

# NCEPOD Recommendations that remain current

All recommendations from subsequent NCEPOD reports are considered current (Last updated 2014)



## 1989

- The information systems, particularly clinical information systems, in the NHS should be considerably improved to provide accurate and timely information for audit and clinical quality assurance. All consultants should assist in achieving this improvement.
- Local audit meetings are essential to good clinical practice and all consultants should participate.
- Surgeons and anaesthetists should not undertake occasional paediatric practice.

## 1990

- The provision of clinical and management information about patients, including post-mortem records, needs to be improved significantly.

## 1991/92

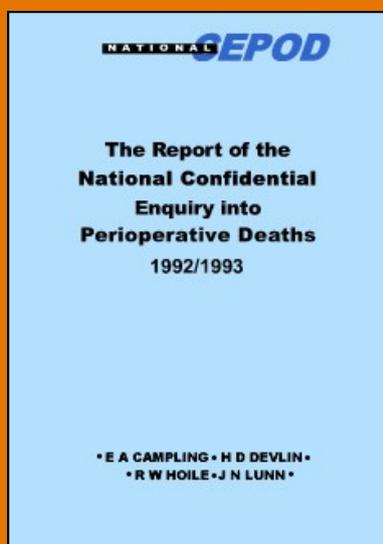
- Surgeons, gynaecologists and anaesthetists must have immediate access to essential services (recovery rooms, high dependency and intensive care units) if their patients are to survive. The previous Reports have emphasised the need to have emergency operating and recovery rooms available 24 hours a day.
- The necessary information available within the NHS under the present system is inadequate. Despite our repeated comment about this, we are still unable to obtain basic and timely data about the numbers of patients who have operations and the number of perioperative deaths. There is a need for an improved method for collection and validation of information on perioperative deaths locally and nationally.

## 1992/93

- Practitioners must recognise their own limitations and not hesitate to consult a more appropriate colleague when managing conditions outside their immediate expertise.
- The skills of the surgeon and anaesthetist should always be appropriate for the physiological and pathological status of the patient.
- Appropriately trained staff must accompany all patients with life-threatening conditions during transfer between and within hospitals.
- There is an urgent need to improve the quality of medical notes. There was found to be considerable variation in quality among those operation notes included with surgical questionnaires, particularly between specialties.

## 1993/94

- Consultation, collaboration and teamwork between anaesthetists, surgeons and physicians should be encouraged and should be the usual practice.
- The availability of staffed (medical, nursing and ancillary) emergency operating theatres on a 24-hour basis is essential; Trusts admitting urgent and emergency cases must ensure that they are provided.
- Continuity of care after operations is essential; local arrangements must ensure that it occurs.
- Systems should be implemented by Trusts to improve the retention and availability of all notes and records of clinical activity.



## 1994/95 Report

- Essential services (high dependency and intensive care beds) are still inadequate and resources need to be increased to correct deficiencies.
- Clinical records and data collection still need to be improved.
- The abilities of locums should be ascertained before appointments are made.

## Who Operates When? (1995/96)

- All hospitals admitting emergency surgical patients must be of sufficient size to provide 24-hour operating rooms and other critical care services. There should also be sufficient medical staff to perform these functions. These provisions should be continuous throughout the year: trauma and acute surgical emergencies do not recognise weekends or public holidays.

## 1996/97 Report

- Morbidity/mortality meetings should take place in all anaesthetic departments. Regular review of mortality following operations is an essential part of anaesthetic practice.
- Surgeons need to be clear about the aims of treatment and benefits for the patient when planning surgery for advanced malignancy.
- Debate whether, in the light of changes to the pattern of junior doctors' working, nonessential surgery can take place during extended hours.
- Nominate an arbitrator, who would decide the relative priority of theatre cases in order to avoid queuing for theatre spaces.

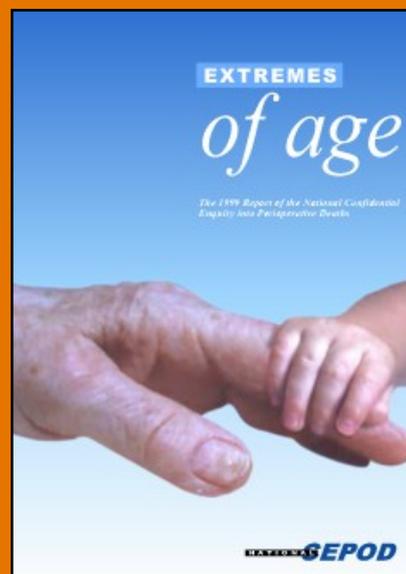
## Extremes of Age (1999)

### Clinical

- The death of any child, occurring within 30 days of an anaesthetic or surgical procedure, should be subject to peer review, irrespective of the place of death.
- Fluid management in the elderly is often poor; it should be accorded the same status as drug prescription. Multidisciplinary reviews to develop good local working practices are required.

### Organisational

- A review of manpower planning is required to enable anaesthetists and surgeons in various specialties to train in the management of small children.
- In the management of acute children's surgical cases a regional organisational perspective is required. This particularly applies to the organisation of patient transfer between units. Paediatric units have a responsibility to lead this process.
- If a decision is made to operate on an elderly patient then that must include a decision to provide appropriate postoperative care, which may include high dependency or intensive care support.
- There should be sufficient, fully-staffed, daytime theatre and recovery facilities to ensure that no elderly patient requiring an urgent operation waits for more than 24 hours once fit for surgery. This includes weekends.
- Clinicians are still unable to return data to NCEPOD as a result of missing patient records. Action is required to improve hospital record systems; this is within the remit of clinical governance.



## Then & Now (2000)

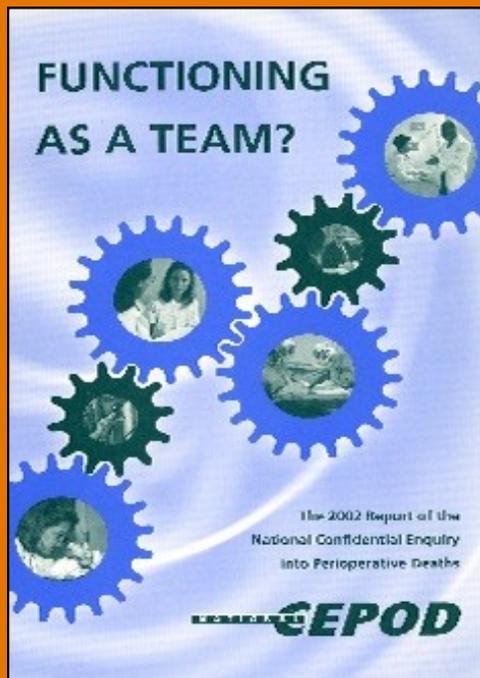
- Trusts and hospitals must establish systems to ensure that all patients' medical records are always available to clinicians. The inability to trace the notes, or parts thereof, of patients who have died, thus preventing surgeons and anaesthetists from completing returns to NCEPOD, is unacceptable.

## Interventional Radiology (2000)

- Monitoring of pulse oximetry, blood pressure and ECG should be performed during all interventional radiology procedures; this should be done by someone other than the radiologist performing the procedure.
- It is important that there are sufficient facilities for a prompt emergency service and ICU/HDU beds for subsequent care.

## PTCA (2000)

- All catheter laboratories should have appropriately equipped recovery areas.
- Regular audit meetings should be held in all interventional cardiology centres.
- Hospitals should provide access to case records for audit purposes.



## Changing The Way We Operate? (2001)

- Surgeons and anaesthetists should partake in multidisciplinary audit, specialists meeting together to discuss improvements in care. These meetings should concentrate less on asking 'Who is to blame?' and more on changing systems of practice to safeguard patients wherever possible.
- All trusts in the NHS should use information systems with a nationally agreed specification. This should apply to case notes, patient information systems etc. Such uniform systems would facilitate the retrieval of standardised information and ease the introduction of the Electronic Patient Record.
- Clinicians, pathologists and coroners should review their working relations and means of communication. The aim must be to improve the quality and timeliness of information provided, in order to inform the understanding of events surrounding a perioperative death.

## Functioning as a Team (2002)

- Management should ensure that an appropriate number of funded sessions for consultants trained in critical care are allocated to the ICU to allow appropriately qualified medical staff to be available to the ICU at all times.
- Failure to diagnose acute appendicitis can still cause death in fit young adults. It is essential that experienced clinicians are available to ensure that cases are not missed
- If a medical team is involved in a patient's perioperative care it should also be involved in any morbidity/mortality review of the case and received a copy of the discharge summary and, where available, the autopsy report.
- Complications may arise following endoscopic surgery. Protocols should be available to deal with these remedial actions should be rehearsed and involve senior experience clinicians.
- Autopsies should be the subject of a formal external audit process. Clinicians should be involved in evaluating the quality of reports and the basis of conclusions drawn, including the cause of death.
- When operations are performed by the surgeon without the presence of an anaesthetist, the existing guidelines on patient monitoring, observation and record keeping should be followed.
- When a formal preoperative medical assessment is indicated, an experienced physician, preferably a consultant, must make it. It is the responsibility of that physician to fully understand the operative risks of the patient's medical condition.
- The decision to operate in complex cases can benefit from the formal involvement of others apart from the surgeon. Critical case specialist should be more directly involved.

## Who Operates When? II (2003)

- Adequate information systems should record and review anaesthetic and surgical activity should be provided.
- All essential services (including emergency operating rooms, recovery rooms, high dependency units and intensive care units) should be provided on a single site wherever emergency/acute surgical care is delivered.
- It should be debated whether, in the light of changes to the pattern of junior doctors' working, nonessential surgery can take place during extended hours.

