The Urgent Care Clinical Dashboard Implementation Guide

Supporting your team to develop and implement locally
Welcome

The Urgent Care Clinical Dashboard Implementation guide is intended to be your first step in the process of implementing a local dashboard. It will give an overview of the different elements involved, signposting you to important elements of the implementation toolkit that this guide supports.

The guide...

Gives a high level overview of the different workstreams within an Urgent Care Clinical Dashboard project and is built from lessons and knowledge from implementations across England. The guide signposts you to the implementation toolkit for more detailed information.

The toolkit...

Gives greater detail than the overviews found in this guide. The guide acts as your map to specific products and detailed information sources within the toolkit. However, the toolkit and its products can be viewed directly via NHS Networks (Click Here).
Understanding Urgent Care Clinical Dashboards

Urgent Care Clinical Dashboards don’t contain any more information than GP practices already receive in paper or electronic message formats, but the dashboard presents the information in near real time and in a user friendly interface. It displays all of information together to present a complete picture.

The dashboard...
Displays information in a graphical, user-friendly way to help practices to manage and co-ordinate their patients’ healthcare more proactively, especially for the most vulnerable patients and those with long-term conditions.

It provides...
Real-time information from the local Acute Trust(s) on A&E attendances, admissions and discharges combined with real-time information from other local urgent care services to each GP practice; enabling a whole system view of urgent care.

The dashboard view above is of a pseudonymised test version of the Devon Dashboard. As you can see it gives information from a range of care settings in one place, in a timely and user friendly way.

By clicking through you are able to see patient level data on attendances. This includes individual risk stratification scores for their patients.
Foreword

Dr Anne Talbot, National Clinical Lead DH QIPP Urgent Care Clinical Dashboard

It has been a privilege to be involved with the design and delivery of Urgent Care Clinical Dashboards since their inception as part of Lord Darzi’s Next Stage review. My own personal involvement started when, as part of a team at NHS Bolton, we were invited to take part in a ‘proof of concept’ project in 2008. From small beginnings this project has led to the DH QIPP National Urgent Care Clinical Dashboard initiative supporting numerous excellent teams to develop increasingly innovative Urgent Care Clinical Dashboards across England, based on the original concept. There is now a solid base of locations utilising the technology and they are developing new and continually improving ways of presenting and using clinical information for the benefit of their patients.

As a clinician I’ve found the dashboard technology invaluable as it allows me to bring together a wealth of data relating to my patients, on my desktop, so I can make more informed decisions that support improvements to the care I can provide to patients. It has enabled the Active Case Management service within Bolton to be redesigned so ACMs are aligned with GP practices, using the dashboard to monitor admissions and better manage discharge; reducing length of stays and improving patient experience.

Across the country innovations include incorporating predictive modelling and risk stratification within dashboards to give a broader information set to clinicians. Patient alerts have been piloted where clinicians have the option to monitor individual patients, while the information and supporting data within the dashboards can also be utilised to better understand variation in primary care activity. Further development is ongoing in relation to NHS 111 and Ambulance data feeds into local dashboards, which from a clinical perspective, would help provide a whole system view of urgent care so patient management, experience and outcomes could be further improved.

We hope that the information provided in this guide and the supporting tools help you to develop a clinically driven and locally implemented dashboard that improves the timeliness of patient interventions and stimulates improvement in your local health economy. May I take this opportunity to wish you every success in your Urgent Care Clinical dashboard journey.
Contents

Understanding Urgent Care Clinical Dashboards .................................................................................................................. 3
Benefit and Change Management ............................................................................................................................................... 6
Benefit Resources ....................................................................................................................................................................... 9
Clinical Metrics & Safety ................................................................................................................................................................. 10
Clinical Metrics & Safety Resources ........................................................................................................................................... 15
Technical ....................................................................................................................................................................................... 16
Technical Resources ....................................................................................................................................................................... 22
Information Governance .................................................................................................................................................................. 23
Information Governance Resources .............................................................................................................................................. 25
Project Management ...................................................................................................................................................................... 26
Project Management Resources ..................................................................................................................................................... 29
Engagement and Communication .................................................................................................................................................. 30
Engagement and Communication Resources ................................................................................................................................... 32
Training Management ...................................................................................................................................................................... 33
Training Resources ......................................................................................................................................................................... 35
Support and Advice ....................................................................................................................................................................... 36
Benefit and Change Management

Introduction
It is important to think about benefits early in the process when considering implementing an Urgent Care Clinical Dashboard. It is the very basis of your business plan, and benefit realisation should be used to ensure the project is on track and realising what was initially envisaged. Benefits will be locally defined and driven, however, this does not mean that existing evidence such as benefit trackers and realisation plans cannot be used and adapted. This section of the guide gives a brief overview of benefit realisation strategies for Urgent Care Clinical Dashboards and links to supporting evidence.

Benefit Strategy
Benefits should be the driver for implementing an Urgent Care Clinical Dashboard; it will deliver a wide range of local benefits to many different stakeholders, therefore, there is a responsibility to track and monitor benefit realisation. This will ensure delivery of the original aims and opportunities and provide evidence for others considering a dashboard.

The four stage model below focuses on putting benefits at the heart of the project so all stakeholders are adequately informed and contributing to the process of discovering and realising benefits.

1. Identify the benefits
2. Plan for delivering the benefits
3. Deliver and exploit the benefits
4. Evaluate the benefits

The strategy is based on the Department of Health’s Benefit Framework which has been developed in conjunction with the Capital Investment Branch, with input from work by the OGC and Criminal Justice IT.

The diagram identifies the four distinct stages to the Urgent Care Clinical Dashboard strategy. The idea is to break down the realisation process into manageable chunks, with each stage having a set of points to consider, potential outputs and a range of tools to support each stage.

This creates a framework for a dashboard project to work within, and the four stage model, outputs and tools are encompassed within the Benefit Guide. This guide should be where the team starts; it gives not only theory, but real world examples and evidence from previous implementations.
The guide is available to download here (Click Here).

**The Urgent Care Clinical Dashboard Benefit Guide**

Urgent Care Dashboard Projects should start their benefit management by downloading the guide and reviewing its materials; the following information is a brief overview of its contents. The information within the guide is designed to be flexible, enabling local Clinical Dashboard Projects to tailor their use of the guide dependent upon their needs. The guide simply lays the foundations to enable the project to realise benefits in a locally defined way, using national best practice. The guide contains resources that identify benefits and metrics of Urgent Care Clinical Dashboards, but these should be viewed as a starter, a minimum, rather than a definitive list.

