clear protocols.
- D The protocols are perceived as inappropriate.
- D Poor integration with other hospital teams, e.g. education and training, equipment maintenance, pharmacy or operating department.
- D Failure to record observations may suggest that staff are poorly motivated or resourced to comply.

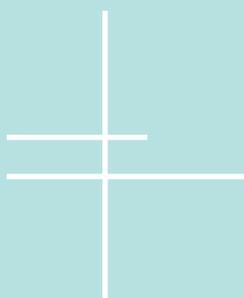
CPD and Curriculum mapping

CPD matrix codes: IA02, ID01, ID02, IF04, IH02, II02, II05

Training curriculum competences: PM_BK_03, 04, 08, 09, PM_BS_01–04, 06, 08, PM_IK_01–03, PM_IS_01–05, 10, PM_HK_01, PM_HS_01, 04, 06

References

- 1 Australia and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute Pain Management: scientific evidence (3rd Edn). ANZCA, Melbourne 2010 (http://www.nhmrc.gov.au/files/nhmrc/publications/attachments/cp104_3.pdf).
- 2 NHSLA and CNST Risk Management Standards 2012-13. Evidence Template Guidelines. (<http://www.nhs.uk/NR/rdonlyres/15C678F9-77E7-4431-BCCC-7F5C57ECoA29/0/Evidencetemplateguidance201213.pdf> accessed 16 April 2012).
- 3 Good medical practice. GMC, London 2006 (http://www.gmc-uk.org/static/documents/content/GMP_0910.pdf).



11.5

Efficacy of acute pain management

Dr T Smith, Sr S Evans

Why do this audit?

Effective management of acute pain has long been recognised as important in improving the post-operative experience, reducing complications and promoting early discharge from hospital.¹ It is an important component of enhanced recovery programmes.² This audit is easy and efficient to do on the daily acute pain ward round using existing ward data and could easily be applied generally or to specific patient groups. Of particular interest would be enhanced recovery patients in colorectal and orthopaedic surgery and elderly patients over 80 years of age.³

Best practice: research evidence or authoritative opinion

Effective pain control relies on recognition of an analgesic need by regular assessment⁴ and appropriate treatment. Regular assessment can be tied in with routine physiological observations. In most patients pain control plans should result in good pain control. Identifying patients in whom that plan has not been entirely effective should lead to improved methods. Patients identified as having moderate or severe pain should have this managed and dealt with. Where this does not occur further investigation is indicated. This audit checks compliance with regular pain assessment, quantifies the prevalence of significant pain, and identifies patients in whom subsequent assessment indicates that the pain was not effectively brought under control.

Suggested indicators

- 1 Incidence of poorly controlled (moderate or severe) pain.
- 2 Persistence of poorly controlled (moderate or severe) pain.

Proposed standard or target for best practice

- D Pain assessment documented every time pulse and BP recorded (100%).
- D Isolated occurrence(s) of moderate or severe pain in a 24 hour period (<5% of patient days).
- D Consecutive occurrence(s) of moderate or severe pain in a 24 hour period (0% of patient days).

Suggested data to be collected

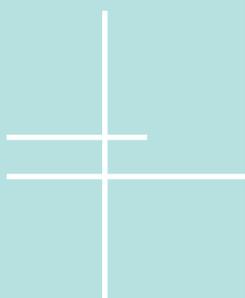
Pain on movement is assessed using the ubiquitous verbal descriptor scale (VDS) as none, mild, moderate or severe. This is routinely recorded on the observation chart. If an institution uses alternative, numerical scales then a number corresponding to the change from 'mild' to 'moderate' or below which pain is considered to be controlled should be identified.

These charts can then be viewed retrospectively coding each day (24 hours from 08.00) as follows:

- D all pain assessments *none* or *mild* – **GOOD** control
- D isolated instance(s) of *moderate* or *severe* pain – **BORDERLINE**
- D two or more **consecutive** instances of *moderate* or *severe* pain – **POOR**.

Common reasons for failure to meet standard

- D Regular analgesia not prescribed/given doctor/nurse/patient.
- D Failure of peripheral or neuraxial nerve blockade.
- D Opiate prescribing errors (infrequent, inadequate dose, and ineffective route of administration).
- D Pain assessment carried out by HCAs unable to independently implement further acute pain management.
- D Failure to utilise provided treatment guidelines.



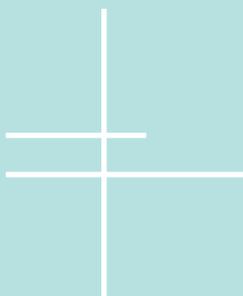
CPD and Curriculum mapping

CPD matrix codes: IA02, ID01, ID02, II05, 2E01

Training curriculum competences: PM_BK_01–04, 08, 09, PM_BS_01–08, PM_IK_01–03, PM_IS_01–05, 10, PM_HK_01, 02, PM_HS_01, 04, 06

References

- 1 Commission on the provision of surgical services. Reports of the working party on pain after surgery. *RCS and RCoA*, London 1990.
- 2 Enhanced Recovery Programme. Quality and Service Improvement Tools. *NHS Institute for Innovation and Improvement* (http://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/enhanced_recovery_programme.html).
- 3 Elective and Emergency surgery in the elderly: an age old problem. *NCEPOD*, London 2010 (<http://www.ncepod.org.uk/2010eese.htm>).
- 4 Australia and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute Pain Management: scientific evidence (3rd Edn). *ANZCA*, Melbourne 2010 (http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/cp104_3.pdf).



11.6

Safety of acute pain management

Dr D J Counsell

Why do this audit?

Whilst the complications of epidural and opiate analgesia are well known, changing practice in surgery and anaesthesia presents new analgesic challenges, promotes new analgesic techniques and with these the possibility of new or more frequent complications. In modern practice the evolution of enhanced recovery protocols and wider use of intrathecal/epidural opioids and continuous or repeated local anaesthetic techniques are of particular interest.

Best practice: research evidence or authoritative opinion

The recommendations in 'Pain after Surgery' from 2001¹ remain the backbone of good practice in acute pain management supplemented by further advice on the management of epidurals in the RCoA et al good practice guideline.² Further recommendations on the management of central neuraxial blocks including analgesic use also followed from the RCoA 3rd National Audit Project (NAP 3).³ All recommend constant vigilance for major complications using simple clinical observation tools. NAP 3 also provided a 'worst case' incidence of permanent damage (persisting for > 6 months) due to the use of peri-operative epidural analgesia of around 1 in 6,000.

Suggested indicators

- D Implementation of recommended observations in terms of frequency, sedation scoring, neuromuscular blockade assessment and availability of response protocols.
- D Compliance of staff in performing these observations.
- D Staff awareness and availability of response protocols.
- D Frequency of major complications, in particular opioid induced respiratory depression with novel techniques.
- D Awareness of NAP 3 results for peri-operative epidurals among anaesthetists and the accuracy of complication advice given to patients.

Proposed standard or target for best practice

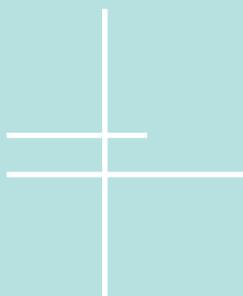
- D All hospitals have appropriate observations in place including assessment of density of neurological block in patients with epidural analgesia *in situ*.
- D 100% compliance with recommended observations including recommended frequency.
- D Lead nurse on all shifts aware of response protocols.
- D All cases of major respiratory depression (i.e. requiring Naloxone) investigated and reported.
- D 100% awareness of NAP 3 results by anaesthetists reflecting in the information given to patients.

Suggested data to be collected

- D Review of current observation practice by acute pain team.
- D Snapshot reviews of observation charts to assess performance and compliance.
- D Questionnaires to assess nursing knowledge regarding protocols and anaesthetist knowledge regarding NAP 3 results.

Common reasons for failure to meet standard

- D Not up to date with current monitoring recommendations.
- D Wards understaffed or too busy to do observations properly.
- D Lack of training for ward staff and ward leaders.
- D Unaware of NAP 3 results.



Related audits

The National In-Patient Pain Survey (NIPPS) Phase 1 is collating data on existing Acute (In-Patient) Pain Services in the UK via an online questionnaire. Phase 2 of the project is to develop a national benchmarking system to include critical incident reporting. Visit nipps.org.uk for more details.

11.9 – Naloxone audit in surgical inpatients

11.10 – High impact interventions – preventing epidural site infection

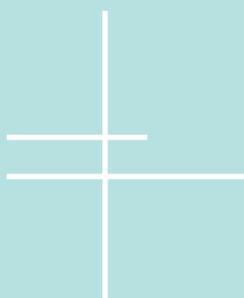
CPD and Curriculum mapping

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References

- 1 Commission on the provision of surgical services. Reports of the working party on pain after surgery. *RCS and RCoA*, London 1990.
- 2 Best practice in the management of epidural analgesia in the hospital setting. *Faculty of Pain Medicine of the RCoA*, London 2010 (<http://www.rcoa.ac.uk/node/639>).
- 3 Cook T. Major Complications of Central Neuraxial Block in the UK. Report and findings from the 3rd National Audit Project (NAP3). *RCoA*, London 2009 (<http://www.rcoa.ac.uk/node/1428>).



11.7 Management of non-surgical pain in the adult patient

Dr A P Vickers

Why do this audit?

Effective analgesia is capable of modifying many of the pathophysiological responses to injury, thereby assisting recovery.¹ All patients should have the benefits of effective pain management.

Anaesthetists and the Acute Pain Service (APS) are closely involved in the management of patients with pain after surgery. Acute pain, however, occurs in many other situations including trauma (A&E, orthopaedic ward), ischaemic limbs and pancreatitis (surgical ward), acute back pain (orthopaedic ward), and painful procedures (medical and surgical wards, radiology). Many different departments and specialties will be involved in this broad group, and it may be a challenge to recruit the interest and enthusiasm of these professionals to collect data, apply these standards and introduce corrective measures.

Best practice: research evidence or authoritative opinion

- D Regular assessment of pain leads to improved acute pain management.¹
- D There should be a uniform pain scoring system throughout the hospital.²
- D Staffing levels, their knowledge and skills, and the availability of drugs and equipment should be sufficient to provide safe and effective pain relief for patients with non-surgical acute pain to the same standard as for patients with post-operative pain. The methods used may differ, however, and should be appropriate for the environment. The provision of guidelines may be helpful in this situation.³
- D All healthcare workers have a responsibility to anticipate, monitor and treat pain.²
- D NQAT (Nursing Quality Assessment Tools), a Department of Health initiative aimed at improving standards across hospitals⁴ has included pain management as one of its standards of care.

Suggested indicators

- D % patients with painful conditions who have a completed record of pain scores.
- D % of patients who score moderate or severe pain on more than one consecutive assessment.
- D % of patients with moderate or severe pain who receive analgesia within 15 min of assessment.
- D % of medical and nursing staff who have received education and training in the management of acute pain in the past 12 months.
- D % of wards and clinical departments with current guidelines for managing acute pain relevant to their particular areas.
- D % of patients referred to the Acute Pain Service where simple measures to control pain (e.g. regular paracetamol) had not been implemented.

