

## **Appendix 1. Search strategy**

### **Search strategy used for MEDLINE**

"Heart Failure"[Mesh:NoExp] OR heart fail\*[tiab] OR cardiac fail\*[tiab] OR myocardial fail\*[tiab] OR heart decompensation[tiab] OR cardiac decompensation[tiab] OR myocardial decompensation[tiab] OR heart insufficiency[tiab] OR cardiac insufficiency[tiab] OR myocardial insufficiency[tiab] OR "Heart Failure, Diastolic"[Mesh] OR "Heart Failure, Systolic"[Mesh] OR diastolic dysfunction[tiab] OR heart ventricle fail\*[tiab] OR systolic dysfunction[tiab]

AND

general practices OR gp[tiab] OR gp's[tiab] OR gps[tiab] OR family practices OR general practitioner OR family physician OR primary care physician OR general physician\*[tiab] OR family doctor\*[tiab] OR "Primary Health Care"[Mesh:NoExp] OR primary health care[tiab] OR primary healthcare[tiab] OR primary care[tiab] OR generalist[tiab] OR generalists[tiab] OR primary medical care[tiab] OR general medical practice[tiab]

AND

"Qualitative Research"[Mesh:NoExp] OR qualitative research[tiab] OR qualitative stud\*[tiab] OR focus group OR interview OR interviews[tiab] OR questionnaire OR attitude of health personnel OR physician attitude[tiab] OR physician's attitude[tiab] OR physicians attitude[tiab] OR perception OR perceptions[tiab] OR quality improvement OR needs assessment OR health surveys OR health care surveys OR quality of health care OR clinical competence OR decision making OR guideline adherence OR physician's practice patterns OR perspective[tiab] OR perspectives[tiab] OR barrier[tiab] OR barriers[tiab] OR facilitator[tiab] OR facilitators[tiab] OR facilitating factor\*[tiab] OR experience[tiab] OR experiences[tiab] OR survey[tiab] OR surveys[tiab] OR view[tiab] OR views[tiab] OR expectation[tiab] OR expectations[tiab] OR needs[tiab] OR beliefs[tiab] OR obstacle[tiab] OR obstacles[tiab] OR nominal group technique[tiab] OR quality of healthcare[tiab] OR healthcare quality[tiab]

### **Search strategy used for EMBASE**

'heart failure'/de OR 'congestive heart failure'/exp OR 'diastolic dysfunction'/exp OR 'forward heart failure'/exp OR 'heart ventricle failure'/exp OR 'high output heart failure'/exp OR 'systolic dysfunction'/exp OR (heart NEXT/1 fail\*):ab,ti OR (cardiac NEXT/1 fail\*):ab,ti OR (myocardial NEXT/1 fail\*):ab,ti OR (decompensation NEAR/3 heart):ab,ti OR 'cardiac decompensation':ab,ti OR 'myocardial decompensation':ab,ti OR (insufficiency NEAR/3 heart):ab,ti OR 'cardiac insufficiency':ab,ti OR 'myocardial insufficiency':ab,ti OR 'diastolic dysfunction':ab,ti OR ('heart ventricle' NEXT/1 fail\*):ab,ti OR 'systolic dysfunction':ab,ti

AND

'general practice'/exp OR (general NEXT/1 practice\*):ab,ti OR gp:ab,ti OR gps:ab,ti OR (family NEXT/1 practice\*):ab,ti OR 'general practitioner'/exp OR (general NEXT/1 practitioner\*):ab,ti OR (family NEXT/1 physician\*):ab,ti OR ('primary care' NEXT/1 physician\*):ab,ti OR (general NEXT/1 physician\*):ab,ti OR (family NEXT/1 doctor\*):ab,ti OR 'primary health care'/exp OR 'primary health care':ab,ti OR 'primary

healthcare':ab,ti OR 'primary care':ab,ti OR 'primary medical care':ab,ti OR 'general medical practice':ab,ti OR generalist:ab,ti OR generalists:ab,ti