The guide is formed by four distinct chapters:

- **Four Stage Benefit Model**: Identifies areas of benefit management that teams implementing an UCCD should consider, proposes potential outputs and offers tools that could help ensure consistent benefit management.

- **Activity Plans**: Adds greater detail to each stage of the strategy, simply click to view as and when it is appropriate depending on your local needs.

- **Toolkit & Resources**: A library of tools that can help good benefit management

- **External Resources**: Links to best practice websites and health informatics portals.

The benefit guide should act as a menu; pick what you want from each section, and use the materials within it as appropriate for your local implementation. There are a number of resources and links within the guide, and for reference, these are available at the end of this section.
National Collection of Urgent Care Clinical Dashboard Benefit Information

The learning and knowledge from local realisation is extremely important for other implementing sites and to develop a national evidence base regarding the Urgent Care Clinical Dashboard. National Collection and Collation of benefits ensures:

- local benefits can be used as a benchmark for new implementations
- local benefits may be innovative and show new ways of working
- local benefits give new implementations a head start without having to ‘reinvent the wheel’
- national collation of benefits from sites help identify a ‘national case’ for UCCDs identifying patient led and efficiency benefits
- collation of benefits helps to support annual benefit review or progress statements

Therefore, the DH QIPP Urgent and Emergency Care Workstream invite implementing organisations to upload benefit realisation plans along with evidence or supporting information such as benefit trackers, benefit case studies (as well as any other appropriate media) to the Urgent Care Clinical Dashboard NHS Networks site (View the Networks Site by Clicking Here!). This enables all implementing organisations to see the benefits realised, and supports national collation by the DH QIPP National Team.

The proposed best practice is to upload benefit information at go live, implementation, 6 months, 12 months and 24 months.

By providing evidence at three intervals it not only enables other organisation to help implement and plan their benefit realisation, it also allows for the national team to coordinate benefits and collate benefits across the NHS.
Benefit Resources

**Urgent Care Clinical Dashboard Benefit Guide**
A comprehensive breakdown of benefit management strategies, resources and links for implementing Urgent Care Clinical Dashboards:
[UCCD Benefit Guide](#)

**Urgent Care Clinical Dashboard Example Benefit Tracker/Register**
An example repository of the raw benefit information, detailing each benefit and the information required to measure to feed the realisation plan:
[Example Tracker](#)

**Urgent Care Clinical Dashboard Blank Benefit Tracker/Register**
A blank tracker ready to be used by your project:
[Blank Tracker](#)

**Urgent Care Clinical Dashboard Realisation Plan**
The plan that documents proposed benefits, metrics and benefit activities to ensure realisation and visibility across the project:
[Realisation Plan](#)

**The Connecting for Health Benefits Informatics Zone (BIZ)**
The Informatics Zone offers a single, easily accessible resource for planning, business cases and benefits management

**The Connecting for Health Benefits Informatics Zone (BIZ) Four Stage Benefits Model**
The full detailed benefit management model as detailed in the UCDD Benefit Guide

**Benefit Progress Template**
A simple one page document using RAG status to understand progress on realisation of individual benefits and action plans.
[Progress Tracker](#)
Clinical & Metrics

Introduction

Clinical Dashboards are a tool designed by clinicians, for clinicians and help to provide clinical teams with relevant, informative and timely information to support clinical decisions that improve the quality and safety of patient care.

The Urgent Care Clinical Dashboard helps GPs and other practice-affiliated clinicians to identify the most vulnerable, at risk patients and empowers clinicians by bringing information together in real time. The information provided through the dashboard supports clinicians to improve and to manage and co-ordinate the healthcare of patients more proactively, especially for the most vulnerable and those with long term conditions.

As such the ‘clinical workstream’ is fundamental to the success of the local implementation and use of the dashboard. This section of the guide focuses on the importance of clinical leadership and clinical engagement in the implementation of the UCCD, the activities associated with defining the clinical indicators (or metrics) to be included on the dashboard, and ensuring clinical safety.

The clinical workstream will also lay the foundation for the longer term integration of the dashboard into local change processes and improvements in the quality of clinical care.

The guide also provides a number of guidance documents, templates and examples to support the clinical aspects of the implementation.

Clinical Leadership

Strong Clinical Leadership has been recognised as a critical success factor in the successful implementation and use of the dashboard. Therefore the workstream should be led by a senior local clinician, typically a senior GP or another senior clinical member of the local health economy.

In addition to being a key member of the local project board, and championing, raising awareness and obtaining support for the dashboard, the Clinical Lead will also provide expertise in ensuring the dashboard meets the needs of the end user clinical teams. The Clinical Lead will provide the clinical oversight and ensure that the project to implement the dashboard maintains a strong clinical focus throughout. They will also demonstrate a general enthusiasm for gathering local information and identifying areas to include on the dashboard that will offer tangible improvements in local care, and a willingness to regularly review the dashboard and change current processes as a result of new information.
The Clinical Lead should work at all levels, raising awareness at senior board level within lead organisations (for example CCGs and PCT Clusters), ensuring linkages are made to local Urgent Care Health Economy strategies and plans, working with other internal teams (Information Services / IM&T) to ensure support and buy-in, and to seek resolutions to project issues, and will promote the benefits of the dashboard to GPs and other practice clinicians.

A key benefit of the dashboard is linking up primary care with other care settings. In order to support other care settings to buy in to the dashboard and to understand the value of providing information to the dashboard, the Clinical Lead may also take a lead role in interfacing with Clinical Leads within organisations providing feeds into the dashboard, for example local urgent care providers.

**Clinical Engagement**

Effective clinical engagement is essential if the dashboard is to be welcomed and used across practices. Substantial buy in is needed from GPs and other practice clinicians, and having clinicians involved from the very beginning of the project will help to support this.

Clinical teams need to be engaged to ensure that there is a clear understanding of the practical benefits of the dashboard in improving local clinical care, that they consider how the dashboards will address local concerns and difficulties, and to gain input and ideas for what the dashboards can achieve and the potential benefits. Whilst the Clinical Lead for the project is likely to take the lead in finalising requirements for the metrics, they will need to collaborate with other clinicians to offer suggestions for the metrics to be considered in the workshops (and where appropriate to attend workshops), as well as representing local clinicians, for example in project board meetings. Providing outputs from the workshops e.g. mock up dashboard designs and obtaining clinical feedback before signing off the requirements will also be helpful in ensuring buy-in.

