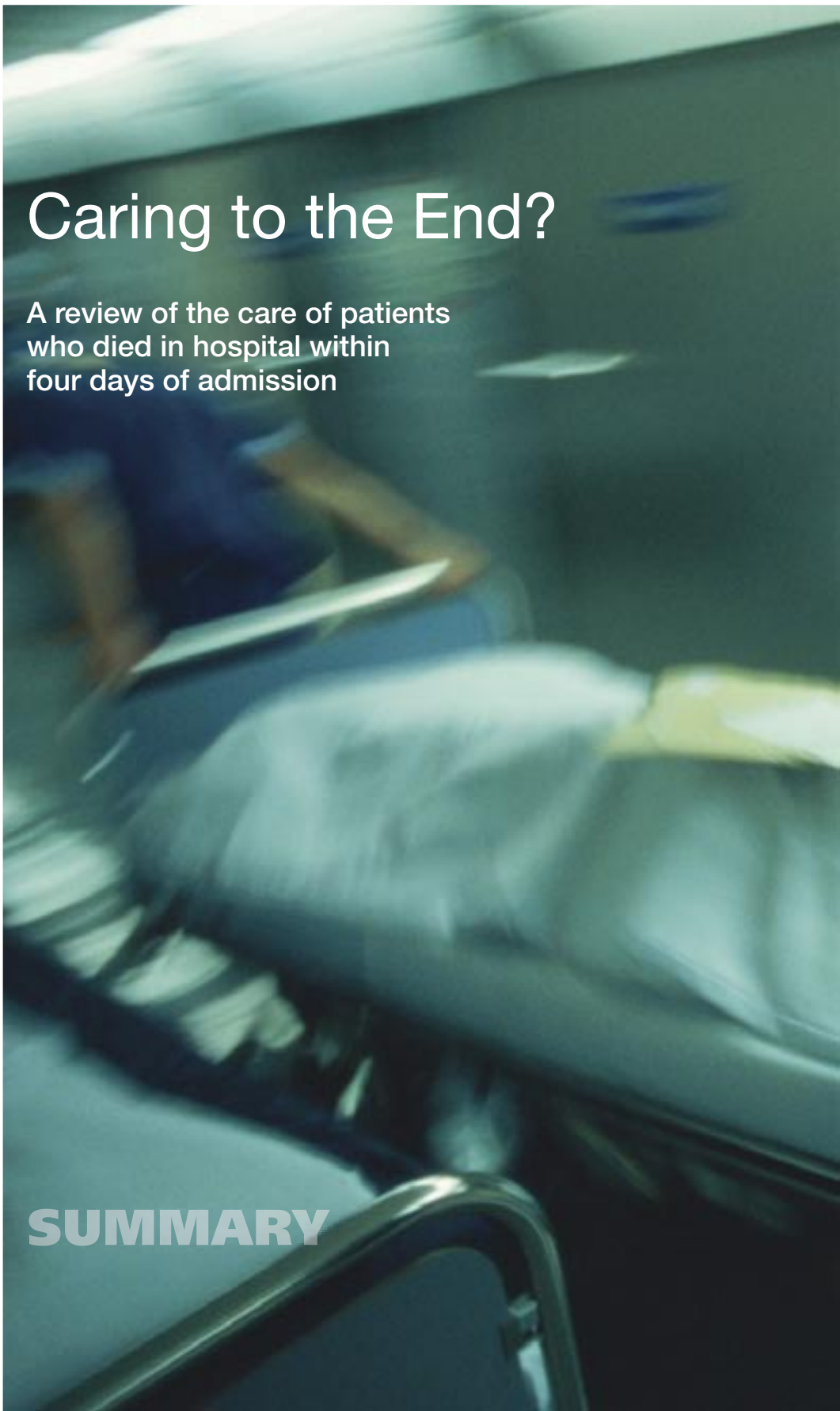

Caring to the End?

A review of the care of patients who died in hospital within four days of admission

SUMMARY

NCEPOD

Caring to the End?

