Improving heart failure services in Barts Health NHS and environs: Use of EMISweb to integrate services in Tower Hamlets, Waltham Forest and Newham with Barts Health Records

Project Proposal

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Aim

To reduce unplanned heart failure admissions to acute providers within the Barts Health NHS Trust by 10% over two years through the implementation of an integrated care pathway supported by cross-sector access to real-time patient and clinical data.

Proposal

To implement an improvement programme within Barts Health NHS Trust which will link the data of patients with heart failure across primary, secondary and community care. This will be realised through evidence-based education and clinical support tools, including templates and care pathways, facilitated by wide-spread access to EMIS web. Progress and success will be monitored and evaluated using proven quality Improvement (QI) techniques and an agreed set of outcome metrics.
The Case for Change
Heart failure services across the Barts Health geography both within primary and secondary care is fragmented and variable. This is resulting in a serious under-diagnosis in heart failure, and inadequate provision for patients. There are many unnecessary admissions (and re-admissions) because of a lack of organisation, strategic planning and focus on heart failure. The result is an excess spend on heart failure and more than likely, in higher mortality than necessary.

The strategy required to prevent hospital admission is likely to be multi-faceted, but it will certainly involve aligning services within and across localities. An integrated-care approach supported by the extension of specialist knowledge into non-hospital settings underpinned by data sharing will be the foundation for this. In addition, all sectors will need to embrace new ways of working and new technologies to ensure efficient and streamlined services. Improvement work must have the person with heart failure at its core with an emphasis on patient education and self-management.

Urgent intervention to improve heart failure diagnosis and management is required.
An Integrated Care approach

The first step in integrating services across the Barts Health NHS Trust can be considerably enhanced by creatively utilising existing capabilities. EMIS Web is a primary care based clinical notes system used universally by GPs across all three Clinical Commissioning Groups: Newham, Tower Hamlets and Waltham Forest. This system could be accessed by all acute care sites in the Barts Health Trust enabling secondary care clinicians to view appointments, results, medications and real-time consultation notes made by any health care professional using the system.

EMIS Web is intended to standardise data capture and retrieval and aims to facilitate the integration of information and improve data flow. Disease specific templates, bespoke to the needs of the organisation can be uploaded on to the system. These can mirror templates on other IT systems throughout Barts Health and the community trust, which will reduce variabilities in care and improve data quality.

The Fylde Coast vanguard site in the Northwest of England is using EMIS Web to drive down unnecessary hospital admissions in their frail, elderly population. The vanguard brings together primary, secondary and community care organisations and consultant geriatrician, Andrew Weatherburn reports that, "EMIS Web is allowing us to provide more integrated care for our patients and make better-informed decisions. Having access to all the information in one place saves us valuable time too. Patients were telling us that their care was not coordinated and that they often had to repeat their story to different carers. EMIS Web is helping us to stop that happening."1

The person with heart failure is the one constant in the Barts Health system and we must use this to leverage integration between sectors. The aim is to address the system as a whole, aligning resources to optimise quality and efficiency. It will not be sufficient to cherry-pick specific elements of patient care for improvement, instead the approach must address the entire pathway and coordinate services efficiently around the needs of the patient.

By ensuring that patient and clinical information is visible to all health care professionals, regardless of where they sit in the system we can facilitate a pathway that feels seamless to the patient.

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Proof of Concept
A similar approach has been implemented in Camden with the CCG, Central and North West London NHS Foundation Trust Community Services and UCLH working together to prioritise heart failure service integration. A heart failure template was introduced in primary and community care to support diagnostic and disease management pathways. The result is an additional 250 people now identified as having heart failure and added to the disease register (Figure 1); there has also been a fall in heart failure admissions resulting in better outcomes for patients with heart failure and care being provided closer to home (Figure 2).

Figure 1: Camden HF Register 2013-2015. Numbers of patients on Register and prevalence rate.
Figure 2: SUS data showing admission rates for HF 2012-2015. HF admissions are clearly falling.
The Local picture
UCLPartners is an Academic Health Science partnership with the purpose to translate cutting-edge research and innovation into measureable health and wealth gains for patients and populations - in London, across the UK and globally. It works with partners in North Central and North East London, parts of Bedfordshire and Hertfordshire and Essex

Dr Simon Woldman is the Clinical lead for UCLPartners Heart Failure programme.

Pilot work from UCLPartners has shown that the prevalence of heart failure recorded in GP practices in Newham, Tower Hamlets and Waltham Forest is extremely low, yet unplanned admission rates for heart failure are high.

Figure 3: All three key CCGs are well below the expected national prevalence rate of 1.2%2

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According to the most recent publically available Public Health England admission data (2014)\(^3\) there were 856 heart failure admissions from Newham, Tower Hamlets and Waltham Forest. This is equivalent to an estimated 11,128 bed days, at a cost of £3.35m, based on 13 days and £3,796 as the average length and cost of a typical heart failure inpatient stay calculated by the British Heart Foundation (BHF)\(^4\).