In addition to being involved in defining the requirements for the dashboard, clinical engagement is also key through the development process, for example giving clinicians in pilot areas an early view of the dashboard interface to ensure it meets with their requirements. Engaging clinicians during the build up to go-live, for example through training and awareness sessions, and as the dashboard is rolled out to other practices, is also essential.

Over time it is important for ongoing consultation on the dashboard with clinicians to take place, including usage/benefit reviews, and that the dashboard is updated in response to user feedback (e.g. through user groups) to ensure the dashboard aligns to local clinical needs and to make sure metrics continue to be relevant to local clinical care.
Clinical Metrics

A key part of the clinical workstream involves supporting all activities that address the definition of indicators for display of the dashboard. The dashboards are individually designed with each clinical team to help improve quality of care by providing regular, timely feedback against locally predetermined parameters to assist successful intervention and improvement. They will also provide opportunities to detect emerging urgent care demand issues and permit timely mitigating actions to be taken - improving the overall level of high quality, patient centred care.

It is therefore essential for clinical teams to select the right metrics and to display them in the most appropriate way to support the local clinical need. This may include choosing metrics to align with local or national clinical objectives.

Fundamental to the selection process will be understanding where information gaps are, how having access to information will help, and what action clinical teams will be able to take by having access to the information. It will also be important to work with Information Service/IM&T teams to understand what data is available to support the desired metrics, and to work through collaboratively if not all the required data is available.

To support the identification of metrics a Principles for Choosing Metrics document has been developed and can act as a guide for local clinical teams when selecting metrics. This document is included in the Clinical and Metrics resources section.

Some sites may conduct a number of workshops to define and sign off requirements. The number of workshops is down to the local implementation but at least one workshop should take place.

Many local teams will take a ‘blue sky’ approach to the first workshop and avoid being constrained by technology or data availability. It would however be advisable to at least have some understanding of what data is available electronically as an input into the first workshop, as well as giving some pre-thought into the types of metrics to include. A data feasibility / investigatory assessment is likely to be conducted by the IM&T team following the first workshop.

The workshops should also have a strong focus on benefits and business change, and change activities should be agreed with the Clinical Lead as part of the workshops and be built into training and communication plans.
The resources section also includes a Clinical Metrics Workshop Guidance document, template for capturing metrics and example Urgent Care metrics that were included on the NHS Bolton dashboard.

NHS Bolton Urgent Care Metrics:

Urgent Contacts: Activity Figures

The numbers of patient events at each of the various local, unscheduled care services yesterday and for the last seven days

Urgent Contacts: Activity Time Series

The numbers of patient events at various local, unscheduled care services over time

Urgent Contacts: disease registers and frequent attenders

The numbers of patient events at various local, unscheduled care services who are on a disease register, and those with more than one contact in last 30 days (both covering yesterday and the last seven days).

Urgent Contacts: Patient List

A list of patient details for those patients who have attended various local, unscheduled care services, who are on a disease register, and those with more than one contact in last 30 days

Urgent Contacts: 14 Days Patient List

A list of patient details for those patients who have attended various local, unscheduled care services, in the last 14 days

Urgent Contacts Patient Contact List

A list of a single patient's details who has attended various local, unscheduled care services
Urgent Contacts: Contact Type List

A list of patient details with the selected type of unscheduled care service contact, occurring in the last 30 days

Urgent Contacts: Contact Date List

A list of patient details for all patients attending unscheduled care on a chosen date

*It should be noted that the metrics local clinical teams include on the local dashboards may be different to those used at NHS Bolton. Local priorities and availability of data may dictate that different metrics are used.*

**Clinical Safety**

The Urgent Care Clinical Dashboard is a tool designed to support clinicians to make clinical decisions. It is not designed as a tool to make decisions on behalf of clinicians. The information that is provided to the dashboard is typically provided in ‘near to real-time’ without delays for data cleansing and acts as a prompt to clinicians, highlighting patient activity. Whilst the data that is provided to the dashboard will typically be automatically sent from a source system (e.g. A&E) without any individual manual intervention, the data provided into the source system will be manually entered. As such (and with any IT system) there are opportunities for human and system errors both in terms of how information is entered into the source systems and how the information is presented on the dashboard. There are also potential safety issues in how information is interpreted and acted upon (or not acted upon) by clinical teams.

With this in mind it is essential that the dashboard is developed, introduced and used in accordance with local clinical safety policies and procedures. It is strongly recommended that the role of Clinical Safety Lead is included as part of the project team and that the Clinical Safety Lead is involved in the process to sign off the specification for the dashboard, and to sign off the dashboard before it goes live. It is also essential that users of the dashboard receive appropriate training on the dashboard. This should cover background on the purpose and use of the dashboard, how to navigate the dashboard, and how to interpret the information that is displayed.
Clinical Metrics & Safety Resources

**Example Urgent Care Metrics**

Metrics included on the NHS Bolton Urgent Care Clinical Dashboard. This includes a description of each metric, the rationale for including it, the data source and suggested presentation format.

[Example Metrics](#)

**Metrics Specification – Template**

A template for capturing the dashboard metric specification. This includes the landing screen design, drill down screens, gauge definitions, non-functional requirements, report requirements, data sources and security groups. This document will be developed during the scoping phase, with the outputs of the clinical metrics workshop acting as a key feed. The specification should be signed off by the clinical lead and project board before development commences.

[Metric Template](#)

**Metrics Specification – Example**

An example dashboard metric specification.

[Metric Specification](#)

**Clinical Metrics Workshop Guidance**

A guidance document suggesting a format and structure for conducting local clinical metrics workshops.

[Workshop Guidance](#)

**Principles for Choosing Metrics**

Principles to support the selection of appropriate information to be displayed on the UCCD.

[Metric Principles](#)

**Clinical Metrics Capture Template**

This template enables local teams to determine the categorisation, users, anticipated benefits and use, and time frame and frequency for each metric. This template would typically be used as part of a clinical metrics workshop.

[Capture Template](#)

**Clinical Metrics Priority areas**

A useful aid for clinical metrics workshops which allows local teams to categorise the metrics that are being considered against the value of including the metrics on the dashboard.