AND

'qualitative research'/exp OR 'qualitative research':ab,ti OR (qualitative NEXT/1 stud\*):ab,ti OR (focus NEXT/1 group\*):ab,ti OR 'interview'/exp OR interview:ab,ti OR interviews:ab,ti OR 'questionnaire'/exp OR questionnaire\*:ab,ti OR 'health personnel attitude'/de OR 'physician attitude'/exp OR 'health personnel attitude':ab,ti OR 'attitude of health personnel':ab,ti OR 'health care personnel attitude':ab,ti OR 'attitude of health care personnel':ab,ti OR 'healthcare personnel attitude':ab,ti OR 'attitude of healthcare personnel':ab,ti OR (attitude NEAR/2 physician\*):ab,ti OR 'perception'/de OR perception:ab,ti OR perceptions:ab,ti OR (quality NEAR/2 improvement):ab,ti OR 'needs assessment'/exp OR 'needs assessment':ab,ti OR 'health survey'/de OR 'health care survey'/exp OR survey:ab,ti OR surveys:ab,ti OR 'health care quality'/de OR ('health care' NEAR/2 quality):ab,ti OR (healthcare NEAR/2 quality):ab,ti OR 'clinical competence'/exp OR 'clinical competence':ab,ti OR 'medical decision making'/exp OR 'decision making':ab,ti OR 'guideline adherence':ab,ti OR (physician\* NEXT/1 'practice patterns'):ab,ti OR perspective:ab,ti OR perspectives:ab,ti OR barrier:ab,ti OR barriers:ab,ti OR facilitator:ab,ti OR facilitators:ab,ti OR (facilitating NEXT/1 factor\*):ab,ti OR 'experience'/exp OR 'personal experience'/exp OR experience:ab,ti OR experiences:ab,ti OR view:ab,ti OR views:ab,ti OR 'expectation'/exp OR expectation:ab,ti OR expectations:ab,ti OR 'personal needs'/exp OR needs:ab,ti OR beliefs:ab,ti OR obstacle:ab,ti OR obstacles:ab,ti OR 'nominal group technique':ab,ti

#### **Search strategy used for WEB OF SCIENCE**

**TOPIC:** ("heart fail\*") OR **TOPIC:** ("cardiac fail\*") OR **TOPIC:** ("myocardial fail\*") OR **TOPIC:** (decompensation NEAR/3 heart) OR **TOPIC:** ("cardiac decompensation") OR **TOPIC:** ("myocardial decompensation") OR **TOPIC:** (insufficiency NEAR/3 heart) OR **TOPIC:** ("cardiac insufficiency") OR **TOPIC:** ("myocardial insufficiency") OR **TOPIC:** ("diastolic dysfunction") OR **TOPIC:** ("heart ventricle fail\*") OR **TOPIC:** ("systolic dysfunction")

*DocType=All document types; Language=All languages;*

AND

**TOPIC:** ("general practice\*") OR **TOPIC:** (gp) OR **TOPIC:** (gp's) OR **TOPIC:** (gps) OR **TOPIC:** ("family practice\*") OR **TOPIC:** ("general practitioner\*") OR **TOPIC:** ("family physician\*") OR **TOPIC:** ("primary care physician\*") OR **TOPIC:** ("general physician\*") OR **TOPIC:** ("family doctor\*") OR **TOPIC:** ("primary health care") OR **TOPIC:** ("primary healthcare") OR **TOPIC:** ("primary care") OR **TOPIC:** (generalist) OR **TOPIC:** (generalists) OR **TOPIC:** ("primary medical care") OR **TOPIC:** ("general medical practice")

*DocType=All document types; Language=All languages;*

AND

**TOPIC:** ("qualitative research") OR **TOPIC:** ("qualitative stud\*") OR **TOPIC:** ("focus group\*") OR **TOPIC:** (interview) OR **TOPIC:** (interviews) OR **TOPIC:** (questionnaire\*) OR **TOPIC:** ("health personnel attitude") OR **TOPIC:** ("attitude of health personnel") OR **TOPIC:** ("health care personnel attitude") OR

