Delivering a Paperless NHS by 2018

Electronic Document Management in Healthcare

Dr Masood Nazir
General Practitioner
Clinical Informatics Advisor
NHS England
About us

• The NHS Commissioning Board (NHS CB):
  • was established as a special health authority on 31 October 2011 and as an executive non-departmental public body on 1 October 2012;
  • plays a key role in the Government’s vision to modernise the NHS and secure the best possible outcomes for patients.
• Renamed to NHS England – 1st April 2013
NHS England structure

- **27 Area teams** – commissioning high quality primary care services, supporting and developing CCGs, assessing and assuring performance, direct and specialised commissioning, managing, cultivating local partnerships and stakeholder relationships, including representation on health and wellbeing boards

- **Four regions** - providing clinical and professional leadership, co-ordinating planning, operational management and emergency preparedness - undertaking direct commissioning functions and processes within a single operating model

- **National support centre** in Leeds and a presence in London
Population:

- 730,000 patients
- 117 practices across 125 sites

**Formed from 3 PCTs across the city and six former groups:**

- Equity
- UBC
- SBIC
- Sparkfield
- BICC
- NEB

Made up of **ten area based** clinical networks
Drivers for change

Unleashing the power of people - by using data and technology to drive efficiency, effectiveness and quality improvement

The Spending Gap: It is estimated that there will be a shortfall of around £30bn in NHS finances within 5 years, as demand and costs rise. Yet there is unlikely to be a similar increase in public expenditure. Data and technology, through transforming productivity and enabling patients to do more for themselves, can play a major role in filling that gap.

The Quality Gap: There continues to be widespread variation in the quality of health and care services, and in the offer to support citizens to manage their health and Wellbeing more effectively. Strategies of transparency, data sharing, and service personalisation are key to reducing variation. In the medium term, data and technology are essential pre-requisites to the transformation in patient outcomes and healthcare costs.

“The effective collection, analysis and dissemination of relevant information is essential for swift identification and prevention of substandard services; facilitating accountability; provision of accessible and relevant information to the public; and supporting patient choice of treatment.”

Robert Francis QC
Report of the Mid Staffordshire NHS Foundation Trust
Public Inquiry
The Path to Integrated Digital Care Records

- Mainly paper based
- Digitisation of some clinical and admin systems
- Comprehensively digitised clinical and admin systems
- Integration of systems within the organisation
- Integration across all care settings within and beyond the organisation
THE PATIENTS KNOW MORE ABOUT THEIR DISEASES THAN ME. I MUST GET FASTER MODEM, HIGHER SPEED INTERNET ACCESS THAN THEM.
NHS Mandate

• Every year, the Secretary of State must publish a mandate to ensure... accordance with the Health and Social Care Act

• The current Mandate sets 24 objectives and the following 5 priority areas identified by Government...
## NHS Outcomes Framework

<table>
<thead>
<tr>
<th>Domain One</th>
<th>Preventing people from dying prematurely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain Two</td>
<td>Enhancing quality of life for people with long-term conditions</td>
</tr>
<tr>
<td>Domain Three</td>
<td>Helping people to recover from episodes of ill health or following injury</td>
</tr>
<tr>
<td>Domain Four</td>
<td>Ensuring that people have a positive experience of care</td>
</tr>
<tr>
<td>Domain Five</td>
<td>Treating and caring for people in a safe environment and protecting them from avoidable harm</td>
</tr>
</tbody>
</table>
Audit shows preventable diabetes complications are still occurring

Jacqui Wise | LONDON

More than 60 hospital inpatients with diabetes had diabetic ketoacidosis, a life-threatening but entirely preventable complication, in just one week in England and Wales, a national audit report shows.

The National Diabetes Inpatient Audit also documented 232 cases of severe hypoglycaemia requiring injectable treatment. The audit report, commissioned by the Healthcare Quality Improvement Partnership, said that these findings were "shocking" as these life-threatening harms were preventable.

The audit, carried out by the NHS Health and Social Care Information Centre, working with the charity Diabetes UK, collected data over five days in September 2012 from 1,344 hospitals with diabetes in 1,366 trusts in England and six local health boards in Wales. Most of the patients were admitted to hospital for reasons other than their diabetes; just 8.2% in England and 9.6% in Wales were admitted specifically for diabetes.