Proposed standard or target for best practice

The same standards applied locally to post-operative patients should be the target here too.

The following are suggested:

- D 100% patients with acute pain should have a completed record of pain scores.
- D < 5% patients with 2 or more consecutive pain scores of moderate or severe without appropriate interventions.
- D 95% patients requiring treatment should have a reduced pain score within 30 min of treatment. This should be documented on the chart.
- D 95% of staff should have received training in pain management within the past 12 months.
- D 100% of clinical areas should have current relevant guidelines for managing acute pain.

Suggested data to be collected

- D Appropriate data to assess the standards recommended above need to be collected.
- D Continuous collection of data may be unworkable.
- D Specific clinical areas (e.g. A&E) or particular groups of patients (e.g. patients with fractured neck of femur prior to surgery) should be targeted periodically with the intention of covering all areas within a period of 2 years.
- D Review of cases where pain control has failed and feedback to relevant clinical staff.

Common reasons for failure to meet standard

- D A belief that pain is always easy to manage and does not require regular reappraisal.
- D Reluctance to consider pain score as a 'vital sign'.
- D Fears of addiction and toxicity.
- D Low patient expectations.
- D Failure to feedback results of audit to clinical staff.

Related audits

- 11.12 – Accessing chronic pain services for in-patients with pain problems
- 11.13 – Multidisciplinary management of patients with repeat hospital admissions

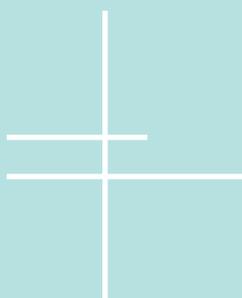
CPD and Curriculum mapping

CPD matrix codes: IA02, ID01, ID02, IF04, IH02, 2E02

Training curriculum competences: PM_BK_01–04, 07–09, PM_BS_01–08, PM_IK_01–03, PM_IS_01–05, IO, PM_HK_02, PM_HS_01, 02, 04, 06

References

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- 3 Best practice in the management of epidural analgesia in the hospital setting. *Faculty of Pain Medicine of the RCoA*, London 2010 (<http://www.rcoa.ac.uk/node/639>).
- 4 NQAT brings together key elements of the Department of Health's 'Essence of Care' standards (http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_119977.pdf) and the Confidence of Care document (<http://www.dhsspsni.gov.uk/cic-pid-version-1.1-jul09-2.pdf>). It is aligned with the Care Quality Commission.



11.8

Patient satisfaction with acute pain management

Dr J Quinlan, Mrs H Willson

Why do this audit?

Patient satisfaction is a valuable measure of outcome of healthcare processes and can be used for continuous quality improvement.¹

Best practice: research evidence or authoritative opinion

Satisfaction and pain ratings are both highly subjective so require a focused assessment of patient experience¹, rather than using a global measure of satisfaction which often produces falsely high scores despite significant pain.^{2,3} However, any problems identified on these global measures should be considered significant.⁴

Increasing ward nurses' knowledge is important in improving patients' pain experiences,⁵ while patient satisfaction with pain management also correlates with received pre-operative information.⁶ The Department of Health's Essence of Care guidelines⁷ suggest working with patients and carers to seek their views, agree a realistic pain management plan and ensure that the plan is understood by all those involved. They also recommend that risks, incidents, complaints and concerns are recorded, monitored and analysed, and the information used to improve patient care.

Suggested indicators

- D Patients are satisfied with the information they received about post-operative pain and proposed pain control method.
- D Patients feel that the hospital staff did everything they could to control pain.
- D Complaints about pain management.

Proposed standard or target for best practice

- D 100% of patients were satisfied (agree or strongly agree) that they had been given relevant information and explanation about their pain control.
- D 100% patients felt that hospital staff did everything they could to control pain.
- D 100% of patients were asked about their pain score.
- D 100% of patients were offered analgesia in response to their pain.
- D 100% of patients were asked about the effectiveness of their pain relief.
- D 100% of patients were asked about any side effects of analgesic drugs.
- D 100% of patients were satisfied with their pain management.

This feedback should be sought every six months.

Suggested data to be collected

- D Patient feedback via patient liaison service (PALS) including complaints, general hospital survey or verbal reports.
- D Written or electronic questionnaires to be completed on the ward as an in-patient, or at home after discharge.
- D Telephone questionnaires after discharge.
- D Suggested RCoA audit form or American Pain Society patient outcome questionnaire.⁸
- D Information on side effects as well as effectiveness of analgesia.
- D Care Quality Commission questionnaires of experience data,⁹ as well as hospital information from Dr Foster.¹⁰

Common reasons for failure to meet standard

- D Inadequate pain education of ward staff.
- D Lack of clinical prioritisation of pain management.
- D Lack of local pain management guidelines.
- D Failure to contact patient by telephone.
- D Failure of patient to return postal questionnaire.
- D Insufficient funds and clerical support to provide telephone or postal follow up.

There is considerable overlap with the patient information, pain education and pain assessment audit recipes.

There are other tools available to optimise data collection and interpretation of patient feedback.^{11,12,13}

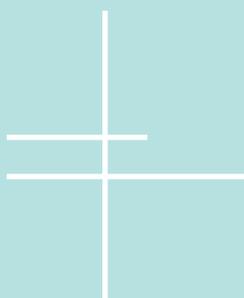
CPD and Curriculum mapping

CPD matrix codes: ID01, ID02, 2E01, 2E02

Training curriculum competences: PM_BK_01–08, BS_01–08, PM_IK_01–03, IS_01–05, IO, PM_HK_08, HS_04, 06

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11.9

Naloxone audit in surgical in-patients

Dr D Blackman, Dr T Johnson

Why do this audit?

Monitoring the incidence and investigating the circumstances of naloxone administration is a reliable and efficient means of detecting preventable problems with the processes of opioid administration in a hospital population.

Best practice: research evidence or authoritative opinion

Acute pain management protocols are intended to balance the benefits of satisfactory analgesia against the risk of adverse events. However, substantial clinical experience is necessary to interpret pain and the need for its treatment. Given the high incidence of acute pain, opioid pharmacokinetic and pharmacodynamic variations, wide distribution of patients within hospitals and the high number and turnover of staff involved, it is not surprising that cases of opioid overdose occur.

Opioid toxicity may happen with even the best practice but it is also associated with poor patient selection, lack of or violation of protocols, inadequate supervision, training and experience or related to equipment misuse or failure. When opioid toxicity is detected it is usually promptly and effectively treated with naloxone. This can be seen as a sentinel event that draws attention to the possibility of sub-optimal care.

Examination of naloxone use has previously proved useful in uncovering deficits in structures and processes of care. The incidence of naloxone use is reported to vary between 0.19% and 3.0%, depending on patient population and analgesic technique used, with 0.53% reported for a general adult surgical population.¹

Our own unit has monitored naloxone use in approximately 13,000 patients per year over an eight-year period and the incidence has decreased over time. In 2002 naloxone was administered on 32 occasions (20 of which were clinically appropriate and predominantly in elderly patients with poor renal failure who had received morphine).

In 2010 and following substitution of alternative opioids and a continuing programme of education naloxone was used on only six occasions (three were for appropriate indications).

Suggested indicators

- D % of patients receiving naloxone for appropriate clinical indications during their admission.
- D % of patients receiving naloxone that was not clinically indicated during their admission (analgesia inappropriately reversed).
- D % of naloxone use accounted for.
- D % of cases of naloxone administration that are investigated by the pain team and audited against unit standards. This should be documented along with action taken and follow up completed.

Proposed standard or target for best practice

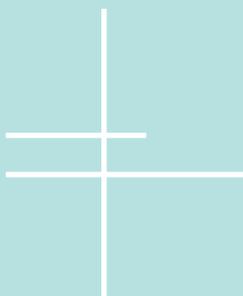
- D 100% of naloxone use should be accounted for and all incidences of its use should be subject to a suitable investigation.
- D The incidence of inappropriate use should be zero or very low.
- D It is not possible to specify a standard for the incidence of naloxone use. The incidence may be high and reveal problems in clinical practice and then fall when they are addressed.

Suggested data to be collected

The biggest challenge is to identify and document naloxone use. Wards can be provided with naloxone in clearly labelled individual packages that contain a brief questionnaire to be completed and returned to the hospital pharmacy after its use. A more comprehensive documentation of events can then be undertaken by the pain team. Useful information might include:

- D date and time of administration
- D patient age
- D respiratory rate and Sedation Score (either GCS or AVPU) at time of administration.
- D type, route and dose of analgesia previously administered
- D general medical condition eg cognitive function, renal failure
- D subsequent management of any opioid toxicity and analgesia
- D evidence of learning needs

	<ul style="list-style-type: none"> D poor documentation or communication D the advent of electronic prescribing in hospitals may result in more reliable identification of naloxone use.
<p>Common reasons for failure to meet standard</p>	<p>These can be divided into when naloxone is used appropriately:</p> <ul style="list-style-type: none"> D lack of appropriate and clear guidelines D lack of experience and staff training. <p>And when it is used inappropriately:</p> <ul style="list-style-type: none"> D Poor knowledge and management of minor opioid side effects such as clinically insignificant sedation, relative bradypnoea and miosis.
<p>CPD and Curriculum mapping</p>	<p>CPD matrix codes: IA02, ID02, IG01, II01, II05, 2E01, 2E02</p> <p>CPD Training curriculum competences: PM_BK_02, 04, 08, 09, PM_BS_01–03, 05, 06, 08, PM_IK_01–03, 06, PM_IS_01–05, 08, 10, PM_HK_02, PM_HS_01, 04</p>
<p>References</p>	<ol style="list-style-type: none"> 1 Gordon DB, Pellino TA. Incidence and characteristics of naloxone use in postoperative pain management: a critical examination of naloxone use as a potential quality measure. <i>Pain Management Nursing</i> 2005;6(1):30–36.



11.10

High impact interventions – preventing epidural site infection

Mr M Howarth, Dr J Turner, Mrs A Dwyer

Why do this audit?