A review of the care of patients who died in hospital within four days of admission

A report by the National Confidential Enquiry into Patient Outcome and Death (2009)

Compiled by:

H Cooper BSc (Hons) MSc RGN, Clinical Researcher
G Findlay MB ChB FRCA, Clinical Co-ordinator (Intensive Care)
A P L Goodwin MB BS FRCA, Clinical Co-ordinator (Anaesthesia)
M J Gough ChM FRCS, Clinical Co-ordinator (Surgery)
S B Lucas FRCP FRCPath, Clinical Co-ordinator (Pathology)
D G Mason MBBS FFARCS, Clinical Co-ordinator (Anaesthesia)
M Mason PhD, Chief Executive
I C Martin LLM FRCS FDSRCS, Clinical Co-ordinator (Surgery)
J A D Stewart LLM MB ChB FRCP, Clinical Co-ordinator (Medicine)
K Wilkinson FRCA FRCPCH, Clinical Co-ordinator (Anaesthesia)

The authors and Trustees of NCEPOD would particularly like to thank the NCEPOD staff for their work in collecting and analysing the data for this study:

Robert Alleway, Sabah Begg, Maurice Blackman, Dolores Jarman, Kathryn Kelly, Rakhee Lakhani, Waqaar Majid, Eva Nwosu, Karen Protopapa, Hannah Shotton and Neil Smith.

Special thanks are given to Dr Martin Utley and Professor Steve Gallivan from the Clinical Operational Research Unit at University College London, for their scientific advice.

Contents

Introduction

Following the admission of patients in an emergency or urgent setting there is often no formal assessment of comorbidities. Many, otherwise remediable, medical conditions go uncorrected, problems are overlooked, surgical complication rates are high and deaths occur despite the best anaesthetic, surgical and medical expertise available[1].

Much can be done to pre-empt such problems but this requires good planning and service and a team that functions in a co-ordinated manner. Continuity of care and an understanding of the case throughout the patient's hospital stay must be assured. Change in the hospital team structure over recent years has seen individual clinicians become transient acquaintances during a patient's illness rather than having responsibility for continuity of care. Staffing arrangements and shift working have also been shown to be disruptive[1] and with the implementation of the European Working Time Directive, this disruption is likely to continue and to impact on the training of tomorrow's doctors.

Better team working involves consultants and all medical staff working together with nurses, managers and professions allied to medicine and sometimes patients themselves. It is possible that emergency situations may not allow this way of working but, with time and effective communication, specialist groups should be able to anticipate and plan for most common scenarios of presentation and the associated complications. This can be seen clearly in the paediatric section of this report and in the end of life care section. More patients are dying in hospital and it should be ensured that patients achieve the best quality of life until they die. Effective team working and communication with patients, relatives and carers are fundamental to getting this right.

The study presented in this report revisits some of the themes highlighted in the 2002[1], 2003[2] and 2007[3] NCEPOD reports, to evaluate current practice and see what changes have been made.

1. National Confidential Enquiry into Patient Outcome and Death. 2002. Functioning as a Team. London. http://www.ncepod.org.uk/pdf/2002/02full.pdf
2. National Confidential Enquiry into Patient Outcome and Death. 2003. Who Operates When? II. London. http://www.ncepod.org.uk/pdf/2003/03full.pdf
3. National Confidential Enquiry into Patient Outcome and Death. 2007. Emergency Admissions: A journey in the right direction?. London. http://www.ncepod.org.uk/2007report1/Downloads/EA_report.pdf

Principal findings

In 25% (407/1635) of cases there was, in the view of the advisors, a clinically important delay in the first review by a consultant.

Poor communication between and within clinical teams was identified by the advisors as an important issue in 13.5% (267/1983) of cases.

There was a lack of communication both between different grades of doctors within clinical teams, and between different clinical teams and other health care professionals.

There were instances of poor decision making and lack of senior input, particularly in the evenings and night time.

95.8% of these sick patients were anaesthetised by an anaesthetist of the appropriate grade for their condition.

Access to CT scanning and MRI scanning is a substantial problem with many sites having no or limited (<24hours) on site provision.

Only 150/297 hospitals have on site angiography (non-cardiac) and of these only 76 have 24 hour access.

District hospitals may have particular problems delivering a high standard of care when dealing with very sick children and it is recognised that a well co-ordinated team approach is required.

