Global lessons from deaths from heart failure in UK hospitals
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The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) has recently published a review of the care received by patients who died in UK hospitals following an admission with acute heart failure (HF). A sample of up to six adults who died during an admission to each hospital in the UK in 2016 was selected, with a total of 603 deaths being examined in detail by a multidisciplinary group of case reviewers. Various aspects of care, both organisational and clinical, were reviewed and graded as either good practice, room for improvement, or less than satisfactory.

There were six principal recommendations, shown in the Table.

England is not short of recommendations on heart failure. The National Institute for Health and Care Excellence (NICE) has published a clinical guideline, with quality standards, for acute heart failure, and there is a rolling audit of heart failure admissions, that produces an annual report on many processes and outcome of care for HF in English hospitals. The NCEPOD report reinforces many, if not all of those recommendations, but highlights some areas of practice that require more attention.

Most notably, many patients admitted with heart failure, who are not known to the admitting team, have a delay in diagnosis that could be prevented if there were better usage of the key tests in the diagnostic pathway: natriuretic peptides (NP) and echocardiography (as recommended in international guidelines on both sides of the Atlantic). It is disappointing that despite overwhelming evidence of benefit, and strong recommendations from NICE, many emergency rooms or acute medical admission units in the UK either do not have access to NP testing, or use the test inconsistently or poorly. Echocardiographic resources are limited in some hospitals in the UK, with heavy demand and little out-of-hours service provision, but this report highlights echocardiography as the key imaging test, providing information that is useful for diagnosis, risk stratification and specialist management. More must be done to enable more rapid access to this key test.

The recommendation is made that all patients should be cared for on a specialist unit. Many may take issue with this, as the evidence that this makes an impact over and above ensuring all patients are seen by a specialist team, is lacking, and this approach may not be feasible in hospitals that often run close to 100% capacity, particularly in winter months. International guidelines are largely silent on how care should be delivered, but call for more research on care processes both within hospital and early after discharge.

HF care is a multi-professional responsibility, and in many (but not all) countries the core team includes a specialist nurse in addition to a cardiologist. The NCEPOD report calls for the inclusion of a pharmacist, as many of the errors that occur appear to relate to dangerous or sub-optimal use of medication. This is presumably particularly the case when the medical team looking after the patient has little experience of heart failure or the medications that should be used – and the report calls for a protocol for each hospital with medication guidance for treatment prior to specialist review.

Interestingly, the report also calls for inclusion of a specialist in palliative care as a member of the core HF team - a step further than NICE has recommended. This is due to the very frequent issue of poor practice in decision making on ceilings of therapy, or discussion of treatment goals, and the failure to recognise the terminal phase of the condition, with poor communication around these issues in many of the deaths that were examined.

The report also highlights the need for pre-emptive discussion (with advance care planning) in those living with heart failure. It would appear that many patients, even with advanced heart failure and...
multiple co-morbidities, do not have a discussion with their healthcare team (and their families) about what treatments may or may not be beneficial if serious deterioration occurs, what ceilings of therapy might be appropriate, and where care should be given in the event of likely death. Palliative care needs should be assessed in all patients, not just those who are nearing the end of life, and this will assist in appropriate action being taken regarding the type and location of care (hospital, home or hospice) in the event of deterioration. Any pre-emptive decision making can be reviewed at the time of admission, but such discussions help ensure that the patient, the family, and the healthcare team take the most appropriate action.

It may surprise those who do not work in the UK that these issues have not already been resolved. But similar issues are likely to occur in every healthcare system. HF guidelines often focus on the pharmacological, surgical and device related interventions that may be beneficial in HF, and typically spend less time discussing the organisation and processes of care, the composition of the healthcare team most likely to produce the best outcome and experience of care, and appropriate decision making regarding escalation of therapy and ceilings of care. This may be because there is less “hard” evidence from randomised trials, or the evidence is from other disease conditions, or that such matters are considered issues to be decided more nationally or locally. The NCEPOD report is a timely reminder to all of us that delivering high quality care to the minority of patients with HF that end up in a specialist service is laudable but not sufficient: all people with symptoms severe enough to require hospitalisation deserve rapid diagnosis and early access to the appropriate treatment, a plan that is appropriate for them, and a team that is sensitive to the difficult issues that arise at the end of life or when more aggressive therapies may not be beneficial.

References

1. **An acute HF clinical guideline should be available in all hospitals.** Care should be in a specialist unit, with HF team review within 24 hours, a standard protocol for diagnosis including natriuretic peptide (NP) testing and echocardiography, and medication guidance for immediate treatment prior to specialist review.

2. **All HF patients should have access to a HF multidisciplinary team,** including a cardiologist, specialist HF nurse, pharmacist, palliative care specialist and a member of the primary care team, with other services (including elderly care, clinical psychology, physio- or occupational therapists, cardiac rehabilitation) as appropriate.

3. **Serum NP should be included in the first set of blood tests** in all patients with acute breathlessness who do not have a past diagnosis of HF.

4. **An echocardiogram should be performed for all patients with suspected AHF as early as possible,** but within a maximum of 48 hours after presentation to hospital.

5. **Escalation decision making must be improved,** including the assessment of the goals and benefits of treatment escalation. Included in this discussions should be the patient (and their family), the cardiology or HF consultant, and with agreement among members of the multidisciplinary team. Decisions should be communicated with healthcare professionals across the whole care pathway.

6. **Pre-emptive discussion in the outpatient setting of treatment that would not be beneficial** for patients with advanced heart failure, and agreement of an anticipatory care plan can prevent unnecessary admissions.

Table 1. Principal recommendations of the NCEPOD review of HF deaths in UK hospitals.¹