- D To reduce the risk of microbial contamination in everyday practice.¹
- D To prevent the incidence of epidural insertion-related infection.¹
- D To prevent the incidence of epidural site infection.¹

Best practice: research evidence or authoritative opinion

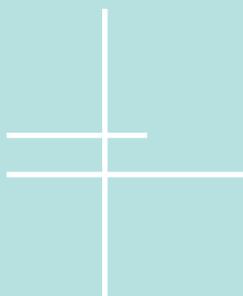
- D Serious neuraxial infections following epidural anaesthesia have previously been reported as rare, however prospective studies have found rates in the range of 0.015–0.05%.
- D Length of catheterisation was associated with increased infection date.^{2,3,4,5}
- D No infections occurred in patients with in dwelling epidural catheters of 2 days or less.⁴
- D Evidence of new onset or worsening back pain even in the absence of fever may indicate epidural space infection requiring prompt investigation.^{4,5,6}
- D The risk of permanent neurological damage in association with epidural analgesia is very low, the incidence is higher where there have been delays in diagnosing an epidural haematoma or abscess.⁶

Suggested indicators

- D **Organisational.** Established In-Patient/Acute Pain Team.⁷ Anaesthetic cover 24/7.⁷ Access to neurosurgical opinion in cord compression suspected.
- D **Protocol.** Evidence of standardised practice for the insertion. Evidence of standardised practice for the management of in dwelling epidural analgesia systems. Standardisation of dressings to allow observation on insertion site.
- D **Documentation.** Standardised documentation of epidural insertion. Standardised documentation to include neurological assessment (e.g ESSAM and Bromage scores^{8,9}) and observation of the epidural insertion site.
- D **Education.** Evidence of training of medical and nursing staff in the management of epidural infusions to prevent and detect infection.¹

Proposed standard or target for best practice

- D There is an established In-Patient/Acute Pain Team with Anaesthetic cover 24/7 and access to neurosurgical opinion in cord compression suspected.
- D 100% should have documentation of insertion of epidural under sterile conditions:
 - ◆ hand hygiene before and after procedure
 - ◆ protective equipment used
 - ◆ aseptic technique (to include chlorhexidine)
 - ◆ number of attempts
 - ◆ inserted in the anaesthetic room?
- D 100% of patients should have an occlusive transparent dressing to allow for surveillance of epidural site deterioration. Evidence of documentation of site observation daily.
- D 100% of patients will have documented evidence of regular neurological assessment.
- D 100% of patients who trigger for suspected epidural infection should be referred to the pain team/anaesthetist on call.
- D No patients will experience permanent neurological damage as a result of epidural analgesia.



Suggested data to be collected

- D Evidence of a protocol based on best practice for the management of in dwelling epidural catheters to minimise infection risk including: Insertion, Observations, Documentation Catheter duration, Management of suspected infection.
- D Evidence of documentation of:
 - ◆ insertion
 - ◆ observation of epidural site/dressing intact
 - ◆ neurological assessment
 - ◆ adverse events to include any breach of the system (filter disconnection, dressing disturbance).
- D Evidence of training in the management of the epidural system including
 - ◆ epidural additional observations: site and neurology
 - ◆ troubleshooting any breaches
 - ◆ escalation of suspected epidural infection
 - ◆ duration of in dwelling epidural catheter.

Common reasons for failure to meet standard

- D Organisation constraints, lack of Acute Pain Team, inadequate provision on monitoring, inadequate guidelines, failure to instigate appropriate training.

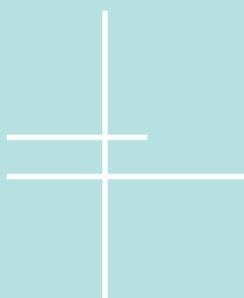
CPD and Curriculum mapping

CPD matrix codes: IA01, ID01–02, IE02, IF01, IF05, IG01, IH01–02, II01, II04–05

Training curriculum competences: PM_BK_03, 08, PM_BS_03, 04, 06, 08, PM_IK_01, PM_IS_01, 02, 04, 10, PM_HK_01, PM_HS_01, 04, 06

References

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11.11

Acute pain management and the substance-misusing patient

Dr A P Vickers, Mrs K Butterworth

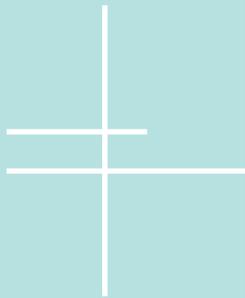
Why do this audit?

The term 'substance abuse disorder' (SAD) includes a number of related clinical situations including the misuse of prescribed medications, the use of illicit drugs, patients participating in maintenance programmes and the 'former misuser' that may include those using drugs such as naltrexone. It has been shown that substance misusers may receive sub-standard acute pain management. There are several reasons for this, including preconceptions about the behaviour of such patients by healthcare staff and possible reluctance by the patients themselves to reveal their problems for fear of being discriminated against.^{1,2} All patients should benefit from safe and effective pain management. At the same time efforts must be made to protect these patients from self-induced harm, e.g. by tampering with opioid PCA or by hoarding medications, and to prevent diversion.

Best practice: research evidence or authoritative opinion

Effective management of acute pain in patients with substance abuse disorder may be complex. There is a need to provide effective analgesia and to prevent withdrawal as well as dealing with possible psychiatric disorders and social problems. A team approach is essential. Appropriate education and written guidance are vital. Many patients will be known to local community drug teams (CDT) and street addicts may accept referral to such services. Close liaison with the CDT and primary care is essential to ensure continuity of care. Establishing an agreed plan of care early in an admission may reduce the risk of conflict between patients and healthcare workers.³

Suggested indicators



- D Local guidelines for managing acute pain in drug addicted patients.
- D Local guidelines for the management of such patients on discharge including liaison with the CDT and GP (to include contact numbers).
- D Availability on all wards of the Department of Health guidelines on clinical management of drug misuse and dependence.⁴
- D Guidance for the management of withdrawal.
- D Guidance for the management of overdose.
- D Guidance for the management of recovering patients.
- D Education programme for medical and nursing staff to include the drugs used to manage addictions, e.g. methadone, Subutex (buprenorphine) and naltrexone.⁵

Proposed standard or target for best practice

- D 100% availability of guidelines.
- D 100% of medical and nursing staff on acute wards should be aware of this material.
- D 100% of patients registered as drug misusers notified to CDT ± GP within 72 hrs of admission.
- D 100% of relevant medical and nursing staff should have received appropriate education within the past 12 months.

Suggested data to be collected

- D Availability of current clinical guidelines.
- D Assessment of staff knowledge about:
 - ◆ managing acute pain in this population
 - ◆ the availability of local guidelines.
- D Confirmation of contact with CDT and patient's key worker from hospital records.
- D Confirmation of maintenance dose and number of doses supplied of methadone, Subutex or naltrexone from CDT or patient's registered pharmacy.

Common reasons for failure to meet standard

- D Failure to appreciate the importance and difficulties of managing acute pain in substance misusing patients.
- D Lack of knowledge.
- D Failure to develop appropriate lines of communication with local drug services.
- D Failure of 'the system' outside normal office hours.

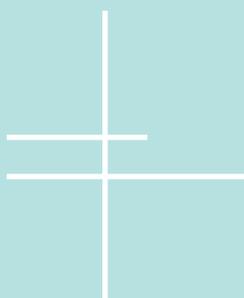
CPD and Curriculum mapping

CPD matrix codes: ID01–02, IE03, IF04, IH02, 2E01–02

Training curriculum competences: PM_BK_01, 02, 04, 07–09, PM_BS_01–08, PM_IK_01–03, 06, 08, PM_IS_01–05, 10, PM_HK_05, 07–09, PM_HS_01, 02, 04, 06

References

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- 3 Vickers AP et al. Consensus statement on the anticipation and prevention of acute postoperative pain: multidisciplinary RADAR approach. *Curr Med Res Opin* 2009;**25**:2557–2569.
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11.12

Compliance with RCoA guidelines for managing epidural analgesia

Dr A P Vickers

Why do this audit?

Continuous epidural analgesia can offer excellent pain control following, for example, major intra-abdominal or intra-thoracic surgery. Serious complications can be associated with this technique. Analysis of what is known of such events suggests that a 'systems failure' is often a major factor. The publication in 2010 of guidelines for good practice by the RCoA and other bodies¹ provided Acute Pain Services with a strong foundation for the safe management of this invasive technique.

The National Patient Safety Agency (NPSA) has highlighted the potential risks of having compatibility between devices intended for intravenous use and those for epidural use.² Standards are to be introduced in 2012 and 2013 to address this problem and Acute Pain Services must ensure they are compliant with these as they become operational.

Best practice: research evidence or authoritative opinion

The RCoA publication *Best Practice in the Management of Epidural Analgesia in the Hospital Setting*¹ describes the requirements for good practice under a number of headings that cover the process of delivering safe epidural analgesia.¹ This publication of 2010 updates *Good practice in the management of continuous epidural analgesia in the hospital setting* and includes a chapter on epidural analgesia in children. It draws on a combination of published evidence and expert opinion. Organisational structure is an important aspect in optimising outcome from pain management techniques.³

Suggested indicators

- D Availability for all healthcare staff who are directly involved in acute pain management of the RCoA publication *Best Practice in the Management of Epidural Analgesia in the Hospital Setting*.¹
- D Compliance with the recommendations for good practice. Some of these recommendations are mandatory (e.g. patient selection 3.1 and consent 3.2) but many are advisory and can be adapted for local practice.

Proposed standard or target for best practice

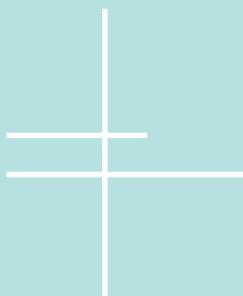
- D 100% availability of the RCoA booklet.
- D 100% compliance with all recommendations.

Suggested data to be collected

- D Spot audits of the process of managing epidural analgesia, e.g. sterility standards during placement of the epidural catheter; documentation of observations, security of drugs for epidural analgesia.
- D Log of staff training.
- D Availability of current material including observation chart, contact numbers, protocols and guidelines and staff knowledge of these and how they would obtain them.

Common reasons for failure to meet standard

- D Inadequate resourcing of Acute Pain Service.
- D Inadequate staffing levels.
- D Frequent changes of staff.
- D Absence of a corporate philosophy of maximising safety and efficacy.



Related audits

11.10 – High impact interventions – Preventing epidural site infection

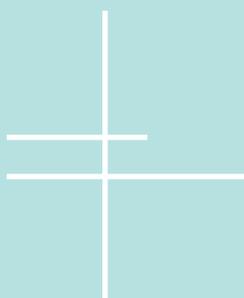
CPD and Curriculum mapping

CPD matrix codes: IE01, IF01, IF05, IH02, II01, II02, II05, 2E01

Training curriculum competences: PM_BK_03, 08, PM_BS_01–06, 08, PM_IS_01, 02, 10, PM_HK_01, PM_HS_01, 04, 06

References

- 1 RCoA, RCN, AAGBI, BPS and ESRA. Best practice in the management of epidural analgesia in the hospital setting. *Faculty of Pain Medicine of the RCoA*, London 2010 (<http://www.rcoa.ac.uk/node/639>).
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11.13

Procurement, maintenance and safety of pumps used in acute pain management

Dr S S Tripathi, Mrs G Nixon

Why do this audit?

In the modern practice of acute post-operative pain management, use of epidural and PCA pumps is common. However, adverse incidents related to equipment continue to be reported.¹ It is important to have a clear record of procurement and maintenance of these pumps to ensure continued safety. They should be replaced/updated at regular intervals.²

Best practice: research evidence or authoritative opinion

The equipments used for pain management should be standardised throughout each trust and there should be a rolling contract for maintenance and replacement. They should be specifically programmed with maximum and minimum rates, bolus sizes and lockout locking time.³ Access to these pre-determined programmes should only be to designated staff and there should be security to ensure this.

Suggested indicators

- D Presence of an equipment library for storage of these pumps with access restricted to designated personnel.
- D A nominated person looking after the procurement, maintenance and safety aspect of pumps.
- D % of pumps whose movement throughout the hospital is logged in logbook.
- D % of pumps serviced at regular interval.
- D % of pumps replaced at the end of usage contract.