## Scoping our practice (2004)

- Hospitals should ensure that the appropriate monitoring equipment and resuscitation equipment is available in each of their endoscopy rooms and recovery areas. (*Local hospitals; Primary Care Trusts*)
- In order to produce optimal care for what is a large group of severely ill patients, hospitals should consider establishing formal on-call arrangements. (*Local hospitals*)
- Patients must be assessed by the referring clinician and the endoscopist to justify that the procedure is in the patient's interest. (*Professional specialist associations*)
- The risks and benefits of therapeutic endoscopy should be explained to the patient, and this should be documented on the consent forms as laid down in the Department of Health guidelines. (*Local hospitals*)
- The ability of those with dementia or acute confusion to provide consent should be tested and clearly documented. (*Local hospitals*)
- There should be national guidelines for assuring continuing competency in endoscopy. (*Professional specialist associations*)
- All endoscopy units should perform regular audit and all deaths during, or within 30 days of, therapeutic endoscopy should be reviewed. (*Local hospitals; Professional specialist associations*)
- All those responsible for the administration of sedation should have received formal training and assessment. (*Local hospitals*)
- The decision to use a PEG feeding tube requires an in-depth assessment of the potential benefits to the individual. All patients in whom PEG feeding is proposed should be reviewed by a multidisciplinary team. (*NICE*)

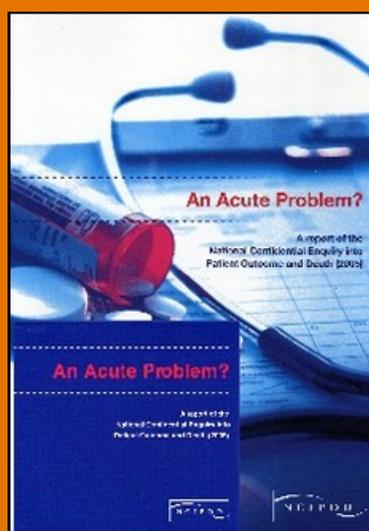
## A service in need of surgery (2005)

- Trusts should ensure the availability outside normal working hours of radiology services including CT scanners.
- Clinicians, purchasers, Trusts and Strategic Health Authorities should review whether elective aortic aneurysm surgery should be concentrated in fewer hospitals.
- Major elective surgery should not take place unless all essential elements of the care package are available.
- Patients with an aortic aneurysm requiring surgery must have equal priority with all other patients with serious clinical conditions for diagnosis, investigation and treatment.
- Trusts should ensure that clinicians of the appropriate grade are available to staff preoperative assessment clinics for aortic surgery patients.
- Strategic Health Authorities and Trusts should co-operate to ensure that only surgeons with vascular expertise operate on emergency aortic aneurysm patients, apart from exceptional geographical circumstances.
- Trusts should ensure that anaesthetists can identify the major cases that they have managed in order to support audit and appraisal.
- Anaesthetic departments should review the allocation of vascular cases so as to reduce the number of anaesthetists caring for very small volumes of elective and emergency aortic surgery cases.
- Trusts should ensure they that they have robust systems for the postoperative care of epidural catheters with accompanying appropriate documentation.
- Anaesthetic departments and critical care units should review together whether vascular surgery patients who routinely receive postoperative mechanical ventilation could be managed in a Level 2 high dependency unit breathing spontaneously.

## An Acute Problem (2005)

- Trusts should ensure that consultant job plans reflect the pattern of demand of emergency medical admissions and provision should be made for planned consultant presence in the evenings (and perhaps at night in busier units).
- Trusts should ensure that consultant physicians have no other clinical commitments when on take. This may be through the development of acute physicians. This will allow for greater involvement in the assessment and treatment planning of new admissions and the review of deteriorating inpatients.
- More attention should be paid to patients exhibiting physiological abnormalities. This is a marker of increased mortality risk.
- Robust track and trigger systems should be in place to cover all inpatients. These should be linked to a response team that is appropriately skilled to assess and manage the clinical problems.
- A clear physiological monitoring plan should be made for each patient. This should detail the parameters to be monitored and the frequency of observations.
- Part of the treatment plan should be an explicit statement of parameters that should prompt a request for review by medical staff or expert multidisciplinary team.
- The importance of respiratory rate monitoring should be highlighted. This parameter should be recorded at any point that other observations are being made. Education and training should be provided for staff that use pulse oximeters to allow proper interpretation and understanding of the limitations of this monitor. It should be emphasised that pulse oximetry does not replace respiratory rate monitoring.
- Consultant physicians should be more involved in the referral of patients under their care to ICU. The referral of an acutely unwell medical patient to ICU without involvement or knowledge of a consultant physician should rarely happen.
- It is inappropriate for referral and acceptance to ICU to happen at junior doctor (SHO) level.
- All inpatient referrals to ICU should be assessed prior to ICU admission. Only in exceptional circumstances should a patient be accepted for ICU care without prior review.
- A consultant intensivist should review all patients admitted to ICU within 12 hours of admission. Regular audit should be performed against this standard.
- Training must be provided for junior doctors in the recognition of critical illness and the immediate management of fluid and oxygen therapy in these patients.

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- Consultants must supervise junior doctors more closely and should actively support juniors in the management of patients rather than only reacting to requests for help.
- Junior doctors must seek advice more readily. This may be from specialised teams e.g. outreach services or from the supervising consultant.
- Outreach services and track and trigger systems should not replace the role of traditional medical teams in the care of inpatients, but should be seen as complementary.
- All entries in the notes should be dated and timed and should end with a legible name, status and contact number (bleep or telephone).
- Each entry should clearly identify the name and grade of the most senior doctor involved in the patient episode.
- Resuscitation status should be documented in patients who are at risk of deterioration. Each trust should audit compliance with this recommendation by regular review of patients who suffered a cardiac arrest and assessment of whether a 'do not attempt resuscitation' order should have been made prior to this event.
- More care should be given to the formulation of the cause of death for presentation to the coroner and transfer into the medical certificate of cause of death.
- On this group of patients, consented autopsies should be sought more often to evaluate complex clinical pathology.
- In coronial autopsies on ICU patients, increased histopathological sampling should be undertaken to improve disease identification, with the consent of

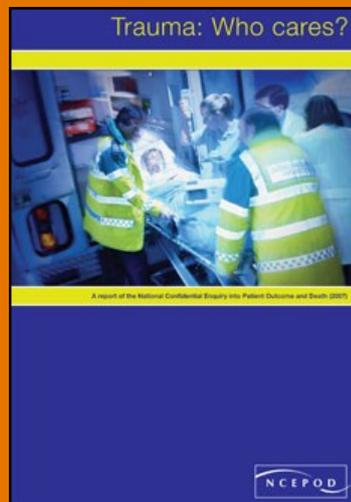


## The Coroner's Autopsy (2006)

- There should be nationally uniform criteria and standards for investigation of reported deaths. This includes the diagnostic level of investigation at autopsy and the definition of what a postmortem examination comprises.
- There should be regular (independent) peer review of coronial autopsy reports and processes to maintain consistency of agreed standards and accountability, and all pathologists and coroners – in training and as continuing professional development– should review the autopsy reports and related documents of their peers.

## Emergency Admissions (2007)

- The initial assessment of patients admitted as an emergency should include a doctor of sufficient experience and authority to implement a management plan. This should include triage of patients as well as formal clerking. The involvement of a more senior doctor should be clearly and recognisably documented within the notes. *(Clinical leads and heads of service)*
- Patients admitted as an emergency should be seen by a consultant at the earliest opportunity. Ideally this should be within 12 hours and should not be longer than 24 hours. Compliance with this standard will inevitably vary with case complexity. *(Clinical directors)*
- Documentation of the first consultant review should be clearly indicated in the case notes and should be subject to local audit. *(Clinical directors)*
- Trainees need to have adequate training and experience to recognise critically ill patients and make clinical decisions. This is an issue not only of medical education but also of ensuring an appropriate balance between a training and service role; exposing trainees to real acute clinical problems with appropriate mid-level and senior support for their decision making. *(Clinical directors)*
- Consultants' job plans need to be arranged so that, when on-take, they are available to deal with emergency admissions without undue delay. Limiting the number of duties that consultants undertake when on-take should be a priority for acute trusts. *(Medical directors)*
- Hospitals which admit patients as an emergency must have access to both conventional radiology and CT scanning 24 hours a day, with immediate reporting. *(Medical directors and clinical directors)*
- Following the initial assessment and treatment of patients admitted as an emergency, subsequent inpatient transfer should be to a ward which is appropriate for their clinical condition; both in terms of required specialty and presenting complaint. *(Clinical directors)*
- Excessive transfers should be avoided as these may be detrimental to patient care. *(Clinical directors)*



## Trauma– who cares? (2007)

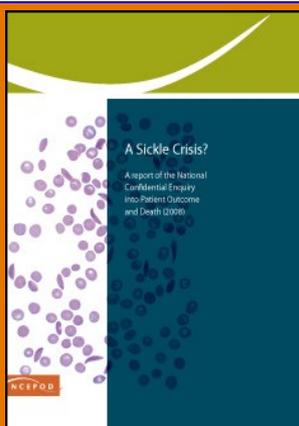
- There is a need for designated Level 1 trauma centres and a verification process needs to be developed to quality assure the delivery of trauma care (as has been developed in USA by American College of Surgeons). *(Royal College of Surgeons, College of Emergency Medicine)*
- All agencies involved in trauma management, including emergency medical services, should be integrated into the clinical governance programmes of a regional trauma service. *(All healthcare providers)*
- Airway management in trauma patients is often challenging. The prehospital response for these patients should include someone with the skill to secure the airway, (including the use of rapid sequence intubation), and maintain adequate ventilation. *(Ambulance and hospital trusts)*
- Trusts should ensure that a trauma team is available 24 hours a day, seven days a week. This is an essential part of an organised trauma response system. *(Hospital trusts)*
- A consultant must be the team leader for the management of the severely injured patient. There should be no reason for this not to happen during the normal working week. Trusts and consultants should work together to provide job plans that will lead to better consultant presence in the emergency department at all times to provide more uniform consultant leadership for all severely injured patients. *(Hospital trusts and clinical directors)*
- Patients with severe head injury should have a CT head scan of the head performed as soon as possible after admission and within one hour of arrival at hospital. *(Trauma team leader and radiology heads)*
- All patients with severe head injury should be transferred to a neurosurgical/critical care centre irrespective of the requirement for surgical intervention. *(Strategic health authorities, hospital trusts, trauma team leaders)*

