Can geriatricians improve inpatient heart failure care? Time for a heart to heart

Chronic heart failure (CHF) due to left ventricular systolic dysfunction is a disease of old age. Incidence and prevalence increases with age, with the mean age of diagnosis being 76 years [1, 2]. There is now an extensive evidence base to help guide diagnosis and management. This article highlights the updates to the NICE guidelines for CHF management and the results of the National Heart Failure Audit, and argues the case for the establishment of CHF units, lead by cardiologists and geriatricians.

The second NICE guidelines for CHF have updated both diagnostic pathways and treatment regimes for CHF patients. The triad of clinical assessment, brain natriuretic peptide assay (BNP), and echocardiography is the gold standard for diagnosing CHF presenting in primary care. Patients with a history of myocardial infarction (MI) or those with an NTproBNP level of >2,000 pg/ml or BNP >400 pg/ml need an urgent echo and clinical review within 2 weeks. Low BNP levels in untreated individuals (NTproBNP <400 pg/ml or BNP <100 pg/ml) can be useful in excluding suspected cases. Nice also widened its recommendation of ACE inhibitors and beta-blockade as the standard baseline therapy to include older persons. Angiotensin receptor blockers as well as nitrate and hydralazine combinations are useful for selected patients. Cardiac resynchronisation therapy may be useful in optimally treated symptomatic patients in sinus rhythm, with QRS complexes being >120 ms. Nice now also recommends that patients should be offered rehabilitation [3].

Aldosterone receptor antagonism has an increasing role. NICE recommended their use in CHF patients with post-MI or with severe symptom. The EMPHASIS HF trial showed a significant improvement in mortality and cardiovascular readmissions when eplerenone is added to dual therapy in patients with mild symptoms [4]. Intravenous iron therapy can improve symptoms in anaemic patients [5]. Ivabradine improved a composite endpoint of cardiovascular death and readmission in CHF patients with resting tachycardia despite optimal dual therapy [6].

As diagnostic pathways improve and the evidence base for effective treatment widens, it is clear that the inpatient management of CHF patient requires attention. Geriatricians have recognised for a long time that older persons with CHF are less likely to receive appropriate investigations and management when they are admitted acutely. This has been confirmed by the results of The National Heart Failure Audit. This audit was established in 2007 as a joint initiative between the British Society for Heart failure, the Care Quality Commission and the National Health Service Information Centre. It provides an overview of the inpatient management of patients admitted to secondary care in England and Wales. A total of 133 organisations representing 86% of English hospital trusts and Welsh health boards eligible to take part are registered with the national audit centre, and 96% of those regularly submit data. Two reports analysing 21,000 inpatient episodes have been published [7]. The median age of the CHF patients is 79 years. Of the admissions aged over 75, 51% are female. An estimated 70% of cases are CHF due to left ventricular systolic dysfunction, with hypertension and ischaemic heart disease being the most common aetiologies.

Of the total CHF patients, 42% are managed on cardiology wards and those patients tend to be younger and male. The prescription of recognised CHF treatments is greater in cardiology managed patients, and their mortality rate is 6% compared with 12% in patients managed by other specialties. Only 50% of CHF discharges are followed up in a recognised CHF clinic. Those who receive specialised follow-up have a 16% 1-year mortality as opposed to a 32% 1-year mortality in patients who are not followed up in a CHF clinic. The improved outcome in patients managed and followed up by CHF speciality teams persists after adjustment for age, sex and CHF aetiology [8].

Why are there marked differences in outcomes for CHF patients on cardiology compared with those on other speciality wards? Case selection, referral and acceptance bias may be responsible. Older persons are much more likely to have contraindications or be intolerant of the standard CHF medication. They are much more likely to have significant co-morbidities that may take precedence over CHF management. This may partly explain the differences in management seen in the national audit. However, there is little doubt that the inpatient care for CHF patients is better when it is coordinated by a specialist team.

The audit report recommended that all secondary care service providers should streamline the heart failure care pathway to ensure that all patients, regardless of the admission ward, have access to medication in line with NICE guidelines, and that treatment is managed by specialist staff.
More recently, the Quality Standards for CHF services state that all CHF patients should be reviewed by CHF specialist teams during their acute admission [9].

What is the best model of care delivery for CHF patients admitted acutely? Geriatricians will recognise how a specialised team can improve outcomes in the care of certain patient groups. Marked improvements in the outcome for patients admitted with acute stroke were seen when care was coordinated on a dedicated unit. Geriatricians lead the way in those service improvements and they now need to do the same to improve outcomes for elderly patients admitted with CHF. Co-ordinated care certainly improves outcomes for CHF patients [10–13].

The referral bias to, and acceptance by, specialist heart failure services needs to be challenged to ensure equity of access to investigations, standard medical therapies and also specialised treatments such as biventricular pacemakers, intra-cardiac defibrillators, non-invasive ventilation and ultrafiltration. Our colleagues in cardiology have made marked improvements in the access for older persons to the modern management of acute coronary syndromes, and geriatricians should encourage this approach to be extended to older persons with CHF. But clinical input to specialist CHF teams needs to be more than a cardiologist with a special interest in heart failure. They need to be multi-disciplinary in nature, with a geriatrician being a key member. Geriatricians have a range of skills that complement cardiologists in the management of CHF patients. They have the skills not only to manage the medical aspects of CHF care, but also to address co-morbidities, to optimise function and to provide skills in palliative care. Geriatricians are also well placed to liaise with community teams and more specialist palliative care services. Geriatricians are also involved elsewhere in the care pathway. Early case identification of CHF patients on the acute admissions unit is vital in ensuring the correct care pathway. Geriatricians very frequently have input into the AMU and so can help in this vital role.

Specialist registrars training in Geriatric Medicine need to develop the skills to manage CHF patients. This requirement should be recognised by the British Geriatrics Society specialist registrar training committee. Cardiology trainees can undergo subspecialty training in CHF management in areas endorsed by The British Society of Heart failure. Geriatric specialist registrars should be given an opportunity to develop the skills required to manage CHF patients.

The development of a CHF Unit is likely to be the best way to improve outcomes for these patients. The unit should have core staff with special interest in CHF care and include nurses, pharmacists, cardiologists and geriatricians. Geriatricians have been in the forefront of improving stroke services. The care of CHF patients needs similar attention. So arrange a meeting with your local friendly cardiologist because its time for a heart to heart.

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