Proposed standard or target for best practice

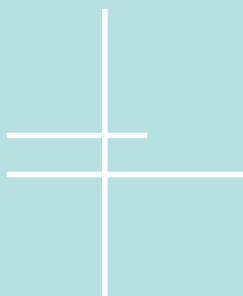
- D 100% pumps should be kept in a specified storage area with a limited access.²
- D 100% of the pumps should be cleaned as per the manufacturer's recommendations.²
- D 100% logging of the movement of the pumps throughout the hospital.
- D 100% of the pumps being serviced and replaced at the suggested time interval.
- D Presence of a nominated person looking after these aspects.
- D 100% of staff using the pumps should be trained in their use and receive updates on an annual basis.³

Suggested data to be collected

- D Number of pumps purchased, serviced and replaced each year.
- D Presence of a dedicated place to store, clean and charge the pumps.
- D How and when the cleaning and maintenance is carried out.
- D Percentage of staff trained in the use of the pumps.
- D Tracking the movement of pumps through the hospital.
- D Any adverse events as a result of the pumps being used.

Common reasons for failure to meet standard

- D Lack of interest in being an equipment lead.
- D Lack of funds.
- D Lack of time to train staff.
- D Lack of a purpose built space to store, clean and charge the pumps.
- D Lack of motivation/education to record the movement of the pumps.



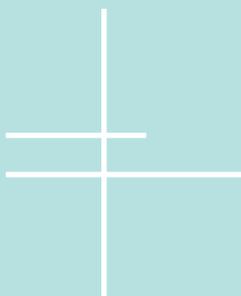
CPD and Curriculum mapping

CPD matrix codes: ID02, I102, I105, 2E01

Training curriculum codes: PM_BK_02, 03, 08, PM_BS_03, 04, PM_IK_01–03, PM_IS_01, 02, 04, I0, PM_HK_01, PM_HS_01, 03–05

References

- 1 Australia and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute Pain Management: scientific evidence (3rd Edn). ANZCA, Melbourne 2010 (<http://www.anzca.edu.au/resources/books-and-publications/acutepain.pdf>).
- 2 Design for patient safety. A guide to the design of electronic infusion devices. NPSA, 2010 (<http://www.nrls.npsa.nhs.uk/resources/?EntryId45=68534>).
- 3 RCoA, RCN, AAGBI, BPS and ESRA. Best practice in the management of epidural analgesia in the hospital setting. *Faculty of Pain Medicine of the RCoA*, London 2010 (<http://www.rcoa.ac.uk/node/639>).



11.14

Management of patients with repeat admissions for acute or chronic pain

Dr R Makin, Sr A Dwyer

Why do this audit?

The Audit Commission (2009) identified the need to avoid unnecessary emergency hospital admissions, not only because of the high and rising costs, but also because of the disruption it causes to the individual admitted, and to elective healthcare, especially in-patient waiting lists.¹

The cost of in-patient care related to back pain was £217.7 million and the cost of day cases was £108.9 million based on 1998 figures.²

In-patients cared for by a consultant from another specialty may receive a considerable amount of care and treatment from the pain management team. This work should be formally recorded and recognised so that appropriate funding for this activity can be allocated.

The Acute Pain Special Interest Group of the British Pain Society have recently launched the National In-Patient Pain survey attempting to develop a national benchmarking system for acute pain services. This represents a more focused approach to the ambitious Essence of Care 2010 'Benchmarks for the prevention and management of pain'.³ Hopefully this audit recipe, which can be performed locally will complement the national project.

Best practice: research evidence or authoritative opinion

The recent RCoA document 'Guidance on the provision of services for Pain Management' recommends close liaison between acute pain management and other services (e.g. chronic pain management, emergency medicine, spinal and neurosurgery, oncology, primary care, palliative care) to enable patients who present acutely and whose symptoms do not resolve to be managed appropriately as an outpatient.^{4,5}

Appreciation of a psychosocial model agreed by patients and clinical staff may reduce distress, frequency of readmissions, unnecessary repeat investigations and reduce length of stay.

The King's Fund (2010) identified the following interventions where there is evidence of a positive effect on reducing emergency hospital admissions.⁶

- D Continuity of care with a GP
- D Self-management
- D Early senior review in A&E
- D Multidisciplinary interventions
- D Integration of primary and secondary care

Applied in the context of pain management this implies development of a more robust patient-centred case management plan agreed with the patient and clinicians involved in their shared care may avoid repeat and inappropriate presentation to out-of-hours emergency services for crisis management.

Suggested indicators

- D Reduce re-admission rates for non surgical pain.
- D Develop resources to manage non acute pain effectively.
- D Reduce length of stay related to acute exacerbations of chronic pain.
- D Development of shared care amongst specialties.
- D Reduction of medication-related adverse events.

Proposed standard or target for best practice

- D Identify prevalence of patients reporting acute on chronic pain requiring unplanned admissions
- D Develop appropriate consistent prescribing practice, and agree goals for medication dose adjustment.⁷
- D Early involvement of multidisciplinary pain team on readmission of complex distressed patients..
- D Agreed shared care planning with patient and clinical teams with a focus on self management.⁵
- D Availability of psychology assessment as an out-patient.
- D Improve patient experience.
- D Reduce distress.
- D Improve signposting to appropriate services.

Suggested data to be collected

- D Number of admissions for non surgical acute on chronic pain exacerbations.
- D Length of stay.
- D Medication use.
- D Costing of admission including investigations.
- D Time spent by Acute Pain team involved in assessment of inpatients.

Common reasons for failure to meet standard

- D Lack of collaboration:
 - ◆ A&E /acute admissions unit
 - ◆ Primary and secondary care.
- D Failure to identify psychosocial yellow flags as drivers for illness behaviour⁸

Related audits

The National Pain Audit (<http://www.nationalpainaudit.org>)
National In-Patient Pain Survey (The British Pain Society)

CPD and Curriculum mapping

CPD matrix codes: IA02, ID01, ID02, IE03, IF04, II02–05, 2E02, 2E03

Training curriculum competences: PM_BK_04–09, PM_BS_01–08 PM_IK_01–04, 06–08, PM_IS_01–06, 08–10, PM_HK_01, 02, 04, 05, 07–09, PM_HS_01–06

References

- 1 More For Less: Are productivity and efficiency improving in the NHS? *Audit Commission*, London 2009 (<http://www.auditcommission.gov.uk>).
- 2 Maniadakis N, Gray A. The economic burden of back pain in the UK. *PAIN* 2000;**84**:95–103.
- 3 Department of Health. Essence of Care 2010: Benchmarks for the Prevention and Management of Pain. *The Stationery Office*, London 2010 <http://www.tso.co.uk>
- 4 Guidance on the provision of anaesthesia services for chronic pain management. *RCoA*, London July 2011 (<http://www.rcoa.ac.uk/node/713>).
- 5 Guidance on the provision of anaesthesia services for acute pain management. *RCoA*, London 2010 (<http://www.rcoa.ac.uk/node/712>).
- 6 Purdy S. Avoiding hospital admissions, what does the research evidence say? *The King's Fund*, December 2010.
- 7 Opioids for persistent pain: good practice. A Consensus Statement Prepared on Behalf of the British Pain Society, the Faculty of Pain Medicine of the Royal College of Anaesthetists, the Royal College of General Practitioners and the Faculty of Addictions of the Royal College of Psychiatrists, January 2010.
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11.15

Availability and resourcing of core chronic pain services

Dr V K Jaitly

Why do this audit?

The Clinical Standards Advisory Group report on services for patients with pain made wide-ranging recommendations to Health Authorities, Primary Care Groups and Trusts on the provision of appropriate pain services.¹ In spite of this, eight years later, the limited number of specialist pain clinics around the country are inundated with referrals, and only 14% of people with pain have seen a pain specialist. Systems and infrastructure are not adequate to meet need or demand.²

Best practice: research evidence or authoritative opinion

It has been recommended that a minimum of one whole-time equivalent consultant dedicated to chronic pain management is necessary for each 100,000 population.³

A chronic pain service is delivered in the out-patient clinic, by in-patient ward referrals and in oncology and palliative medicine units. It represents significant consultant workload and designated consultant time for all these aspects must be allocated in job planning.⁴

A chronic pain service will also require specialist nursing personnel, clinical psychology, physiotherapy and occupational therapy staff in addition to secretarial and managerial support with appropriate accommodation.³

Patients with complex chronic pain problems require thorough assessment and multidisciplinary management so time on the initial consultation should be at least 45 min.⁴

The pain service should be provided with up-to-date electronic systems for maintaining patient bookings, medical records, outcome information and other audit data.⁴

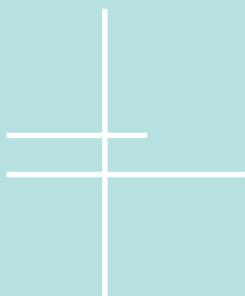
There should be an identifiable budget for the pain service. Purchasing and commissioning organisations should ensure that the multidisciplinary management of patients with chronic pain is specified as part of the contracting process, and recognise that this will require funding of staff, equipment and facilities.⁴

Suggested indicators

- D Staffing of chronic pain service with appropriately trained specialist medical staff, specialist nursing personnel, clinical psychology, physiotherapy and occupational therapy staff.⁴
- D Secretarial and managerial support with appropriate accommodation.³
- D Access to appropriate specialised equipment.
- D Availability of accommodation to house functional restoration programmes and pain management programmes.⁴
- D Access to electronic information and communication systems when speaking to patients and the immediate presence of up-to-date electronic systems for maintaining patient bookings, medical records, outcome information and other audit data.⁴
- D An identifiable budget for the pain service is explicitly specified in the contracting process.⁴

Proposed standard or target for best practice

- D There should be a minimum of one whole-time equivalent consultant dedicated to chronic pain management for each 100,000 population.³
- D Other clinical and support staff levels should meet above referenced standards.
- D Accommodation, provision of specialist clinical equipment and electronic IT systems should meet above referenced standards.
- D 100% new patients should have a minimum appointment time of 45 min.
- D There should be an identifiable budget for the pain service.



Suggested data to be collected

- D Number of consultant sessions allocated for oncology/palliative medicine, in-patient, procedural and out-patient work.
- D Number of consultant sessions allocated for administration and supporting professional activities.
- D Average duration of out-patient new patient consultation times.
- D Survey of members of the chronic pain team to assess if they have access to the resources including accommodation required to run clinics and other sessions.
- D Presence of networked computers in consulting rooms and areas from where phone calls are made to patients.
- D Presence of identifiable budget for pain service.

Common reasons for failure to meet standard

- D Lack of resources.
- D Lack of prioritisation by health boards or other purchasers.
- D Organisational failure.

Related audits

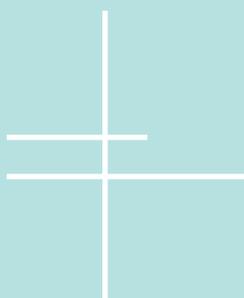
The National Pain Audit: Phase I (<http://www.nationalpinaudit.org>)

CPD and Curriculum mapping

Training curriculum competences: PM_HS_06, PM_AK_14, 16

References

- 1 Department of Health Clinical Standards Advisory Group. Services for patients with pain. *DH*, London March 2000 (http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4007468&chk=mVIBUb).
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- 3 Anaesthetists and non-acute pain management. *AAGBI*, London 1993 (<http://www.aagbi.org/sites/default/files/nonacuteeg3.pdf>).
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11.16

Audit of Pain Management Programmes

Dr R Makin, Miss L Moores, Dr H Twiddy

Why do this audit?