[Priority Areas](#)
Technical

Introduction

This section of the toolkit guide provides details on what information technology will be required to deliver an end to end dashboard and the key considerations and options that will need to be considered by each project. The urgent care clinical dashboard toolkit will provide guidance, specifications, templates, and some reusable code; however there is no national pre-developed software solution being provided and it is down to each project to determine the best delivery approach for their locality and then to implement their own solution.

The section starts with a list of top tips or key considerations then moves on to provide a conceptual overview of the dashboard solution that will be required and looks at the various aspects of this model in more detail, such as the provider data feeds. An overview of the delivery approaches is also provided covering in-house and outsourced options.

Top Tips for Urgent Care Clinical Dashboard projects

The following provides a simple list of the most important tips/considerations for any project:

- Keep it simple to start with and plan to expand/evolve your dashboard over time
- Ensure that clinical end users are engaged in the design/visualisation and usability of your dashboard
- Start engagement with all organisations you need data feeds from as early as possible
- Start work on your Information Governance and data sharing agreements as early as possible
- Aim for daily data feeds from all key urgent care settings
- Ensure your solution is fully automated with no human intervention required to make source system data available to end users
- Present GPs and other clinical users with their own data during training
- Clinicians deal in names not NHS Numbers so ensure drill down screens/reports include these
- Due to the timely nature of the data in the dashboard it may have no coding and not have had the same level of quality checking associated with data that is used for paying or making direct patient treatment decisions, and suitable warnings should be included on the dashboard
- Provide single sign-on to the dashboard if at all possible
- Plan for Data Quality issues/gaps from the outset, such as missing NHS numbers or incorrect registered GP Practice codes

**Conceptual Overview of an Urgent Care Clinical Dashboard**

The diagram below illustrates the main components that will be required to deliver any dashboard solution. Looking from left to right it outlines the data sources that will be required, and there is a clear need for the information to flow on a timely basis to the data-warehouse that underpins the dashboard. It is recommended that daily feeds are implemented and clearly more frequent feeds or real-time feeds such as using HL7 ADTs would be fine. There are a number of data feed specifications already developed and published and more details are given below. The urgent care data needs to be stored and managed in a database or data-warehouse where the activity for the patients can be linked together and made available to the dashboard and reporting application. The dashboard application is typically web browser based and will be used from the clinician’s desktop; appropriate security controls will need to be in place to protect the patient information that can be accessed through the system. More details on the various components are provided below and in the referenced resources.
Source System Data Feeds

One of the most challenging parts of any dashboard project is getting the regular data feeds in place from the required providers. There are a number of considerations when looking at the data feeds, including the scope of data that is required to deliver the metrics and reports. It is also worth considering the number of providers within your locality and to also look at neighbouring localities to see if coordinated agreements can be made with providers around delivering the feeds to multiple dashboards.

There are data feed specifications available to help standardise the flows and nationally commissioned data feeds are available from Adastra and TPP for various local urgent care settings. It is also important that the data feeds are set up to flow on a regular and timely basis; from the feedback/evidence to date a daily data feed should be implemented. It is also important that data feeds are fully automated end to end with no need for any human intervention during normal operating conditions.

The table below summarises the care settings that should be considered and the existing national support.

<table>
<thead>
<tr>
<th>Care Setting</th>
<th>Recommended Core/Additional</th>
<th>National Feed Overview/Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP Out of Hours</td>
<td>Core</td>
<td>ITK Specification published. Feeds available from Adastra and TPP.</td>
</tr>
<tr>
<td>Walk In Centre</td>
<td>Core</td>
<td>ITK Specification published. Feeds available from Adastra and TPP.</td>
</tr>
<tr>
<td>Minor Injuries Unit</td>
<td>Core</td>
<td>ITK Specification published. Feed available from TPP.</td>
</tr>
<tr>
<td>A&amp;E/ED</td>
<td>Core</td>
<td>ITK Specification published. All projects to date have made local agreements typically from their Acute’s data-warehouse rather than direct from A&amp;E system.</td>
</tr>
<tr>
<td>Non Elective Inpatients Admissions and Discharges</td>
<td>Core</td>
<td>Recommended data items document but no demand for ITK specification to date.</td>
</tr>
<tr>
<td>GP / Primary Care – Disease Registers</td>
<td>Core</td>
<td>The ability to load a flexible set of patient registers into the dashboard is important. These data feeds are often monthly rather than daily and list NHS No. against Register.</td>
</tr>
<tr>
<td>Elective Inpatients Admissions and Discharges</td>
<td>Additional</td>
<td>Recommended data items document but no demand for ITK specification to date.</td>
</tr>
<tr>
<td>Ambulance</td>
<td>Additional</td>
<td>Initial set of data items documented, only 1 pioneer to date has started to flow Ambulance activity into their dashboard.</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Community Care</td>
<td>Additional</td>
<td>No work to date.</td>
</tr>
<tr>
<td>Social Care</td>
<td>Additional</td>
<td>No work to date.</td>
</tr>
<tr>
<td>111</td>
<td>Additional</td>
<td>Work in progress to develop a standard data feed specification. The existing GP Out of Hours feed developed by Adastra can be used</td>
</tr>
<tr>
<td>Risk of Hospital Admission (Risk Stratification)</td>
<td>Additional</td>
<td>No national or ITK specification, but many of the pioneer projects have included risk scores within the dashboard.</td>
</tr>
</tbody>
</table>

The ITK data feed specifications are based on HL7 V3 XML and to help organisations that are developing their dashboard solutions we have created a load tool that is able to read these XML files and populate a set of relational staging tables within a specified database (see the reference to ClearWater below).

**Data-warehouse and Dashboard Application**

The dashboard will require a data-warehouse to store and process all the activity data that is sent from the various care settings. Typically this will need to be hosted as a secure safe haven on behalf of the GP Practices that have signed up to the dashboard. There is no framework contract/agreement for a standard urgent care dashboard software solution and so each local team will need to use the information resources provided in this guide, associated references and local ICT landscape to determine the best delivery model. See the next section for more details.

There are a number of other resources to help with the planning of the technical development including a detailed technical checklist; guides for mapping front end metrics back to source system data feeds; and a requirements specification that details the core set of functional and non-functional requirements the solution is likely to need to meet.