**TOPIC:** ("attitude of health care personnel") OR **TOPIC:** ("healthcare personnel attitude") OR **TOPIC:** ("attitude of healthcare personnel") OR **TOPIC:** (attitude NEAR/2 physician\*) OR **TOPIC:** ("physician\* attitudes") OR **TOPIC:** (perception) OR **TOPIC:** (perceptions) OR **TOPIC:** (quality NEAR/2 improvement) OR **TOPIC:** (needs) OR **TOPIC:** (survey) OR **TOPIC:** (surveys) OR **TOPIC:** ("health care" NEAR/2 quality) OR **TOPIC:** ("healthcare" NEAR/2 quality) OR **TOPIC:** ("clinical competence") OR **TOPIC:** ("decision making") OR **TOPIC:** ("guideline adherence") OR **TOPIC:** ("practice patterns") OR **TOPIC:** (perspective) OR **TOPIC:** (perspectives) OR **TOPIC:** (barrier) OR **TOPIC:** (barriers) OR **TOPIC:** (facilitator) OR **TOPIC:** (facilitators) OR **TOPIC:** ("facilitating factor\*") OR **TOPIC:** (experience) OR **TOPIC:** (experiences) OR **TOPIC:** (view) OR **TOPIC:** (views) OR **TOPIC:** (expectation) OR **TOPIC:** (expectations) OR **TOPIC:** (beliefs) OR **TOPIC:** (obstacle) OR **TOPIC:** (obstacles) OR **TOPIC:** ("nominal group technique")

*DocType=All document types; Language=All languages;*

### **Search strategy used for CINAHL**

(MH "Heart Failure") OR (MH "Ventricular Dysfunction+") OR (TI "heart fail\*") OR (AB "heart fail\*") OR (TI "cardiac fail\*") OR (AB "cardiac fail\*") OR (TI "myocardial fail\*") OR (AB "myocardial fail\*") OR (TI "heart decompensation") OR (AB "heart decompensation") OR (TI "cardiac decompensation") OR (AB "cardiac decompensation") OR (TI "myocardial decompensation") OR (AB "myocardial decompensation") OR (TI "heart insufficiency") OR (AB "heart insufficiency") OR (TI "cardiac insufficiency") OR (AB "cardiac insufficiency") OR (TI "myocardial insufficiency") OR (AB "myocardial insufficiency") OR (TI "diastolic dysfunction") OR (AB "diastolic dysfunction") OR (TI "heart ventricle fail\*") OR (AB "heart ventricle fail\*") OR (TI "systolic dysfunction") OR (AB "systolic dysfunction")

AND

(MH "Family Practice") OR (MH "Medical Practice") OR (MH "Physicians, Family") OR (MH "Primary Health Care") OR (TI "general practice\*") OR (AB "general practice\*") OR (TI gp) OR (AB gp) OR (TI gp's) OR (AB gp's) OR (TI gps) OR (AB gps) OR (TI "family practice\*") OR (AB "family practice\*") OR (TI "general practitioner\*") OR (AB "general practitioner\*") OR (TI "family physician\*") OR (AB "family physician\*") OR (TI "primary care physician\*") OR (AB "primary care physician\*") OR (TI "general physician\*") OR (AB "general physician\*") OR (TI "family doctor\*") OR (AB "family doctor\*") OR (TI "primary health care") OR (AB "primary health care") OR (TI "primary healthcare") OR (AB "primary healthcare") OR (TI "primary care") OR (AB "primary care") OR (TI "primary medical care") OR (AB "primary medical care") OR (TI "general medical practice") OR (AB "general medical practice") OR (TI generalist) OR (AB generalist) OR (TI generalists) OR (AB generalists)

AND

(MH "Qualitative Studies+") OR (MH "Focus Groups") OR (MH "Interviews+") OR (MH "Questionnaires+") OR (MH "Attitude of Health Personnel") OR (MH "Physician Attitudes") OR (MH "Needs Assessment") OR (MH "Perception") OR (MH "Quality Improvement") OR (MH "Surveys") OR (MH "Quality of Health Care+") OR (MH "Professional Competence") OR (MH "Clinical Competence") OR (MH "Decision Making+") OR (MH "Practice Patterns") OR (MH "Job Experience") OR (MH "Work Experiences") OR (TI "qualitative research") OR (AB "qualitative research") OR (TI "qualitative stud\*") OR (AB "qualitative stud\*")