## Trauma– who cares? (2007)-continued

- Each receiving unit should have up to date guidelines for children which recognise the paediatric skills available on site and their limitations and include agreed guidelines for communication and transfer with specialised paediatric services within the local clinical network. *(Strategic health authorities and hospital trusts)*
- There should be standardised transfer documentation of the patients' details, injuries, results of investigations and management with records kept at the dispatching and receiving hospitals. *(Trauma team leader, Department of Health)*
- Published guidelines must be adhered to and audits performed of the transfers and protocols. *(Hospital trusts)*
- Given the relatively low incidence of severe trauma in the UK, it is unlikely that each individual hospital can deliver optimum care to this challenging group of patients. Regional planning for the effective delivery of trauma services is therefore essential. *(Strategic health authorities, hospital trusts)*
- The current structure of prehospital management is insufficient to meet the needs of the severely injured patient. There is a high incidence of failed intubation and a high incidence of patients arriving at hospital with a partially or completely obstructed airway. Change is urgently required to provide a system that reliably provides a clear airway with good oxygenation and control of ventilation. This may be through the provision of personnel with the ability to provide anaesthesia and intubation in the prehospital phase or the use of *alternative airway devices*. *(Ambulance trusts)*
- Trauma laparotomy is potentially extremely challenging and requires consultant presence within the operating theatre. *(Clinical directors)*
- If CT scanning is to be performed, all necessary images should be obtained at the same time. Routine use of 'top to toe' scanning is recommended in the adult trauma patient if no indication for immediate intervention exists. *(Royal College of Radiology and radiology department heads)*

## A Sickle Crisis (2008)

- In our multi-racial society, it is essential that all doctors should have a basic understanding of the implications of thalassaemia and sickle cell trait. *(General Medical Council)*
- As a minimum, the Department of Health guidance regarding vaccination and prophylactic antibiotics should be followed in order to prevent sepsis from hyposplenism. *(Primary Care Trusts)*
- A multidisciplinary and multi-agency approach is needed in the ongoing pain management of patients with sickle cell disease – essentially this takes place outside hospitals for the majority of patients. *(Primary and Secondary Care Trusts)*
- Regular assessment of acute pain, sedation and respiratory rate should be undertaken and recorded for all patients admitted with sickle cell disease. The frequency of these observations should reflect the degree of pain and dose of opioids administered, to allow recognition of opioid overdose. The development of "track & trigger" systems would greatly enhance better pain control and patient safety. *(Clinical Directors)*
- All staff should be aware that people with sickle cell disease are subject to the diseases that other patients suffer from as well. If there is uncertainty as to whether the problem is sickle cell related, advice should be sought from an experienced clinician. *(Clinical Directors)*
- All sickle cell disease patients should have a carefully maintained fluid balance chart for the duration of their admission. *(Nurses)*
- Patients with sickle cell disease or beta thalassaemia major should be managed by, or have access to, clinicians with experience of haemoglobinopathy management. *(Primary and Secondary Care Trusts)*
- Healthcare centres responsible for the management of patients with haemoglobinopathies should have access to protocols/guidelines from their regional specialist centre. *(Primary and Secondary Care Trusts)*
- Cause of death in sickle cell disease patients must be better evaluated, whether by clinicians reviewing the records and writing a death certificate or by pathologists performing an autopsy. Clinicopathological correlation is critical in this complex disease. *(Clinicians and Pathologists)*
- A national database of patients with haemoglobinopathies should be developed and maintained, to include standardised information on death, for regular audit purposes. *(Department of Health).*



## The heart of the matter (2008)

- Cardiothoracic units need to adhere to the requirement of the National Service Framework for Coronary Artery Disease and use protocols for referrals to their unit. These protocols should be standardised nationally for patients who require coronary artery bypass graft surgery. The degree of urgency of referral should be emphasised within these protocols (*Clinical Directors*).
- Each unit undertaking coronary artery bypass grafting should hold regular pre-operative MDT meetings to discuss appropriate cases. Core membership should be agreed and a regular audit of attendance should be performed (*Clinical Directors*). (*Clinicians and Pathologists*)
- There must be a system in place to ensure that pre-operative investigations are reviewed by a senior clinician and acted upon (*Clinical Directors*).
- There should be a protocol to ensure timely and appropriate review of unstable cases that involves both cardiologists and cardiac surgeons (*Clinical Directors*).
- A “track and trigger” system should be used to provide early recognition of clinical deterioration and early involvement of consultant staff (*Clinical Directors*).
- Where pre-operative comorbidity exists, there should be a clear written management plan which is followed in order to optimise the physical status of the patient prior to surgery, and identify the need for specific post operative support to be available (*Clinical Directors*).
- Cardiac recovery areas/critical care units are best suited to managing the majority of patients who recover uneventfully. Patients who are developing critical illness and additional organ failure should be managed in an environment with sufficient throughput of such patients to have the resources and experience to provide optimum outcomes (*General Critical Care Units*).

## The heart of the matter (2008)-continued

- Senior clinicians should be readily available throughout the peri-operative period in order to ensure that complications (which occur commonly) are recognised without delay and managed appropriately (*Clinical Directors and Consultants*).
- Where unexpected events occur during surgery, surgeons should have an adaptable approach, and modify the operation to suit the circumstances of the case (*Cardiothoracic Surgeons*).
- Protocols must exist for handover between clinical teams and patient locations to ensure effective communication and continuity of care (*Clinical Directors*).
- A consultant should obtain consent for coronary artery bypass grafting (*Consultant Cardiothoracic Surgeons*).
- Morbidity and mortality audit meetings should be held in all cardiothoracic units. The majority of units should hold meetings at least monthly. If the numbers of cases performed in a unit are small, alternative arrangements should be made to incorporate these cases in other surgical audit meetings (*Clinical Directors and Audit Leads*).
- A common system for grading of quality of care of patients should be employed for all patients discussed in morbidity and mortality audit meetings. The peer review scale used by NCEPOD provides such a system (*Clinical Directors*).

## For Better For Worse (2008)

- Cancer services managers and clinical directors must ensure that time is made available in consultants' job plans for clinical audit. They must also ensure that the time allocated is used for the defined purpose. (*Cancer services managers and clinical directors*)
- Hospitals admitting patients with complications of SACT that do not have emergency general medical and surgical services on site should have a formal arrangement with a hospital that can provide these services. (*Medical directors*)
- Hospitals that treat patients with SACT but do not have the facilities to manage patients who are acutely unwell should have a formal agreement with another hospital for the admission or transfer of such patients as appropriate. (*Medical directors*)
- NCEPOD supports the Manual for Cancer Services standard that initial clinical management plans for *all* cancer patients should be formulated within a multidisciplinary team meeting. The MDT should be responsible for agreeing clinical care pathways, including appropriate chemotherapy regimens, doses and treatment durations. (*Clinical directors*)
- The decision whether or not to advise SACT should be undertaken by a consultant oncologist/haemato-oncologist after a comprehensive clinical review of the patient. (*Clinical directors and consultants*)
- The decision whether to accept treatment should be made by the patient after they have been fully informed of the potential benefits and toxicities and have had sufficient time to consider their decision and discuss it with their family and carers. (*Clinical directors*)
- There should be greater standardisation of the consent form. The name and grade of doctor taking consent should always be stated on the consent form. (*Cancer services managers, clinical directors, and medical directors*)

## For Better For Worse (Contd)

- Consent must only be taken by a clinician sufficiently experienced to judge that the patient's decision has been made after consideration of the potential risks and benefits of the treatment, and that treatment is in the patient's best interest. (*Clinical directors*)
- Giving palliative SACT to poor performance status patients grade 3 or 4 should be done so with caution and having been discussed at a MDT meeting. (*Consultants*)
- Junior medical staff at FY1, FY2, ST1 and ST2 grade should not be authorised to initiate SACT. (*Clinical directors*)
- All independent and supplementary prescribers (specialist chemotherapy nurses and cancer pharmacists) and junior medical staff should be locally trained/accredited, following attendance at a supplementary prescribers' course, before being authorised to prescribe SACT. (*Cancer services managers and clinical directors*)
- The results of a pre-treatment full blood count and renal and liver functions tests should be assessed before each cycle of chemotherapy. (*Clinical directors*)
- Toxicity check lists should be developed to assist record keeping and aid the process of care in prescribing SACT. (*Cancer services managers and clinical directors*)
- Assessment of tumour response to treatment should be undertaken and recorded at appropriate intervals depending on the treatment intent and SACT regimen used. (*Consultant oncologists and clinical directors*)
- All SACT prescriptions should be checked by a pharmacist who has undergone specialist training, demonstrated their competence and are locally authorised/accredited for the task. This applies to oral as well as parenteral treatments. (*Clinical directors and pharmacists*)
- Pharmacists should sign the SACT prescription to indicate that it has been verified and validated for the intended patient and that all the safety checks have been undertaken. (*Pharmacists*)

## For Better For Worse (Contd)

- If the patient has suffered clinically significant grade 3/4 toxicity with the previous cycle of SACT, a dose reduction or the use of prophylactic GCSF should be considered depending on the treatment intent. (*Consultants and clinical directors*)

Consultants should follow good clinical practice and consider:

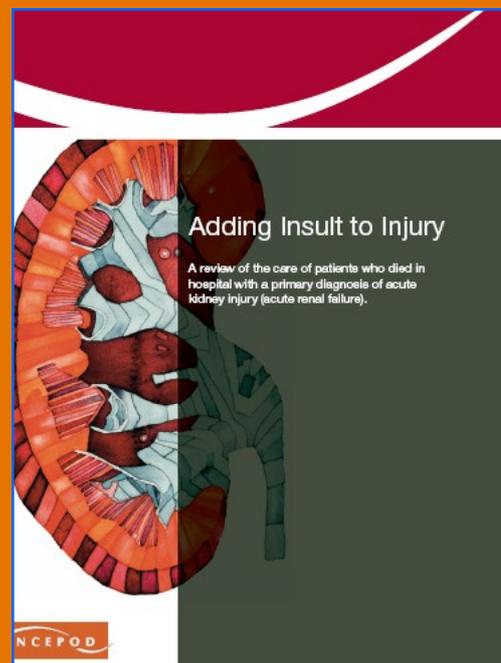
- Reducing the dose of SACT in patients
  - that have received a number of previous courses of treatment
  - that have a poor performance status
  - that have significant co-morbidity;
- Reducing the dose of or omitting drugs excreted via the kidney, if the patient has impaired renal function;
- Reducing the dose of or omitting drugs excreted via the liver, if the patient has impaired liver function. (*Consultants and clinical directors*)
- A debate within the profession is needed to explore whether it is appropriate that patients treated with SACT should be admitted under general medicine if problems occur. Any substantial change would require expansion of the oncology workforce. An alternative would be a strengthening of links between oncology and general medicine to ensure protocols and training are in place for the management of complications of SACT. (*Medical directors, cancer services managers and clinical directors*)

