Digital Strategy 2017-2020

March 2017

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Foreword

This document sets out the new Digital Strategy 2017-2020 to support the Trust deliver its clinical and business objectives.

It describes our ambition to become the most digitally advanced integrated care organisation in the NHS over the next four years.

The document is structured into three main sections :-

▪ **Future Vision -** outlines how patients and staff will use digital services to improve care, outcomes and experience

▪ **Where are we now ?** – outlines the current status of digital services using digital maturity indices

▪ **How do we get there ?** – outlines the programmes of work to deliver the future vision

Digital Strategy Consultation

The new Digital Strategy has been developed through an extensive consultation with key staff to ensure it aligns with the Trust's clinical and business needs via :-

- Trust business planning away day – Oct 2016

- Trust Board seminars – Oct and Nov 2016

- ICSU specific workshops – Oct/Nov 2016

- Trust strategies *e.g. Clinical, Workforce, Estates*

The patient perspective has been drawn from a number of national reports *e.g. Kings Fund[1], Nuffield Trust[2], PHAC2020[3], The Good Things Foundation[4],* and the Islington Integrated Pioneer project.

02 Introduction

This chapter describes the Policy and Digital context

Policy Context

The NHS is facing unprecedented financial and operational pressures as it strives to deliver the vision set out in the Five Year Forward View (2014)[5].

The current models of care and levels of funding will not address the demographic challenges of a growing population, which is living longer, often with multiple long term conditions.

To address these widening gaps in health and well being, care and quality, and financial sustainability, NHS England set up :-

- **New Care Models** programme - 50 vanguards to develop blueprints for new integrated models of care

- **Sustainability and Transformation Plans (STP)** – 44 local footprints to deliver improved, sustainable health and care

North Central London (NCL) STP

In 2015/16 NCL had a deficit of £121m, which will increase to £876m by 2021 if nothing changes[6].

The vision for the NCL STP is to :-

- improve health and wellbeing outcomes and ensure sustainable health and social care services, built around the needs of local people

- To develop new models of care to achieve better outcomes for all, focused on prevention and out of hospital care

- To work in partnership to commission, contract and deliver services efficiently and safely

section 02

Alignment to National Strategies

"The goal of digitisation of health is to promote better health, better healthcare and lower cost ......

...digitising effectively is not simply about the technology, it is mostly about the people"

Robert Wachter, Making IT Work (2016)

Disruptive technologies such as smartphones and cloud computing have transformed the way we consume services *e.g. on-line banking, retail, travel, social interactions*, with one notable exception, healthcare.

Our new Digital Strategy aligns to the NHS England initiatives to embrace digitisation and achieve its vision to "operate paperless at the point of care" :-

▪ Personalised Health and Care 2020 (2014) [3]

  - real time, interoperable digital records by 2020

▪ Wachter Review : Making IT Work (2016) [7]

  - Chief Clinical Information Officers (CCIOs) to lead adoption of digital working

▪ Local Digital Roadmaps (2016) [8] - local digital strategies to support delivery of STPs

Introduction

Alignment to Trust Strategies

Digitisation is the transformational enabler that underpins the delivery of other strategies

Strategy	Requirement	Digital Strategy deliverable
Clinical Strategy 2015-2020[9] *"Helping local people live longer, healthier lives"*	Safer integrated care closer to home	Access to a comprehensive Shared Care Record of acute, community, primary & social care data
Nursing & Midwifery Strategy 2016-2021[10] *"Reduce harm and provide the best possible care"*	Better observations compliance and national early warning scores (NEWS) Safe, efficient nursing rotas to match skill mix with patient acuity	Capture e-observations at the point of care and alert clinicians to deteriorating patients E-rostering and safer care system integrated with temporary staffing
Estates Strategy 2016-2021[11] *"Enable non-clinical support and corporate services space to be reconfigured and used more efficiently"*	Change working practices to reduce occupancy levels and reduce costs	Secure access to digital services from anywhere on any device to enable remote working
Workforce Strategy 2016-2021[12] *"Provide excellent care delivered by expert and caring staff .... that demonstrates our ICARE values"*	Workforce planning and performance management to maximise productivity Education, training and learning	E-job planning, rota compliance, leave and on-call management and reporting Develop flexible, digital packages to enhance skills to deliver high quality care *e.g. MOODLE*

section 02

03 Future Vision

This chapter describes how digital technology will transform healthcare of our patients and staff

Our Vision

To become the most digitally integrated care organisation in the NHS which will enable the delivery of patient centred high quality, safe and sustainable care to our community

Our Mission

To empower patients and staff to securely access information anytime, anyplace, on any device

Patient Centric Digital Model

Digital technology can deliver improvements in quality and efficiency, as well as revolutionise the patient experience by transforming how and where they access health and care services.