The provision of interdisciplinary pain management programmes can, in well selected patients, reduce psychological distress and improve physical function.^{1,2} The provision of pain management programmes has grown, often with demand outstripping supply. Robust audit data encourages both the delivery of quality care and demonstrates the effectiveness of such treatments in future service planning and commissioning. This is particularly important with chronic pain services currently under the spotlight of the National Pain Audit, in the collection phase of patient reported outcome measures of treatments provided.

Best practice: research evidence or authoritative opinion

Evidence suggests that pain management programmes delivered by an interdisciplinary team are more effective than single mode treatments.³

Core staff needed to run a pain management programme include: clinical psychologist, physiotherapist and a medically qualified person (most commonly a consultant in pain medicine). Occupational therapists and nurses may also be involved.⁴ A designated area should be provided for the provision of pain management programmes within a pain service.

All staff work under psychological principles, led by a clinical psychologist. There is evidence for the efficacy of pain management programmes based upon cognitive behavioural principles, including acceptance and commitment therapy.⁵

Suggested indicators

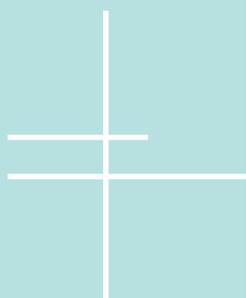
- D Pain relief is not the primary goal.
- D A distinction needs to be made between statistically significant change and clinically meaningful change.
- D % patients who are significantly improved on self-reported measures of depression, disability and pain acceptance.
- D % patients who are significantly worse on each measure.
- D A proposed framework for interpreting the clinical importance of treatment outcomes in clinical trials of the efficacy and effectiveness of chronic pain treatments is the Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials (IMMPACT).⁶
- D Minimal benefit 10–20% change.
- D Moderately important benefit at least 30% change.
- D Substantially important benefit at least 50% change.

Proposed standard or target for best practice

- D Ensure operational aspects of programme are compliant with the British Pain Society's recommended guidelines.
- D Minimal patient non-completion.
- D Patients should be followed up for at least 12 months at agreed intervals to assess the maintenance of treatment effects. This has been particularly supported in children and adolescents.⁷

Suggested data to be collected

- D Validated measures of outcome should be used to assess the effectiveness of pain management programmes.⁸ Treatment outcomes should include measures of disability and emotional functioning.
- D More recently attention has been paid to the measurement of psychological flexibility in adaptive functioning.⁹
- D Patient satisfaction questionnaires should be collected.



Common reasons for failure to meet standard

- D Poor selection of patients.
- D New onset of biomedical symptoms.
- D Inadequate or poor:
 - ◆ administration of programme
 - ◆ staff skills
 - ◆ teamwork
 - ◆ time allocation
 - ◆ delivery of programme
 - ◆ cohesion within the group
 - ◆ agreement with terms of reference of programme.

Related audits

The National Pain Audit (<http://www.nationalpainaudit.org>)

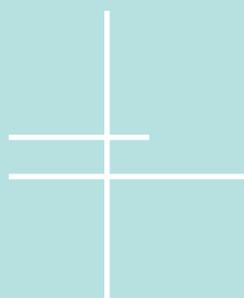
CPD and Curriculum mapping

CPD matrix codes: **2E02, Level 3 Pain Medicine**

Training curriculum codes: **PM_IK_08, PM_AK_03**

References

- 1 Hoffman BM et al. Meta-analysis of psychological interventions for chronic low back pain. *Health Psychology* 2007;**26**:1–9.
- 2 Guidance on the provision of anaesthesia services for chronic pain management. RCoA, London July 2011 (<http://www.rcoa.ac.uk/node/713>).
- 3 Morley S, Eccleston C, Williams AC. Systematic review and meta analysis of randomized controlled trials of cognitive behavioural therapy for chronic pain in adults, excluding headache. *Pain* 1999;**80**:1–13.
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- 6 Dworkin RH et al. Interpreting the Clinical Importance of Treatment Outcomes in Chronic Pain Clinical Trials: IMMPACT Recommendations. *Pain* 2008;**9(2)**:105–121.
- 7 Palermo TM et al. Randomized controlled trials of psychological therapies for management of chronic pain in children and adolescents: an updated meta-analytic review. *Pain* 2010;**148(3)**:387–397.
- 8 Williams AC. Pain measurement in chronic pain management. *Pain Reviews* 1995;**2**:39–63.
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11.17

Long-term use of opioid analgesia in chronic non-malignant pain

Dr L A Colvin

Why do this audit?

While it is recognised that opioids can be effective analgesics, there can also be problems with long term use in terms of tolerance, dependence and effects on the endocrine and immune systems. Patient selection and follow up is important.

If opioids are being used in the chronic setting, then we should ensure that the benefits of continued use outweigh potential adverse effects.

Best practice: research evidence or authoritative opinion

There is good evidence that opioids can be effective analgesics, although this is predominantly in the short to medium term, with a clear need for further research into longer term outcomes. There are a number of guidelines that have been produced, based on the available evidence, that do provide a basis for the use of opioids in clinical practice. The British Pain Society guidelines on the use of opioids in chronic pain have been recently updated¹ and are a useful reference. There are also guidelines from the Canadian Medical Association² and the American Pain Society and the American Academy of Pain Medicine, who commissioned a systematic review of the evidence.³ There is ongoing concern, particularly about iatrogenic addiction and drug diversion,⁴ with the majority of guidelines recommending careful long-term monitoring and re-evaluation of the need for opioid therapy.

The guidelines highlight that long acting, non-injectable opioids should be used, with the avoidance of short acting opioids by any route. In line with the recommendation for regular review, it is also recommended that a single prescriber should oversee the prescription, with a requirement for pain relief to support continued use.

Suggested indicators

There is increasing evidence that simply monitoring pain intensity is inadequate, for assessing a clinically meaningful response to drug therapy.^{5,6,7}

Given the complex nature of chronic pain and its impact on quality of life, more comprehensive indicators of the need for, and the efficacy and safety of, opioid treatment are required including:

- D Documented comprehensive assessment before starting treatment, with discussion of treatment goals and consideration of other appropriate treatments.
- D Regular review at least monthly. This should evaluate pain relief, physical, psychological and social function, sleep, side effects and signs of problem drug use. Changes in other analgesic medication should be monitored and documented.
- D Opioid usage should be monitored to provide an early indication of loss of efficacy or signs of tolerance or dependence requiring further specialist input. Preparation, dose and route should be recorded. Rapid dose escalation or requirements for early prescription issue should trigger early review.

Proposed standard or target for best practice

- D 100% of patients being started on strong opioids should have a documented comprehensive pain assessment.
- D 100% of patients should have regular review and reassessment of their pain and the effectiveness and adverse effects of opioid therapy.

Suggested data to be collected

- D Primary outcome measure: pain relief.
- D Patient knowledge about treatment and awareness of treatment goals.
- D Quality of life measures including cognitive function, mood, sleep, general function, relationships with others.
- D Side effects.
- D Dose, route and preparation.
- D Use of concurrent medication.
- D Frequency of review/follow up plan.

Common reasons for failure to meet standard

- D Inadequate initial assessment and patient selection.
- D Incorrect use of opioids including poor compliance, opiophobia, therapy started with inadequate follow up arrangements.
- D Problems with regular review and assessment due to limitations in availability of healthcare or due to patient-related factors, such as failure to attend for review.

Related audits

- 11.7 – Management of non-surgical pain in the adult patient
- 11.11 – Acute pain management and the substance misusing patient
- 11.14 – Management of patients with repeat admissions for acute or chronic pain
- 11.18 – Compliance in the use of oral medication
- 11.20 – Non-medical prescribing for acute and chronic pain patients

CPD and Curriculum mapping

CPD matrix codes: **2E03, Level 3 Pain Medicine**

Training curriculum competences: **PM_BK_04, 06, 07, PM_IK_04 PM_IK_06–08, PM_IK_06, 08, 10, PM_HK_02, PM_HS_01, 04, 06, PM_AK_04, PM_AS_01, 03, 07**

References

- 1 Opioids for persistent pain: Good practice. 2nd ed. *British Pain Society* London 2010 (http://www.britishpainsociety.org/pub_professional.htm#opioids).
- 2 Furlan AD, Reardon R, Weppler C. National Opioid Use Guideline Group. Opioids for chronic noncancer pain: a new Canadian practice guideline. *CMAJ* 2010;**182**:923–930 (<http://www.cmaj.ca/content/182/9/923.full.pdf+html>).
- 3 Chou R et al. Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain. *Pain* 2009;**10**:113–130.
- 4 Von Korff M, Kolodny A, Deyo RA, Chou R. Long-Term Opioid Therapy Reconsidered. *Ann Int Med* 2011;**155**(5):325–328.
- 5 Dworkin RH et al. Evidence-based clinical trial design for chronic pain pharmacotherapy: a blueprint for ACTION. *Pain* 2011;**152**:S107–S115.
- 6 Dworkin RH et al. Research design considerations for confirmatory chronic pain clinical trials: IMMPACT recommendations. *Pain* 2010;**149**:177–193.
- 7 Dworkin RH et al. Interpreting the clinical importance of treatment outcomes in chronic pain clinical trials: IMMPACT recommendations. *Pain* 2008;**9**:105–121.



11.18

Compliance in the use of oral medication

Dr B Miller

Why do this audit?

There is increasing evidence that failure to comply with drug therapy is a major barrier to the successful treatment of many conditions.¹

Without a clear idea of whether drugs are taken and taken correctly, the clinician is unable to make appropriate decisions as to whether the patient would benefit from a repeat trial with a different approach (e.g. simpler schedule, lower dose), a different 'flavour' of medication (e.g. pregabalin instead of gabapentin), or an entirely new option.

As CPD activity, this audit will show compliance with GMC guidelines² and, for trainees, will be evidence of higher or advanced training.

Best practice: research evidence or authoritative opinion

The issue shows surprisingly little variation from symptom control³ to life threatening disease management,⁴ with rates of non-adherence in the early stages of treatment around 30–50%.

The reasons are many and complex, but there is evidence that the prescriber can help to reduce this.^{5,6}

Suggested indicators

- D % of patients taking the drug at prescribed doses at 6–8 weeks.⁷
- D % of patients taking sub-optimal doses.
- D % of patients no longer taking medication and reason for this.
- D % of patients with side effects leading to sub-optimal treatment or abandonment.
- D % abandonment due to lack of efficacy.

Proposed standard or target for best practice

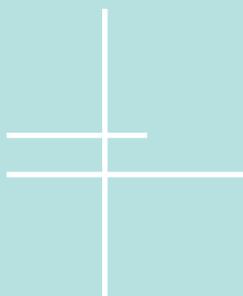
- D 65% taking the drug correctly at 6–8 weeks.
- D Figures for abandonment due to lack of efficacy for a correctly taken medication should not be included in the results.
- D The other indicators have no recognised standards, but may provide local services with information to help improve compliance.