Emergency admissions services must have the resources to manage SACT toxicity. These should include:

- A clinical care pathway for suspected neutropenic sepsis;
- A local policy for the management of neutropenic sepsis;
- Appropriately trained staff familiar with the neutropenic sepsis policy;
- The policy should be easily accessible in all emergency departments;
- Availability of appropriate antibiotics within the emergency department. (*Cancer services managers and clinical directors*)
- In planning the provision of oncology services outside of cancer centres, commissioners should take into account the need for specialist advice to be readily available when patients are admitted acutely. (*Cancer services managers*)
- A pro-active rather than reactive approach should be adopted to ensure that palliative care treatments or referrals are initiated early and appropriately. Oncologists should enquire at an appropriate time, about any advance decisions the patient might wish to make should they lose the capacity to make their own decisions in the future. (*Consultants*)
- Regular clinical audit should be undertaken on the management of all cases of neutropenic sepsis following the administration of SACT. The process of care should be compared to standards agreed by the cancer network. Cancer centres and cancer units should collaborate in undertaking these audits. (*Clinical directors*)
- All deaths within 30 days of SACT should be considered at a morbidity and mortality or a clinical governance meeting. (*Clinical directors and consultants*)

## Adding insult to injury (2009)

- All patients admitted as an emergency, regardless of specialty, should have their electrolytes checked routinely on admission and appropriately thereafter. This will prevent the insidious and unrecognised onset of AKI. *(Clinical Directors and Medical Directors)*
- Predictable and avoidable AKI should never occur. For those in-patients who develop AKI there should be both a robust assessment of contributory risk factors and an awareness of the possible complications that may arise. *(Clinical Directors and Medical Directors)*
- All acute admissions should receive adequate senior reviews (with a consultant review within 12 hours of admission as previously recommended by NCEPOD3). *(Clinical Directors and Medical Directors)*
- NCEPOD recommends that the guidance for recognising the acutely ill patient (NICE CG 50) is disseminated and implemented. In particular all acute patients should have admission physiological observations performed and a written physiological monitoring plan made, taking into account the degree of illness and risk of deterioration. *(Clinical Directors and Medical Directors)*
- There should be sufficient critical care and renal beds to allow rapid step up in care if appropriate. *(Department of Health).*
- All level 3 units should have the ability to deliver renal replacement therapy; and where appropriate these patients should receive clinical input from a nephrologist. *(Clinical Directors and Medical Directors)*
- All acute admitting hospitals should have access to either onsite nephrologists or a dedicated nephrology service within reasonable distance of the admitting hospital. *(Clinical Directors and Medical Directors)*
- All acute admitting hospitals should have access to a renal ultrasound scanning service 24 hours a day including the weekends and the ability to provide emergency relief of renal obstruction. *(Clinical Directors and Medical Directors)*



## Caring to the End? (2009)

- The seniority of clinical staff assessing a patient and making a diagnosis should be determined by the clinical needs of the patient, and not the time of day. Services should be organised to ensure that patients have access to consultants whenever they are required. The organisation of services will vary from specialty to specialty, but may require input from clinical directors, medical directors and the Strategic Health Authority.
- Better systems of handover must be established, and this must include high quality legible medical record keeping. (*Consultants*)
- The benefits and risks to patient safety of reduced working hours should be fully assessed, and clinical teams must be organised to ensure that there is continuity of care. (*Clinical Directors*)
- Systems of communication between doctors and other health care professionals must improve. In particular trainees must seek consultant input at an early stage to assist in the management of emergency patients. (*Clinical Directors and Medical Directors*)
- The training of nurses and doctors must place emphasis on the basic skills of monitoring vital functions, recognising deterioration, and acting appropriately (*which will often be to seek senior input*). (*Deaneries, Clinical Directors*)
- All trainees need to be exposed in an appropriate learning environment to the management of emergency patients. Clinical services must be organised to allow appropriately supervised trainee involvement. Organisation of services must address training needs, and this will vary from specialty to specialty. (*Clinical Directors*)
- Anaesthetic charts should routinely have a section that allows the recording of anaesthetic information (leaflets received, risks etc.) given to patients. (*Clinical Directors*)
- Anaesthetic charts should record the named consultant and the grade of the anaesthetist anaesthetising the patient. (*Clinical Directors and Consultants*)
- There should be robust mechanisms to ensure communication of critical, urgent or unexpected radiological findings in line with guidance issued by the Royal College of Radiologists. (*Clinical Directors*)
- Diagnostic and interventional radiology services should be adequately resourced to support the 24 hour needs of their clinicians and patients. (*Clinical Directors*)

- Any difference between the provisional and final radiology report should be clearly documented in the final report. (*Consultants*)
- All trainees and staff and associate specialist grades should record the name and location of a supervising consultant and whether they have discussed the case with that consultant. (*Clinical Directors and Consultants*)
- All admissions to hospital should have appropriate investigations and these should be performed without unnecessary delay. (*Consultants*)
- Hospitals which admit patients as an emergency must have access to plain radiology and CT scanning 24 hours per day, with immediate reporting (This recommendation was previously reported in 'Emergency Admissions: A Journey in the Right Direction?' in 2007). (*Medical Directors*)

## A mixed bag (2010)

- PN should only be given when enteral nutrition has been considered, and excluded, as either inappropriate and/or impracticable. However situations may arise where both enteral and parenteral nutrition are necessary. *(Consultants)*
- Where the possibility exists that a patient may require PN this should be recognised early. Subsequently, should PN become a clinical necessity, this should be rapidly actioned and PN started at the earliest opportunity. However, there is rarely, if ever, an indication to start adult PN out of normal working hours. *(Consultants)*
- Patient assessment should be robust to ensure that PN is the appropriate nutritional intervention and that adequate PN is administered. The clinical purpose and goal of the PN should be documented. *(Consultants)*
- Regular documented clinical monitoring, of the patient and PN prescription, should be mandatory. Monitoring should include daily weights (where possible) and documentation of the success of the PN within the overall clinical picture. *(Consultants)*
- Regular documented biochemical monitoring should be mandatory to ensure avoidable metabolic complications never occur. *(Clinical Directors)*
- Additional intravenous fluids should only be prescribed where there has been an active assessment of the volume of PN already being administered and there is clear indication that further fluids/electrolytes are required. *(Consultants)*
- There must be active under/post graduate education about the role of PN, its complications and side effects. *(Deaneries)*
- All hospitals should have a PN proforma which includes: Indication for PN; Treatment goal; Risk of and precautions taken against re-feeding syndrome; PN prescription; Weight and Biochemical monitoring. *(Medical Directors)*



- Careful and early consideration should be given to the need for PN in neonates and once the decision to commence PN is made it should be started without undue delay. *(Consultants)*
- The first PN given must be appropriate to the neonate's requirements. *(Consultants)*
- Close monitoring of the patient must be achieved so that metabolic complications can be avoided. *(Consultants)*
- Neonatal Units should have an agreed policy for nutritional requirements and use a proforma that includes this information which is tailored for each infant and placed in the case notes. *(Clinical Directors)*
- Hospitals in which neonates are cared for should develop a team approach to ensure safe and effective nutritional support, recognising that this should be a multidisciplinary exercise with sharing of expertise. Depending on the type of institution and availability of personnel, the composition of these teams may vary but could include neonatologists, paediatricians, paediatric surgeons, pharmacists, dietitians and experts in nutrition. This team could also provide support to other clinical areas caring for children and have a role in education and training for those involved in PN care. *(Medical Directors)*

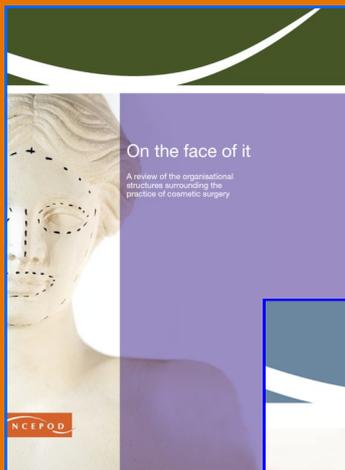
## A mixed bag (2010)- continued

- There is an urgent need for Neonatal Units across the UK to have a consensus on best PN practice based on current scientific evidence. (*Consultant Neonatologists*)
- Neonatal units should undertake regular audit of PN practice which should include the complications of PN. (*Clinical Directors*)
- The National Institute for Health and Clinical Excellence should develop guidelines on nutritional support for neonates and children in a similar manner to their recommendations for adults. (*NICE*)
- CVC insertion is an invasive procedure with well recognised risks. Insertion should be clearly documented in the case notes including:
  - The designation of the operator
  - The type of CVC
  - A description of the insertion technique
  - The use of imaging
  - Confirmation of the position of the catheter tip(*Consultants*)
- All hospitals must have policies on the management CVCs which should include:
  - Insertion of CVC
  - Care of indwelling CVC
  - Detection and management of complications
  - Monitoring and audit, including adherence to the policies(*Medical Directors*)
- There must be improved education around CVC insertion and management; as well as the recognition and management of CVC complications. (*Clinical Directors*)

- Nutrition teams have an important role in ensuring quality control around the initiation, supply and monitoring of PN. Whilst the data from this study did not show a clear correlation between overall care and the involvement of a nutrition team it was not designed to do so and no adverse inference should be made from this. All hospitals involved with PN should have a multidisciplinary nutrition team involved in both enteral and parenteral nutrition. (*Medical Directors*)
- All hospitals should keep a central record of where and to whom PN has been supplied. (*Medical Directors and Heads of Pharmacy*)
- All hospitals should have policies on initiating PN to avoid inappropriate use and safe prescribing. (*Medical Directors*)
- All hospitals should have a dedicated CVC/PICC service to ensure high-level expertise is practised within this interventional area. (*Medical Directors*)
- Surgical teams are high volume users of PN. As such they need to engage more in clinical nutrition issues and increase their profile within nutrition teams. (*Medical Directors and Clinical Directors*)

## On the Face of it (2010)

- Regulatory bodies, such as the Care Quality Commission, should more closely monitor the adherence to national requirements for audit and scrutiny of sites under licence. The scope of regulation should include all sites including those only undertaking consultation.
- National professional cosmetic surgery bodies should issue guidelines as to the training, level of knowledge and experience required for a cosmetic surgeon to achieve and maintain competence in the procedures which he or she undertakes.
- Those considering having cosmetic surgery should be advised to check Care Quality Commission registration of any site they attend.
- Guidelines for the equipping of theatres and the perioperative monitoring of patients must be followed.
- Good practice demands a two-stage consent process for those undergoing cosmetic surgery.
- A national cosmetic surgery outcome database should be considered.
- More formal training programmes must become established, and like any other surgical training, these should be subject to rigorous assessment of competence, which should lead to a certificate attesting to the surgeon's level of competence in specified procedures. The present reliance on inclusion on the specialist register does not give any assurance that a surgeon has received adequate training in cosmetic surgery.