OR (TI "focus group\*") OR (AB "focus group\*") OR (TI interview) OR (AB interview) OR (TI interviews) OR (AB interviews) OR (TI questionnaire\*) OR (AB questionnaire\*) OR (TI "health personnel attitude") OR (AB "health personnel attitude") OR (TI "attitude of health personnel") OR (AB "attitude of health personnel") OR (TI "health care personnel attitude") OR (AB "health care personnel attitude") OR (TI "attitude of health care personnel") OR (AB "attitude of health care personnel") OR (TI "healthcare personnel attitude") OR (AB "healthcare personnel attitude") OR (TI "attitude of healthcare personnel") OR (AB "attitude of healthcare personnel") OR (TI "physician\* attitude\*") OR (AB "physician\* attitude\*") OR (TI perception) OR (AB perception) OR (TI perceptions) OR (AB perceptions) OR (TI "quality improvement") OR (AB "quality improvement") OR (TI "needs assessment") OR (AB "needs assessment") OR (TI survey) OR (AB survey) OR (TI surveys) OR (AB surveys) OR (TI "quality of health care") OR (AB "quality of health care") OR (TI "quality of healthcare") OR (AB "quality of healthcare") OR (TI "clinical competence") OR (AB "clinical competence") OR (TI "decision making") OR (AB "decision making") OR (TI "guideline adherence") OR (AB "guideline adherence") OR (TI "practice patterns") OR (AB "practice patterns") OR (TI perspective) OR (AB perspective) OR (TI perspectives) OR (AB perspectives) OR (TI barrier) OR (AB barrier) OR (TI barriers) OR (AB barriers) OR (TI facilitator) OR (AB facilitator) OR (TI facilitators) OR (AB facilitators) OR (TI "facilitating factor\*") OR (AB "facilitating factor\*") OR (TI experience) OR (AB experience) OR (TI experiences) OR (AB experiences) OR (TI view) OR (AB view) OR (TI views) OR (AB views) OR (TI expectation) OR (AB expectation) OR (TI expectations) OR (AB expectations) OR (TI needs) OR (AB needs) OR (TI beliefs) OR (AB beliefs) OR (TI obstacle) OR (AB obstacle) OR (TI obstacles) OR (AB obstacles) OR (TI "nominal group technique") OR (AB "nominal group technique")

## Appendix 2. CASP qualitative research checklist 2013

Questions	Yes	Can't tell	No
1. Was there a clear statement of the aims of the research?			
2. Is a qualitative methodology appropriate?			
3. Was the research design appropriate to address the aims of the research?			
4. Was the recruitment strategy appropriate to the aims of the research?			
5. Was the data collected in a way that addressed the research issue?			
6. Has the relationship between researcher and participants been adequately considered?			
7. Have ethical issues been taken into consideration?			
8. Was the data analysis sufficiently rigorous?			
9. Is there a clear statement of findings?			
10. How valuable is the research?			

