

Influence of guidelines on CPR decisions: an audit of clerking proforma

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ABSTRACT – We audited documentation rates and implementation of cardiopulmonary resuscitation (CPR) decisions for patients admitted under the Department of Elderly Care Medicine, Mayday University Hospital, Croydon, as new guidelines and a proforma were introduced. For the first audit, data were collected from 75 departmental discharges. Following introduction of a proforma, six point prevalence audits were performed of all elderly care inpatients. Consultant documentation improved from 27/75 (36%) to 102/109 (94%), 135/148 (91%), 133/140 (95%), 96/119 (81%), 148/157 (94%) and 167/169 (98%) in audits 2, 3, 4, 5, 6 and 7 respectively. The percentages of decisions that were Do Not Attempt Resuscitation (DNAR) were 64% 72%, 45%, 68% and 62% in audits 3 to 7 respectively. For audit 5 our guidelines required discussion with patient before making a DNAR order, whereas the guidelines applicable for the other audits did not stipulate discussion. The fall in documentation rates and proportion of CPR decisions that were DNAR in audit 5 were statistically significant. There was no significant difference in age, diagnosis, cognitive function or disability between patients in those audits (3–7) when these parameters were recorded. Introducing a proforma significantly improved CPR decision documentation. Obligatory discussion with a patient before issuing a DNAR order was associated with a fall in documentation of decisions.

KEY WORDS: cardiopulmonary resuscitation, DNAR, guidelines, proforma

Introduction

We performed seven audit cycles during which we developed and adapted the cardiopulmonary resuscitation (CPR) policy of our Elderly Care (EC) Medicine Department to incorporate hospital and published guidelines.^{1,2,3}

Methods

In 1998 there was no CPR policy or standard format for CPR documentation in the Department of EC Medicine at our hospital. Later, we introduced the policy that a decision on CPR should be documented for all patients, although no reason for the decision needed to be given and no discussion with patients was required. A clerking proforma was therefore introduced in the Department of EC Medicine when admitting any elderly person. In addition to clinical findings, documentation of a Barthel score of activities of daily living,⁴ Abbreviated Mental Test Score (AMTS)⁵ of cognitive function and a CPR decision were required.

Audit 1 was of 75 consecutive discharges (not including deaths) before the introduction of the proforma. Audit 2 was of all inpatients on EC wards on one day. Audits 1 and 2 recorded whether the information required by the proforma had been documented but did not record what the CPR decisions were.

Following these audits, in line with Royal College of Physicians guidelines,² we amended departmental policy so that a CPR decision, with a reason for that decision, was to be documented on admission by a junior doctor, and reviewed and countersigned by a consultant within 24 hours.

Subsequent audits included all inpatients under EC. Patient age, AMTS, Barthel, major diagnoses, junior and consultant CPR decisions, the reasons for decisions and any discussion with patient and/or relative were documented. Review and discussions were assumed to have taken place only if documented. If no decision was documented the patient was assumed to be 'for CPR'.

We revised our EC policy following publication of the 1999 guidelines from the British Medical Association, Resuscitation Council and Royal College of Nursing (BMA/RC/RCN),³ which suggested that a reason for a Do Not Attempt Resuscitation (DNAR) decision should be recorded, together with any discussion, but there was no obligation to discuss with the patient before making a DNAR order. Audits 3 (May 2000) and 4 (February

2001) reviewed implementation of this policy. In April 2001 the hospital and EC introduced a CPR policy to comply with BMA/RC/RCN guidelines 2001,¹ as recommended by the Department of Health (DH).⁶ For cognitively intact patients, the policy was that discussion should take place before making a DNAR order and that patient wishes should be respected. A new CPR documentation form, with the CPR policy summarised on its reverse side, was to be filled in for every patient. The form is attached to the notes when admitting a patient but spare copies are available on all wards. Audit 5 (September 2001) audited compliance with this policy.

After audit 5 we clarified the hospital's interpretation of the 2001 guidelines¹ with the DH. Our policy then became that we aim to discuss with the patient prior to making a DNAR order unless it is thought inappropriate to do so. The reason for not discussing with a patient should be documented; these might include avoiding patient distress, a very low chance of success or likelihood of causing confusion. This policy was audited in audits 6 (May 2002) and 7 (September 2003).

To aid dissemination of and compliance with the CPR policy, the EC junior doctors receive an information pack containing policies on departmental admissions, CPR and other matters. The pack is reviewed page by page and is given to locums joining the department. Weekly departmental audit/teaching meetings include sessions devoted to the use and importance of our clerking proforma and issues relating to CPR. On ward rounds consultants emphasise to junior doctors that the proforma must be completed and a CPR decision made on admission for all patients. Conversely, consultants expect to be reminded by junior doctors to review CPR decisions within 24 hours.

Results

Following the introduction of the proforma, CPR decision documentation increased from 36% (27/75) in audit 1, to 94% (102/109) in audit 2.