The diagram illustrates a potential future digital landscape (Nuffield 2015)[2].   At its centre is the patient using technologies to manage their health *e.g. wearable devices/apps*, and to engage with health care providers *e.g. patient portal*.

Next are the technologies that support health care professionals with decision support, access to others' expertise and management of those patients at greatest risk.

Finally, there are a number of organisational wide tools which enable operational efficiency and financial sustainability *e.g. patient flow, analytics, e-rostering*. The Electronic Health Record (EHR) straddles across the whole model and is the foundation of the Digital Strategy.
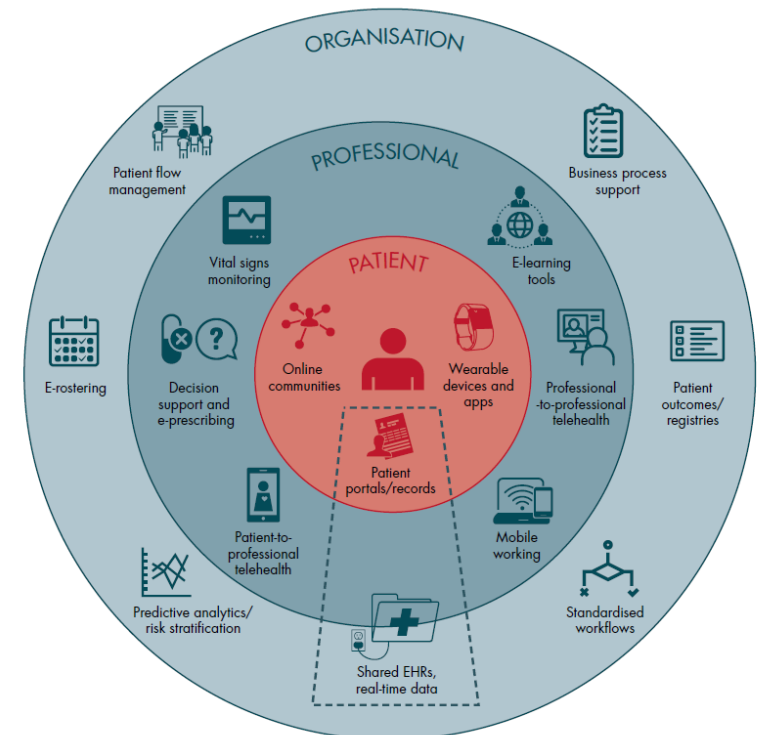
Key Themes

The future vision for the Digital Strategy is underpinned by four key digital themes :-

Digitally Connected Patients - empower patients to actively manage their health and care

Digitally Enabled Workforce – enable staff to access shared health and care records

Business Intelligence and Analytics – insight driven culture to improve quality, outcome & research

Digital Infrastructure – provide secure access and interoperability

section 03

Digitally Connected Patients

Health inequalities cost the NHS over £5.5bn per annum. 12.6m citizens have limited digital skills and 5.3m never access the internet. Improving their digital skills so they can manage their healthcare on-line will reduce inequalities and release significant cost savings

The Good Things Foundation and NHSE have run a Widening Digital Participation programme[4] to train digitally excluded patients to manage their own health and reduce inequalities.

221,941
people trained to use digital health resources and tools over three years.

£6m
potential savings from reduced GP and A&E visits in year three of the programme.

Based on a cost to the NHS of £45 per GP visit, if everyone had the Basic Digital Skills to access health information online would provide savings of £121 million a year by 2025

50%
of the UK population use the internet for self-diagnosis, while

75%
search the web for health information

But only 2%
of the population report any digitally enabled transaction with the NHS

Digitally Connected Patients

We will transform our models of care by enabling patients to manage their own health using digital services.