In 16.9% (219/1293) of patients who were not expected to survive on admission there was no evidence of any discussion between the health care team and either the patient or relatives on treatment limitation.

In 21.8% of cases DNAR orders were signed by very junior trainee doctors.

There were examples of where health care professionals were judged not to have the skills required to care for patients nearing the end of their lives. This was particularly so in relation to a lack of the abilities to identify patients approaching the end of life, inadequate implementation of end of life care and the poor communication with patients, relatives and other health care professions.

1 - Method

Study aim

To explore remediable factors in the process of care for patients who died in an hospital.

Objectives

The expert group identified objectives that would address the overall aim of the study and these will be addressed throughout the following chapters:

- assessing process of referral from admission until seen by first consultant;
- handover and multidisciplinary team working;
- levels of supervision;
- appropriateness of surgery and anaesthesia;
- general clinical issues including prophylaxis for venous thromboembolism and access to investigations including radiology services;
- paediatric practice;
- palliative care in an acute setting.

Hospital participation

National Health Service hospitals in England, Wales and Northern Ireland were expected to participate, as well as hospitals in the independent sector and public hospitals in the Isle of Man, Guernsey and Jersey.

Within each hospital, a named contact, referred to as the NCEPOD Local Reporter, acted as a link between NCEPOD and the hospital staff, facilitating case identification, dissemination of questionnaires and data collation.

Study population

All patients older than 28 days who died in hospital between 1st October 2006 and 31st March 2007 within 96 hours of admission were included.

Exclusion criteria

Neonates under 28 days old.

Advisor group

A multidisciplinary group of advisors was recruited to review the case notes and associated questionnaires. The group of advisors comprised clinicians from all specialties, both medical and surgical.

Questionnaires and case notes

There were three questionnaires used to collect data for this study, a clinical questionnaire per patient which covered all aspects of patient care during their admission. If the patient had received an anaesthetic then an anaesthetic questionnaire was sent to the anaesthetist involved. For each site, completion of an organisational questionnaire was requested. This questionnaire concerned data on the staff, facilities and protocols available to care for patients in hospital.