The dashboard should be used by clinicians who have a legitimate relationship with the patient and therefore expect and need to be able to see all patient activity with the patient identifiers. It is also recommended that the data is also pseudonymised within the system to enable other authorised users to have access to the dashboard but without access to the patient identifiers. A number of pioneer organisations have found this very useful for commissioning and primary care support staff to provide support to the clinical users of the system.
The design or visualisation and usability of the dashboard solution will be an important aspect of encouraging user adoption. There are various good references to consider when looking at this (see references section). Including a representative sample of end user clinicians in the design and testing of the dashboard is recommended as well as setting up a user group or steering group to oversee the ongoing management of the dashboards and the inevitable requests for change that will come from the end users.

**Technical Delivery Models**

There are a number of approaches that should be considered as part of planning your project. These include the following main approaches:

- In house development by your commissioning support ICT service (typically a PCT ICT team or Health Informatics Service)
- Outsource to a NHS HIS outside your locality
- Outsource to a commercial healthcare intelligence supplier

Evidence from the pioneer programme has shown that 10 of the 11 projects have been delivered using the in house approach with either local HIS or PCT based ICT teams extending their existing data-warehouse and reporting solutions to deliver the dashboard. A number of the HIS providers from the pioneer stage have followed through to support PCT and CCG groups outside of their immediate area with a dashboard solution. Through the UCCD support programme we can provide advice and guidance and connect you with the existing ICT teams that have delivered dashboard solutions.

There are also a range of commercial suppliers that are already delivering data-warehouse and business intelligence solutions to commissioners and primary care users. These suppliers should be able to extend their solution to meet the requirements for an Urgent Care Clinical Dashboard.

In terms of the underlying technology products that are typically used to deliver the dashboard, all 11 pioneers have used a Microsoft SQL Server 2008 platform for their data-warehouse and core data processing. The majority of projects have used SQL Server Reporting services to deliver the dashboard application, typically in conjunction with a Sharepoint portal. A number of projects have used the QlikView dashboard and reporting software which sits on top of the SQL Server warehouse.

The approach to user authentication and single sign-on is also worth consideration from the outset, and enabling users to access the dashboard without yet another username and password is recommended. In some areas with the deployment of community networks and single Active
Directory instances this is straight forward, in others like NHS Bolton a 3rd party extension was included to enable the NHS smartcard to provide the authentication mechanism to the dashboard.

Further details on the pioneer organisations and commercial suppliers can be found on the UCCD website.

**Code Sharing and Re-Use**

One of the aims of the programme has been to encourage the sharing and re-use of approach, design, and code across the NHS. All of the organisations that participated in the pioneer programme are willing and happy to share appropriate aspects of the work they have done and continue to evolve.

The ITK data feed specifications that have been developed are available from the NHS TRUD service. The ClearWater data load tool that we developed to enable the load of source data conformant to the ITK specification into a database is provided as open source through the UCCD website. Other artefacts such as Sharepoint templates and other data feed specifications can be found through the website.
Technical Resources

**Technical Checklist**
A checklist to use during the early stages of any dashboard project to determine the existing system landscape; the required data feeds; the dashboard delivery platform; and user access needs. 
[Tech Checklist](#)

**ClearWater Tool details**
Documentation, executables and source code for a set of software tools to assist organisations in importing urgent care dashboard data into a Microsoft SQL Server database. 
[ClearWater](#)

**ITK Data Feed Specifications on Trud**
The ITK data feed specifications that are used for the standard feeds provided by Adastra and TPP are on the Technology Reference Data Update Distribution Service - You must register to use this site. 
[ITK Data Feed Specifications on Trud](#)

**High Level Solution Guide**
Urgent Care Clinical Dashboard Toolkit High Level Solution Guide - provides technical guidance to any Trust wishing to implement an Urgent Care Clinical Dashboard for their local health community. 
[Solutions Guide](#)

**UCCD website**
Used by the central QIPP National Urgent Care Clinical Dashboard team (incorporating CFH/DHID and NHS Bolton), and the Pioneer and fast follower local NHS project teams for sharing project documentation, contacts, events, and news to support the delivery of the projects. 
[NHS Networks](#)

**Wider QIPP DT Networks Reference**
Used by the QIPP Digital Technology team to support the national QIPP workstreams. 
[QIPPD](#)

**Technical Checklist**

**Dashboard Application Requirements Specification**
Statement of Requirements for Standard Clinical Dashboard Solution and Project. 
[Statement of Requirements](#)

**Visualisation guides**
Clinical Dashboard User Interface Guide - a guide to the user interface options available and recommended for use on the Clinical Dashboards. 
[Visualisation Guide](#)
Information Governance

Introduction

This section of the toolkit guide provides details on the information governance aspects of the project. In order to be effective the dashboards require patient identifiable data to be shared by the various urgent care providers for use by the registered GP of the patient. It is worth remembering that in the majority of cases the information that is delivered via the Dashboard is the same information that Practices already receive, and based on the experience of both NHS Bolton and the pioneer projects there have been no significant IG issues.

It is expected that all organisations handling patient identifiable data will have completed the CFH Information Governance Statement of Compliance.

Top Tips for Urgent Care Clinical Dashboard projects

The following provides a simple list of the most important Information Governance tips/considerations for any project:

- Start engagement with the information governance lead and Caldicott Guardian as soon as possible
- In the majority of cases the data flowing to the dashboard is the same information that the GP practices already receive
- Holding the data in a pseudonymised format will be useful to allow support staff to have access and support their practices
- The use of honorary contracts for district nurses and other clinical users that support specific practices should be considered
- Determine if new data sharing agreements need to be put in place or if existing ones are sufficient
- If new data sharing agreements are required consider if a single locality-wide agreement could be set up
- The security of the database and dashboard application must be suitable for holding patient identifiable data including strong authentication, a good audit trail and only allowing users of each GP practice to see their patient’s data
- Approval for access to the dashboard should be controlled at a GP practice level

Consent

The pioneer projects have taken an implied consent approach for their urgent care clinical dashboard projects as the system is intended to directly support clinical care. For many of the urgent care settings there are explicit requirements for information about the encounter to be
made available to the GP. For those settings where it is appropriate to give the patient an option to request that the specific encounter is not to be sent to their GP, the provider will need to handle the patient preference and exclude that encounter from the data feed to the dashboard.