## An Age Old Problem (2010)

- Routine daily input from Medicine for the Care of Older People should be available to elderly patients undergoing surgery and is integral to inpatient care pathways in this population. (*Trusts, Clinical Directors and Commissioners*)
- Comorbidity, Disability and Frailty need to be clearly recognised as independent markers of risk in the elderly. This requires skill and multidisciplinary input including, early involvement of Medicine for the Care of Older People. (*Clinical Directors and Trusts*)
- Delays in surgery for the elderly are associated with poor outcome. They should be subject to regular and rigorous audit in all surgical specialities, and this should take place alongside identifiable agreed standards. (*Clinical Directors and Governance Leads*)
- All elderly surgical admissions should have a formal nutritional assessment during their admission so that malnutrition can be identified and treated. (*Trusts, Hospital Nutrition Teams*)
- Temperature monitoring and management of hypothermia should be recorded in a nationally standardised anaesthetic record. This is particularly important in elderly patients. (*Clinical Directors*)
- There should be clear strategies for the management of intra-operative low blood pressure in the elderly to avoid cardiac and renal complications. Non invasive measurement of cardiac output facilitates this during major surgery in the elderly. (*Clinical Directors and Specialist Associations*)
- There is an ongoing need for provision of peri-operative level 2 and 3 care to support major surgery in the elderly, and particularly those with co-morbidity. For less major surgery extended recovery and high observation facilities in existing wards should be considered. (*Commissioning Leads, Trusts, Clinical Directors*)
- Post operative acute kidney injury (AKI) is avoidable in the elderly and should not occur. There is a need for continuous postgraduate education of physicians, surgeons and anaesthetists around the assessment of risk factors for the development of AKI in the elderly surgical patient. (*Postgraduate Deans, Medical Directors*)
- Pain is the 5th vital sign, and requires the same status as heart rate and blood pressure in the assessment and management of all patients. Clear and specific guidance on recognition and treatment of pain in the elderly should be widely available and incorporated into education programmes. (*Clinical Directors, Postgraduate Deans, Trusts*)
- The British Orthopaedic Association and The British Geriatrics Society should provide more specific guidance on the ideal levels of seniority and speciality input into the assessment and decision making phase of the care pathway for patients with fractured neck of femur. (*British Orthopaedic Association, British Geriatrics Society*)
- Greater vigilance is required when elderly patients with non-specific abdominal symptoms and signs (diarrhoea, vomiting, constipation, urinary tract infection) present to the Emergency Department. Such patients should be assessed by a doctor with sufficient experience and training to exclude significant surgical pathology. (*Trusts, Clinical Directors*)

## Are we there yet? (2011)

### **Surgical workload**

- All hospitals that undertake surgery in children must have the necessary information systems in place to determine the number of patients that are treated within their hospital for monitoring, clinical governance and financial purposes. (Trust Chief Executives)

### **Clinical networks for children's surgery**

- There is a need for a national Department of Health review of children's surgical services in the UK to ensure that there is comprehensive and integrated delivery of care which is effective, safe and provides a high quality patient experience. (Department of Health and Devolved Administration Governments)

- National NHS commissioning organisations including the devolved administrations need to adopt existing recommendations for the creation of formal clinical networks for children's surgical services. These need to provide a high quality child focused experience which is safe and effective and meets the needs of the Child. (National Commissioners)

### **Transfer of children**

- All hospitals that admit children should have a comprehensive transfer policy that is compliant with Department of Health and Paediatric Intensive Care Society guidance and should include; elective and emergency transfers, staffing levels for the transfer, communication procedures, family support, equipment provision and transport arrangements. (Medical Directors)

### **Team working**

- All hospitals that provide surgery for children should have clear operational policies regarding who can operate on and anaesthetise children for elective and emergency surgery, taking into account on-going clinical experience, the age of the child, the complexity of surgery and any co-morbidities. These policies may differ between surgical specialities. (Medical Directors)

### **Clinical governance and audit**

- All hospitals that undertake surgery in children must hold regular multidisciplinary audit and morbidity and mortality meetings that include children and should collect information on clinical outcomes related to the surgical care of children. (Medical Directors)

### **Pre-operative assessment of elective paediatric surgical patients**

- Hospitals in which surgery in children is undertaken should provide written information for children and parents about anaesthesia. Good examples are available from the Royal College of Anaesthetists website. (Clinical Directors in Anaesthesia)

### **Theatre scheduling for children**

- Hospitals that have a large case load for children's surgery should consider using dedicated children's operating theatres. (Clinical Directors in Surgery and Anaesthesia and Medical Directors)

- Hospitals in which a substantial number of emergency children's surgical cases are undertaken should consider creating a dedicated daytime emergency operating list for children or ensure they take priority on mixed aged emergency operating lists. (Clinical Directors in Surgery and Anaesthesia and Medical Directors)

### **Specialised staff for the care of children**

- Children admitted for surgery whether as an inpatient or an outpatient must have immediate access to paediatric medical support and be cared for on a ward staffed by appropriate numbers of children trained nurses. (Clinical Directors)
- There is a need for those professional organizations representing peri-operative nursing and operating department practitioners to create specific standards and competencies for staff that care for children while in the operating theatre department. (British Anaesthetic and Recovery Nurses Association, College Operating Department Practitioners, Association for Perioperative Practice, Royal College of Nursing)

### **Management of the sick child**

- All hospitals that admit children as an inpatient must have a policy for the identification and management of the seriously ill child. This should include Track & Trigger and a process for escalating care to senior clinicians. The National Institute for Health and Clinical Excellence needs to develop guidance for the recognition of and response to the seriously ill child in hospital. (Medical Directors, National Institute for Health and Clinical Excellence)
- All hospitals that admit children must have a resuscitation policy that includes children. This should include the presence of onsite paediatric resuscitation teams that includes health care professionals who have advanced training in paediatric resuscitation. (Medical Directors and Resuscitation Leads)

### **Paediatric acute pain management**

- Existing guidelines on the provision of acute pain management for children should be followed by all hospitals that undertake surgery in children. (Medical Directors)

### **Inter-hospital transfer**

- National standards, including documentation for the transfer of all surgical patients, irrespective of whether they require intensive care need to be developed by regional networks. (Network Leads)
- Hospital teams working in both specialist and non specialist centres should be in a state of readiness for transfer of babies and children requiring emergency surgery, and be prepared to provide high level and timely support for these transfers. Surgical emergencies may require rapid triage, simultaneous with resuscitation and communication with tertiary care providers. (Medical Directors and Clinical Directors)
- When a decision to transfer a patient for (less urgent) surgical care has been made, this should be expedited. Transfer method and personnel should be agreed in advance.

## Pre-operative care

- Expertise in paediatric radiology is an essential adjunct to the running of a service for children requiring surgery. Multidisciplinary team meetings for complex cases should be undertaken pre-operatively except when this is predicated by the urgency of the case. Documentation of inter-professional discussions is essential even if written in retrospect. *(Medical Directors and Clinical Directors)*

## Consent and information for patients & parents

- Consent by a senior clinician, ideally the one performing the operation should be normal practice in paediatrics, as in other areas of medicine and surgery. Documentation of grade confirms that this process has occurred. This is already a national recommendation. *(Medical Directors and Clinical Directors)*

- In surgery which is high risk due to co-morbidity and/or anticipated surgical or anaesthetic difficulty, there should be clear documentation of discussions with parents and carers in the medical notes. Risk of death must be formally noted, even if difficult to quantify exactly. *(Consultants)*

## End of life care

- National guidance should be developed for children that require end-of-life care after surgery. *(Department of Health, Royal Colleges, appropriate specialist societies)*
- Clinicians must ensure that appropriate records are made in the medical notes of all discussions that take place with a child's parents or relatives after death. In addition it is mandatory that the name and grade of clinicians involved at all stages of care are clearly recorded in the medical notes and on anaesthetic and operation records. *(Guidelines from Royal Colleges/specialist societies and Medical Directors)*
- Confirmation that a death has been discussed at a morbidity and mortality meeting is required. This should comprise a written record of the conclusions of that discussion in the medical notes. *(Medical Directors)*

## Necrotising enterocolitis

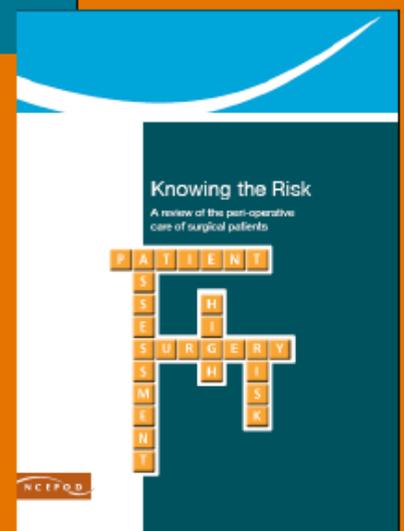
- Medical notes for babies with NEC require careful audit to ensure that the views and decisions of all members of the multi-disciplinary team are accurately recorded. *(Medical Directors)*
- This survey and the advice from our specialist Advisors have highlighted the difficulties in decision-making during both medical management and the decision to operate in babies with NEC. A national database of all babies with NEC might facilitate this aspect of care and generate data upon which to base further research. *(Department of Health, Specialist Societies)*

## Neurosurgery

- Urgent completion of the "Safe and Sustainable Review of Children's Neurosurgical Services" is required with implementation of the appropriate pathways of care that this is likely to recommend. This should be followed by a further audit to ensure compliance with national standards and models of care for all children requiring neurosurgery.

