GM-HFIT: Improving the quality of heart failure management in primary care

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Purpose:

Heart Failure (HF) affects around 900,000 people with 60,000 new cases annually and accounts for 2% of NHS inpatient days and 5% of emergency admissions to hospital[1]. The purpose of this project is to improve the detection, management and care of heart failure within primary care in a large city (Manchester) in the UK.

Aims:

The overarching aim of the project is to improve the quality of service and care for people with heart failure; the specific aims include:

(a) Ensure patient care is consistent with evidence based guidelines from NICE and the ESC

(b) Improve the knowledge and skills of heath care professionals in relation to HF

(c) Improve data quality and standardisation of documentation

Objectives:

The objectives of the *'improving the quality of heart failure management in primary care'* project include:

(a) Ensure that 100% of patients on the heart failure register are appropriately diagnosed

(b) Ensure that all project practices correctly code HF patients & implement a standardised IT template

(c) Ensure that 80% of patients are placed on appropriate medical therapy (with particular reference to the optimal dose of beta blocker and ACEI therapy)

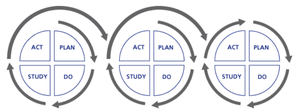
(d) To provide HF education and a continuing rolling programme of education to all project practices

Methods:

Working within the **PARiHS framework[2]**, and utilising **Plan-Do-Study-Act (PDSA) cycles[3]** the *'improving quality of heart failure management in primary care'* project was developed. Consultation (27 HCPs) and clinical input from local HF clinicians was combined with the existing evidence base and guidance from the ESC & NICE to create a detailed programme of work combining clinical audit, specialist heart failure education, IT template design and standardisation of clinical coding systems.

An initial pilot with six NHS Manchester GP practices, involved with a HF local enhanced service (LES) aided the development of a number of clinical audit tools:

- **GM-HFIT (verification)**
- **GM-HFIT (case finding)**



Refinements and developments were made through a continuous process of clinical reasoning and dialogue with specialist heart failure clinicians and other NHS professionals

GM-HFIT (verification):

GM-HFIT (verification) builds on the preliminary work of NHS Bolton. It has been developed into a manual clinical audit tool, providing a **'traffic light' score** to assess current heart failure management and the **accuracy of the heart failure disease register**. A HF specialist nurse manually verifies all patients on the HF1 disease register (via the clinical system notes); providing recommendations about their management and validity for inclusion on the register.

GM-HFIT (case finding):

GM-HFIT (case finding) builds on the initial work of a local Community Heart Failure Nurse from NHS Heywood, Middleton and Rochdale, to create **19 discrete searches** to identify patients that may have HF, but are currently absent from the HF1 disease register. A HF specialist nurse manually assesses (via the clinical notes) the suitability of all patients generated by the searches.

The project has been rolled out to **13 practices across NHS Manchester**, with the process and resources continuously evolving and developing to create a discrete and effective model. This multi-faceted project included small interactive group based education sessions, one to one read code training, ongoing facilitation provided by GM CLAHRC Knowledge Transfer Associates and action planning.

Results:

GM-HFIT (verification):

During the initial audit **478 patients** from 13 heart failure disease registers were reviewed and verified by GM CLAHRC seconded Heart Failure Specialist Nurse):

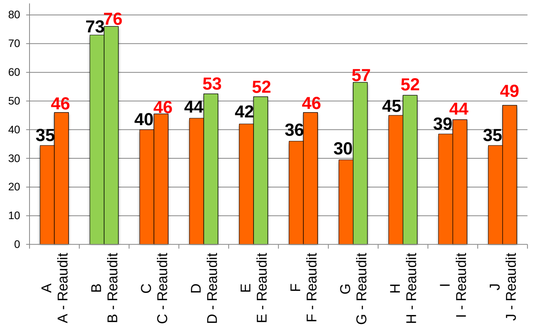
- **59.9% (n=281)** of patients were appropriately on the heart failure register
- **23.2% (n=109)** of patients required further investigation to confirm appropriateness
- **16.8% (n=79)** of patients were inappropriate

After 9 -12 months practices were re-audited and re-verified, using the key heart failure management indicators outlined in the 'traffic light' score. The re-audit data is only available from 10 practices, as one locality wished to perform their own follow up.

The results are very encouraging, they demonstrate a marked improvement in the accuracy of registers and in the overall evidence based heart failure management 'traffic light' scores (see figure 1 for traffic light scores):

- **78.9% (n=259)** of patients were now appropriate for the heart failure register, an **increase of 32.2%**
- **18.2% (n=60)** of patients still required further investigation to confirm appropriateness, a **decrease of 16%**
- Only **2.7% (n=9)** of patients were inappropriate, a **decrease of 85.2%**
- The **mean Traffic Light score increase was 10 points, a 24% improvement**
- **4** practices moved from an **Amber** Traffic Light status to **Green** ***(providing very high quality of care)***
- **1** practice improved their score but still had a Traffic Light status of **Green** ***(providing very high quality of care)***
- **5** practices improved their score but still had a Traffic Light status of **Amber** ***(providing good care, but need to improve in certain areas)***

Figure1. Overall Traffic Light Scores



Total score is out of 80

Gold >76
Providing outstanding quality of care

Green 50 – 76
Providing a very high quality of care

Amber 25 – 49
Providing good care but you need to improve on certain areas

Red <25
You are falling short and need to make major improvements

GM-HFIT (case finding):

A total of **19 discrete searches** based on medication, echocardiography and associated diseases established **1962 patients to assess**. The GM CLAHRC team assessed these patients via clinical records and found **461 'actions'**, these include (a) patients to add to the hear failure register, (b) patients requiring echocardiography, (c) patients requiring an echocardiography report requesting, (d) patients requiring a GP review, and (e) patients requiring specialist referral.

- **237** of these actions were **patients who had heart failure and needed to be added to the disease register**

After 9 – 12 months the practices heart failure prevalence was re-assessed and there was a marked increase in their prevalence rates. The extent between practices was variable:

- One practice increased from **0.61 to 0.94, a 54% increase**
- Another practice actually decrease from 0.76 to 0.68%, a 10% decrease.
- However overall the combined prevalence from the practices increased from **0.55 to 0.67**, an **increase of 22%**

Conclusions:

Through a combination of *'how to'* tools, education and the facilitative approach of the GM CLAHRCs Knowledge Transfer Associate and secondees; GP practices are supported to improve their HF management processes. The *'GM-HFIT: improving the quality of heart failure management in primary care'* project has been an evolutionary and continuous process, which has been spread to **25 GP practices** in Bury, and is about to be rolled out within Ashton, Leigh and Wigan

> ***"The GM CLAHRC Heart Failure Programme provides practices with an audit tool that stimulates improvement in management and is tailored to the needs of the practice. It is essential for any Clinical Commissioning Group which is serious about improving care, reducing admissions and raising quality of life for those at the end of their life"***

Dr Ivan Benett
(GP with Special Interest in Cardiology and Clinical Director of Central Manchester Shadow Clinical Commissioning Board)