Data Sharing Agreements

In some cases the locality will already have suitable data sharing agreements in place between the different provider organisations and the GP practices. In the majority of cases it is assumed that the GP is the Data Controller and the organisation that is running the overall dashboard solution, typically the PCT or HIS, is the Data Processor for the GP practices and will manage the data within a Safe Haven.

The data sharing agreements will typically need to be explicit about the purpose of sharing the data, but it is worth considering the balance between constraining the use to enable a simpler review and approval versus the longer term benefits that may be achieved if the data is allowed to be used for wider purposes.

The main purposes of the sharing are as follows:

a) To provide clinicians in the GP practices with a toolset which presents relevant and timely information to inform daily decisions that improve quality of patient care. It gives clinicians easy access to data being captured locally, in a visual and usable format.

b) To support clinical commissioning in localities with a dashboard by presenting aggregate/pseudonymised data

User Access

Each GP practice should only have access to their own patients’ data through the dashboard. In many cases the practice want to enable their district nurses or active case managers to have access to the dashboard. This is normally supported by setting up an honorary contract between the practice and the individual healthcare professional and then the practice authorise that named user to have access to the dashboard. The power to decide who sees their dashboard is normally given to the GP practices themselves.

Data-warehouse and Dashboard Application

The technical solution will typically be hosted using safe-haven arrangements by a PCT or HIS. The hosting organisation should have completed the CFH Information Governance Statement of Compliance which looks to ensure that good data handling and security arrangements are in place similar to those specified by ISO27001. It is expected that the dashboard application will have good authentication and audit mechanisms.
Information Governance Resources

FAQs
A list of frequently asked questions regarding IG.
IG FAQs

Data Sharing Examples
A collection of IG sharing agreements and examples being utilised by dashboard sites.
Sharing Examples

IG Statement of Compliance
http://www.connectingforhealth.nhs.uk/systemsandservices/info.gov/igsoc
Project Management

Introduction

Some people like PRINCE2. Some people hate it. We aren’t going to tell you that you have to use PRINCE2, or MSP, or any other project/programme management methodology, in order to deliver a successful dashboard implementation.

This section of the guide provides a short overview of the envisaged implementation path and of some aspects of project management which have proved important in our Pioneer site implementations, and also highlights some lessons which we have learned while supporting Pioneer sites. Probably the most important point, though, is that what matters at the end is that you have a dashboard which has the elements in it that your clinicians need, which they use, and which delivers the benefits you anticipated and perhaps more. The outcome is more important than the process.

Implementation path/timeline

The diagram below is a suggested implementation path from project launch meeting to dashboard go-live at your first GP practice. Some projects have taken less time, some have taken considerably longer. Reasons for this difference include:

- Project scope
- Requirement to submit a formal business case
- Delays in obtaining test data
- Lack of a dedicated project management resource
- Delays in reaching agreement on the metrics to be used
- Key staff unavailable at a critical point due to annual leave
- Unavoidable changes in staffing levels
**Scoping the project**

Scoping should happen with senior-level input, and should be led by clinical leadership and engagement as it will determine the whole direction of the project and what you plan to get from your dashboard. Much of this is likely to be derived from the benefits realised at other sites which have implemented the Urgent Care Clinical Dashboard, but it should fit with your local strategy and be applicable to your environment.

You may well find it helpful to divide your project scope into distinct phases. For instance, if you are planning to incorporate several urgent care data feeds from different sources into your dashboard, and you know that some will be much easier and quicker to obtain than others, then you may wish to produce a phase 1 dashboard using these (assuming that this will have enough data to be useful), and plan to incorporate further feeds at a later date. Having specific phases with defined content can also help to reduce the risk of scope creep threatening your schedule and budget.

**Time/cost/quality**

It is a truth universally acknowledged that if one of these elements is changed, at least one of the other two elements will be affected. Awareness of your environment and of likely constraints and barriers can help you to anticipate problems, plan allowances and contingencies into your schedule and keep your project delivery on track. If, as is likely, your project has some dependency on external organisations/suppliers, maintaining a good relationship with them and checking in regularly will be particularly important – their organisation may be facing constraints which change their priorities.
Project governance

Briefly, two things which have helped several of our Pioneer sites:

1. **Being able to escalate issues to their sponsor or clinical lead and achieve a quick resolution**
   Sometimes when a problem arises, a lot of time can be spent talking to people who are sympathetic but do not have the necessary authority to solve the problem. An engaged sponsor or clinical lead is likely to know the best person to have a word with in order to resolve the issue.

2. **Forming a dashboard project group/user group**
   This helps to ensure that you have the right people meeting regularly, a reporting structure and a forum for decision-making. The group can be part of an existing meeting provided that the people you need are in attendance. The other advantage of this group is that you have a forum to discuss and process all the ideas and suggestions which people are likely to come up with about the dashboard, rather than having to handle and respond to these solo and ad hoc, which is likely to divert you from your project plan.

Project management lessons learned

- It’s never too early to engage with clinicians, data providers, or IG leads.
- Often, simplest is best.
- Make sure you allow for Christmas, Easter, school holidays, royal weddings and check when your key staff plan to take annual leave.
- Keep the focus on care and patients and beware of scope creep.
- Use the resources and support available and never be afraid to ask. Someone out there is bound to have experienced the same problem as you, and can probably tell you how to solve it.
- The dashboard is an enabler; it’s what is done with the information it provides that will make the difference. Go-live at your first GP practice is only the beginning...
Project Management Resources

**Example of a UCCD business case**
If you do need to produce a business case your organisation will probably have its own format. This Pioneer site example (which other sites have found helpful) provides pointers on content.

*Example of a UCCD business case*

**Effort and costings guide**
This spreadsheet, which we have tested with our Pioneer sites, enables you to work out the cost of implementing the Urgent Care Clinical Dashboard (including opportunity costs). It also includes information on project roles and responsibilities.

*UCCD effort and costings guide*

**Project highlight report template**
You can use this template to provide regular reports upwards. This also includes a risks and issues log.

*Project highlight report template*

**Project plan template (MS Project or Excel)**
This outlines all the different tasks and workstreams and enables you to work out project length, dependencies, etc.