### Appendix 3: Characteristics of the included qualitative studies

#### 3.1 Studies with only GPs as participants

Source	Country	Aim of study	Setting	Study participants	Data collection	Theoretic framework and data analysis
<b>De Vleminck et al, 2014</b> <sup>1 34</sup> Barriers to advance care planning in cancer, heart failure and dementia patients: a focus group study on general practitioners' views and experiences	Belgium (Flanders)	To identify the barriers, from GPs' perspective, to initiating advance care planning and to gain insight into any differences in barriers between the trajectories of patients with cancer, HF and dementia	FG 1: 9 GPs from a group practice in an urban region  FG 2-4: 20 GPs from both single-handed and group practices recruited via local peer-review groups (rural and semirural regions)  FG 5: 2 GPs active in palliative home care teams, and 5 GPs recruited through professional contacts of the palliative care coordinators (rural and semirural regions)	36 GPs	5 focus groups	Constant comparative method
<b>Fuat et al, 2003</b> <sup>22</sup> Barriers to accurate diagnosis and effective management of heart failure in primary care: qualitative study	UK (England)	To ascertain the beliefs, current practices, and decision making of GPs in the diagnosis and management of suspected HF in primary care, with a view to identifying barriers to good care	GPs from both single-handed and group practices in north east England, 20 GPs had open access echocardiography	30 GPs	4 focus groups	'Pragmatic variant' grounded theory
<b>Khunti et al, 2002</b> <sup>23</sup> Heart failure in primary care: qualitative study of current management and perceived obstacles to evidence-based diagnosis and management by general practitioners	UK	To explore GPs views on management of patients with HF and the obstacles to their diagnosis and management	GPs from 18 practices in Leicestershire Health Authority, 2 practices delivered care to mainly South Asian patients	38 GPs	Semi-structured interviews	Constant comparative method
<b>Phillips et al, 2004</b> <sup>27</sup> Barriers to diagnosing and managing heart failure in primary care	Australia	To elicit GPs' perceptions of the difficulties associated with diagnosing and managing HF in the primary care setting, and to identify barriers to the transfer of research findings to general	GPs from 4 Divisions of General Practice in Victoria and South Australia (urban and rural regions), the Divisions were selected for their above-average proportion of residents	35 GPs	Telephone interviews and 3 focus groups	Common emerging themes were analyzed by cumulative process, in which responses from different sources become reinforcing of a particular

<sup>1</sup> Only one study targeted different diseases: De Vleminck et al studied barriers to advance care planning in cancer, heart failure and dementia. The other 17 studies focused only on heart failure.

		practice	aged over 65 years Telephone interviews: 7 rural GPs FG 1-3: 28 urban GPs			interpretation
<b>Waterworth et al, 2012</b> <sup>37</sup> Involvement of the practice nurse in supporting older people with heart failure: GP perspectives	New Zealand	To explore the attitudes of GPs regarding the development of the practice nurse role to support the management of older people with HF from diagnosis through to the end of life	GPs from both single-handed and group practices in the Auckland region, which has the largest ethnically diverse population in New Zealand. 28 GPs were Fellows of the Royal New Zealand College of GPs.	30 GPs	Semi-structured telephone interviews	Thematic analysis

### 3.2. Studies with GPs and others as participants

<b>Ahmedov et al, 2013</b> <sup>24</sup> Addressing the challenges of improving primary care quality in Uzbekistan: a qualitative study of chronic heart failure management	Uzbekistan	To explore current approaches to management of chronic HF, and to identify the challenges to providing 'good quality' care, from the perspectives of both physicians and patients	<ul style="list-style-type: none"> <li>Physicians from 3 poly-clinics in urban Tashkent and from 6 polyclinics in 2 rural districts</li> </ul>	<ul style="list-style-type: none"> <li>11 GPs</li> <li>4 cardiologists</li> </ul>	<ul style="list-style-type: none"> <li>In-depth interviews</li> </ul>	Modified thematic content analysis
			<ul style="list-style-type: none"> <li>Patients with chronic HF were selected from polyclinic and primary care unit "dispensary" lists</li> </ul>	<ul style="list-style-type: none"> <li>30 patients</li> </ul>	<ul style="list-style-type: none"> <li>In-depth interviews and focus groups</li> </ul>	
<b>Barnes et al, 2006</b> <sup>28</sup> Communication in heart failure: perspectives from older people and primary care professionals	UK (England)	To explore the attitudes of older people and primary care professionals towards communication of diagnosis, prognosis and symptoms in HF	<ul style="list-style-type: none"> <li>Purposive sampling of patients taking part in a larger quantitative survey aiming to explore the palliative care services for 542 HF patients, &gt;60 years of age, and NYHA III or IV</li> </ul>	<ul style="list-style-type: none"> <li>44 patients</li> </ul>	<ul style="list-style-type: none"> <li>Semi-structured interviews</li> </ul>	Thematic analysis
			<ul style="list-style-type: none"> <li>Primary care professionals employed at the 16 GP practices from which patients had been recruited. Of these, 10 were teaching practices.</li> </ul>	<ul style="list-style-type: none"> <li>79 primary care professionals: <ul style="list-style-type: none"> <li>· 39 GPs</li> <li>· 37 nurses</li> <li>· 2 health visitors</li> <li>· 1 nursing home matron</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>9 focus groups</li> </ul>	