As a patient I want to	Digital Requirement	Strategic Fit Solutions
View and input to my digital health record	Access to a patient portal	Access **Carecentric** to view all historical episodes, future contacts and add/amend data
Develop and manage my personal care plan	Access to a patient portal	Receive digital training by **The Good Things Foundation** and amend care plan on **Carecentric**
Use on-line resources and wearable technology to manage my health and care	Remote monitoring for preventive and self-care management	Use **Telehealth** to capture biometrics *e.g. AliveCor heart monitor, MyMHealth self management apps*
Book and manage appointments at my convenience	Enable e-booking transactions	Access **DrDoctor** to book or amend future appointment and receive reminders
Have a choice between a physical or virtual consultation where appropriate	Enable virtual consultations	Use **Skype** or other virtual tools *e.g. FaceTime, WebEx*

Digitally Enabled Workforce

We will transform our ways of working by giving staff access to digital services anytime, anyplace.

As a clinician I want to ….	Digital Requirement	Strategic Fit Solutions
View a real time, accurate, and complete integrated digital care record for my patients	Access to a shared care record	Use **Carecentric** to view acute, community, primary, and social care data
Develop and share care plans across health and social care	Access to a shared care record	Use **Carecentric or CareMyWay** to create and update care plans
Use decision support tools to improve patient safety and quality of care	Enable electronic observations	Implement **VitalPAC** and **CareFlow** to alert when patients are deteriorating *e.g. AKI, Sepsis*
Access best practice guidance to reduce clinical variation and improve outcomes	Trust wide standardised care pathways	Use **Carecentric or CareMyWay** to create and update care plans
Operate digitally at the point of care and stop using paper based processes	Access to mobile devices and interoperable digital tools	Implement virtual desktops and personal mobile devices, access scanned health records

section 03

Future Vision

Business Intelligence and Analytics

We will transform our decision making by developing an insights driven culture to improve patient quality, safety, outcomes and effectiveness.

We want to use data to ….	Digital Requirement	Strategic Fit Solutions
Improve population health outcomes and reduce inequalities	Access to a population health platform	Utilise **MedeAnalytics** or **HealtheIntent** to risk stratify populations and develop patient registries
Shift from a reactive response to historical data to proactive management using predictive data	Data mining and modelling tools	Invest in commercial modelling tools
Develop an adaptive learning culture to rapidly implement data driven quality improvements	Real time access to performance, outcomes and effectiveness data	Use **Qlikview** dashboards and applications Improve patient safety using **HealthRoster** to optimise rotas that match skill mix to patient acuity
Collaborate with academia and industry to share knowledge, undertake research & drive innovation	Access to on-line resources and collaboration tools	UCLP, DeepMind, Health Innovation Network, Advisory Board, Global Digital Exemplars

IT Infrastructure

We will transform our IT infrastructure by implementing a secure, resilient, and mobile operating platform.

We want to our IT Infrastructure to ….	Digital Requirement	Strategic Fit Solutions
Protect the Trust's information assets from cyber security threats e.g. ransomware, malware	Robust Cyber Security platform	Annual Cyber Security audits and penetration tests to test cyber status and address gaps
Enable "mobile first-digital first" approach to access and capture data anytime, anywhere on any device	Mobile devices and applications	Virtual desktops, mobile devices , use bespoke and commercial web applications
Support integration & interoperability to share clinical data across the Trust and externally	Open supplier interfaces (APIs) and integration engine	Adopt standards *e.g. FHIR, HL7, CDA, XDS,* to exchange and share clinical data
Enable virtual communication and collaboration	Unified Communication platform	Mitel MiVoice and MiCollab tools
Provide resilience with near 100% availability	Real time data replication	Cloud hosted solutions, virtualised servers with replicated data stores

section 03

Current Data Silos Can Compromise Patient Care

In 2016, we treated **752** patients with community acquired pneumonia with an average LOS of **9.2** days. The example patient journey below shows how the current disparate data silos can compromise patient care.

Attends ED

Dot is a 78 year old lady with twice daily carers. She has become unwell with a fever, cough and shortness of breath

ED Consultant has no access to Dot's GP record or her outpatient letters. Dot can't remember her home situation

Admitted to Hospital

Medical SpR has no access to Dot's GP prescribed medications. Dot can't remember them or her allergy to penicillin. They call the GP to check but they are not available

Medicines Management

GP Discharge Letter

GP has no access to acute records. Only aware of Dot's hospital care on receipt of a discharge letter in the post

District nursing have no access to acute records. Referred via e-mail for medication administration.

