A New Approach to Addressing the Heart Failure Challenge in Primary Care within the Western Locality of NEW DEVON CCG

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GP Principal Church view medical centre and GPwSI Western locality Cardiology Service

Organised and funded by Servier Laboratories Ltd.
For an overview of the Enhance HF™ service please see the last slide
Funding has been received from; Pfizer, Bayer, Novartis and Servier in receipt of travel bursaries, consultancy fees and lecturing fees.
Devon is a beautiful place....
Devon GP’s are over-burdened
Agenda

- Heart Failure Burden in the western locality
- Proposal to address the primary care challenge
- Pilot project
- Developing a new treatment protocol
- Pilot practices progress and outcomes to date
- Future direction
Western Locality - NEW DEVON CCG

**Heart Failure (HF) Epidemiology**

<table>
<thead>
<tr>
<th>CCG / Health Board</th>
<th>List Size</th>
<th>QOF HF register (all ages)</th>
<th>QOF Heart Failure Due to LVD Register (all ages)</th>
<th>Expected HF Prevalence (All ages)</th>
<th>Expected LVD Prevalence (All ages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Western Locality, NEW DEVON CCG.</td>
<td>345,600¹</td>
<td>2628¹ (0.76%)</td>
<td>658¹ (0.19%)</td>
<td>5329ᵃ</td>
<td>2878ᵇ (0.83%)</td>
</tr>
</tbody>
</table>

Provided by Servier Laboratories: Local burden tool: UK14MDA0120(2)

Please click here to see references (1-11) and assumptions (a-f)
Western Locality

No of HF LVSD patients by Practice
(QoF 2012-13 vs. QoF 2013-14 vs. Expected)

Provided by Servier Laboratories: Local burden tool: UK14MDA0120(2)

Please click here to see references (1-11) and assumptions (a-f)
Western Locality

HF04 - % patients receiving a beta-blocker (BB) by practice

Provided by Servier Laboratories: Local burden tool: UK14MDA0120(2)

Please click here to see references (1-11) and assumptions (a-f)

For definitions please click here
Western Locality

**HF QOF patients vs All cause HF admissions**

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Provided by Servier Laboratories: Local burden tool: UK14MDA0120(2)
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Challenges for heart failure management in the western locality

- Heart failure prevalence appears under reported in primary care
- Optimisation of NICE approved heart failure medications is variable
- Mechanism in place to ensure prevention progression of disease – several different medications titrated against condition
- Cost of primary diagnosis Heart Failure admissions for NEW Devon CCG 2013/14 = £3.1million
- Increase in provision of secondary care heart failure service, but gaps in primary care provision

1. Provided by Servier Laboratories: Local burden tool: UK14MDA0120(2)
Piloting a new model of care for heart failure management

Proposal agreed with Cardiac commissioner and Servier – please see last slide for an overview of the Enhance HF™ service

Aim
1. Appropriate patient identification/disease register validation
2. Optimise the management of patients with LVSD using evidence based pharmacological treatments in line with Local Heart Failure Protocol

Objectives
- To improve the patients symptoms and outcomes
- To reduce unnecessary hospital admissions and readmissions
- Provide a new sustainable model of care in primary care
Project outline

2 pilot practices: total list size 43,162

**Utilise Enhance HF™**
To validate heart failure disease register Identify levels of optimisation of heart failure LVSD patients

**Local GPwSI**
Up skill GPs in practices though education and performance of virtual clinic, to clinically review heart failure LVSD patients

**Develop risk stratification treatment protocol**
To suggest patients profiles to be reviewed by GP or by GPSi (myself) for high risk patients

**Agreement from commissioner and Sentinel**
For provision of GPSi clinics for patients identified

**Clinical reviews**
Performed utilising treatment protocol, virtual clinics and embedding of Enhance HF™ protocol that follows NICE CG108 guidelines
Key Objectives:

◆ Support delivery of Enhance HF® at practice level

◆ Education and support for lead clinician:
  • Action plan to improve HF management

◆ Education and support for whole practice:
  • Provide specialist education to health care professionals in line with National and local NHS objectives for HF management

◆ Development of Enhance heart failure treatment protocol to risk stratify patients

◆ HF clinic within primary care cardiology service
**Treatment pathway for Enhance heart failure patients identified from audit as having Heart Failure and LVSD.**

