



Heart failure in 2015: let's get organised!

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Heart failure represents a serious challenge to the healthcare system because of its high prevalence, morbidity and mortality. The pending increase in prevalence due to the ageing population and the relatively poor prognosis of heart failure highlight the necessity to further optimise the organisation of heart failure care [1, 2]. Strategies to enhance the coordination between primary, secondary and tertiary healthcare workers may improve clinical outcome and reduce heart failure associated costs.

In the Dutch Alphen-Leiderdorp-Leiden region, collaboration between general practitioners and cardiologists was recently initiated aiming to develop a regional all-phase integrated heart failure care program. A survey among general practitioners in Alphen and heart failure patients of the Alrijne Hospital revealed that patients preferred to receive care from the heart failure clinic, but they wanted their general practitioner to be more involved. General practitioners would appreciate to expand their involvement in heart failure care. Subsequently, a working group was created consisting of cardiologists, heart failure nurses and primary healthcare workers that developed four protocols aiming to streamline patient flow from primary to speciality care and vice-versa.

All protocols are in line with the most recent European Society of Cardiology heart failure guideline [3]. The first protocol stipulates the diagnostic measures to be taken by the general practitioner and cardiologist when heart failure is suspected. If the diagnosis is established, the cardiologist identifies the underlying cardiac problem, which is crucial for therapeutic reasons, as the precise pathology determines the specific treatment. The available diagnostic and therapeutic modalities are outlined in the second protocol, which was developed in collaboration with the Leiden University Medical Centre (LUMC). The third protocol describes the seamless transition to long-term management of stable patients. The general practitioner is the main caregiver in stable patients. However, several circumstances necessitate persistent (co)-treatment by a cardiologist in a secondary hospital or in a tertiary referral hospital. The fourth protocol describes the organisation of care for end-stage heart failure patients. The general practitioner mainly delivers palliative care and hospital admissions are prevented. Specific attention is paid to temporary deactivation of implantable cardioverter-defibrillator therapy. The protocols are merged in one flowchart (Fig. 1) to emphasise the all-phase integrated clinical framework for diagnostic and therapeutic decision making in heart failure patients.

Co-operation between primary, secondary and tertiary healthcare providers may optimise heart failure care. By working together, tailored care in adherence with the guidelines can be provided as close to home as possible. The current framework complies with the recent recommendations of the World Heart Failure Alliance since it provides a system that delivers timely access to diagnostic services and treatment of heart failure, as well as a seamless transition to long-term care [2]. The concept that a standardised regional program can improve care has already been established in acute infarction patients [4] and resulted in the Dutch

