Fifty shades of dying: the challenge of maintaining goals of care in chronic heart failure

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Chasing immortality?



" Life is a sexually transmitted disease and the mortality is one hundred percent"



CVD – mortality market share

Cardiovascular disease - leading cause of death in England, resulting in 158 500 deaths - 34% of all deaths

Cancer responsible for 23% of all deaths

Atlas of Risk – NHS, 2009 (Courtesy of Pfizer)



Deaths from cardiovascular diseases in England - implications for end of life care



National end of life care

February 2013

Trade-off: A fragile survivorship

Trajectories of disability in the last year of life



Gill TM. NEJM 2010;362:1173-80.



Population dynamics



From pyramid to coffin



UK 2001: Healthy life expectancy – men 67 of 76 years



Parliamentary Office of Science & Technology

women 69 of 80 years

National Heart Failure Audit 2008-09



Cleland JGF et al, Heart 2011, 97:876-86.

Reality of dying from CVD in the elderly



- Heavy burden of symptoms: multifactorial
- Multiple chronic medical conditions
- Progressive losses: independence, autonomy
- Substantial care needs: often overwhelming for family caregivers
- Lengthy period of decline: uneven course
- Difficulty with prognostication
- Poor care coordination

HF - good clinical navigation essential

Case History: Nora P.



The heart failure disease trajectory



----- Transplant or ventricular assist device

Phase 1 – initial symptoms

- Phase 2 plateau after diagnosis / early management
- Phase 3 declining functional status, exacerbations respond to rescue
- Phase 4 stage D HF

Phase 5 – end of life

Modified from Goodlin SJ JACC, 2009, 54:386-96

Every HF patient's trajectory is unique





Trajectories of physical decline (KCCQ) in heart failure patients over 24 months prior to death (n = 27)

Gott M et al. Palliat Med, 2007, 21: 95-9

Care transition pointers

- Deteriorating despite optimal therapy for HF and comorbidities
- Increasing functional dependence
- Increasing fatigue
- Low ejection fraction
- Recurring hospitalisations
- Emotional distress
- Carer fatigue
- Patient request O'Leary N et al. Eur J Heart Fail 2009, 11: 406-11



HF care – a protocol driven paradigm

Challenges to initiating PC

• The culture of HF care favours a medical model and is treatment focussed.



Spencer Tunick

- Evidence based intervention is often the default position.
- Patients' preferences may be unexplored or they may be disempowered by technicalities or lack capacity.
- A structure of sub-speciality silo working.
- There is a reluctance to discuss prognosis in the face of uncertainty.

What happens in Stage D?



Hunt SA et al. JACC 2001;38:2101-13.

Doctors' confidence in delivering end of life care



Heart Improvement

NHS Improvement **NHS**



Cardiology Consensus

- Optimise heart failure therapy
- Foster better links with GIM, geriatrics, palliative care, primary care
- Develop a MDT approach

Feb 2007



A multidisciplinary approach to individualize HF care



THE NATIONAL Council For Palliative Care

The engagement of heart failure specialist nurses with palliative care services: A comparison of surveys across the UK in 2005 & 2010.



Johnson MJ et al Eur J Cardiovasc Nurs 2012, 11:190-6

European Society of Cardiology

Palliative care in heart failure: a position statement from the palliative care workshop of the Heart Failure Association of the European Society of Cardiology

Tiny Jaarsma^{*}, James M. Beattie, Mary Ryder, Frans H. Rutten, Theresa McDonagh, Paul Mohacsi, Scott A. Murray, Thomas Grodzicki, Ingrid Bergh, Marco Metra, Inger Ekman, Christiane Angermann, Marcia Leventhal, Antonis Pitsis, Stefan D. Anker, Antonello Gavazzi, Piotr Ponikowski, Kenneth Dickstein, Etienne Delacretaz, Lynda Blue, Florian Strasser, and John McMurray on behalf of the Advanced Heart Failure Study Group of the HFA of the ESC



Eur J Heart Fail, 2009, 11: 433-43

Scottish initiatives



Feb 2007



March 2008



Oct 2008

ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2012

Key components of HF palliative care service

- Frequent assessment of patient's physical, psychological, and spiritual needs
- Focus on complete symptom relief from both HF and other co-morbidities
- Advanced care planning, taking account of preferences for place of death and resuscitation (which may include deactivating ICD)

HF = heart failure; ICD = implantable cardioverter-defibrillator.

Eur J Heart Fail 2012, 14:803-69

London ICD patients' perspective: should EOL issues be discussed?