*UC dashboard project plan template (MS Project)*

*Basic project plan template (Excel)*

**Sample project plan**
A concise project plan from one of our Pioneer sites

*Devon QIPP Urgent Care Clinical Dashboard project plan*

**Project Board Terms of Reference example**
You can use this as a starting point to develop TOR for your local group/board

*Project Board terms of reference example*

**PRINCE2; Managing Successful Programmes**
Engagement and Communication

Introduction

Effective engagement and communication with key stakeholders are vital in ensuring a successful dashboard implementation. You might have the resources and capability to build a wonderful dashboard, but unless your local clinicians (to name just one stakeholder group) are engaged with the dashboard, have been involved in determining its form and function, and understand how they can use it to inform the care they provide, it won’t achieve its full potential. This section of the guide draws on the experiences and strategies of some of our Pioneer sites to explore some of the elements to consider when planning your engagement and communication.

Identifying and engaging with stakeholders

As you’re reading this, you probably already know who several key stakeholders in your dashboard project will be. However, this may change over the life of the project, particularly if you are planning a phased implementation. For instance, you might spend considerable time early in the project engaging with representatives from a local acute trust in order to get them to provide you with a daily data feed, during which you might communicate the potential benefits to them (helping to reduce readmissions), have detailed conversations about the data specification you require, and discuss any information governance requirements such as data sharing agreements. Later in the project, when you may be training dashboard users or incorporating new data feeds, you will have different key stakeholders and your communication with the acute trust will have changed. Included in the resources for this section are a stakeholder map template and a stakeholder analysis matrix, which you may wish to revisit at different stages of your project to check that you are still targeting the right people in your communication strategy.

We are often asked about ways to engage with clinicians in delivering the dashboard project. There is no one right way! Your approach will be influenced by what has worked before, the resources you have available, and also the environment in which you are operating; if you are working with a small group of GP practices within a few miles of each other, you are likely to use different strategies from someone who is managing a dashboard development for a rural PCT cluster.

That said, here are some commonly-used strategies which have worked for Pioneer sites:

- Integrating dashboard information and presentations into existing meetings and forums
• Finding GP/clinical champions who will engage with other clinicians, e.g. one GP from each locality
• Inviting stakeholders to a launch event
• Holding a meeting early in the project for GPs and other practice staff to agree metrics and the look and feel of their dashboard; once they have seen pictures of live dashboards the project becomes more real
• Producing a prototype or mock-up dashboard to help practices see how the dashboard will work and how they can use it
• Producing a user guide for the dashboard with examples of how it can be used practically and integrated into business as usual

Communicating the dashboard message

The Urgent Care Clinical Dashboard is a flexible concept – locally-led, with no mandated look or content. This flexibility is one of the project’s strengths, but also means that it can be difficult to keep messages consistent. In working with Pioneer sites we have found that a key method of keeping stakeholders engaged is to present the dashboard as a means of improving patient care (rather than delving into further applications or uses for it), and to focus on the benefits – the desired outcome – rather than the process and technical detail.

Another recommendation is to use the power of stories and case studies. To quote Kotter (referenced below), ‘people change what they do less because they are given analysis that shifts their thinking than because they are shown a truth that influences their feelings.’ The Urgent Care Clinical Dashboard implementation toolkit includes presentations and also case studies of how changes in practice enabled by the dashboard have contributed to improvements in care, and often quality of life, of individual patients. Feel free to use any of these resources to inform your own communications – and when you have your own examples and stories to tell, please put them forward so that others can benefit!

Sometimes buy-in is increased by positioning your project as part of a national programme. Again, you can use our factsheets and other programme information in the toolkit to set your project in a national context, if you feel that this will be helpful in engaging with your stakeholders and securing their commitment.

And finally, don’t forget to communicate your progress and your success! Regular short progress updates will reassure your stakeholders that the project is moving along and maintain their interest, making them more likely to use the dashboard once it goes live – and good news is never unwelcome.
Engagement and Communication Resources

**Stakeholder map template**
A blank template to map project stakeholders and their areas of interest

**Stakeholder analysis matrix**
A tool to map stakeholders’ levels of interest and influence quickly, and determine the appropriate type and level of engagement and communication

**Stakeholder influence and interest matrix**

**Dashboard user guide examples**
Some user guides which Pioneer and other sites have produced – these can help in conveying and reinforcing how you want the dashboard to be used

**CLH Dashboard LIVE!**
An example from a Pioneer site of a short update which is both informative and engaging.

**CLH Live!**

**The Heart of Change, John P. Kotter (Harvard University Press, 2002)**
This book is worth looking at for its 8-step change model as well, but here I would recommend it for its advice on communicating to enable large-scale change. [http://www.theheartofchange.com](http://www.theheartofchange.com) provides a summary version.
Training Management

Every Urgent Care Clinical Dashboard is different. However the end purpose, to improve patient care, is the same. Effective training will build dashboard users’ confidence not only in operating the dashboard and viewing the information it presents, but also in using the information proactively, both as planned and in new ways, to improve care. Training is also important as an additional way to engage with GP practices and reinforce earlier communication about your Urgent Care Clinical Dashboard’s purpose and objectives at a critical time – their dashboard go-live.

Your approach to delivering dashboard training will depend on:

- The resources you have available
- The number of practices/users who require training and their geographical spread
- How easy to use your dashboard is; the more intuitive, the less training should be required
- Your training objectives
- What will suit your dashboard users best

We have included a training plan template in the implementation toolkit which provides a framework for developing and delivering dashboard training, and the intention is that organisations adapt this as required to suit their own circumstances, environment, and organisational conventions. For instance, some organisations may have access to a training/IT training resource which will assist with training needs analysis, training formulation, materials, and even delivery, while others may not. Time and/or resource constraints may mean that you put a user guide on the intranet and provide a helpline number, or provide a dashboard demonstration at existing meetings, rather than visiting every GP practice to provide one-to-one training. However, you may decide that the engagement opportunity with each practice is significant enough to warrant the additional investment, if it is likely to promote earlier and greater benefits realisation.