Group 1: HF LVSD on ACEi/ARB only

Group 2: HF LVSD on BB &/or IF channel inhibitor only

Group 3: HF LVSD on BB &/or IF channel inhibitor and ACEi/ARB

Group 4: HF LVSD on BB &/or IF channel inhibitor and ACEi/ARB and AA

Group 5: HF LVSD on BB &/or IF channel inhibitor and AA

Group 6: HF LVSD on ACEi/ARB and AA only

Group 7: HF LVSD on AA only

Group 8: HF LVSD on no therapy

**GP practice optimisation actions**

- Initiate a low dose B blocker licensed for Heart failure. Titrate in a ‘start low, go slow’ manner, and assess heart rate, blood pressure, and clinical status after each titration until maximum tolerated dose achieved. – **Group 1, 6, 7, 8**
- Uptitrate, if suboptimal dose or not maximum tolerated dose, B blocker in ‘start low, go slow’ manner as per NICE CG108 and medicine’s SPC until maximum tolerated dose achieved. – **Group 2, 3, 4, 5**.
- Initiate a low dose ACE inhibitor or ARB if appropriate at a low dose and titrate upwards at short intervals (for example, every 2 weeks) until the optimal tolerated or target dose is achieved as per the medicines SPC. (Measure serum urea, creatinine, electrolytes and eGFR at initiation of an ACE inhibitor and after each dose increment) – **Group 2, 5, 7, 8**
- Uptitrate ACE inhibitor upwards every 2 weeks to optimal tolerated dose as per NICE CG 108 guideline’s and the medicine’s SPC – **Group 3, 4, 6**.

**Patients that could be referred to GPSI clinic from each group after GP optimisation actions have been attempted.**

- Attempted on failed on B blocker /intolerant /Contra indicated to B blocker – **Group 1, 6, 7 & 8**
- Previously attempted on ACEi/ARB and failed – **Group 2, 5, 7 & 8**
- Symptomatic/recent hospitalisation and on maximum tolerated dose of B blocker (exclude severe renal impairment ) (creatinine >220µMol/l) – **Group 3**
- Patients at Maximum tolerated dose of B blocker or failed and heart rate still above 75 bpm – **Group 2E to 6E**
- Consider referral for help with patients with co morbidities such as Diabetes and COPD – **Group 1, 6, 7 & 8**
- If the practice have queries over patients due to poor renal function – **Group 2, 5, 7, 8**.
Patient review

**Desktop review**
- Use of embedded clinical protocol
- Use treatment risk stratification protocol
- GPSi – Virtual clinic management plans

**Clinical management and review**
- **Who?**
  - GP / GPwSI depending on treatment protocol
- **How?**
  - Dedicated HF clinic
  - Chronic disease clinic
  - Opportunistic
- Embedded clinical protocol
- Management plan on Virtual clinic
- Referral to GPSI specialist services
Key issues related to delivering an improvement in HF care at practice level

- Register validation
- Therapy breakdown and risk stratification
- Review of patients notes – desk top
- Risk stratification of patients needing specialist input
- Face to face review and clinical management – resources, embedded protocol, referral to GPwSI service utilising protocol
- Education and sustaining change in practice
## Heart failure pilot progression

<table>
<thead>
<tr>
<th>Action</th>
<th>Practice 1 (N= 32,167)</th>
<th>Practice 2 (N= 10095)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance installed and audit produced</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Validation of disease register</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Up skilling with GPwSI</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Education to practice and 1:1 review</td>
<td>Virtual clinic performed (70 patients reviewed )</td>
</tr>
<tr>
<td>risk stratification with protocol</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>GP clinical review of low risk cohort of patients</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>High risk patients identified for specialist review.</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>GPSI clinic of high risk heart failure patients</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outcomes to date

Change in LVSD Heart Failure register pre and post validation of disease register using Enhance HF™ audit

- NEW DEVON Practice 1: +0.19%
- NEW DEVON Practice 2: +0.51%
### Practice 1 - Impact on clinical measures & therapy optimisation

