8th BSH Heart Failure Nurse and Healthcare Professional Study Day 2018

Presentation title: What is new in heart failure for 2018?

Speaker: Geraint Morton MA MBBS MRCP PhD

Conflicts of interest: Nil relevant

Presentation slide distribution: These presentation slides will be added to www.bsh.org.uk after the meeting.
What is new in heart failure for 2018?

- Epidemiology
- Interventions
  - AF ablation
  - ICDs
- Guidelines
- Research
Epidemiology

Temporal trends and patterns in heart failure incidence: a population-based study of 4 million individuals

Nathalie Conrad, MSc, Prof Andrew Judge, PhD, Jenny Tran, MSc, Hamid Mohseni, PhD, Deborah Hedgecott, BSc, Abel Perez Crespillo, BSc, Moira Allison, BSc, Prof Harry Hemingway, FRCP, Prof John G Cleland, MD, Prof John J V McMurray, MD, Prof Kazem Rahimi, FRCP

The Lancet
Volume 391, Issue 10120, Pages 572-580 (February 2018)
Epidemiology

- Data on HF incidence/prevalence scarce
- Clinical Practice Research Datalink (CPRD)
- 2002-2014
- Linked data from primary and secondary care
Epidemiology

- 1.6% population have HF
- Similar number to 4 commonest cancers combined
- Modest decrease in standardised incidence
- 23% increase in prevalence
- Increasing rate in very elderly
Epidemiology

- Age 77
- 5.4 comorbidities
- Widening gap between rich and poor
- North South divide
Epidemiology-bottom line

- HF burden increasing
- We’ll still have jobs
- Things are going to get busy…and complex
Catheter Ablation for Atrial Fibrillation with Heart Failure

Nassir F. Marrouche, M.D., Johannes Brachmann, M.D., Dietrich Andresen, M.D., Jürgen Siebels, M.D., Lucas Boersma, M.D., Luc Jordaens, M.D., Béla Merkely, M.D., Evgeny Pokushalov, M.D., Prashanthan Sanders, M.D., Jochen Proff, B.S., Heribert Schunkert, M.D., Hildegard Christ, M.D., Jürgen Vogt, M.D., and Dietmar Bänsch, M.D. for the CASTLE-AF Investigators*
CASTLE AF

- 360 patients with HFREF and AF
- Medical therapy +/- AF ablation
- Huge benefit
  - Reduced death/HF hospitalisation
  - 45% reduction in death
  - 35% CRT/ARNI
Interventions-CASTLE AF

- Long recruitment period
- Small study
- (Unbelievably) Large treatment effect
- Terminated early
- Unblinded
- More IHD in medical therapy group
- Similar number of patients lost to follow-up as number of events and more in ablation group
Interventions-AF ablation bottom line

- Not your typical HF patients with AF
- Few carefully selected patients benefit from AF ablation
- More research needed
- No need to change practice
Primary prevention ICDs

- LVEF used to determine who gets primary prevention
- Imperfect predictor
- Uncertainty regarding benefit in many subgroups
  - Non ischaemic, female, ESRF, LVEF 30-35%, elderly, CRT
Implantable cardioverter-defibrillators in heart failure patients with reduced ejection fraction and diabetes

Abhinav Sharma, Sana M. Al-Khatib, Justin A. Ezekowitz, Lauren B. Cooper, Christopher B. Fordyce, G. Michael Felker, Gust H. Bardy, Jeanne E. Poole, J. Thomas Bigger, Alfred E. Buxton, ... See all authors

First published: 15 May 2018
Primary prevention ICD

No characteristic predicted appropriate shocks

Predictors of mortality and ICD shock therapy in primary prophylactic ICD patients—A systematic review and meta-analysis

Leonard Bergau, Tobias Tichelbäcker, Barhora Kessel, Lars Lüthje, Thomas H. Fischer, Tim Friede, Markus Zabel
Bottom line-Primary prevention ICD

- ICDs can be life saving…. BUT
- 80% SCD LVEF >35%
- Most people will never get an appropriate shock - about 5 per 100 patient years
- Inappropriate shock rate about 2 per 100 patient years
- Significant uncertainty of benefit in key subgroups
- We’re still hopeless at selecting patients for primary prevention ICDs
Declining Risk of Sudden Death in Heart Failure

Li Shen, M.B., Ch.B., Pardeep S. Jhund, M.B., Ch.B., Ph.D., Mark C. Petrie, M.B., Ch.B., Brian L. Claggett, Ph.D., Simona Barlera, M.Sc., John G.F. Cleland, M.D., Ph.D., Henry J. Dargie, M.B., Ch.B., Christopher B. Granger, M.D., John Kjekshus, M.D., Ph.D., Lars Køber, M.D., D.M.Sc., Roberto Latini, M.D., Aldo P. Maggioni, M.D., Milton Packer, M.D., Bertram Pitt, M.D., Scott D. Solomon, M.D., Karl Swedberg, M.D., Ph.D., Luigi Tavazzi, M.D., Ph.D., John Wikstrand, M.D., Ph.D., Faiez Zannad, M.D., Ph.D., Michael R. Zile, M.D., and John J.V. McMurray, M.D.
Primary prevention ICD
Guidelines-NICE

- Draft chronic heart failure guidelines
- 515 pages
- Final version due in Sept
Guidelines-NICE

2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)

Developed with the special contribution of the Heart Failure Association (HFA) of the ESC
Guidelines-NICE

2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society

Developed with the special contribution of the Heart Failure Association (HFA) of the ESC
Research Cardiomems

- PA pressure guided management
- Reduced hospitalisations in NYHA 3 patients
- UK registry underway

Courtesy of Andrew Flett
Research: *Intravenous iron treatment in patients with heart failure and iron deficiency: IRONMAN*

- **POPULATION:** Patients with iron deficiency and heart failure due to left ventricular systolic dysfunction.
- **STUDY DESIGN:** PROBE – Prospective, randomized, open-label, blinded end-point
  - Primary endpoint: CV mortality and hospitalization for worsening heart failure. This analysis will include first and recurrent hospitalizations.
  - 2 years recruitment, min 2.5 years follow-up (651 events)
  - N=1300, approximately 70-80 UK centres

*Courtesy of Paul Kalra*
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<th>Inclusion</th>
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<tr>
<td>Age ≥18 years</td>
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<td>LVEF &lt;=45% within the last 2 years using any conventional imaging modality</td>
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<td>New York Heart Association (NYHA) class II – IV</td>
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<td>Iron deficient - defined as TSAT &lt;20% and/or ferritin &lt;100 ug/L</td>
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<td>Evidence of being in a higher risk HF group:</td>
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<td>1. Current (with intention to discharge in next 48 hours) or recent (within 6 months) hospitalisation for HF, or</td>
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<td>2. Out-patients with NT-proBNP &gt;250 ng/L in sinus rhythm or &gt;1,000 ng/L in atrial fibrillation (or BNP of &gt; 75 pg/mL or 300 pg/mL, respectively)</td>
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<td>Able and willing to provide informed consent</td>
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Research

- Bundle of his pacing
- SGLT2 Inhibitors
- CRTP vs CRTD
Questions

THERE ARE NO STUPID QUESTIONS

ONLY STUPID PRESIDENTS