District Nursing referral

Pharmacist has no access to Dot's social care records so unaware carers help with her medicines. Dot can't remember the pharmacy which delivers repeat medicines to her home

Therapy Assessment

Social services have no access to health records. Referred via e-mail for a package of care

Social Services referral

Dot is discharged and referred on by multiple people to multiple teams using multiple formats

Discharge Planning

Acute therapist has no access to Dot's community records so they don't know her most recent baseline function assessment

Impact of Data Silos on Patient Care

Currently, clinicians are required to access multiple IT solutions using different logins and conduct numerous patient searches to collate data into a composite record for treatment.

They must also use multiple communication tools to elicit further information e.g. e-mails, phone calls, bleeps, paper notes.

These data silos can have a significant impact on patient safety, care, and experience :-

- **Patient Safety** : Adverse events because clinically relevant data is not available on demand e.g. allergies, drugs

- **Patient Care** : Longer lengths of stay, higher costs and increased risk of harm because of delays in treatment waiting for information

- **Patient Experience** : Patient complaints and poor experience because of repeated clinical histories and tests, ; poor booking processes ; lack of integrated care plans

section 03

Shared Care Records Can Improve Patient Care

The example patient journey below shows how a shared care record can improve patient care.

All professionals involved with Dot can now view her shared record to provide better health and care.

GP is alerted to Dot's admission and can view her care in hospital. She books a nurse practitioner to visit Dot when she is home

District nursing can access Dot's discharge plan so they can arrange support for her medications at home and remotely monitor her health

Dot can interact with her record and can choose to give access to professionals via the patient portal

Social worker is alerted to Dot's planned discharge and updates the shared care plan to arrange home care support for her

ED consultant can access Dot's GP record for her history and via her outpatient letters see she is being treated by the respiratory team

Acute therapist can access Dot's community record to see her baseline function assessment. And send e-discharge assessment to Social Care

Medical SpR can access Dot's GP medications and her penicillin allergy so he can safely prescribe her antibiotics

Impact of Shared Care Records on Patient Care

Clinicians will be able to access a comprehensive real time shared health and care record anywhere, anytime. They will login once to access an aggregated patient record and be able to access more detail in the disparate IT systems in patient context.

They will be able share integrated care plans across health and social care to ensure much better co-ordination of multi agency resources and deliver care closer to home.

Accessing a shared care record will have significant benefits for patient safety, care, and experience :-

- **Patient safety** : Reduced adverse events and harm because clinically relevant data is available on demand

- **Patient Care** : Avoid admissions, shorter lengths of stay and lower costs as minimal delays in treatment

- **Patient Experience** : Improved patient experience because patients are empowered to book and amend appointments. Clinicians can also avoid duplicated actions e.g. clinical histories and tests

04 Where are we now ?

This chapter describes the current status of our digital services

Current IM&T Services

IM&T provide Trust wide services for Information Management, Clinical Coding, Telecomms, Patient Applications and IT Technical Services (IT Service Desk, Devices, Networks, Storage, Data Centres, Security, Integration, Web Services)

6,133 devices

6.8m budget *(2.2% of Trust)*

4,500+ users

72 staff *(1.6% of Trust)*

100+ locations

80% excellent user rating

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Digital Maturity Indices

There are three different Digital Maturity Indices available to assess the current status of our services. They all show the Trust to have some digitally advanced functionality :-

The **Clinical Digital Maturity Index (CDMI)** is a benchmarking tool managed by Digital Health Intelligence to assess digital maturity by measuring the implementation of a number of core and advanced modules

The **Health Information and Management System s Society (HIMSS)** is recognised as the global leader for assessing digital maturity using a comprehensive survey to measure the adoption of technology to improve care and is independently validated on site with end users

The **Digital Maturity Assessment (DMA)** is a self assessment tool managed by NHS England to measure the effective use of digital technology against 3 key themes : organisational readiness, capability and infrastructure

Clinical Digital Maturity Index (CDMI)

The diagram shows our Clinical Digital Maturity Index (CDMI) in 2015. The green coding denotes we have achieved digital maturity in **27/34** clinical functions.