## Knowing the risk (2011)

- There is a need to introduce a UK wide system that allows rapid and easy identification of patients who are at high risk of postoperative mortality and morbidity. (Departments of Health in England, Wales & Northern Ireland)
- The decision to operate on high risk patients (particularly non-elective) should be made at consultant level, involving surgeons and those who will provide intra and postoperative care. (Clinical Directors and Consultants)
- An assessment of mortality risk should be made explicit to the patient and recorded clearly on the consent form and in the medical record. (Consultants)
- Once a decision to operate has been made there is a need to provide a package of full supportive care. This may include critical care admission or support, for the higher risk patients. If critical care admission is not possible then the decision to operate is being made without provision of an appropriate package of care: this should be communicated to the patient as part of the consent procedure. (Clinical Directors and Consultants)
- Better intra-operative monitoring for high risk patients is required. The evidence base supports the use of peri-operative optimisation and this relies on extended haemodynamic monitoring. NICE Medical Technology Guidance 3 relating to cardiac output monitoring should be applied. (Clinical Directors)



## Knowing the risk (2011)- continued

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(Clinical Directors and Consultants)
- Better intra-operative monitoring for high risk patients is required. The evidence base supports the use of peri-operative optimisation and this relies on extended haemodynamic monitoring. NICE Medical Technology Guidance 3 relating to cardiac output monitoring should be applied. (Clinical Directors)
- The postoperative care of the high risk surgical patient needs to be improved. Each Trust must make provision for sufficient critical care beds or pathways of care to provide appropriate support in the postoperative period.  
(Medical Directors)

- To aid planning for provision of facilities for high risk patients, each Trust should analyse the volume of work considered to be high risk and quantify the critical care requirements of this cohort. This assessment and plan should be reported to the Trust Board on an annual basis.  
(Medical Directors)
- All elective high risk patients should be seen and fully investigated in pre-assessment clinics. Arrangements should be in place to ensure more urgent surgical patients have the same robust work up. (Clinical Directors and Consultants)
- Greater assessment of nutritional status and its correction should be employed in high risk patients.  
(Consultants)
- High risk patients should have fluid optimisation in a higher care level area pre-operatively, if it is to be adequate and contribute to better outcomes. (Consultants)
- The adoption of enhanced recovery pathways for high risk elective patients should be promoted. (Clinical Directors)
- Given the high incidence of postoperative complications demonstrated in the review of high risk patients, and the impact this has on outcome there is an urgent need to address postoperative care; this supports the prospective data.\* (Clinical Directors)

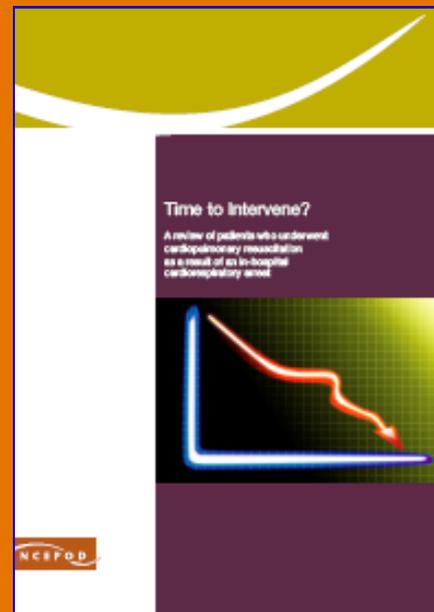
\*Recommendation from page 46

- The postoperative care of the high risk surgical patient needs to be improved. Each Trust must make provision for sufficient critical care beds or pathways of care to provide appropriate support in the postoperative period. (Medical Directors)

## Time to Intervene (2012)

- Standards of clerking/examination and recording thereof should be improved. Each hospital should ensure that the detail required in clerking and examination is explicit and communicated to doctors-in-training as part of the induction process. A regular (6-monthly) audit of performance against these agreed standards should be performed and reported through the governance structure of the organisation. (Medical Directors and all Doctors)
- Hospitals must ensure appropriate supervision for doctors-in-training. Delays in escalation to more senior doctors due to lack of recognition of severity of illness by doctors in training are unacceptable and place patients at risk. (Medical Directors)
- Each Trust/hospital must provide sufficient critical care capacity or pathways of care to meet the needs of its population. (Chief Executives)
- Each entry in a patient's case notes must contain date, time, location of patient and name and grade of staff and their contact details. It must also contain information on the most senior team member present during that patient contact (name and grade). (All Health Care Professionals)
- As previously recommended by NCEPOD and the RCP, all acute admissions must be reviewed at consultant level within 12 hours of admission. Earlier consultant review may be required and arrangements should be in place to ensure that this is available. A regular (6-monthly) audit of performance against this standard should be performed and reported through the governance structure of the organisation. (Medical Directors and Consultants)
- NICE Clinical Guideline 50 (Acutely Ill patients in hospital: Recognition of and response to acute illness in adults in hospital ) is not applied universally. Each hospital must ensure that they comply with this NICE guidance. (Medical Directors)
- For all patients requiring monitoring, there must be clear instructions as to the type and frequency of observations required. Where 'track and trigger' systems are used the initial frequency of observations should be stated clearly by the admitting doctor. (All Doctors)
- Where patients continue to deteriorate after non consultant review there should be escalation of patient care to a more senior doctor. If this is not done, the reasons for non-escalation must be documented clearly in the case notes. (All Doctors)
- Hospitals should undertake a detailed audit of the period prior to cardiac arrest to examine whether antecedent factors were present that warned of potential cardiac arrest and what the clinical response to those factors was. (Medical Directors)

- A national standard dataset should be developed to audit antecedent factors against.
- An effective system for recording all decisions and discussions relating to CPR/DNACPR must be established, allowing all people who may care for the patient to be aware of this information. (Medical Directors)
- Health care professionals as a whole must understand that patients can remain for active treatment but that in the event of a cardiac arrest CPR attempts may be futile. Providing active treatment is not a reason not to consider and document what should happen in the event of a cardiac arrest. (All Health Care Professionals)
- The use of 'ceilings of care' documentation would facilitate decision making and clarity of intent. There is need for a national project to lead this work.

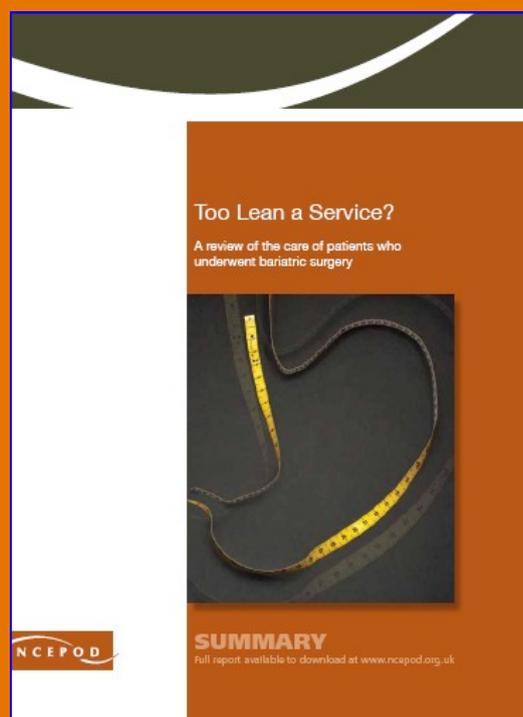


## Time to intervene? (2012) continued

- Hospitals must arrange services and equipment to ensure that defibrillation is delivered within three minutes of cardiac arrest (for shockable rhythms). *(Medical Directors)*
- All CPR attempts should be reported through the Trust/Hospital critical incident reporting system. This information should be reported to the Trust/Hospital Board on a regular basis. *(Medical Directors)*
- Each Trust/Hospital should set a local goal for reduction in cardiac arrests leading to CPR attempts. Progress against this goal should be reported to the Trust/Hospital Board on a regular basis. *(Medical Directors)*
- Each hospital should ensure there is an agreed plan for airway management during cardiac arrest. This may involve bag and mask ventilation for cardiac arrests of short duration, tracheal intubation if this is within the competence of members of the team responding to the cardiac arrest or greater use of supraglottic airway devices as an alternative. *(Medical Directors)*
- Each hospital should audit all CPR attempts and assess what proportion of patients should have had a DNACPR decision in place prior to the arrest and should not have undergone CPR, rather than have the decision made after the first arrest. This will improve patient care by avoiding undignified and potentially harmful CPR attempts during the dying process. *(Medical Directors)*
- Consultant input is required in the immediate post arrest period to ensure that decision making is appropriate and that the correct interventions are undertaken. *(Consultants)*
- Coronary angiography and PCI should be considered in all cardiac arrest survivors where the cause of cardiac arrest is likely to be primary myocardial ischaemia. *(Consultants)*
- Organ donation should be considered in every case where life sustaining therapies are being withdrawn. *(Consultants)*

## Too lean a service (2012)

- It should be the duty of all bariatric surgery teams to follow-up patients by telephone or in person at regular intervals post surgery. The first of these follow-up calls should be within seven days of surgery and frequently thereafter to complement outpatient follow-up. *(Clinical Directors and Consultants)*
- In common with other types of specialist surgery, bariatric surgery is not for the occasional operator. The Specialist Associations involved with bariatric surgery should provide guidance regarding the numbers of procedures which both independent operators and institutions should achieve in order to optimise outcomes. *(Specialist Associations)*
- All hospitals that undertake weight loss surgery on morbidly obese patients or admit patients as an emergency must have appropriate, properly fitting antiembolism stockings (or equivalent). *(Ward Managers)*
- There is a global need to provide imaging modalities that are suitable for morbidly obese patients, wherever they are admitted and this may be best dealt with by an escalation process and by specification at the time of refurbishment. *(Executive Boards and Clinical Directors)*
- All patients considered for weight loss surgery should receive dietary assessment and education preferably prior to referral, but definitely prior to surgery. *(Consultants, Dietitians and General Practitioners)*
- All patients must have access to the full range of specialist professionals appropriate for their needs in line with NICE guidelines. *(Clinical Directors and Medical Directors)*