2 - Data returns

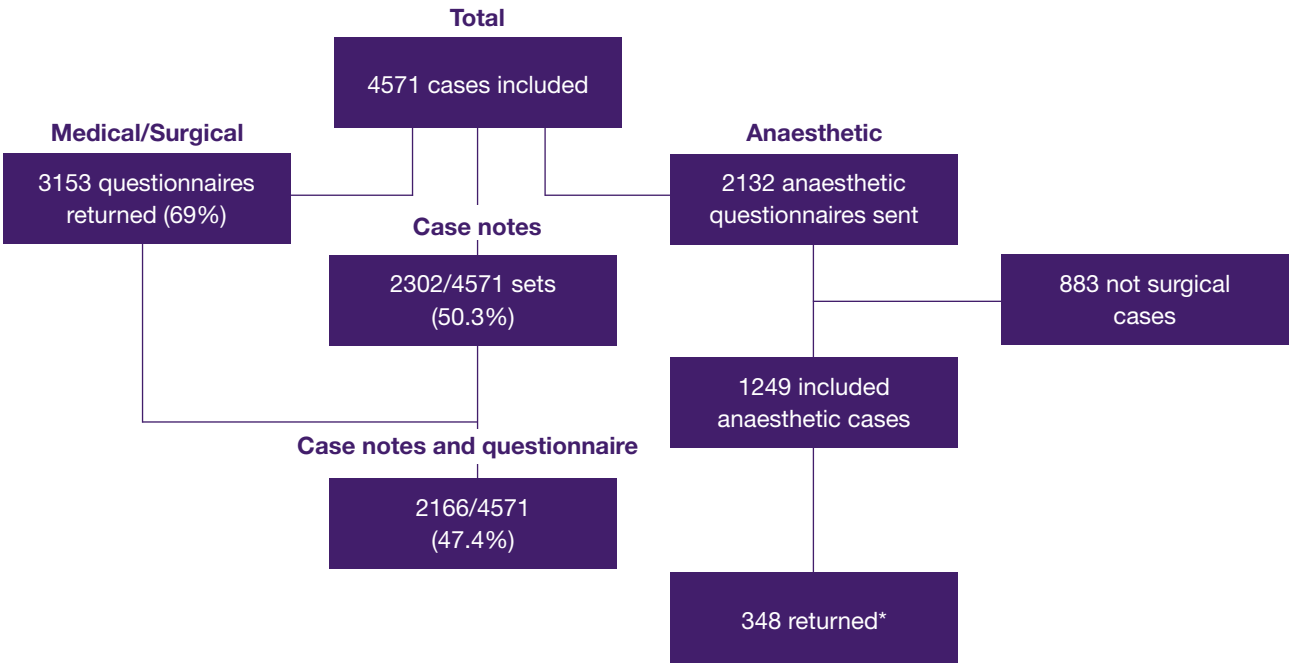

Figure 2.1 Data returns

*An anaesthetic questionnaire was sent for all cases where a patient had undergone a medical or surgical procedure. This was determined from the OPCS codes provided on the initial case data sent to NCEPOD. If no OPCS code was present an anaesthetic questionnaire was also sent for all cases admitted under a surgical specialty, anaesthetic specialty or emergency medicine. However, this meant that determining the true denominator for the anaesthetic questionnaire has not been possible and so we have not presented a percentage return rate.

3 - Study population and overall quality of care

Overall quality of care

Figure 3.2 demonstrates that the quality of care received by two thirds (1337/2195; 60.9%) of patients in this study was judged, by the advisors, to be good practice. However, in 34.2% (750/2195) of patients there was room for improvement and in 4.9% (108/2195) of cases care was judged to have been less than satisfactory by the advisors. In 107 cases there was insufficient data to assess the case.

Good practice: A standard that you would accept from yourself, your trainees and your institution.
Room for improvement: Aspects of ***clinical*** care that could have been better.
Room for improvement: Aspects of ***organisational*** care that could have been better.
Room for improvement: Aspects of both ***clinical*** and ***organisational*** care that could have been better.
Less than satisfactory: Several aspects of clinical and/or organisational care that were well below that you would accept from yourself, your trainees and your institution.
Insufficient information submitted to NCEPOD to assess the quality of care.

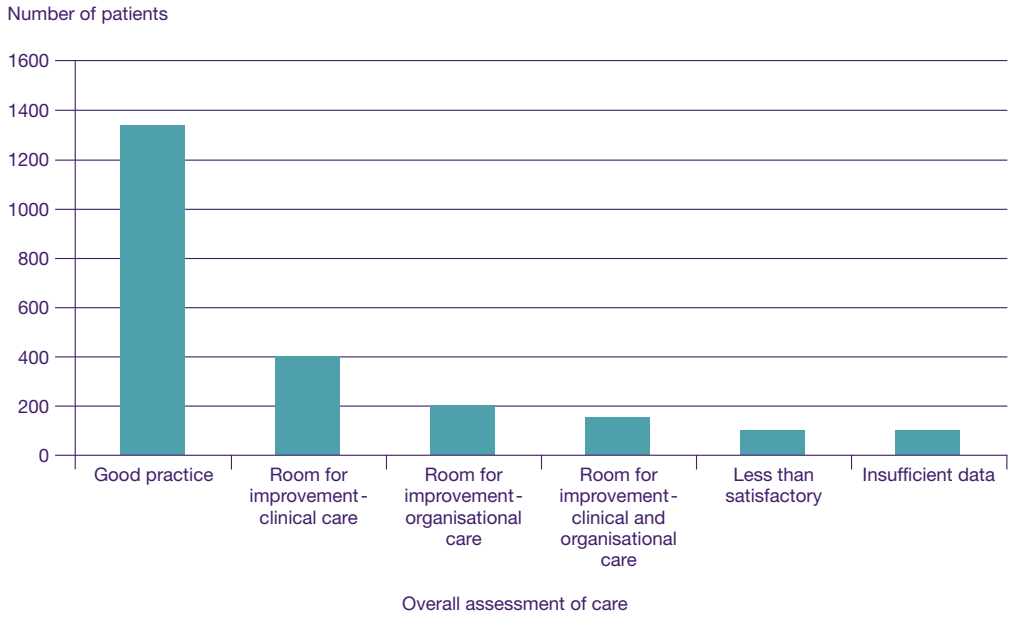

Figure 3.2 Overall assessment of care as judged by the advisors

4 - Key findings and recommendations

Process of care following admission

Key findings

Consultant involvement in assessment and diagnosis becomes less frequent in the evenings and at night time, when the diagnosis was made to be made by foundation doctors and SHOs in 25% (154/613) of cases. In some specialties this may be appropriate, but many of these emergency patients had complex conditions requiring urgent senior input.