<p><b>Browne et al, 2014</b> <sup>45</sup> Patient, carer and professional perspectives on barriers and facilitators to quality care in advanced heart failure</p>	<p>UK (Scotland)</p>	<p>To examine patient, carer, and professional perspectives on current management of advanced HF and barriers and facilitators to improved care</p>	<ul style="list-style-type: none"> <li>• Patients NYHA III or IV recruited via HF liaison service, primary care, a Heart Function and Supportive Care Clinic, and local hospital admission units; and their caregivers</li>   <li>• FG 1-3: general practice FG 4-5: cardiology trainees FG 6: district nurses</li> </ul>	<ul style="list-style-type: none"> <li>• 30 patients 20 carers</li>   <li>• 65 health professionals: <ul style="list-style-type: none"> <li>· 29 from general practice (GPs, practice nurses, district nurses and practice managers)</li> <li>· 1 accident and emergency consultant</li> <li>· 2 medicine for the elderly consultants</li> <li>· 1 cardiology consultant</li> <li>· 1 palliative care consultant</li> <li>· 14 cardiology trainees</li> <li>· 1 from ambulance service</li> <li>· 3 HF liaison nurses</li> <li>· 1 palliative nurse (HF interest)</li> <li>· 1 Marie Curie nurse</li> <li>· 9 district nurses</li> <li>· 1 palliative care pharmacist</li> <li>· 1 pharmacist (pharmacy HF service)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Semi-structured interviews</li>   <li>• Semi-structured interviews and 6 focus groups</li> </ul>	<p>Framework analysis  Normalization Process Theory (NPT) is used as the underpinning conceptual framework</p>
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<b>Close et al, 2013</b> <sup>31</sup> “It’s somebody else’s responsibility” – perceptions of general practitioners, heart failure nurses, care home staff, and residents towards heart failure diagnosis and management for older people in long-term care: a qualitative interview study	UK (England)	To examine the experiences of HF diagnosis and management from the perspectives of residents, care home staff and healthcare professionals	Residents >65years with LVSD HF and staff from 33 residential and care homes in North East England, within 1 Primary Care Trust. Care homes were served by a total of 23 urban GP practices.	17 patients 5 GPs 8 care home staff 3 HF specialist nurses	In-depth interviews	Thematic analysis
<b>Glogowska et al, 2015</b> <sup>29</sup> Managing patients with heart failure: a qualitative study of multidisciplinary teams with specialist heart failure nurses	UK	To explore the perceptions and experiences of health care clinicians working in multidisciplinary teams that include specialist HF nurses when caring for the management of HF patients	Clinicians from 3 geographical locations in the UK where patients with severe or difficult-to-manage HF were participating in a wider, multicenter ethnographic study of unplanned hospital admissions for HF (HoldFAST)	7 GPs 9 specialist HF nurses 3 cardiologists 1 geriatrician 1 hospital liaison psychiatrist 1 cardiac rehabilitation manager 1 cardiac rehabilitation practitioner 1 community matron	In-depth interviews	Constant comparative method
<b>Hancock et al, 2014</b> <sup>25</sup> Barriers to accurate diagnosis and effective management of heart failure have not changed in the past 10 years: a qualitative study and national survey	UK (England)	To explore changes in healthcare professionals’ views about the diagnosis and management of HF since a study in 2003 <sup>2</sup>	<ul style="list-style-type: none"> <li>• Professionals from health authority registers from the North East of England (affluent and deprived locations), including salaried and partner GPs, part and full time employment status, group and single-handed practices</li> <li>• Themes derived from the focus groups informed the development of a UK survey, sent by email to the complete sample of each of the 5 professional groups held by Binley’s<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>• 56 professionals: <ul style="list-style-type: none"> <li>· 39 GPs</li> <li>· 4 cardiologists</li> <li>· 6 general physicians</li> <li>· 7 HF nurses</li> </ul> </li> <li>• 541 professionals: <ul style="list-style-type: none"> <li>· 84 salaried GPs</li> <li>· 167 partner GPs</li> <li>· 103 cardiologists</li> <li>· 54 general physicians</li> <li>· 78 HF nurses</li> <li>· 8 others</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 8 focus groups</li> <li>• Online survey</li> </ul>	<ul style="list-style-type: none"> <li>• Thematic analysis</li> <li>• Quantitative analysis</li> </ul>