Subsequently, **2/7** red rated gaps have been addressed ; we are the only London Trust to send digital assessments to Social Care ; and we are live with clinical noting in a number of paper-lite services *e.g. Ambulatory Care, ED, TB, Podiatry*

The plans for the 5 remaining red rated gaps are :-

1. **Critical Care**
   Plan to implement an ITU solution in 2017

2. **Vital Signs Observations**
   EPR supplier has an integrated e-obs & alerting solution

3. **Clinical Workflow/Integrated Care Pathways**
   EPR supplier is developing this functionality

4. **Scheduling**
   EPR supplier is developing this functionality

5. **Blood Tracking**
   Pending outcome of Pathology Service Review

CDMI

	Analytics and interoperability	Analytics (BI that includes results)	Analytics (patient level costing)		
		System C (Medway Sigma)	Civica (Cost Master)		
	Portals and patient access	Clinical portal	Patient access portal		
		System C (Medway Sigma)	System C (Medway Sigma)		
	Integration with primary care	Pathology / radiology results to GPs	Discharge summaries to GPs	Patient data with social care providers	
		Yes	Yes	No	
9	Advanced e-prescribing	Inpatient e-prescribing ward	Oncology e-prescribing	CDS in use on e-prescribing	
		JAC (JAC)	CSI Oncology (Chemocare)	JAC (JAC)	
8	Simple e-prescribing	Outpatient (TTO) e-prescribing			
		JAC (JAC)			
7	Enterprise scheduling	Scheduling	Clinical workflow engine / Integrated care pathways	Blood tracking	
		None	None	None	
6	Clinical noting and document management	Document management	Clinical noting	Observations - vital signs	
		EMC (Documentum)	None	None	
5	Order comms and diagnostic reporting	Order comms	Diagnostic reporting	Bed management	
		Sunquest (ICE)	Sunquest (ICE)	System C (Medway Sigma)	
4	Specialist departmentals	Cardiology	Oncology	Critical Care	
		GE Healthcare (Muse)	CIS Healthcare (Chemocare)	None	
3	Departmentals	A&E	Theatres	Maternity	
		System C (Medway Sigma)	CSC (ORMIS)	System C (Medway Sigma)	
2	Core ancillary	Pharmacy	Pathology	RIS	PACS
		JAC (JAC)	CliniSys (WinPath)	CSC (RadCentre)	Sectra (IDS7)
1	Foundation	PAS	Discharge letters	Community PAS	Simple BI
		System C (Medway Sigma)	Sunquest (ICE)	Servelec Healthcare (RIO)	Business Objects (Business Objects)

Health Information and Management Systems Society (HIMSS)

The diagram shows the HIMSS Electronic Medical Record Adoption Model. There are currently no NHS Trusts that have achieved level 7 and there are only 3/153 providers who have achieved level 6.

In 2015, UCLP benchmarked all its providers and Whittington Health was ranked 4/16. We had the second lowest number of clinical functions to implement to progress up to level 6 :-

Stage 3 : Capture nursing documentation on EPR

Stage 4 : Fully compliant

Stage 5 : Manage non-Radiology images in PACS

Stage 6 : Capture medical documentation on EPR

Decision support for medical documentation

Closed loop auto-identification and medication administration at the point of care

European EMR Adoption Model [SM]

Stage	Cumulative Capabilities
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing feeding outcomes reports, quality assurance, and business intelligence; Data continuity with ED, ambulatory, OP.
Stage 6	Physician documentation interaction with full CDSS (structured templates related to clinical protocols trigger variance & compliance alerts) <u>and</u> Closed loop medication administration.
Stage 5	Full complement of PACS displaces all film-based images.
Stage 4	CPOE in at least one clinical service area and/or for medication (i.e. e-Prescribing); may have Clinical Decision Support based on clinical protocols.
Stage 3	Nursing/clinical documentation (flow sheets); may have Clinical Decision Support for error checking during order entry and/or PACS available outside Radiology.
Stage 2	Clinical Data Repository (CDR) / Electronic Patient Record; may have Controlled Medical Vocabulary, Clinical Decision Support (CDS) for rudimentary conflict checking, Document Imaging and health information exchange (HIE) capability.
Stage 1	Ancillaries – Lab, Radiology, Pharmacy – All Installed OR processing LIS, RIS, PHIS data output online from external service providers.
Stage 0	All Three Ancillaries (LIS, RIS, PHIS) Not Installed OR Not processing Lab, Radiology, Pharmacy data output online from external service providers.

Digital Maturity Index (DMI)

The diagram shows our Digital Maturity Assessment (DMA) from January 2016 (green line) compared to the NHS average.

The Trust was above the national average for capability but below for infrastructure and organisational readiness.