- Yes 92%
- No 8%When?

n = 38



- Before implantation 43%
- Less than 1y after implantation 29%
- At least a year after implantation 21%
- Only when really ill 7%
- Only in last few days of life 7% Raphael CE et al. Pacing Clin Electrophysiol. 2011 34(12):1628-33

ICD recipients: When should an advance directive for deactivation be discussed?



Kirkpatrick JN et al. Am J Cardiol. 2012, 109: 91-4

Advance directives in community patients with heart failure

Olmsted County, MN



Dunlay SM et al, Circ Cardiovasc Qual Outcomes 2012, 5:283-9



European Consensus Statement



EHRA Expert Consensus Statement on the management of cardiovascular implantable electronic devices in patients nearing end of life or requesting withdrawal of therapy

Luigi Padeletti^{1*}, David O. Arnar², Lorenzo Boncinelli³, Johannes Brachman⁴, John A. Camm⁵, Jean Claude Daubert⁶, Sarah Kassam⁶, Luc Deliens⁷, Michael Glikson⁸, David Hayes⁹, Carsten Israel¹⁰, Rachel Lampert¹¹, Trudie Lobban¹², Pekka Raatikainen¹³, Gil Siegal¹⁴, and Panos Vardas¹⁵

Europace 2010, 12:1480-9

Device guidance documents



September 2013

Cardiovascular implanted electronic devices in people towards the end of life, during cardiopulmonary resuscitation and after death

Guidence from the Resultation Council (SR), Bittals Cerdinatouslier Studiety and National Council for Padlative Care



Patricker date March 201

March 2015

Tweaking therapy: Do we miss the big picture?





'Ironic technology?'

"I have an ICD and a pacemaker. It's prolonged my life a little bit. But the longer it prolongs my life, the more things happen to me that it can't correct. So the question is, do you want to have those effects, or do you want to end it all?"



—86 year old man.

Kaufman SR. Soc Sci Med 2011, 72:6-14

Complexity of required care and support contributes to the heart failure disease burden



Browne S, et al. (2014). PLoS ONE 9(3): e93288. doi:10.1371/journal.pone.0093288

Caring Together

A pioneering model of palliative care for those with advanced heart failure which:

- Meets the needs of patients and carers
- Complements the optimal management of heart failure
- Promotes equity of access to palliative care for heart failure patients
- Enables increased choice of place of care for patients
- Improves coordination of care among stakeholders
- Ensures solutions are sustainable







AHA Scientific Statement



Decision Making in Advanced Heart Failure

A Scientific Statement From the American Heart Association

Endorsed by Heart Failure Society of America, American Association of Heart Failure Nurses, and Society for Medical Decision Making

Larry A. Allen, MD, MHS, Co-Chair; Lynne W. Stevenson, MD, Co-Chair; Kathleen L. Grady, PhD, APN, FAHA, Co-Chair; Nathan E. Goldstein, MD; Daniel D. Matlock, MD, MPH; Robert M. Arnold, MD; Nancy R. Cook, ScD;
G. Michael Felker, MD, MHS; Gary S. Francis, MD, FAHA; Paul J. Hauptman, MD; Edward P. Havranek, MD; Harlan M. Krumholz, MD, SM, FAHA; Donna Mancini, MD;
Barbara Riegel, DNSc, RN, FAHA; John A. Spertus, MD, MPH, FAHA; on behalf of the American Heart Association Council on Quality of Care and Outcomes Research, Council on Cardiovascular Nursing, Council on Clinical Cardiology, Council on Cardiovascular Radiology and Intervention, and Council on Cardiovascular Surgery and Anesthesia

Circulation. 2012, 125: 1928-52

Who are the stakeholders in decision making?

- Patient
 - Autonomy, quality of life, individual needs
- Family
 - Proxy decision makers, quality of life
- HF physician
 - Risk management concerns
- Medical / nursing professions
 - Standards, protocols
- Hospital
 - Policies, accreditation, affiliations
 - State
 - Resource allocation, legal regulation





Heart failure: Fifty shades of dying

Key Messages

- Uncertainty is intrinsic to progressive HF
- Health professionals need to ensure that treatment is personalised, remains appropriate, and held within an ethical framework.
- Goals of care and therapy need to be reviewed regularly and openly with patients and families to ensure best interests are maintained.
- This demands multidisciplinary consensus development to facilitate the prospective withdrawal of any redundant / futile therapies as the focus of care changes to symptom relief towards the end of life.

The Goldilocks principle



The challenge: Getting the balance just right each time