In 25% (407/1635) of cases there was, in the view of the advisors, a clinically important delay in the first review by a consultant.

Poor communication between and within clinical teams was identified by the advisors as an important issue in 13.5% (267/1983) of cases.

Poor documentation remains commonplace. This hinders effective communication between team members and makes the subsequent assessment and audit of care difficult.

Recommendations

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)

Surgery and anaesthesia

Key findings

There was lack of involvement of trainees in emergency surgery in a supervised learning environment.

There was a lack of communication both between different grades of doctors within clinical teams, and between different clinical teams and other health care professionals.

There was a poor standard of record keeping. Good legible records, and coordinated handovers are essential if good communication between team members is to be established.

There were instances of poor decision making and lack of senior input, particularly in the evenings and night time.

Some of the basic aspects of clinical care continue to be neglected. In particular the monitoring, recording and management of fluid balance in the elderly and those with multiple comorbidities.

Anaesthesia

68.8% of patients had documented pre-operative assessment

91.5% (280/306) of cases had comorbidities that were managed adequately in the pre-operative period

95.8% of these sick patients were anaesthetised by an anaesthetist of the appropriate grade for their condition.

Frequently trainees and associate specialist anaesthetists did not record the consultant to whom they were responsible.

89% of patients had their temperature managed actively during the operative period.

Recommendations

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)

Anaesthesia

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)

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)

General clinical issues

Key findings

182 patients did not have all essential investigations performed.

5% of patients had a delay in their investigations being performed.

96% of patients who underwent a radiological investigation had all appropriate radiological investigations performed.

1241/2338 (53.1%) of initial radiological investigations were performed out of hours.

Access to CT scanning and MRI scanning is a substantial problem with many sites having no or limited (<24hours) on site provision.

Only 150/297 hospitals have on site angiography (non-cardiac) and of these only 76 have 24 hour access.

Venous thromboembolism

Patients admitted under a surgeon appeared to be more likely to receive venous thromboembolism prophylaxis. Nevertheless, only 55% of patients admitted under a surgeon and 38% of patients admitted under a physician did so.

The use of venous thromboembolism prophylaxis in medical patients included in this study was unacceptably low.

National guidelines for prophylaxis in medical patients are being developed and urgently required.

Recommendations

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)

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)

Paediatric care

Key findings

Initial diagnosis was more often made by a consultant as compared with adult patients. NCEPOD recognises that recognition of serious illness in children is sometimes relatively difficult and requires the input of senior clinicians at the onset.

District hospitals may have particular problems delivering a high standard of care when dealing with very sick children and it is recognised that a well co-ordinated team approach is required.

A minority of paediatric deaths were in a surgical context. A forthcoming NCEPOD study will look at the care of such patients.

End of life care

Key findings

49.8% of patients, who died with 96 hours of admission to acute hospitals, were not expected to survive and 68.7% of these were considered to have received good practice.

The advisors considered that 5.9% of patients had an unnecessary admission to hospital and this was due to a deficiency of social and medical support in the community.

In 16.9% (219/1293) of patients who were not expected to survive on admission there was no evidence of any discussion between the health care team and either the patient or relatives on treatment limitation.

Of those patients not expected to survive on admission in only a third were end of life care pathways used and 30% did not have do not attempt resuscitation (DNAR) orders.

In 21.8% of cases DNAR orders were signed by very junior trainee doctors.

Palliative care teams were rarely involved in the care of patients who died in this study.

There were examples of where health care professionals were judged not to have the skills required to care for patients nearing the end of their lives. This was particularly so in relation to a lack of the abilities to identify patients approaching the end of life, inadequate implementation of end of life care and the poor communication with patients, relatives and other health care professions.