Average Scores By DMA Theme   N = 249 (min)
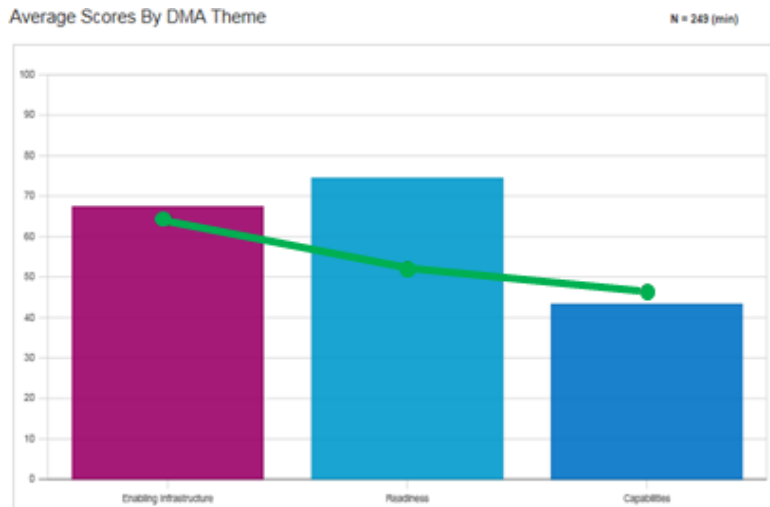
The Trust has made significant progress over the last 12 months to improve its DMA score, most notably in regard to **organisational readiness**.

Our readiness score has increased from 52% up to **84%** maturity due to the following developments :-

- Appointment of a Chief Clinical Information Officer

- Establishment of a multi-disciplinary Clinical Advisory Group (CAG) to champion the adoption of digital working

- Significant increase in Board engagement e.g. NED lead for technology, multiple presentations to Trust Board, Board Seminars and underlying governance structures

- 5 year capital allocation

- new Digital Strategy 2017-2020 for Board approval

Universal Capabilities

We are digitally advanced with achieving the Local Digital Roadmap universal capabilities.

Mandated Requirement	Our Status
Professionals across care settings can access GP-held information on GP-prescribed medications, patient allergies and adverse reactions	**Achieved.** Clinicians can view via the Medical Interoperability Gateway which is interoperable with our Carecentric shared care record
Clinicians in urgent and emergency care can access key GP-held information for those patients most likely to present in U&EC	**Achieved.** Clinicians can view via the Medical Interoperability Gateway which is interoperable with our Carecentric shared care record
GPs receive timely electronic discharge summaries from secondary care	**Achieved.** All admitted care discharge summaries sent digitally
Social care receive timely electronic Assessment, Discharge and Withdrawal Notices from acute care	**Achieved.** Only London Trust sending digital notices to Social Care (Islington) via the London Adaptor using a new Interoperability standard
Clinicians in unscheduled care can access child protection information	**In Progress.** Interface to access CP data in patient context from RIO
Professionals are made aware of end-of-life preference information	**Not Achieved.** Awaiting roll out of Co-ordinate My Care across London

section 04

Carecentric Shared Care Record

The Trust went live with its Shared Care Record in December 2016. Clinicians can now access clinical data from separate systems in a single view i.e. no multiple logins or patient searches :-.

– **Acute Care** (real time)
  ED, Admitted Care, Outpatient and Clinical Correspondence

– **Community** (overnight feed)
  Appointments. Assessment forms and progress notes will be next

– **Primary Care** (real time)
  Problems, allergies, medications, results

There are three significant developments planned for 2017 :-

– **Social Care**
  Care team and carer, Risks, Disabilities, Case Plans

– **Person Held Record (PHR)**
  Patients will have on-line access to view their record

– **GP Interoperability**
  GPs will be able to access Carecentric within their GP system

Carecentric Shared Care Record

Real time access to disparate patient data in a single view is transforming our patient care :-

This is FAB ! Saves so much time and means much less important clinical detail is missed
Respiratory Consultant

Positively affected my work on take, made taking history much easier , much more streamlined
SHO, Medical Assessment Unit

Carecentric is easy, quick and reliable. Used during weekend post-take when we weren't able to get in touch with a GP to find out a new patient's regular medications. This proved crucial as the patient hadn't informed us he was on warfarin
FY1, Care of the Elderly

Much easier to find medications for patients that are unable to give full histories, found it very useful,
SHO, Emergency Department