Suggested data to be collected

- D Data will normally be obtained by patient interview – this may be face to face or by telephone – and subject to the limits of these methods.
- D Other methods, such as the reports of carers, records of prescriptions, and bottle and tablet counts, may occasionally be used to supplement this.

Common reasons for failure to meet standard

- D Failure to understand the rationale behind drug use (e.g. 'Will this anti-epileptic drug give me epilepsy?').
- D Lack of clear instructions on how to take drug (e.g. PRN, escalating dose).
- D Lack of efficacy.
- D Side effects, especially if unexpected or without advice on management.



Related audits

11.17 – Long term use of opioid analgesia in chronic non-malignant pain
 11.20 – Non medical prescribing for acute and chronic pain patients

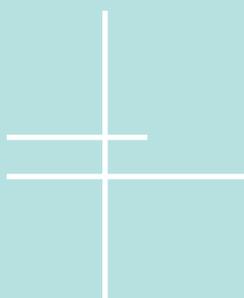
CPD and Curriculum mapping

CPD matrix codes: **2E03, Level 3 Pain Medicine**

Training curriculum competences: **PM_IK_06, PM_HS_01, PM_AS_07**

References

- 1 Bloom BS. Daily regimen and compliance with treatment. Editorial. *Br Med J* 2001;**323**:647.
- 2 Good Practice in Prescribing Medicines. Section 6b. *GMC*, London September 2008 (http://www.gmc-uk.org/guidance/ethical_guidance/prescriptions_faqs.asp).
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- 6 Peterson AM et al. Meta-analysis of trials of interventions to improve medication adherence. *Am J Health Syst Pharm* 2003;**60**(7):657–665.
- 7 Barber N et al. Patients' problems with new medication for chronic conditions. *Qual Saf Health Care* 2004;**13**(3):172–175.



11.19

Lumbar epidural steroid injections – standards, practice and outcomes

Dr B Miller

Why do this audit?

The use of lumbar, and caudal, epidural steroid injections is a widespread practice in the management of radicular and spinal stenosis-related pain, with or without back pain.^{1,2,3,4}

There is debate as to their place and efficacy, but not on their safe administration. Auditing the outcome of epidural injections and making these figures available locally may allow pain services to provide patients with realistic expectations of outcomes and demonstrate to local healthcare commissioning services that an injection service has utility despite any controversy.

As CPD activity, this audit will show compliance with GMC guidelines⁵ and, for trainees, will be evidence of higher or advanced training.

Best practice: research evidence or authoritative opinion

- D Guidelines on standards of practice exist.^{6,7}
- D Adverse event rates of dural tap are 2.5%, transient headache 2.3% and a transient increase in pain 1.9%.^{8,9}
- D Benefits are more difficult to predict, being dependent on the underlying condition, the time that symptoms have been present, previous treatments attempted (e.g. surgery) etc.

Suggested indicators

- D Evidence of consent.
- D An environment with full resuscitation facilities.
- D Measurement of heart rate and non-invasive blood pressure during procedure.
- D Evidence of review within 12 weeks.
- D Minor/short-term complications.
- D Major/long-term complications.
- D Results at 12 weeks.

Proposed standard or target for best practice

- D 100% evidence of consent including: the use of steroids off-licence; common, and, rare but significant side effects.⁷
- D 100% procedural and 30 mins post-procedural measurement of heart rate and non-invasive blood pressure.
- D 100% use of fluoroscopy.⁷
- D 90% evidence of review by 12 weeks including:
 - ◆ < 3% minor complications, effects lasting < 12 weeks⁷
 - ◆ < 1% major complications, effects lasting > 12 weeks.¹⁰

Suggested data to be collected

- D Review of consents, theatre records and case notes.
- D Review of fluoroscopy image storing systems (were available).
- D Out-patient or telephone review data for complications.
- D Patient satisfaction data.

Common reasons for failure to meet standard

- D Lack of awareness of FPM guidelines.
- D Lack of resources.
- D Lack of trained staff.
- D Failure to record procedural images – where facilities are available.
- D Failure to obtain patient's report of results (e.g. patient doesn't attend clinic, or can't be contacted or clinician forgets to capture information).

Related audits

11.22 – Medial branch neurotomy for lumbar facet joint spinal pain

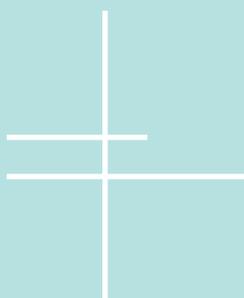
CPD and Curriculum mapping

CPD matrix codes: **2E02, Level 3: Pain Medicine**

Training curriculum competence: **PM_HK_01, PM_HS_02, PM_AK_05, PM_AS_04**

References

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- 2 Peloso P et al. Medicinal and injection therapies for mechanical neck disorders. *Cochrane Database of Systematic Reviews* CD000319 2006 (<http://www.cochrane.org/reviews/en/ab000319.html>).
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- 4 McQuay HJ et al. Systematic review of outpatient services for chronic pain control. *Health Technol Assess* 1997;**1**(6):i–iv,1–135.
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11.20

Non-medical prescribing for acute and chronic pain patients

Dr R Knaggs

Why do this audit?

Over recent years the government has developed a role for prescribing by appropriately qualified non-medical practitioners. From May 2006, nurse independent prescribers, have been able to prescribe any medicine for any medical condition within their competence until recently, including some controlled drugs for limited indications.¹ Similarly, pharmacist independent prescribers were able to prescribe any medicine, with the exception of any controlled drugs, for any medical condition within their competence. In April 2012 legislative changes now permit nurse independent prescribers to prescribe any schedule 2–5 controlled drugs for any medical condition, within their clinical competence, removing the previous limitations and pharmacist independent prescribers to prescribe any schedule 2–5 controlled drugs for any medical condition, within their clinical competence.² These changes do not apply to the prescribing of cocaine, diamorphine or dipipanone for the treatment of addiction which is restricted to Home Office licensed doctors. In addition nurses, pharmacists and a range of allied health professionals may use supplementary prescribing involving a voluntary prescribing partnership between an independent prescriber (doctor or dentist) and a non-medical prescriber to implement an agreed patient specific clinical management plan (CMP) with the agreement of the patient.³

Best practice: research evidence or authoritative opinion

Best practice for non-medical prescribing is dictated by the legal framework under which it was developed.^{4,5,6,7}

Suggested indicators

Prescribing activity

- D Total number of items prescribed over a predetermined period.
- D Number of prescriptions written over a predetermined period.
- D Medicines prescribed by non-medical prescriber during a predetermined period.
- D Number of times each patient has been reviewed by non-medical prescriber over a predetermined period.

Supplementary prescribing

- D Is a CMP available for each patient?
- D Is the CMP specific for each patient?
- D Is each CMP completed fully?
- D Is each CMP legible?
- D Has each patient been reviewed by a medical practitioner within the last 12 months?

Proposed standard or target for best practice

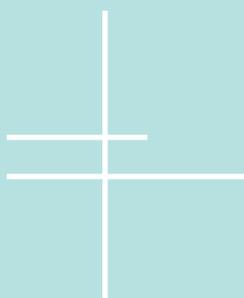
Prescribing activity

- D There are no standards for best practice; however healthcare professionals should regularly prescribe medication to maintain competence.
- D All medicines prescribed should be in accordance with national or local prescribing policies^{5,6,7} and guidelines.

Supplementary prescribing

- D A clinical management plan (CMP) is available for all (100 %) patients.
- D The CMP is individualised for all (100 %) patients.
- D All (100 %) CMPs either use the Department of Health template or contain identical information fields.
- D All (100 %) CMPs are legible.
- D All (100 %) patients have had a review by a medical practitioner within the preceding 12 months.

Suggested data to be collected	D Data will be collected by prospective data collection or retrospective documentation review.
Common reasons for failure to meet standard	<ul style="list-style-type: none"> D Misconceptions and misunderstanding regarding nature and practice of non-medical prescribing. D Insufficient time to complete CMP or illegible CMP. D Infrequent clinical supervision with medical practitioner: D Prescribing outside local prescribing guidance or CMP. D Availability of training places for non-medical health care practitioners.
Related audits	<p>11.17 – Long-term use of opiate analgesia in non-malignant pain</p> <p>11.18 – Compliance in the use of oral medication</p>
CPD and Curriculum mapping	<p>CPD matrix codes: 2E02, Level 3: Pain Medicine</p> <p>Training curriculum competence: PM_HK_08</p>
References	<ol style="list-style-type: none"> 1 Nursing and Midwifery Council. Standards of proficiency for nurse and midwife prescribers <i>NMC</i>, London 2006. 2 Nurse and pharmacist independent prescribing changes announced (http://www.dh.gov.uk/health/2012/04/prescribing-change/). 3 National Prescribing Centre. Supplementary prescribing: A resource to help health care professionals to understand the framework and opportunities. <i>NPC</i>, Liverpool 2003. 4 National Prescribing Centre. Non-medical prescribing by nurses, optometrists, pharmacists, physiotherapists, podiatrists and radiographers. A quick guide for commissioners. <i>NPC</i>, Liverpool March 2010. 5 National Prescribing Centre. A single competency framework for all prescribers. <i>NPC</i>, Liverpool May 2012. 6 Department of Health. Supplementary Prescribing by Nurses, Pharmacists, Chiropodists/ Podiatrists, Physiotherapists and Radiographers with the NHS in England. A guide for implementation. <i>DH</i>, London May 2005. 7 Department of Health. Improving patients' access to medicines: A guide to implementing nurse and pharmacist independent prescribing within the NHS in England. <i>DH</i>, London April 2006.



Payment by results

Dr O Olukoga

11.21

Why do this audit?

Payment by Results (PbR) is the system by which hospitals in England are paid for treatments given to patients for admitted care, outpatients and accident and emergency care.¹

It was introduced in 2003–04, and by 2006–07 all NHS trusts were remunerated for patient care by this system.

Pivotal to the PBR system are accurate diagnosis using the ICD-10 (International Classification of Diseases 10th Revision)² and application of the correct OPCS-4 code³ as well as the HRG grouping at deriving the tariff.

The clinician's role is very important in the accurate documentation of diagnosis and treatment undertaken so as to allow for correct coding and tariff to be applied to the treatment in order to inform appropriate remunerations for work undertaken.

HRGs are derived from reference costs submitted by NHS trusts annually. Inaccurate coding and under-reporting could lead to an inaccurate reference cost exercise and inaccurate tariff.

Best practice: research evidence or authoritative opinion

The ICD-10 (International Classification of Diseases 10th Revision) is used for coding diagnosis on the NHS.

The OPCS-4 is used by the NHS to document operations, procedures and interventions. The current version in use is the OPCS-4.6, which has been in use since April 2011.³

When a patient is treated, NHS coders enter the ICD-10 diagnosis from the patient notes and the diagnosis into hospital Patient Administration system (PAS). This is used to describe the episode of care.

These are then grouped into healthcare resource groups (HRGs) which are standard groupings of clinically similar diagnosis and interventions which use similar healthcare resources.⁴

Suggested indicators

- D Diagnosis ICD-10 codes.
- D Procedure codes.
- D HRG grouping.
- D Reference Cost Index.

