



Queensland University of Technology
Brisbane Australia

This is the author's version of a work that was submitted/accepted for publication in the following source:

Atherton, John, Hickey, Annabel, & Suna, Jessica (2012) Striving to achieve best practice in heart failure disease management. *BMJ Quality and Safety*, 21(3), p. 263.

This file was downloaded from: <http://eprints.qut.edu.au/54535/>

© Copyright 2012 BMJ Group

Notice: *Changes introduced as a result of publishing processes such as copy-editing and formatting may not be reflected in this document. For a definitive version of this work, please refer to the published source:*

<http://dx.doi.org/10.1136/bmjqs-2011-000338>

Striving to achieve best practice in heart failure disease management

1. [J J Atherton](#)^{1,2},
2. [A Hickey](#)³,
3. [J Suna](#)⁴

Author Affiliations

1. ¹*Department of Cardiology, Royal Brisbane and Women's Hospital, Herston, Queensland, Australia*
2. ²*University of Queensland School of Medicine, Herston, Queensland, Australia*
3. ³*Advanced Heart Failure and Cardiac Transplant Unit, The Prince Charles Hospital, Chermside, Queensland, Australia*
4. ⁴*Internal Medicine Research Unit, Royal Brisbane and Women's Hospital, Herston, Queensland, Australia*

1. Correspondence to Dr John Atherton, Department of Cardiology, Royal Brisbane and Women's Hospital, Butterfield Street, Herston, Brisbane, Queensland 4029, Australia; john_atherton@health.qld.gov.au

Based on a national audit of chronic heart failure (CHF) management programmes (CHF-MPs) conducted in 2006, Driscoll *et al* identified a disproportionate distribution ranging from 0 to 4.2 programmes/million population in the various states of Australia with many programmes not following best practice.¹ We welcome their proposal to develop national benchmarks for CHF management and acknowledge the contributions of the Heart Foundation and health professionals in finalising these recommendations.² We would like to share the Queensland experience in striving towards best practice with the number of CHF-MPs increasing from four (at the time of the 2006 survey) to 23, equating to 5.0 programmes/million population. Queensland now has a state-wide heart failure service steering committee with a focus on the development of CHF-MPs supported by a central coordinator.

In a randomised controlled trial of low-risk CHF patients, nurse care management failed to reduce all-cause or heart failure related hospitalisation.³ Despite this, 16% of CHF-MPs in Australia enrolled New York Heart Association functional class I patients.¹ While it is acknowledged that New York Heart Association functional class is one of many variables that determines the risk of rehospitalisation, 20% of these patients had not had an echocardiogram to confirm the diagnosis. A survey of Queensland CHF-MPs in 2010 found that 17% of programmes seldom have an echocardiogram prior to referral. This remains a geographical challenge for a state that is over seven times larger than the UK, and is being addressed through our clinical networks.

The importance of achieving target doses of ACE inhibitors, angiotensin receptor blockers and β blockers in CHF is well established. Nurse-assisted models can facilitate this process; however, only 44% of CHF-MPs allowed heart failure nurses to

titrate medications.¹ Driscoll *et al* evaluated medications titrated, but not whether target doses were achieved. An audit of titration outcomes of patients with systolic CHF newly referred to four CHF-MPs in Brisbane between June and December 2009 found that of patients not on target doses at hospital discharge, only a quarter achieved target doses within 6 months. We are currently evaluating a number of quality initiatives to improve uptitration following hospital discharge.⁴

Driscoll *et al* reported that while all CHF-MPs had nurses, involvement of doctors and allied health professionals ranged from 14% to 50%.¹ A Queensland survey of CHF-MP team leaders' perceptions conducted in May 2010 suggested reasonable access to medical support (general practitioners 91%, specialist physicians 87%), but variable access to allied health ranging from 36% for psychology to 78% for pharmacy. Video-conference clinics provided by staff in tertiary centres are now being used to address workforce shortages in rural and regional areas.

With the rapid expansion of new CHF-MPs, there remains significant variation in implementation. Approaches to patient selection and medication titration should be addressed through state-wide and national standards. Continued advocacy is required to improve access to diagnostic investigations and appropriately trained health professionals, which may include using tele-health in geographically isolated centres.⁵

References

1. Driscoll A, . *Evidence-based chronic heart-failure management programmes: reality or myth? BMJ Qual Saf* 2011;20:31–7.
2. National Heart Foundation of Australia. *Multidisciplinary Care for People with Chronic Heart Failure. Principles and Recommendations for Best Practice. National Heart Foundation of Australia, Melbourne, 2010.*
3. DeBusk RF, . *Care management for low-risk patients with heart failure: a randomized, controlled trial. Ann Intern Med* 2004;141:606–13.
4. Mayrseidl J, Hickey A, Atherton J. *What's the Plan? Medication Titration in Patients with Heart Failure. Heart Foundation Conference, 2011.*
<http://www.heartfoundation2011.org/abstract/147.asp>.
5. Inglis SC, Clark RA, McAlister FA, et al. *Structured telephone support or telemonitoring programmes for patients with chronic heart failure. Cochrane Database Syst Rev* 2010;(8):CD007228.