<table>
<thead>
<tr>
<th></th>
<th>Baseline (n=77)</th>
<th>Post validation</th>
<th>Current N= 138</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only on ACEi/ARB</td>
<td>19 (25%)</td>
<td>33 (24%)</td>
<td>31 (23%)</td>
</tr>
<tr>
<td>BB &amp;/or IF inhibitor</td>
<td>5 (6%)</td>
<td>16 (12%)</td>
<td>13 (10%)</td>
</tr>
<tr>
<td>ACEi/ARB &amp; AA</td>
<td>2 (3%)</td>
<td>6 (4%)</td>
<td>4 (3%)</td>
</tr>
<tr>
<td>ACEi/ARB and BB/IF inhibitor</td>
<td>24 (31%)</td>
<td>40 (30%)</td>
<td>45 (33%)</td>
</tr>
<tr>
<td>Triple therapy (ACEi/ARB, BB &amp; AA)</td>
<td>17 (12%)</td>
<td>26 (19%)</td>
<td>29 (21%)</td>
</tr>
<tr>
<td>No therapy</td>
<td>9 (12%)</td>
<td>12 (9%)</td>
<td>10 (7%)</td>
</tr>
</tbody>
</table>

(Hearth failure LVSD register N= 138)

**No. of patient identified as being on unlicensed B blocker (Switched to licensed):**

- Practice 1 = 35 /138 (25%) on Unlicensed B blocker switch via MURs
### Practice 2 - Impact on clinical measures & therapy optimisation

<table>
<thead>
<tr>
<th></th>
<th>Baseline (n=17)</th>
<th>Post validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only on ACEi/ARB</td>
<td>2 (12%)</td>
<td>13 (19%)</td>
</tr>
<tr>
<td>Only BB &amp;/or IF inhibitor</td>
<td>1 (6%)</td>
<td>5 (7%)</td>
</tr>
<tr>
<td>ACEi/ARB &amp; AA</td>
<td>1 (6%)</td>
<td>1 (14%)</td>
</tr>
<tr>
<td>ACEi/ARB and BB/IF inhibitor</td>
<td>7 (41%)</td>
<td>17 (30%)</td>
</tr>
<tr>
<td>Triple therapy (ACEi/ARB, BB &amp; AA)</td>
<td>3 (18%)</td>
<td>12 (17%)</td>
</tr>
<tr>
<td>No therapy</td>
<td>2 (12%)</td>
<td>8 (11.5%)</td>
</tr>
</tbody>
</table>

- Virtual clinics performed on all 69 patients
- No. of patient identified as being on unlicensed B blocker (Switched to licensed):
  - Practice 1 = /69 (%) on Unlicensed B blocker switch via MURs
No. of patients highlighted through Enhance™ as ‘High risk’ as per protocol from each practice

Patients that could be referred to GPSI clinic from each group after GP optimisation actions have been attempted:

- Attempted on failed on B blocker /intolerant /Contra indicated to B blocker – Group 1, 6, 7 & 8
- Previously attempted on ACEi/ARB and failed – Group 2, 5, 7 & 8
- Symptomatic/recent hospitalisation and on maximum tolerated dose of B blocker (exclude severe renal impairment )(creatinine >220µMol/l) – Group 3
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<table>
<thead>
<tr>
<th>Pilot practices</th>
<th>Total no of heart failure patients identified as high risk according to protocol criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice 1 (N=138)</td>
<td>17</td>
</tr>
<tr>
<td>Practice 2 (N=69)</td>
<td>28</td>
</tr>
</tbody>
</table>

How has the project supported an improvement in heart failure management at your practice?

1. How do you rate the Enhance HF service = 5/5
2. Has the service raised awareness of the implications of incorrectly coded patients = 5/5
3. I understand our gaps in heart failure management are and how we can address them = 4/5
4. Improved my knowledge in heart failure management = 5/5
5. Recommend the service to other surgeries = 5/5

GP Comments:
‘High level of contact and support’
‘Very clear coding was inadequate’
‘Useful support to optimise patients’
‘Large and small Surgeries would benefit form this support’
Future Direction

- Finish medical optimisation of all relevant patients identified from pilot
- Model for Heart failure management rolled out to federation of 5 practices
- Case study produced of outcomes from pilot
- Presented back to western locality for consideration as work stream across locality
- Academic health science network?
A happy ending….
Enhance HF™
An embedded clinical audit and patient management pathway

- **Baseline assessment and re-audit**
  Installed on practice clinical systems
  Auto-update monthly

- **Clinical protocols**
  A prompted management protocol based on NICE (CG108)
  Auto launches at HF consultation
  Can be manually accessed

- **Practice specific reports**

- **Learning Log**
  Time and learning for CPD – e-consultations

- **Data collection and benchmarking**
  For up to 12 months and allows practice comparison across CCG via website