Whatever training you provide, the following steps are vital:

- Formulate the objectives of your Urgent Care Clinical Dashboard training
- Undertake a training needs analysis (this can be done informally at a project group meeting) – this will also pick up whether any other training (e.g. basic IT skills) will be required for dashboard users
- Ensure that the skills are available to deliver what is needed
• If you are providing hands-on training, build in some contingency within your plan to allow for trainer absences, spare capacity, date changes, etc.
• Provide a contact number/email so that dashboard users have somewhere to go with any teething troubles
• Evaluate the training both at point of delivery and after a few months to check that it is meeting its objectives
• Consider how dashboard training will be delivered to new users once initial roll-out is complete, and how refresher training or updates will be provided
Training Resources

Training plan template
This resource combines sample content with some guidance on formulating a training plan for your dashboard implementation. It covers scope, training needs analysis, objectives, approach, requirements, schedule and evaluation:

Training plan template
Training plan example
An example of a training plan from a Pioneer site:
CLH dashboard training plan
Dashboard user guides
Some sites have chosen to issue a user guide either to supplement or to replace hands-on training. Here are some examples:
User Guides

Additional training resources
Many free templates for training plans and other materials available on the internet. Before using these, check whether your training department have their own templates and forms, and what they can assist you with.

Businessballs (apologies for the name)
A comprehensive site (possibly overly comprehensive for the size of this task) with lots of free training resources, templates and advice.
http://www.businessballs.com/freeonlineresources.htm
http://www.businessballs.com/traindev.htm
http://www.businessballs.com/trainingprogramevaluation.htm
Support and Advice

There are many bodies and organisations able to support Urgent Care Clinical Dashboard projects. The contact details below should give you a helping hand.

**Organisation Contacts within NHS North**

Organisation: **NHS Bolton**  
Email: Julie.Ryan@BOLTON.NHS.UK  
Lead Contact: Julie Ryan

Organisation: **NHS Trafford**  
Email: Andrew.Giles@trafford.nhs.uk  
Lead Contact: Andrew Giles

Organisation: **NHS Tameside & Glossop**  
Email: Alison.Lewin@nhs.net  
Lead Contact: Alison Lewin

Organisation: **NHS Oldham**  
Email: reehanakhan@nhs.net  
Lead Contact: Reehana Khan

Organisation: **Lancaster Morecambe Carnforth & Garstang CCG**  
Email: Sheila.Charnley@mbhci.nhs.uk  
Lead Contact: Sheila Charnley

Organisation: **NHS Central Lancashire**  
Email: Len.Rigby@centrallancashire.nhs.uk  
Lead Contact: Len Rigby

Organisation: **NHS Manchester**  
Email: Nancy.Ryalls@manchester.nhs.uk  
Lead Contact: Nancy Ryalls

Organisation: **NHS Liverpool**  
Email: Helen.McManus@liverpoolpct.nhs.uk  
Lead Contact: Helen McManus

Organisation: **South Cheshire and Vale Royal GP Commissioning Consortia**  
Email: Charles.Millar@cecpct.nhs.uk  
Lead Contact: Charles Millar
Organisation Contacts within NHS Midlands & East

Organisation: NHS Calderdale
Email: Theresa.Gallagher@calderdale.nhs.uk
Lead Contact: Theresa Gallagher

Organisation: NHS Stoke on Trent and NHS North Staffordshire
Email: Rachel.Girvan@stoke.nhs.uk
Lead Contact: Rachel Girvan

Organisation: NHS Northamptonshire
Email: Roger.Elvin@northants.nhs.uk
Lead Contact: Roger Elvin

Organisation: NHS Leicestershire & Rutland, NHS Leicester
Email: Gurpreet.Jhamat@lcr.nhs.uk
Lead Contact: Gurpreet Jhamat

Organisation: NHS Cambridgeshire
Email: Anne.Heath@nhs.net
Lead Contact: Anne Heath

Organisation: NHS Luton
Email: Claire.Warren@luton-pct.nhs.uk
Lead Contact: Claire Warren

Organisation: NHS North Essex
Email: Douglas.Stuart@essa.nhs.uk
Lead Contact: Doug Stuart

Organisation: NHS Suffolk
Email: Mark.Crannage@suffolkpct.nhs.uk
Lead Contact: Mark Crannage
### Organisation Contacts within NHS South

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Email</th>
<th>Lead Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Devon</td>
<td><a href="mailto:Kelvin.grabham@nhs.net">Kelvin.grabham@nhs.net</a></td>
<td>Kelvin Grabham</td>
</tr>
<tr>
<td>NHS Torbay</td>
<td><a href="mailto:jo.turl@nhs.net">jo.turl@nhs.net</a></td>
<td>Jo Turl</td>
</tr>
<tr>
<td>NHS Oxfordshire</td>
<td><a href="mailto:Andrew.Fenton@oxfordshirepct.nhs.uk">Andrew.Fenton@oxfordshirepct.nhs.uk</a></td>
<td>Andrew Fenton</td>
</tr>
<tr>
<td>NHS Southampton</td>
<td><a href="mailto:Damien.McCann@scpct.nhs.uk">Damien.McCann@scpct.nhs.uk</a></td>
<td>Damien McCann</td>
</tr>
<tr>
<td>NHS Brighton and Hove</td>
<td><a href="mailto:wendy.young@bhcpct.nhs.uk">wendy.young@bhcpct.nhs.uk</a></td>
<td>Wendy Young</td>
</tr>
<tr>
<td>NHS East Sussex Downs and Weald</td>
<td><a href="mailto:nicola.young@hastingsrotherpct.nhs.uk">nicola.young@hastingsrotherpct.nhs.uk</a></td>
<td>Nicky Young</td>
</tr>
<tr>
<td>Medlinc CCG/NHS Surrey</td>
<td><a href="mailto:peterstott@nhs.net">peterstott@nhs.net</a></td>
<td>Peter Stott</td>
</tr>
</tbody>
</table>

### Organisation Contacts within NHS London

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Email</th>
<th>Lead Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central London Healthcare Partnership</td>
<td><a href="mailto:Rosalyn.king@nhs.net">Rosalyn.king@nhs.net</a></td>
<td>Rosalyn King</td>
</tr>
</tbody>
</table>
Dashboard User Group

One of the support mechanisms available to organisations is the community of current and previous implementation teams around the country. A regular user group is held via WebEx and Conference Call, with an annual face to face meeting for organisations to support and share learning.

Regular topics discussed at the user group include:

- Technical Guidance
- Benefit Realisation
- Engagement Support

Sites can raise and suggest agenda items, and it is run by dashboard sites for dashboard sites. So make sure you get involved!

Full details are available on the UCCD NHS Networks site (Click Here) of the next meeting. The group is run by dashboard teams and is available to anyone from those thinking of implementing a dashboard through to those who already have!

Contact:

Todd.Davidson@oxfordshirepct.nhs.uk