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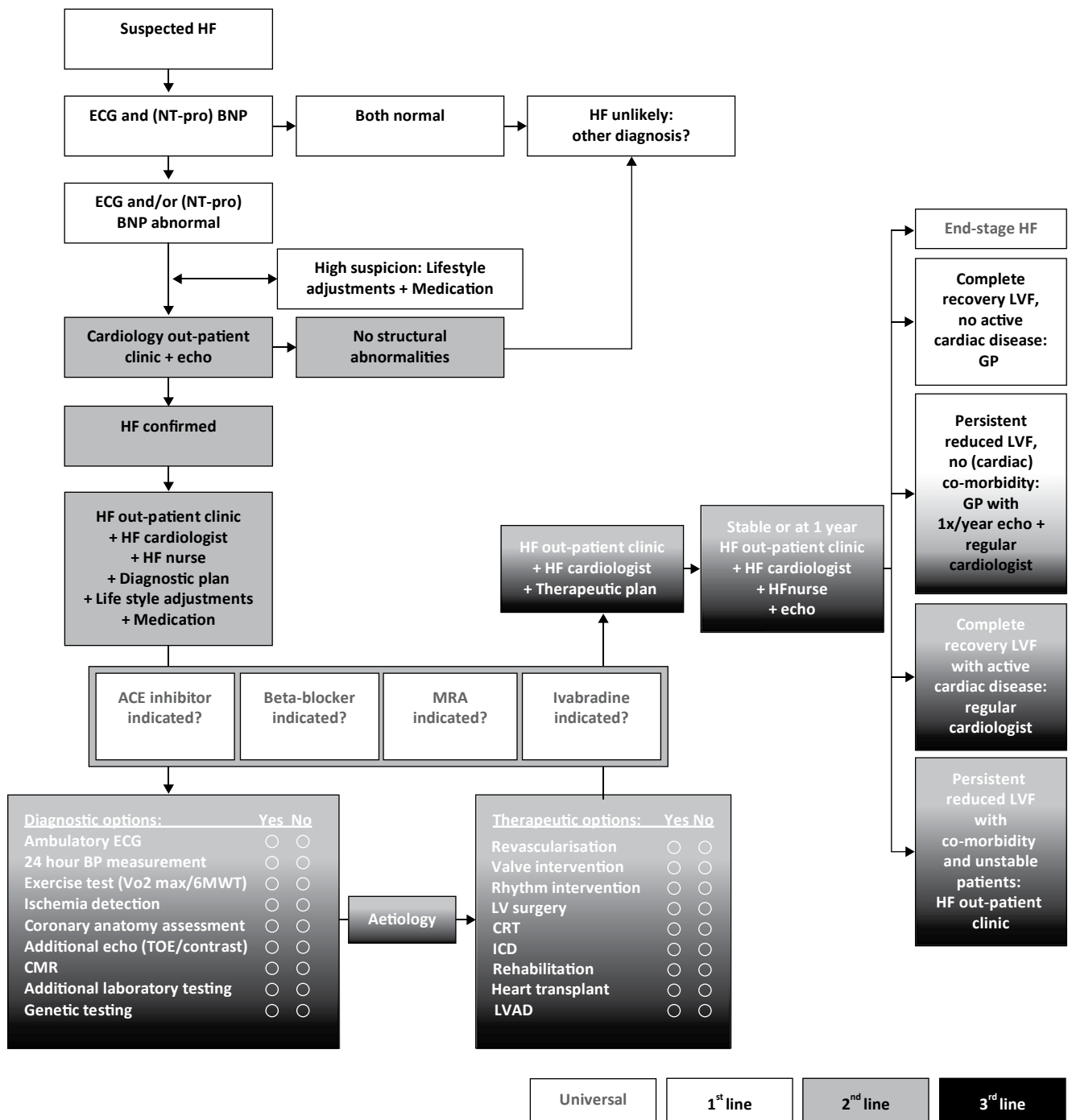


Fig. 1 Flowchart for all phase integrated diagnostic and therapeutic decision making in heart failure. ACE angiotensin-converting enzyme, (NT-pro) BNP (N-terminal pro) brain natriuretic peptide, BP blood pressure, CMR cardiac magnetic resonance, CRT cardiac resynchronisation therapy, ECG electrocardiography, HF heart failure, GP gen-

eral practitioner, ICD implantable cardioverter-defibrillator, LV left ventricular, LVAD left ventricular assist device, LVF left ventricular function, MRA mineral receptor antagonist, TOE transoesophageal echocardiogram, 6MWT 6-min walk test

national project ‘Connect acute infarction’. Potentially, the presented framework may be used as a start-up for a new national project ‘Connect heart failure’, which may offer a prospective solution to the increasing demand for heart failure care.

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References

1. Leening MJ, Siregar S, Vaartjes I, et al. Heart disease in the Netherlands: a quantitative update. *Neth Heart J*. 2014;22:3–10.
2. Ponikowski P, Anker SD, AlHabib KF, et al. Heart failure: preventing disease and death worldwide. http://www.escardio.org/static_file/Escardio/Press-media/press-releases2014/whfa-whitepaper.pdf. Accessed 22 May 2015.
3. McMurray JJ, Adamopoulos S, Anker SD, et al. ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2012. *Eur Heart J*. 2012;33:1787–847.
4. Atary JZ, Visser M de, Dijk R van den, et al. Standardised pre-hospital care of acute myocardial infarction patients: MISSION! guidelines applied in practice. *Neth Heart J*. 2010;18:408–15.