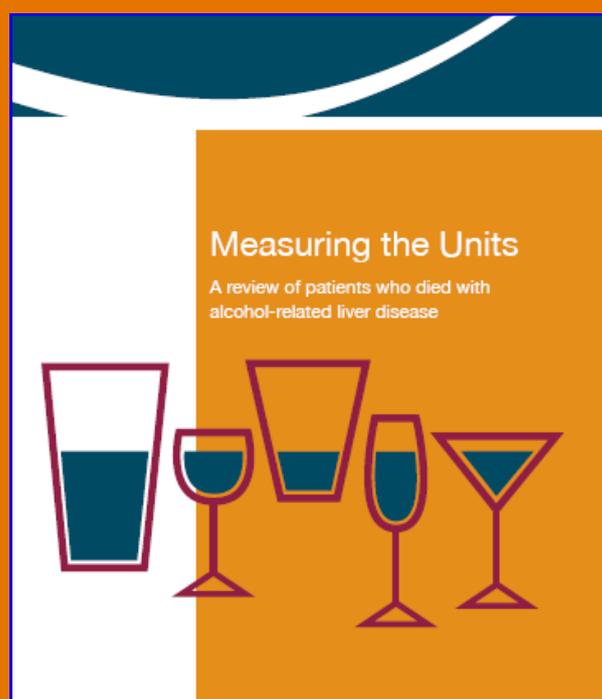
## Too lean a service? (2012) - continued

- The value of MDTs, their optimal configuration, and their appropriateness for bariatric patients with different needs to be agreed by the healthcare professionals involved in their care. (*Specialist Associations*)
- The outcome of all MDT discussions must be documented in the medical records. Where an MDT discussion has not taken place this must also be documented with reasons. (*Consultants*)
- There should be a greater emphasis on psychological assessment and support and this should occur at an earlier stage in the care pathway for obese patients. Psychological screening tools are available and may be of value in identifying those patients requiring formal psychological intervention. (*Consultants*)
- All bariatric patients should have an assessment of the predicted difficulty of intubation recorded. (*Anaesthetists*)
- All bariatric patients should attend a pre-assessment clinic, during which they should have access to a full range of health professionals appropriate to their needs, including where required pre-admission assessment by an anaesthetist. (*Clinical Directors and Consultants*)
- As for all elective surgery, a deferred two-stage consent process with sufficient time lapse should be utilised, and details of benefits and risks should be clearly described, and supported with written information. The consent process should not be undertaken in one stage on the day of operation for elective bariatric surgery. (*Medical Directors [policy] and Consultants [implementation]*)
- Given the potential for significant metabolic change (and its dietary dimension) after bariatric surgery, good quality care is supported if patients have clear post-operative dietary guidance and a timely and complete discharge summary, with full clinical detail and post discharge plan to ensure safe and seamless care. This must be provided to the GP as soon as possible following discharge, preferably within 24 hours. (*Consultants and Dieticians*)

- All patients nursed outside of critical care should be managed with a 'track and trigger' system. (*Medical Director or Nursing Director*)
- Surgery and follow-up data on all patients undergoing bariatric surgery, in the NHS and independent sector, should be entered into the NBSR. (*Consultants*)
- A clear, continuous long-term follow-up plan must be made for every patient undergoing bariatric surgery. This must include appropriate levels of informed surgical, dietician, GP and nursing input. An assessment for the requirement of physician and psychology/psychiatric input must be made and provided should the patient require it. (*Consultants*)
- Professional associations and regulators should agree a code of conduct for advertisements for weight loss surgery in the UK which safeguard and appropriately advise patients seeking this increasingly popular method of weight control. (*Professional Associations*)

## Measuring the units (2013)

- A system should be in place to ensure that all patients admitted to hospital and subsequently identified as being at risk from an alcohol-related disease, are promptly referred to an appropriate support service. This system should be subject to regular audit. (*Clinical Directors and Consultants*)
- A multidisciplinary Alcohol Care Team, led by a consultant with dedicated sessions, should be established in each acute hospital, and integrated across primary and secondary care. (*Medical Directors*)



## Measuring the units (2013) - continued

- Each hospital should have a 7-day Alcohol Specialist Nurse Service, with a skill mix of liver specialist and psychiatry liaison nurses to provide comprehensive physical and mental assessments, Brief Interventions and access to services within 24 hours of admission. *(Medical Directors)*
- Robust guidelines should be available to every unit admitting patients with alcohol-related liver disease. All physicians managing such patients should be familiar with those guidelines and trained in their use. *(Medical Directors)*
- Trusts should ensure that medical patients are reviewed by a consultant within a maximum of 12 hours of admission, as suggested in the Royal College of Physicians London acute care toolkit, Society of Acute Medicine quality standards and previously by NCEPOD. This standard should be the subject of regular audit. *(Clinical Directors and Consultants)*
- All patients presenting with decompensated alcohol related liver disease should have blood cultures included in their initial investigations on admission to hospital. *(All Doctors)*
- All patients admitted as an emergency, regardless of speciality, should have their electrolytes checked routinely on admission and appropriately thereafter. This will help prevent the insidious and unrecognised onset of acute kidney injury. *(Clinical Directors and Medical Directors)*
- If ascites is present in patients presenting with decompensated alcohol-related liver disease, a diagnostic ascitic tap should be performed as part of their initial assessment. Coagulopathy is not a contraindication to this procedure. *(All Doctors)*
- Patients who present acutely with decompensated liver disease, and who drink alcohol at a potentially harmful level, should not be assumed to have alcohol-related liver disease. A full assessment to exclude all other potential causes of liver disease should be performed as soon as possible after admission to hospital. *(All Doctors and Consultants)*
- A toolkit for the acute management of patients admitted with decompensated alcohol-related liver disease should be developed and made widely available to all physicians/doctors involved in the care of patients admitted to acute hospitals.
- All patients presenting to hospital services should be screened for alcohol misuse. An alcohol history indicating the number of units drunk weekly, drinking patterns, recent drinking behaviour, time of last drink, indicators of dependence and risk of withdrawal should be documented. *(All Doctors)*

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- As recommended by NICE, assessment tools such as the Alcohol Use Disorders Identification Test (AUDIT) and the Clinical Institute Withdrawal Assessment – Alcohol, revised (CIWA-Ar) should be readily available for use by all health care professionals who should be competent in their use. *(Medical Directors and Clinical Directors)*
- Alcohol withdrawal scales should be used, as suggested in NICE guidance, to guide treatment decisions to prevent the alcohol withdrawal syndrome. *(All Doctors)*
- Treatment for alcohol withdrawal should be tailored to the individual patient. The presence of encephalopathy, or other features of liver disease, can make the administration of sedatives inappropriate and may indicate the need to consider transfer to a higher level of care. *(All Doctors and Consultants)*
- All patients admitted with decompensated alcohol related liver disease should be seen by a specialist gastroenterologist / hepatologist at the earliest opportunity after admission. This should be within 24 hours and no longer than 72 hours after admission to hospital. *(Consultants)*
- Trusts should ensure that all patients admitted with alcohol-related liver disease receive early specialist input from a gastroenterologist / hepatologist and a specialist practitioner in alcohol addiction. *(Medical Directors and Clinical Directors)*
- All patients with alcohol-related liver disease and a history of current alcohol intake, in excess of recommended limits, should have thiamine (oral or intravenous) administered on admission to hospital. *(All Doctors)*
- In patients with decompensated alcohol-related liver disease and deteriorating renal function, diuretics should be stopped and intravenous fluid administered to improve renal function, even if the patient has ascites and peripheral oedema. *(All Doctors)*
- As for all patients, patients with alcohol-related liver disease should have accurate monitoring of fluid balance. Systems to ensure accurate monitoring of fluid balance should be in place in all Trusts. *(Medical Directors and Nursing Directors)*

## Measuring the units (2013) - continued

- If ascites is present in patients presenting with decompensated alcohol-related liver disease, a diagnostic ascitic tap should be performed as part of their initial assessment. Coagulopathy is not a contraindication to this procedure. *(All Doctors)*
- In line with NICE guidance, unless contraindicated, all patients with alcohol-related liver disease, who present with gastrointestinal bleeding, should be offered antibiotics and terlipressin until the outcome of their endoscopy is known. *(All Doctors and Consultants)*
- Deterioration in renal function in patients with liver disease should not be assumed to be due to the hepatorenal syndrome, as other potential causes are often present and should be actively excluded. *(All Doctors and Consultants)*
- Escalation of care should be actively pursued for patients with alcohol-related liver disease, who deteriorate acutely and whose background functional status is good. There should be close liaison between the medical and critical care teams when making escalation decisions. *(Consultants)*
- When a decision is made not to escalate, or to actively withdraw treatment for a patient with alcohol-related liver disease, this decision should be made by a consultant. The decision making process should involve specialists with appropriate training to identify what interventions are likely to be of benefit to the patient. Such decisions should be discussed with the patient and the patient's representative (if appropriate) and documented clearly. Where there is doubt or disagreement about such decisions, the opinion of a second consultant should be sought, as outlined in guidance issued by the General Medical Council. *(Consultants)*

- All patients presenting to hospital services should be screened for alcohol misuse. An alcohol history indicating the number of units drunk weekly, drinking patterns, recent drinking behaviour, time of last drink, indicators of dependence and risk of withdrawal should be documented. (As p53) *(All Doctors)*
- All patients presenting to acute services with a history of potentially harmful drinking, should be referred to alcohol support services for a comprehensive physical and mental assessment. The referral and outcomes should be documented in the notes and communicated to the patient's general practitioner. *(All Doctors)*
- All deaths due to alcohol-related liver disease should be reviewed at a local morbidity and mortality, clinical governance meeting to ensure that lessons are learned and to give assurance that high quality care is being provided. *(Consultants)*
- Where the cause of death is unclear, or death was not anticipated, this should be discussed with the coroner. *(Consultants)*