A ten per cent reduction in unplanned hospital admissions could deliver a potential cost saving of £324,936 and avoid 86 hospital admissions.
**Broader Context**

This proposal aligns itself with a pre-existing programme of work for heart failure improvement covering the Barts Health geography and beyond, led by the UCLPartners Academic Health Science Partnership (UCLP). Following a UCLP-wide stakeholder engagement process an agreed set of priorities has been developed by health care professionals and commissioners from a large majority of participating localities – including Barts Health and the three key CCGs (Newham, Tower Hamlets and Waltham Forest). Integrated care, specialist non-hospital provision and reducing variability across the region were highlighted as immediate concerns.

A neighbouring Academic Health Science Network covering Kent, Sussex and Surrey (KSS AHSN) also runs a heart failure improvement programme. They have merged with the National Heart Failure Audit Team and are utilising the audit data to populate a monthly data dashboard which is driving the improvement agenda in their acute provider settings. Regular educational outreach visits and a bi-annual improvement collaborative provide opportunities to evaluate the data and maintain momentum for the work.

KSS AHSN are keen to share their IT resources and materials and the acute providers within Barts Health Trust could be the first in London to adopt their high quality data tools. This would ensure that the proposed improvement work benefitted from proven, evidence-based quality improvement methodologies, as well as providing a monitoring mechanism by which the progress of service integration and quality of care could be evaluated.

The adoption of this proposal will enable Barts Health to assume the forefront position in the wider UCLPartners heart failure programme leading the improvement and positioning itself as an exemplar of quality provision.

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5 UCLPartners meets the needs of a population of 6 million across North Central and North East London, parts of Hertfordshire, Bedfordshire and Essex. Partnership includes 24 acute, mental health and community trusts; 21 CCGs; 11 Higher education institutes and 26 boroughs and councils

6 http://www.kssahsn.net/what-we-do/service-improvement/enhancing-quality/heart-failure/Pages/Resources.aspx
Deliverables

Data sharing agreements
- EMIS Web visible universally across all providers and sectors

Clinical heart failure templates
- Evidence-based and peer reviewed by local health care professionals
- Mirrored across Newham, Tower Hamlets and Waltham Forest CCGs, all Barts Health Trust acute provider sites and community trusts
- Routinely used and embedded in service

Heart Failure diagnostic and management pathway
- Evidence-based and peer reviewed by local health care professionals
- Education sessions led by local specialists on the pathways
- Referrals and management routinely followed in practice

KSS AHSN data dashboard for acute and community providers
- Adoption of dashboard by all providers
- Monthly NHFA data entry and upload to central database
- Regular monitoring of data to identify and evaluate improvement

Time frames

Year One

Priority: Initiation and development, stakeholder engagement and education

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<td>Recruit to operational and steering groups.</td>
<td>Develop diagnostic and management pathways using expertise from across all sectors, and learning from other similar initiatives.</td>
<td>Develop clinical template that supports the agreed pathways and is accessible across all sites.</td>
<td>Develop educational sessions that will facilitate adherence to the pathways and templates.</td>
<td>Site visits to evaluate template and pathway implementation.</td>
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<td>Initiate access to EMIS web at all provider and community sites.</td>
<td>Data sharing agreements in place</td>
<td>Mirror across all IT systems. Peer review.</td>
<td>Work with local champions at CCG or GP Federation level to schedule and initiate education package</td>
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Year Two

Priority: Acute sector data, embedding improvements and sustainability

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<tr>
<th>July 2017</th>
<th>September 2017</th>
<th>January 2018</th>
<th>March 2018</th>
<th>July 2018</th>
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<td>Produce data reports for external stakeholders and internal executive.</td>
<td>Introduce KSS AHSN data dashboard to acute sector. Site visits to ensure teams in each sector have skills to interpret and use data for improvement</td>
<td>Improvement collaborative event to evaluate and share data between and across sectors.</td>
<td>Embed internal capability to evaluate data and measure improvement. Ensure clinical pathway and clinical tools are routine practice. Develop exit strategy of project phase.</td>
<td>Exit project phase, initiatives now ‘hard-wired’ into routine practice and all teams have the capacity and capability to evaluate and use data to sustain improvement and identify further priorities.</td>
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Programme underpinned by continuous monitoring and evaluation to ensure iterative and inclusive approach to improvement work.

Costings

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<th>COSTS DATA</th>
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<tr>
<td>PROJECT MANAGEMENT</td>
<td>71,375.67</td>
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<tr>
<td>IT SUPPORT FOR 3 CCGS (SOFTWARE TRAINING)</td>
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<tr>
<td>LICENSING</td>
<td>4,000</td>
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<tr>
<td>DATA ANALYSIS</td>
<td>6,500</td>
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<tr>
<td>PATIENT CONSENT</td>
<td>2,000</td>
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<td>TOTAL</td>
<td>£101,875.67</td>
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Programme governance

The programme will sit at Barts Health NHS Trust under the clinical leadership of Dr Simon Woldman, Director of Specialist Cardiology Services. It will be managed by a dedicated project management resource, employed by the Trust, who will report into the Specialist Cardiology Management Board, chaired by Dr Woldman.

The work will be operationally monitored and supported by a fortnightly heart failure improvement operational group, whilst the broader programme strategy will be governed by a heart failure steering group. Representatives from all Barts Health Trust acute provider sites as well as those from the three key CCGs and the community trusts will sit on the steering group, to ensure benefit is conferred across the whole system.