For audits 3–7, analysis of variants found no significant difference between mean age, Barthel or AMTS and no significant difference between proportions of patients with AMTS greater

Key Points

The use of a proforma improved documentation of cardiopulmonary resuscitation (CPR) decisions

To maintain high documentation rates, a CPR policy has to be perceived as important by both junior and senior medical staff

Dissemination of policy to junior doctors and regular audit is instrumental in maintaining high documentation rates

To maintain high documentation rates and to avoid confusion and distress, a CPR policy should allow a Do Not Attempt Resuscitation (DNAR) order to be made without discussion of CPR with the patient

or less than seven. Acute illness was the major reason for admission; infections, heart failure and ischaemic heart disease were the most frequent medical problems.

For audits 3–7 junior doctors documented a CPR decision within 24 hours on 86% (632/733) of patients; consultants on 93% (679/733). Compared to audits 3, 4, 6 and 7, the percentage of documented CPR decisions fell significantly ($p < 0.001$) in audit 5 and there was a significantly ($p < 0.001$) lower proportion of patients on whom a DNAR order was made (Table 1).

Between audits 3 and 7 there was an increase in the proportion of patients and/or relatives with whom discussion was recorded as having taken place, as well as documentation of a reason behind a CPR decision.

Discussion

Documentation of CPR decisions improved with the introduction of the proforma. In most cases, the junior doctor made a decision when admitting the patient, which was reviewed by the consultant within 24 hours. Consultants reviewing the patient were more likely to issue DNAR orders than juniors. Clear explanation of the proforma's use and the CPR policy to all junior doctors is essential to maintaining high documentation

Table 1. Numbers of patients in whom a CPR decision was made on admission by junior doctors and numbers reviewed by Consultant staff within 24 hours.

Audit cycle (number)	Number (%) of CPR decisions, made on admission, by juniors	Number (%) of CPR decisions that were DNAR orders by juniors	Number (%) of CPR decisions, made within 24 hours, by consultant	Number (%) of CPR decisions that were DNAR orders by consultant
3 (n=148)	135 (91%)	68 (50%)	135 (91%)	94 (70%)
4 (n=140)	131 (94%)	63 (48%)	133 (95%)	101 (76%)
5 (n=119)	102 (85%)	25 (25%)	96 (81%)	54 (56%)
6 (n=157)	132 (84%)	73 (55%)	148 (94%)	106 (72%)
7 (n=169)	132 (77%)	49 (38%)	167 (98%)	102 (62%)
Total (n=733)	632 (86%)	279 (44%)	679 (93%)	457 (67%)

rates. Repeated audit and the opportunity for juniors to feed back their opinion gives them ownership of the CPR policy, increasing compliance with it. Consultants must be seen to attach importance and take the time to review and discuss CPR decisions with patients and junior doctors.

A CPR policy must be perceived as both ethical and practical to be effective. Prognosis following CPR is poor for patients arresting because of sepsis or organ failure.⁷ Elderly, cognitively competent patients often confuse DNAR with 'not for treatment'⁸ and have difficulty understanding concepts of risk.^{9,10} Many do not wish to discuss complications of treatment or their death.¹¹ When there was no obligation to discuss CPR before issuing a DNAR order, a consultant CPR decision was documented for 95% (583/614) of patients. When the policy required discussion with all competent patients before issuing a DNAR order, audit 5 found consultant CPR documentation fell to 81% and the proportion of DNAR orders also fell significantly. Similar changes were found for junior doctor CPR documentation. There was no significant difference in age, AMTS, Barthel and major diagnoses between audits 3, 4, 5, 6 and 7. We believe the differences related to the guidelines in force during audit 5 being perceived as impractical. Allowing a DNAR order to be made without discussion is central to maintaining decision rates.

By means of our proforma, audits, discussion and dissemination of policy, we have developed a workable model for making CPR decisions. For good compassionate care, we believe a CPR decision should be made for all patients at foreseeable risk of cardiopulmonary arrest. The first decision is the appropriateness of CPR. If CPR is thought inappropriate, discussion should normally take place with the patient but, to avoid confusion or distress, a DNAR order may be made without discussion. Many elderly people would not want CPR, especially once its nature and survival prospects are explained.^{12,13} If CPR is going to be offered and the patient is at foreseeable risk of arrest, they should be asked if they would want it.

The General Medical Council¹⁴ and the 2001 guidelines¹ affirm that the final decision is with the doctor. However, the guidelines¹ statement that a patient's wish to receive CPR 'should be respected ... even if the clinical evidence suggests that it will not effectively restart the heart' implies that doctors can be asked to respect patient wishes by providing a treatment that that they feel is inappropriate and that has no prospect of succeeding. Doctors should not be required to ask permission not to perform an ineffective treatment and the guidelines should not suggest that they should.

Like others,^{15,16} we believe the suggestion that CPR should always be attempted unless discussion has taken place is morally indefensible. It is dishonest to offer CPR when there is no prospect of success as it implies a choice exists when there is none. We should not be forcing discussion of the merits of CPR with a patient who is very ill and/or dying or if they are likely to

be distressed by the discussion. Patients have the right to refuse CPR but, as with other ineffective treatments, they do not have the right to insist they receive it if there is no prospect of success. The guidelines are commonly interpreted as meaning no DNAR order can be made without prior discussion with the patient.¹⁷ This interpretation is incorrect, and a CPR policy based upon such an interpretation is likely to result in less discussion and more patients being 'For CPR' by default. Requiring discussion in all circumstances before issuing a DNAR order is wrong.

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