<sup>2</sup> The previous study is Fuat et al, 2003 “Barriers to accurate diagnosis and effective management of heart failure in primary care: qualitative study”: included in the list “Only GPs”.

<sup>3</sup> Binley’s hold healthcare and public sector data, mailing lists, directories and maps covering National Health Service and local government.

<b>Hanratty et al, 2002</b> <sup>35</sup> Doctors' perceptions of palliative care for heart failure: focus group study	UK (England)	To identify doctors' perceptions of the need for palliative care for HF and barriers to change	FG1: 5 GPs FG 2: 5 GPs (teaching and academic) FG 3: 5 cardiologists from district general hospitals FG 4: 3 cardiologists from tertiary referral center FG 5: 6 geriatricians FG 6: 4 general medicine doctors FG 7: 6 palliative care doctors	10 GPs 8 cardiologists 6 geriatricians 4 general medicine doctors 6 palliative care doctors	7 focus groups	Constant comparative method
<b>Hayes et al, 2015</b> <sup>32</sup> A qualitative study of the current state of heart failure community care in Canada: what can we learn for the future?	Canada	To explore the current state of community-based HF care in Canada as experienced by various healthcare stakeholders providing or coordinating care to HF patients	Healthcare providers with at least 5 years of experience working with HF patients, and having a practice caseload of a minimum of 10% HF patients, (sub)urban setting, exclusion of practices within a tertiary care setting	5 GPs 8 cardiologists 8 nurses/nurse practitioners 4 hospital pharmacists 3 health care administrators/directors	Semi-structured telephone interviews	Modified thematic analysis
<b>Heckman et al, 2014</b> <sup>26</sup> Perspectives of primary-care providers on heart failure in long-term care homes	Canada	To describe the perspectives of primary care professionals on current practices and challenges associated with managing HF in residents of LTC homes, and to identify opportunities for improvement	Primary care professionals of residents from 3 LTC homes in southern and northern Ontario, Canada (university and non-university affiliated, public and private, for-profit and not-for-profit). None of these homes had a formal HF management program. FG 1: 3 GPs and 1 nurse FG 2: 9 GPs FG 3: 4 GPs and 1 nurse	16 GPs 2 nurses	3 focus groups	Thematic analysis
<b>Kavalieratos et al, 2013</b> <sup>36</sup> "Not the 'grim reaper service'": an assessment of provider knowledge, attitudes, and perceptions regarding palliative care referral barriers in heart failure	US	To explore factors perceived by cardiology, primary care, and palliative care providers to impede palliative care referral for HF patients	Care providers from diverse practice settings (academic/non-academic, urban/rural) in North Carolina, who cared for $\geq 3$ HF patients in the preceding 6 months.	Cardiology: · 4 physicians · 1 nurse practitioner · 1 physician assistant Primary care: · 4 physicians · 1 nurse practitioner · 1 physician	Semi-structured interviews	Template analysis (combines content analysis and grounded theory)