Proposed standard or target for best practice

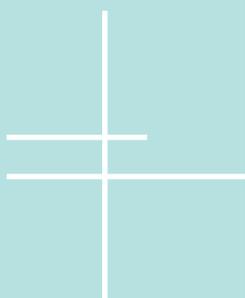
- D 100% activity recorded accurately and in agreement with Trust coders.
- D 100% accuracy of procedure codes and HRG codes.
- D Reference Cost Index of approximately 100.

Suggested data to be collected

- D Diagnosis ICD-10 codes.
- D Procedure codes.
- D HRG grouping.
- D Reference Cost Index.

Common reasons for failure to meet standard

- D Lack of awareness of coding system.
- D Lack of awareness of importance of coding.
- D Lack of liaison between clinicians and coders.
- D Inaccurate documentation of diagnosis.
- D Inaccurate documentation of treatment offered.
- D Inaccurate documentation of co-morbidity.

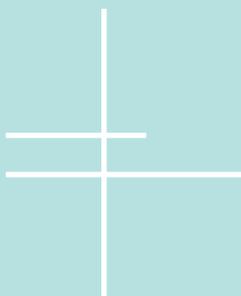


CPD and Curriculum mapping

References

Training curriculum competence: PM_AK_15

- 1 A simple guide to Payment by Results. *DH*, London 2010 (http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_120254.pdf).
- 2 World Health Organization International Classification of Diseases (ICD-10) (<http://www.who.int/classifications/icd/en/>).
- 3 OPCS 4.6 latest version (<http://www.connectingforhealth.nhs.uk/systemsandservices/data/clinicalcoding/codingstandards/opcs4/opcs-4.6>).
- 4 Pain Management HRGs (http://www.ic.nhs.uk/webfiles/Services/casemix/Pain_Management_HRGs.pdf).



11.22

Medial branch neurotomy for lumbar facet joint spinal pain

Dr K Kyriakides, D S Gupta, Dr A Swanepoel

Why do this audit?

Lumbar facet (Zygapophyseal) joints are one of various structures in the spine that can act as primary pain generators and a source of somatic low back pain. Lumbar facet joints have been implicated as a cause of chronic pain in up to 15–45% of low back pain patients.^{1,2}

Despite all efforts by clinicians around the world putting forward various symptoms and signs as predictors of lumbar facetogenic pain, none of these features can reliably lead to a firm diagnosis. Both medial branch of the dorsal primary rami (MBDPR; nerve supply to the facet joint) blocks and intra-articular injections have been shown to be equally effective in diagnosing lumbar facetogenic low back pain. Comparative studies of MBDPR and intra-articular injections using local anaesthetic and steroid found no difference in immediate pain relief.³ False positive rates of single diagnostic block have been reported to range from 17–41%.⁴ The false positive rate is reduced to 3% with two sets of diagnostic blocks.

Once correct diagnosis has been accurately made, radiofrequency denervation (RF) of the MBDPR has been demonstrated to be very effective in the treatment of facetogenic low back pain; Dreyfuss et al reported that at one year, 60% of their patients have 80% pain relief and 80% can expect 60% pain relief.⁵ Bogduk in a narrative review summarises the available evidence for RF of the MBDPR and highlights the problems with older studies emphasising the need for proper patient selection and appropriate technique of RF for optimal outcome.⁶

MBDPR blocks using local anaesthetic and/or steroids have also been shown to have a therapeutic role.⁷ There is considerable debate about the evidence base for the intra-articular injection of local anaesthetic and/or steroids.

This audit aims to assess procedural aspects, selection of patients, treatment and outcome measures for pharmacological and RF neurotomy of MBDPR for facetogenic low back pain.

Best practice: research evidence or authoritative opinion

- D General recommendations/guidelines on standards of practice for other interventional pain procedures, published by the Faculty of Pain Medicine of the Royal College of Anaesthetists.⁸
- D Recommendations by the International Association for the Study of Pain (IASP) for the precise diagnosis of facetogenic lumbar low back pain.⁹
- D Best practice guidelines for the management of facetogenic low back pain published by the International Spinal Intervention Society (ISIS).¹⁰
- D Evidence-based guidelines for the diagnostic and procedural aspects of RF denervation.^{4,11}

Suggested indicators

- D Evidence of informed consent.
- D Environment with fluoroscopy/full resuscitation facilities.
- D Monitoring of vital signs in line with local arrangements, during procedure and 30 min post-procedurally.
- D Assessment of diagnosis of facetogenic low back pain.
- D Assessment of procedural/technical aspects of RF denervation.
- D Evidence of follow up within 8–12 weeks.
- D Assessment of clinical effectiveness/outcome of RF denervation.
- D Assessment of complications – both minor/short-term and major/long-term.

Proposed standard or target for best practice

- D 100% evidence of informed consent.
- D 100% provision of environment with fluoroscopy/full resuscitation facilities.
- D 100% procedural and 30 min post-procedural monitoring as per local arrangements.
- D 100% diagnosis reached through two sets of diagnostic blocks.
- D 100% evidence of follow up within 8–12 weeks (via telephone or outpatient review).
- D < 2% incidence per lesion, of minor complications resulting in morbidity.¹²
- D <0.1% major complications resulting in morbidity.

Suggested data to be collected

- D **Epidemiological data:** age, gender, weight, ethnicity, number and spinal levels approached.
- D **Outcome measures:** in a number of different domains which collectively look at several quality of life indicators including pain relief (degree and duration), effect on sleep and mood, effect on mobility and ability to work, and utilisation of healthcare resources.

Common reasons for failure to meet standard

- D Lack of awareness of existing evidence-based/best practice guidelines.
- D Lack of appropriate training.
- D Lack of resources.
- D Lack of trained staff.
- D Lack of capturing data regarding clinical effectiveness/complication rates.

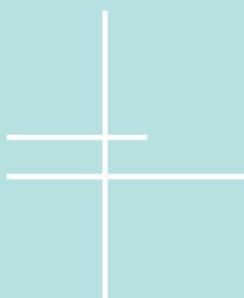
CPD and Curriculum mapping

CPD matrix codes: **Level 3: Pain Medicine**

Training curriculum competence: **PM_HK_01**

References

- 1 Schwarzer A et al. Clinical features of patients with pain stemming from the lumbar zygapophyseal joints. Is the lumbar facet syndrome a clinical entity? *Spine* 1994;**19**:1132–1137.
- 2 Manchikanti L et al. Prevalence of lumbar facet joint pain in chronic low back pain. *Pain Physician* 1999;**2**:59–64.
- 3 Marks R C et al. Facet joint injection and facet nerve block: A randomised comparison in 86 patients with chronic low back pain. *Pain* 1992;**49**:325–328.
- 4 Cohen SP et al. Pathogenesis, diagnosis and treatment of lumbar zygapophyseal (facet) pain. *Anaesthesiology* 2007;**106**:591–614.
- 5 Dreyfuss P et al. Efficacy and validity of radiofrequency neurotomy for chronic lumbar zygapophysial joint pain. *Spine* 2000;**25**:1270–1277.
- 6 Bogduk N, Dreyfuss P, Govind J. A narrative review of lumbar medial branch neurotomy for the treatment of back pain. *Pain Med* 2009;**10**:1035–1045.
- 7 Boswell MV et al. A systematic review of therapeutic facet joint interventions in chronic spinal pain. *Pain Physician* 2007;**10**:229–253.
- 8 Recommendations for good practice in the use of epidural injection for the management of pain of spinal origin in adults. *Faculty of Pain Medicine of the RCoA*, London April 2011 (<http://www.rcoa.ac.uk/node/2206>).
- 9 Merskey H, Bogduk N (Eds). Lumbar spinal or radicular pain syndromes. In: *Classification of chronic pain* (2nd Edn). *IASP Press*, Seattle 1994: p181.
- 10 Bogduk N. Practice guidelines for spinal diagnostic and treatment procedures. *International Spinal Intervention Society*, California 2004.
- 11 Hooten et al. Radiofrequency neurotomy for low back pain: Evidence-based procedural guidelines. *Pain Med* 2005;**6**:129–138.
- 12 Kornick C et al. Complications of lumbar facet radiofrequency denervation. *Spine* 2004;**29**:1352–1354.



11.23

Intrathecal drug delivery in the management of cancer-related pain

Dr L Lynch, Dr K Grady

Why do this audit?

There are no prospective audits of ITDD (intrathecal drug delivery) systems, such as the one proposed, for cancer-related pain, although retrospective audits and surveys have been reported.

Current practice varies widely depending on local factors such as funding and expertise, such that some centres will run largely external systems backed up with a community nursing team and others a physician run fully implanted system setup with no nursing support at all. Some pain clinics may not support any IT catheter work at all and some only for hospice or hospital based in-patients.

There is no standardisation or consensus regarding the hardware implanted, drug doses used, or aftercare in the UK. It is not known whether there is overall superiority of one system against another or whether each is effective.

There are consensus statements published which relate to specific drugs used and the maximum doses and concentrations. There are also recommendations published addressing best practices, but no audit of application.

Some drugs are specifically contraindicated for intrathecal use including ketamine and methadone (which are neurotoxic) and diamorphine is contraindicated for use in Medtronic Synchromed pumps, as it can cause pump stall. It is not clear whether or not these drugs are still in use and whether problems are seen.

Best practice: research evidence or authoritative opinion

Best practice for intrathecal drug delivery demands careful patient selection. Input at every stage is the province of the multi-professional and multi-disciplinary team. A minimum resource base for both positioning IT catheters for attachment to external pumps and siting the fully implanted systems, has been described and this includes not only the ability of the operator; but a sterile theatre environment with fluoroscopy, and aftercare facilities. 24-hour medical cover; experienced other team members and neurosurgical backup are also pre-requisites.^{1,2} It is of note that the British Pain Society recommendations¹ suggest this technique is underused in the management of cancer pain. Consensus statements have been published guiding the choice of drugs, concentrations chosen and maximum doses,³ although it is noted that these are more relevant for chronic non-cancer pain than patients with a very limited life expectancy.

Suggested indicators

- D Patient's assessment of pain relief, quality of life and function, although balance between collecting data and using scoring systems capable of being used by those suffering from advanced cancer and related problems. Brief Pain Inventory⁴ and patient's global impression of change as minimum with other options available for the more robust e.g. a 5 point EQ-5D.⁵
- D Management of incident and breakthrough pain.
- D Incidence of infection.
- D Incidence of granulomata.
- D Analgesic drug doses and changes.
- D Healthcare utilisation.

Proposed standard or target for best practice

- D Indications: adherence to recommendations.
- D Assessment: adherence to recommendations e.g. MRSA screening.
- D Antibiotic prophylaxis (at time of implant).
- D Recorded reduction in pain and improvement in function scores (pain reduction of 30–50%).
- D Drug-related adverse events recorded e.g. granulomata.
- D Catheter/pump-related adverse events recorded e.g. infections (adverse events are common and occur at 0.45 events per patient per year).
- D Duration of life compared with predicted life expectancy recorded.