The audit found no improvement on previous years in the proportion of patients developing diabetic ketoacidosis. In England 5.9% of patients (3.5%) developed diabetic ketoacidosis after admission in 2012, similar to the 4.5% (0.6%) in 2011 and 4.4% (0.4%) in 2010. In Wales two patients (0.2%) developed diabetic ketoacidosis in the current audit, similar to the three patients (0.3%) in 2011.

The audit’s lead, Gerry Rayman, a consultant physician at the Diabetess and Endocrine Centre at Ipswich Hospital NHS Trust, said, “It is of great concern that some patients are developing diabetic ketoacidosis, which is a potentially life-threatening complication in hospital. This is due to their needs being neglected and should simply never happen...”

Bridget Turner, director of policy and care improvement at Diabetes UK, said, “Even a single case of diabetic ketoacidosis developing in hospital is unacceptable because it suggests that insulin has been withheld from that person for some time. The fact that this is regularly happening raises serious questions about the ability of hospitals to provide even the most basic level of diabetes care...”

The audit found that more than a third of patients with diabetes experienced a medication error. The commonest was insulin not being increased when blood glucose concentrations were persistently high. Other errors included insulin not being reduced when appropriate, staff failing to note that they had given insulin, and insulin being given at the wrong time.

However, numbers of medication errors have fallen slightly from 44.5% of patients in 2010 to 39.8% of inpatients in 2012..."
Patient Online Vision - in General Practice

We have ..... Agreed A Shared Vision with Patient representatives and GP leaders... building on the RCGP Road Map for Patient Online

“Patients are enabled to take greater control of their own health and wellbeing supported by their General Practice offering a range of digital services... ...everyone who wishes to has online access to services at their convenience”

“General Practice teams are confident to offer Patient Online digital services to enhance the quality of patient care... ...especially for patients that General Practice teams know will benefit the most from Patient Online.”

GPs and Practices Embracing digital services
General Practice as part of Integrated Care

NHS E-referrals – integrating care
- Improved functionality
- Easier to use
- Information for commissioners
- Online services for patients

E-Prescribing
- Increased uptake
- E-prescribing in hospitals
- Online services for patients

SCR
- Increasing uptake in Urgent & Emergency Care

NHS Number as primary identifier to link across all services
Embracing Technology to achieve the power of people

“Unleashing the power of people”

Patient Online – next steps

- Online test results
- E-communication and consultation
- Interactive records access
- Access for carers
- Online registration
Evolution
"It simply cannot be sustainable in the health service of the future for skilled staff to continue to send on referral letters using second class post."

Nigel Edwards, acting Chief Executive of the NHS Confederation
NHSmail: nhs.net

- Safe and secure email within the NHS (nhs.net), Local Authority (gcsi.gov.uk) or Police (police.uk).

- Shared mail boxes e.g. prescription requests in General Practice.

- Patients need to be aware that sending emails to nhs.net addresses from personal (non nhs.net) accounts, the nhs cannot vouch for the security at their end.
Sending information between outpatients and GPs...

- NHSmail set up through your local Health Informatics Department.

- Electronic Document Transfer e.g. DOCman.

- Saving, to the NHS, of 40p a letter
In turn the job has evolved

• GP’s have to be more vigilant with the content of mail
  • More often the hospital letter states “In the meantime I will ask your GP to ……..”

• Instead of just filing into paper records it needs attaching into electronic record and data quality is now an implication so summarising is now required to ensure the electronic record reflects the patients current status
What has Docman given us?