				assistant Palliative care: · 4 physicians · 1 nurse practitioner · 1 physician assistant		
<b>Newhouse et al, 2012</b> <sup>16</sup> Barriers to the management of heart failure in Ontario long- term care homes: an interprofessional care perspective	Canada	To describe the barriers to the management of HF in LTC homes that exist among the various staff roles	<ul style="list-style-type: none"> <li>• LTC healthcare providers equally sampled from each of the 14 Ontario Local Health Integration Networks</li> <li>• LTC healthcare providers from 4 LTC homes in southern and northern Ontario, Canada (university and non-university affiliated, public and private, for-profit and not-for-profit): <ul style="list-style-type: none"> <li>· FG 1-3: PSWs</li> <li>· FG 4: registered practical nurses (RPNs)</li> <li>· FG 5-6: registered nurses (RNs)</li> <li>· FG 7: RPNs and RNs</li> <li>· FG 8: nurse practitioners (NPs)</li> <li>· FG 9: physicians</li> <li>· FG 10-11: physicians, pharmacist and NPs</li> <li>· FG 12: managers (directors)</li> </ul> </li> <li>• LTC residents with HF and their family caregivers from 2 LTC homes (1 in southern Ontario and 1 in northern Ontario)</li> </ul>	<ul style="list-style-type: none"> <li>• First round: <ul style="list-style-type: none"> <li>· 25 physicians</li> <li>· 22 nurses</li> <li>· 20 personal support workers (PSWs)</li> </ul> </li> <li>Second round: <ul style="list-style-type: none"> <li>· 15 physicians</li> <li>· 12 nurses</li> <li>· 15 PSWs</li> </ul> </li> <li>• 24 PSWs <ul style="list-style-type: none"> <li>&gt; 8 RPNs</li> <li>&gt; 11 RNs</li> <li>&gt; 5 NPs</li> <li>&gt; 7 physicians</li> <li>? pharmacists</li> <li>3 managers</li> </ul> </li> <li>• 2 HF residents</li> <li>3 family caregivers</li> <li>5 HF resident/family member dyads</li> </ul>	<ul style="list-style-type: none"> <li>• Delphi surveys (after each section of survey questions, space was provided for comments: qualitative data)</li> <li>• 12 focus groups</li> <li>• 10 semi-structured interviews</li> </ul>	Data were interpreted using an interprofessional care framework <sup>46</sup>

<p><b>Simmonds et al, 2015</b> <sup>30</sup> Unplanned admissions and the organisational management of heart failure: a multicentre ethnographic, qualitative study</p>	<p>UK (England)</p>	<p>To identify critical points on patient pathways where risk of admission is increased and to identify barriers to the implementation of evidence-based interventions</p>	<p>Patients with severe or difficult to manage HF who had an unplanned hospital admission for HF during the preceding 6 months, and their informal carers, recruited from 3 study sites (urban and rural settings, variable access to HF specialist nurse-led clinics).</p> <p>The majority of healthcare professionals were caring for study participants. The other healthcare professionals – not caring for study participants – took part in prearranged interviews.</p>	<p>31 patients 9 informal carers 55 healthcare professionals</p>	<p>Ethnographic approach:  In-depth interviews with 23 clinicians: · 7 GPs · 4 community nurses · 5 HF nurses · 5 senior hospital doctors (including 3 consultant cardiologists) · 2 cardiac rehabilitation therapists  22 patient and/or carer in-depth interviews  Recorded fieldwork conversations (impromptu interviews)  Patient and carer diaries  Patient medical records</p>	<p>Thematic analysis  Situational analysis (a grounded theory approach involving mapping of patient/carer experiences and the organization of healthcare systems)</p>
<p><b>Tait et al, 2015</b> <sup>33</sup> Adaptive practices in heart failure care teams: implications for patient-centered care in the context of complexity</p>	<p>Canada</p>	<p>To examine how HF care teams, as defined by patients, work together to provide care to patients with advanced disease</p>	<p>Practices of HF care teams at five study sites in three Canadian provinces: Ontario, Nova Scotia, and British Columbia.  Patients with advanced HF (NYHA III or IV) were asked to identify their care team members. If patients consented, their identified care team members were invited to participate in semi-structured interviews. Interviewees became part of team sampling units.</p>	<p>50 team sampling units: 62 patients 152 care team members: · 55 caregivers/supportive persons · 25 family physicians · 18 nurses · 35 specialist physicians · 15 allied health/other health professionals</p>	<p>209 semi-structured interviews</p>	<p>Constant comparative method and constructivist grounded theory Complex adaptive system (CAS) theory</p>
<p>GPs: general practitioners, HF: heart failure, FG: focus group, NYHA: New York Heart Association, LVSD: left ventricular systolic dysfunction, LTC: long-term care</p>						