Suggested data to be collected

- D Demographics.
- D Site and nature of pain (nociceptive or neuropathic or mixed).
- D Primary cancer and staging.
- D Estimated life expectancy (death imminent, less than 3 months, greater than 3 months but with progressive/recurrent disease or cancer survivor).
- D Test dose – yes/no, single shot/infusion, drugs used and result.
- D Implant date.
- D Catheter and pump details e.g. fully implanted system or tunnelled catheter and external pump.
- D Drug details – which drugs used, concentrations and doses
- D Background infusion details.
- D Bolus details – drugs and doses, duration of bolus infusion, lock-out interval, maximum activations set and doses actually used.
- D Other analgesic drugs and daily doses.
- D Brief Pain Inventory.⁴
- D EQ-5D.⁵
- D Patient recorded outcome measures; patient's impression of usefulness, physician's impression of improvement.
- D Healthcare resource utilisation – GP visits/hospice use/hospital inpatient.
- D Free text e.g. disease progression.

Common reasons for failure to meet standard

- D Timely referral of patients. Local referral practices from oncology, palliative medicine and hospices, as well as surgeons, treating physicians and GPs affect when, in the course of their disease, a patient is seen. Early referral may lead to a more planned procedure or referral to a centre offering an appropriate technique.
- D Funding. Funding of both hardware, drugs and manpower affect the choices available to local teams and their patients, in terms of systems available and site of care.
- D Local practice and expertise.
- D Variable survival and patient group. Life expectancy is notoriously difficult to predict and the actual implant of a system and provision of good quality pain relief and concomitant reduction in huge doses of systemic opioids, may improve prognosis.

Related audits

- D Williams JE, Grady K. Intrathecal Drug Delivery for the management of pain and spasticity in adults; a national audit.² *BPS Pain News* Winter 2008 (http://www.britishpainsociety.org/member_newsletter.htm).
- D Shihab et al. ITDD for chronic pain; a national audit. *Neuromodulation* 2005;**8(2)**:12–20.
- D Peng et al. Survey of the practice of spinal cord stimulators and intrathecal analgesic delivery implants for management of pain in Canada. *Pain Res Management* 2007;**12(4)**:281–285.

CPD and Curriculum mapping

CPD matrix codes: **Level 3: Pain Medicine**

Training curriculum competence: **PM_AK_40–45, PMS_AS_38–42**

References

- 1 Intrathecal Drug Delivery for the management of pain and spasticity in adults; recommendations for best clinical practice. *British Pain Society*, London 2008.
- 2 Deer T et al. Consensus guidelines for the selection and implantation of patients with non-cancer pain for Intrathecal Drug Delivery. *Pain Physician* 2010;**13**:E175–213.
- 3 Deer T et al. Polyanalgesic Consensus Conference 2007. Recommendations for the management of pain by Intrathecal Drug Delivery; report of an interdisciplinary expert panel. *Neuromodulation* 2007;**10**:300–328.
- 4 Keller J et al. British Pain Inventory. *Clin Journal Pain* 2004;**20(5)**:309–318.
- 5 Euroqol Group. Euroqol – a new facility for the measurement of health related quality of life. *Health Policy* 1990;**16**:199–208.

11.24

Individual performance template for pain medicine anaesthetists

Dr M B Taylor, Dr G Simpson

Why do this audit?

'Revalidation is the process by which doctors will have to demonstrate to the GMC, normally every five years, that they are up-to-date and fit to practise.' (NHS Revalidation Support Team)

Individual performance in this document is not a clinical audit. The purpose is to provide a benchmark, with examples, of the categories of supporting information relevant to pain medicine which are necessary for revalidation. The scope is restricted to the pain medicine part of practice.

Check the boxes adjacent to the text if it applies to your current appraisal/revalidation practice. Aim for scores > 36/43.

Best practice: research evidence or authoritative opinion

The GMC has published 'the Good Medical Practice Framework for appraisal and revalidation'.^{1,2} The Framework, which is based on Good Medical Practice and will be the standard approach for all appraisals, consists of 4 domains each described by 3 attributes. Supporting the Framework are The Good Anaesthetist³ (published by the RCoA), and the Good Pain Medicine Specialist⁴ (published by the Faculty of Pain Medicine), to map the specialist standards of practice to the GMC domains and attributes.

Domain 1 – Knowledge, skills and performance

- 1.1 Maintain your professional performance
- 1.2 Apply knowledge and experience to practice
- 1.3 Ensure that all documentation recording your work is clear, accurate and legible

Domain 2 – Safety and quality

- 2.1 Contribute to and comply with systems to protect patients
- 2.2 Respond to risks to safety
- 2.3 Protect patients and colleagues from any risks posed by your health

Domain 3 – Communication, partnership and teamwork

- 3.1 Communicate effectively
- 3.2 Work constructively with colleagues and delegate effectively
- 3.3 Establish and maintain partnerships with patients

Domain 4 – Maintaining trust

- 4.1 Show respect for patients
- 4.2 Treat patients and colleagues fairly and without discrimination
- 4.3 Act with honesty and integrity

See appendix I for detailed application of these domains to pain medicine

The portfolio of evidence assembled about the Framework should be used by the pain medicine doctors to:

- D reflect on their practice and their approach to pain medicine
- D reflect on what the information demonstrates about their pain medicine practice and the pain service where they work
- D identify areas of practice where they could make improvement or undertake further development
- D demonstrate they are up to date and fit to practise

The Academy of Medical Royal Colleges has published a structured reflective template to allow doctors to document their reflections for their portfolio.⁵ The supporting information detailed below is not a comprehensive list of everything required in all the above domains, but aims to highlight the most important requirements in pain medicine practice. No patient identifiable data must be present in the portfolio.

Suggested data to be collected

1. General Information

Scope of work

- D Your **job plan** must be balanced between pain medicine and anaesthetic sessions to allow appropriate maintenance of skills especially in relation to on-call commitments.
- D Your **whole practice description** should include information about your pain medicine multidisciplinary team and your role within the team. Detail how the team functions including pain MDT, CPD and clinical governance meetings.
- D If your pain service implants **intrathecal infusion pumps** you must provide information about how your service provides continuous out-of-hours emergency cover.
- D Your **workload** (continuously recorded logbook including outcome data e.g. with new/discharge, BPI data). Details of:
 - ◆ Annual numbers of new out-patient seen and diagnostic categories,
 - ◆ Annual number of follow up patients seen. New to follow up ratio referenced to national data.
 - ◆ Annual number and type of procedures performed. Details of complex procedures.
- D Details of how you are achieving the objectives detailed in the **personal development plan (PDP)** from your last appraisal. The PDP should reflect the scope of work as a doctor and take into account the principles outlined in the RCoA Guidelines for Continuing Professional development⁶ and levels 1–3 of the CPD matrix.⁷
- D Details of any issues concerning **probity** or **health**.

2. Keeping up to date

Continuing Professional Development

- 1 You must meet the objectives of your personal development plan agreed at appraisal.
- 2 CPD must cover the full scope of your clinical and non-clinical practice including training for educational supervision, research and management.
- 3 Use the principles outlined in the RCoA Guidelines for Continuing Professional Development⁵ and levels 1–3 of the CPD Matrix.⁷
- 4 Keep records and minutes of meetings attended including action reports after MDT/governance meetings.
- 5 Complete Reflective templates after CPD activities.
- 6 Achieve at least 50 credits/year and at least 250 over the 5-year revalidation cycle.
- 7 Of the 50 annual credits a minimum of 20 external and 20 internal should be obtained.
- 8 Register and use the RCoA CPD online (<http://www.cpd.rcoa.ac.uk>).

3. Review of your practice⁸

You will need to demonstrate you participate in activities that review and evaluate your pain medicine practice to show quality improvement activity, and, where possible, evidence and reflection of personal performance against recommended standards/guidelines.

- 1 **Clinical audit:** a minimum of one complete audit cycle (audit, practice review and re-audit) in every 5-year revalidation cycle. You need to show evidence of active engagement and results of:
 - ◆ personal and local audits, using for example, process and standards found in the RCoA Raising the standard compendium of audit recipes (2012).
 - ◆ regular audits within your pain department team of key areas of practice which may include consent, medical record keeping, infection control, compliance with British Pain Society/Faculty of Pain Medicine guidelines.

2 Review of clinical outcomes. Evidence of:

- ◆ participation in national audits, registries and databases where applicable.
- ◆ for interventions with recognised outcome measures, clinical outcomes can be used alongside or instead of audit or case reviews. However there should be evidence of reflection and commentary on personal input, and where needed change in practice. It is recommended all procedures are audited with post-procedure diaries, and BPI at subsequent outpatient visits. This is essential for complex interventions.

3 Case reviews and discussions. These demonstrate your engagement in discussion with your pain medicine colleagues and team in order to enhance and maintain the quality of your work.

- ◆ If these are used as a substitute for clinical audit or clinical outcomes (after discussion with your appraiser) 2 case reviews are necessary each year covering your professional practice over the 5-year revalidation cycle.
- ◆ The case reviews should include the discussion with colleagues at department MDT meetings with reflective comments against national standards and action points.

4 Significant events: clinical incidents, significant untoward incidents. Keep anonymised records of incidents or declare in your appraisal if no incidents.

- ◆ Provide details based on logged data from your local hospital or national incident reporting system.
- ◆ Detail reflection, learning points and action taken.

4. Feedback on your practice⁹

1 Colleague feedback. At least one validated multi-source feedback exercise, from a spread of the healthcare professionals with whom you work, should be undertaken each 5-year revalidation cycle. If available, results should be benchmarked to other pain medicine specialists. Reflections and development needs should be detailed.

2 Patient/carer feedback. At least one validated patient feedback exercise should be undertaken in the revalidation cycle preferably in year two. This allows time for repeat survey if required. Additional patient feedback may be used:

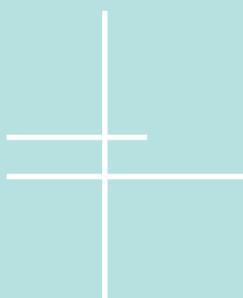
- ◆ pain department patient experience and satisfaction surveys
- ◆ patient reported clinical outcomes.

3 Feedback from clinical supervision, teaching and training.

- ◆ Evidence of training for the role should be given.
- ◆ Evidence of performance from school of anaesthesia/deanery/department is required at least once in a 5-year revalidation cycle.
- ◆ Feedback from course organisers about quality of teaching.

4 Formal complaints. Details of any formal complaints, how they were management and your reflections should be discussed at every appraisal.

5 Compliments. Annual record of unsolicited compliments from patients, carers and colleagues. This is optional. Reflections on compliments can be included.



Common reasons for failure to meet standard

- D Prolonged gestation of revalidation and uncertainty about the requirements. Inadequate guidance from appraisers.
- D Failure to collect appropriate quality and quantity of data.
- D Inadequate pain medicine audit systems; Inadequate data from hospital administration systems; Lack of available benchmark and evidence-based standards.
- D Lack of pain medicine MDT, clinical governance and audit meetings.
- D Failure to complete the audit cycle.

Related audits

All other audits in this section

References

- 1 Good medical practice framework for appraisal and Revalidation. GMC, London 2012 (http://www.gmc-uk.org/doctors/revalidation/revalidation_gmp_framework.asp).
- 2 Supporting Information for appraisal and revalidation. GMC, London 2012 (http://www.gmc-uk.org/doctors/revalidation/revalidation_information.asp).
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