- Improved document handling system
- Enabled improved communication
- Provides quick document retrieval
- Improved consistency for filing documents
- Facilitated summarisation of letters (read coding)
- Audit history of the documents pathway
- **Receptionists** – Open, scan, file and workflow documents, takes action where requested by a clinician

- **Data Operator** – Summarises the document

- **Clinician** – Reads, actions where necessary, forwards where necessary, files comments
Current Pathway

PAPERBASED DOCUMENT SCANNING PROCESS

LETTER RECEIVED

LETTER OPENED

LETTER DATE STAMPED

LETTER CHECKED TO ASCERTAIN MOST RELEVANT CLINICIAN / REFERRING CLINICIAN – MAINTAIN CONTINUITY OF CARE & MARK ON LETTER

CHECK LETTER TO SEE IF IT HAS ALREADY BEEN SCANNED (DUPLICATE)

NO

SCAN LETTER

INTELLISENSE FILE LETTER

FILE AS APPROPRIATE

WORKFLOW TO CLINICIAN & CODER

YES

FORWARD TO .............

(9 PROCESSES)
Future of EDT & NHS Net Mail

- Electronic downloads at timed intervals of all hospital letters / discharges from local sites going directly into Docman

- Hospital and Community care mail coming into specific NHS net account going directly into Docman
What are the benefits of this?

- No paper, resulting in:
  - No opening of mail
  - No date stamping
  - No scanning
  - No opening, twice daily, of NHS Net account

This has already been done for you!
EDT / NHS NET DOCUMENT SCANNING PROCESS

LETTER IN DOCUMENT VIEWER

LETTER CHECKED TO ASCERTAIN MOST RELEVANT CLINICIAN / REFERRING CLINICIAN – MAINTAIN CONTINUITY OF CARE

INTELLISENSE SCAN LETTER

FILE AS APPROPRIATE

WORKFLOW TO CLINICIAN & CODER

(5 PROCESSES)
Intellisense: What is it?

• It is the computer's interpretation / reading of the content of the document

• It suggests options for filing and summarising
Pro’s & Con’s

PRO’s
• No paper floating about everywhere
• Rapid receipt of documents
• Ease of use
• EDT / NHS Mail version is quick to process
• Provides an immediate communication network
• More than just scanning software – address book, reference database, document viewer/workflow

CON’s
• Files in clinic date order rather than scanned date
• No paper to read! -Managing change in processes is difficult
• Possible to mark a letter for action but forget to send it to someone
• Everyone’s got to be on-board otherwise it just doesn’t work!
Title
The current Work-flow process at HGH

About 500 letters are received into the practice daily

Sally scans in manually

Suzanne scans into MS Office

All post is work-flowed to Louise for redirecting to referring GPs

Once GPs have completed their actions they forward all post back to reception staff, secretaries and Chris Smith for Copiercarling

Once all the actions have been completed post is removed from work-flow
Title
The Proposed Dorman Work Flow Process for HSH

Post comes in twice a day of about 500 letters

Post is divided among the 3

Post is divided among the 3

Post is divided among the 3

Post is sent to all the GPs for booking

Post is sent to either reception staff for appointments or to secretaries for... to the recall calling team.

Once all the actions have been completed, the letters are removed from the workflow.
## EDT by CCG & Providers

<table>
<thead>
<tr>
<th>CCG</th>
<th>Planned</th>
<th>Actual</th>
<th>LIVE</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>BXC UHB</td>
<td>31</td>
<td>24</td>
<td>94</td>
<td>39</td>
</tr>
<tr>
<td>BXC SWBH</td>
<td>31</td>
<td>24</td>
<td>82</td>
<td>51</td>
</tr>
<tr>
<td>BXC HEFT</td>
<td>21</td>
<td>15</td>
<td>89</td>
<td>44</td>
</tr>
<tr>
<td>BXC ROH</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>128</td>
</tr>
<tr>
<td>BSC UHB</td>
<td>6</td>
<td>4</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>BSC SWBH</td>
<td>6</td>
<td>4</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>BSC HEFT</td>
<td>6</td>
<td>4</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>SOL UHB</td>
<td>20</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>SOL SWBH</td>
<td>20</td>
<td>18</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>SOL HEFT</td>
<td>0</td>
<td>0</td>
<td>33</td>
<td>5</td>
</tr>
<tr>
<td>SWB UHB</td>
<td>15</td>
<td>11</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>SWB SWEH</td>
<td>15</td>
<td>11</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>SWB HEFT</td>
<td>15</td>
<td>11</td>
<td>24</td>
<td>26</td>
</tr>
</tbody>
</table>