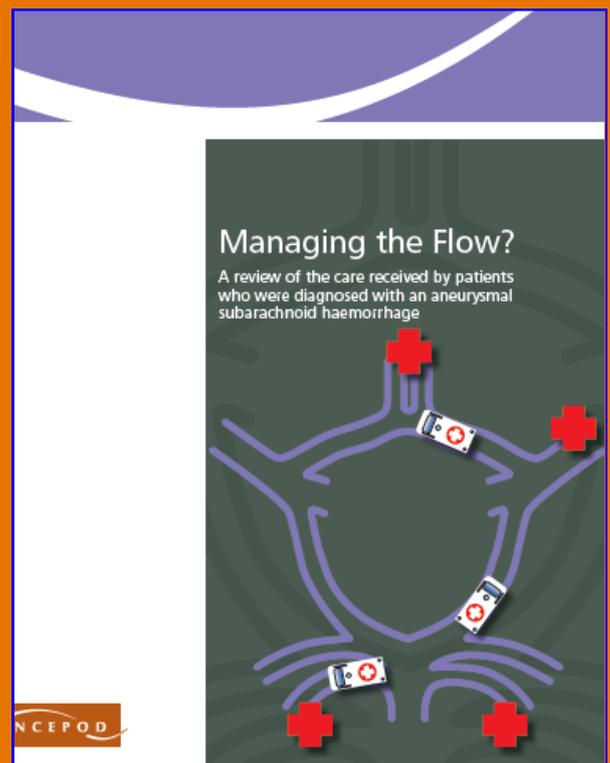
## Managing the flow? (2013)

- Formal networks of care should be established, linking all secondary care hospitals receiving subarachnoid haemorrhage patients to a designated regional neurosurgical/neuroscience centre. *(Medical Directors)*
- All hospitals should undertake regional audit or multi-disciplinary team meetings, in order to share learning that could improve the care provided to aneurysmal subarachnoid haemorrhage patients. *(Medical Directors and Clinical Directors)*
- The availability of interventional neuroradiology services should be such that hospitals can comply with the 'National Clinical Guideline for Stroke' stating that patients should be treated within 48 hours of their aneurysmal subarachnoid haemorrhage. *(Medical Directors and Clinical Directors)*

## Managing the flow? (2013) - Continued

- The clinical presentation of aneurysmal subarachnoid haemorrhage should be highlighted in primary and secondary care education programmes for all relevant health care professionals, including the guidelines for the management of acute severe headache published by the College of Emergency Medicine. *(Local Education and Training Boards/Deaneries, Medical, Surgical & Nursing Royal Colleges and Specialist Associations)*
- All patients presenting with acute severe headache in a secondary care hospital should have a thorough neurological examination performed and documented. A CT scan should be performed immediately in this group of patients as defined by the 'National Clinical Guideline for Stroke'. *(All doctors)*
- Standard protocols for the care of aneurysmal subarachnoid haemorrhage patients in secondary care should be developed and adopted across formal networks. These should cover, as a minimum, initial assessment and diagnosis, management, referral, transfer to a neurosurgical/neuroscience centre and subsequent repatriation to secondary care, including rehabilitation. These protocols should take into account existing guidelines where relevant. *(Medical Directors)*
- All patients diagnosed with a subarachnoid haemorrhage should be commenced on nimodipine immediately as recommended in the 'National Clinical Guideline for Stroke', unless there are contraindications to its use. *(All doctors)*
- Relevant professional bodies should develop a nationally-agreed and audited protocol for the management of aneurysmal subarachnoid haemorrhage in tertiary care that addresses initial assessment, multi-disciplinary management and documentation, informed consent, timing of interventions, peri-operative care, management of complications and rehabilitation. *(Royal Colleges and Specialist Associations)*

- Mental capacity of aneurysmal subarachnoid haemorrhage patients to give their own consent should be reviewed and a consensus document developed (with consideration of the Mental Capacity Act 2005). *(Royal Colleges and Specialist Associations)*
- The nationally-agreed standard ('National Clinical Guideline for Stroke') of securing ruptured aneurysms within 48 hours should be met consistently and comprehensively by the health care professionals who treat this group of patients. This will require providers to assess the service they deliver and move towards a seven-day service. *(Medical Directors)*
- Neurosurgical/neuroscience centres must ensure that trainees in neurosurgery and neuroradiology develop the appropriate competencies for future consultant practice. *(Local Education and Training Boards/Deaneries, Royal Colleges, Medical Directors and Clinical Directors)*
- Organ donation rates following fatal aneurysmal subarachnoid haemorrhage should be audited and policies adopted to increase the frequency with which this occurs. *(Medical Directors)*



## On the right trach? (2014)

- Tracheostomy insertion should be recorded and coded as an operative procedure. Data collection in all locations should be as robust as that for a theatre environment. This will facilitate better care planning and allow for national and local review and audit.

*(Medical Directors and National Coding Systems)*

- Critical care units need a rapidly available difficult airway trolley/fibreoptic laryngoscopy. This recommendation reinforces the Intensive Care Society and Royal College of Anaesthetists' recommendations.

*(Clinical Directors)*

- Training programmes in blocked/displaced tubes/airways and difficult tube changes should be delivered in accordance with clinical consensus guidelines as stated by the National Tracheostomy Safety Project and the Intensive Care Society. *(Medical Directors and Directors of Nursing)*

- Capnography must be available at each bed space in critical care and should be continuously used when patients are ventilator dependent. This reinforces the recommendation from NAP4 and others.

*(Clinical Directors)*

- Core competences for the care of tracheostomy patients, including resuscitation, should be set out by all Trusts using existing national resources available.

*(Medical Directors and Directors of Nursing)*

- Consent and WHO type (surgical) checklists should be adopted and used prior to tracheostomy insertion, wherever it is performed. *(Medical Directors and Clinical Directors)*

- The diameter and length of the tube used should be appropriate for the size and anatomy of the individual patient therefore an adequate range of tracheostomy tubes needs to be stocked by units. Operators should be aware of the types of tube available and in particular recognize that adjustable flanged tubes are available with inner tubes. Professionals need to continue to work closely with manufacturers to optimise design and tube options for a non standard population. *(Consultant Operators, Theatre and Critical Care Managers and Professional Health Care Bodies)*

- Confirmation of tube placement must be obtained using capnography. This should be readily available and the events documented. *(All Health Care Professionals)*

- Appropriate positioning of the tube should be made using airway endoscopy. This should be readily available and the events documented.

*(All Consultants)*

- When changing a tracheostomy tube factors that increase the risk of obstruction or loss of airway should be considered. These include tube size/ configuration and length. This is particularly important in the obese/high BMI patient.

*(All Consultants)*

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*(All Consultants)*

- In patients undergoing a tracheostomy without a trial of extubation the reason should be clearly documented. *(All Health Care Professionals)*

- Unplanned and night time critical care discharge is not recommended, particularly in patients with a newly formed tracheostomy and/or patients recently weaned from respiratory support. This reinforces the Intensive Care Society's general recommendation about night time discharges.

*(Clinical Directors and Risk Managers)*

- Wards accepting tracheostomy patients should be in a state of readiness in terms of equipment and competences.

*(Clinical Directors and Directors of Nursing)*

- Multidisciplinary agreement about minimum airway assessments prior to decannulation needs to be established including availability of equipment and competences.

*(Professional Health Care Bodies)*

- Quality of discharge documentation should be improved. A structured and detailed summary must be provided between wards and between hospitals and the community at the point of transfer. *(All Health Care Professionals and Tracheostomy Leads)*



## On the right trach? (2014) - continued

- Unplanned tube changes pose additional risks. All unplanned tube changes should be reported locally as critical incidents and investigated to ensure that lessons are learned and reduce the risk of future events. *(All Health Care Professionals and Risk Managers)*
- Particularly careful consideration should be made at discharge from the critical care unit as to whether a cuffed tube is still indicated, and reasons must be documented. If it is, then there must be equipment and competences available on the ward for cuff pressure measurement. *(Critical Care Consultants and Tracheostomy Leads)*
- All Trusts should have a protocol and mandatory training for tracheostomy care including guidance on humidification, cuff pressure, monitoring and cleaning of the inner cannula and resuscitation. The clinical practices around tracheostomy care should be the subject of local quality improvement initiatives. Tube data should be more clearly recorded and made available for review at bedside and thereafter facilitated by a 'passport' for each patient, with all data included. *(Medical Directors, Directors of Nursing and Health Care Commissioners)*
- All hospitals should adhere to recommendations already made by the National Tracheostomy Safety Project to maintain an essential box of equipment which is sufficiently portable to be moved around with the patient. *(Clinical Directors and Tracheostomy Leads)*

- In order to facilitate decannulation and discharge planning multidisciplinary care needs to be established as part of routine pathway for ALL tracheostomy patients. Whilst on the critical care unit where there will be at least daily reviews, key additional team members should be involved at an early stage. The team composition should be flexible to properly reflect the patient's needs and provide excellent continuity of care. There are several key team members who one would expect should always participate, e.g. physiotherapy, speech and language therapy, outreach nurses and dietitians. Hospitals need to provide adequate staff to ensure this happens routinely and in a timely manner. *(Clinical Directors and Critical Care Managers)*
- Involvement of Speech and Language Therapy in critical care needs to be facilitated particularly for more complex patients and to assist clinicians with high quality communication strategies as well as day to day ward care and according to patient needs. *(Clinical Directors and Speech and Language Therapists)*
- Dysphagia reported in tracheostomy patients warrants ongoing and further study in terms of risk factors, identification and natural history. *(All Professional Health Care Bodies involved with tracheostomy care)*
- There needs to be improved recognition of the incidence of swallowing difficulty in tracheostomy patients at all points in the care pathway. Early referrals to Speech and Language Therapy with specific competences are recommended. *(All Consultants and Speech and Language Therapists)*