## No Print Activated

<table>
<thead>
<tr>
<th>CCG</th>
<th>BXC</th>
<th>BSC</th>
<th>Solihull</th>
<th>SWB</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHB</td>
<td>19</td>
<td>19</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>HEFT</td>
<td>89</td>
<td>30</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SWBH</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

## GP Practices Live with EDT

<table>
<thead>
<tr>
<th>CCG</th>
<th>Live</th>
<th>Planned</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>BXC</td>
<td>94</td>
<td>0</td>
<td>39</td>
</tr>
<tr>
<td>BSC</td>
<td>31</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Solihull</td>
<td>33</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>SWB</td>
<td>24</td>
<td>6</td>
<td>20</td>
</tr>
</tbody>
</table>

## EDT Message Growth

<table>
<thead>
<tr>
<th>Provider</th>
<th>Jun-13</th>
<th>Jul-13</th>
<th>Aug-13</th>
<th>Sep-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHB</td>
<td>24,642</td>
<td>28,706</td>
<td>24,649</td>
<td>27,765</td>
</tr>
<tr>
<td>SWBH</td>
<td>tbc</td>
<td>4,527</td>
<td>6,109</td>
<td>7,626</td>
</tr>
<tr>
<td>BSMHFT</td>
<td>338</td>
<td>981</td>
<td>940</td>
<td>1,687</td>
</tr>
<tr>
<td>HEFT</td>
<td>tbc</td>
<td>tbc</td>
<td>tbc</td>
<td>tbc</td>
</tr>
</tbody>
</table>

## CCG Progress (not Provider specific)

<table>
<thead>
<tr>
<th>CCG</th>
<th>Live</th>
<th>Planned</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWB</td>
<td>24</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Solihull</td>
<td>33</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>BSC</td>
<td>31</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>UHB</td>
<td>27,765</td>
<td>0</td>
<td>39</td>
</tr>
</tbody>
</table>
Q6. What sort of proposals is the Technology Fund intended to support?

A. As outlined in the Secretary of State’s speech announcing the Technology Fund (Friday 17th May 2013), the primary purpose of the fund is to support NHS organisations to increase the scale and scope of their use of digital information technology in three key areas:

- the introduction of integrated digital care records
- the introduction of electronic prescribing in secondary care
- the introduction of advanced scheduling
NHS TREASURE MAP

Innovations – Promote, Share & Spread your GEMS

Mobile Working
Education
Sharing Information

 REGION BORDER
  COUNTY BORDERS
  CITIES
  TOWNS
“Know where to find the information and how to use it – That’s the secret of success”
Promoting and developing current and future clinical information leaders

What is the CCIO Leaders Network?

The CCIO Leaders Network has been established to promote and develop current and future clinical information leaders across the NHS. The network is being developed in partnership with the Royal College of Physicians and the British Computer Society. It has been made possible thanks to the support of foundation sponsors BT, Cerner and iSoft.

In 2012, the CCIO Leaders Network will deliver an extensive programme of partner events, culminating in the first annual CCIO Forum held at EHI Live 2012. This will be backed by the CCIO Leaders Network website, providing online resources, interviews, case studies and community features.

Sign-up to receive information about forthcoming events or join the CCIO Group on EHI Groups to contribute to discussions on clinical leadership, best practice and the professional development pathway for future CCIOs.

CCIO videos

The EHI CCIO Leaders Network launch

Watch the key moments of the CCIO Leaders Network events launch, find out what those attending made of it all, and see why so many people are backing the idea of clinical information champions in the NHS.
How does a commissioning body influence anything?

- Mandatory elements in contracts
- Funding projects
  - National
  - Local
- Transfer of good practice
  - Galley of examples Awards
  - “Do once and share”
- Influence by... influence

36
The challenge

- Implementing Electronic Document Management Solutions is a challenge, a major project and a substantial change to the way care is delivered.
- But it is achievable, and others have achieved it and gained many benefits.
- Achieving a paperless NHS remains a challenge, but sharing of data is one of the first steps on the road to achieving...
Give me a kick when it’s all sorted

How can we help?

Dr Masood Nazir:
masood.nazir@nhs.net