05 Digital Transformation Programme

This chapter describes the digital transformation programme required to deliver the future vision

NHS Mandated Priorities 2017-18

Future Vision Key Theme	Project	Requirement	Funding	Benefit
Digitally Connected Patients	Electronic Referral Service (e-RS)	NHSE mandated targets :- 80% referrals made via e-RS by October 2017 100% e-RS slot availability by April 2018 100% referrals made by October 2018	£0K	Create paperless NHS to improve patient care, experience and reduce delays
Digitally Enabled Workforce	Child Protection	Universal capability to access Child Protection information from unscheduled care settings	£6K capital	Alert professionals when a child/unborn baby with a child protection plan (CPP) or looked after child status (LAC) visits unscheduled care setting
	Child Health	New Child Health network hub for NCL & NEL which requires 3 new IT solutions :- Child Health Information System (CHIS) e-Redbook Health Visitors application	Tbc	Population register to reduce health inequalities in access and outcomes E-Redbook is the first digital Child Health Record to record their health, growth and development
	End of Life	Universal capability to access pan-London end-of-life preference information	Tbc	Empowers patients to make and share decisions about their care pan-London
Business Intelligence and Analytics	Pharmacy	NHSE mandated requirement to implement Directory of Medicines and Devices (DM+D)	£25K capital	National interoperability standard to share data on availability and use of licensed drugs
	Community CSDS	Mandated submission of Community Services Data Set (CSDS)	£0K	National monitoring of community activity for planning services
	Emergency Department	Mandated submission of Emergency Care Data Set (ECDS)	£0K	National monitoring of ED performance and demand management

Trust Priorities 2017-18

Future Vision Key Theme	Project	Requirement	Cost	Benefit
Digitally Connected Patients	Transforming Outpatients	Patients book & amend appointments on-line	£108K pa – CIP	Improve efficiency, patient experience, and reduce DNAs to support delivery of £1m CIP
		Enable virtual outpatient consultations	Tbc	
	Digital Inclusion	Community Forum	Tbc	Digital engagement with our local population to actively involve in shaping our future plans Train residents in the 5 basic digital literacy skills
		The Good Things Foundation	£0K	
Digitally Enabled Workforce	Shared Care Record	Roll out Carecentric trust wide ; pilot in 13 GP practices ; pilot Patient Portal	£5K	Real time access to acute, community, primary and social care data will improve care & safety
	Acute EPR	Personal Demographic Service (PDS) module	£120K - capital	Real time NHS number to link patient records
	Community EPR	Off-line access to RIO using Store & Forward	£0K	Release travel time directly back into clinical care
	E-Community	Develop and implement new solution	£40K - CIP	Optimise District Nursing productivity
	Operate Paperless at Point of Care	100% digital workflows in ED and OP clinics, GP and Community requesting on ICE	Tbc	Real time access to patient data will reduce delays and improve patient safety and care
	Scanning Strategy	Management of paper based records	Tbc	Available on-demand, release space
	Improving Medical Productivity	Implement e-job planning, rota compliance, medic on duty, leave and on-call	£115K yr 1 - CIP £193K yr 2-5 – CIP	Improve productivity, rota compliance, & reduce agency spend to support delivery of £1m CIP
	E- observations	Digitised observations at the point of care with automated alerting of early warning scores	£900K - capital	Identification of deteriorating patients e.g. AKI, Sepsis will improve patient safety and outcomes
	ITU/HDU		Charitable Funds	
	PACS/VNA	Ingest non-Radiology images e.g. Cardiology and videos e.g. Michael Palin, MSK, Paediatric	£150K - capital	Single integrated view for all digital images and videos for a patient
Intelligence and Analytics	Qlikview Enterprise Reporting	Promote use of live dashboards and develop new ones e.g. Finance, Imaging, Pharmacy	£20K - capital	Real time data to improve decision making. Able to query Trust summary down to patient level data
IT Infrastructure	Cyber Security	Implement KPMG Cyber Security audit actions	£250K - capital	Mitigate risk of cyber attacks
	Devices	68% of PCs ; 32% of iPADS are > 5 years old, re-instate rolling replacement programme	£1,900K - capital	More secure, efficient, supported devices ; fewer fails, reduced support costs

Digital Transformation Programme

Trust Requirements 2018-20

Below are specific requirements identified by the ICSUs which have not already been highlighted in the National or Trust priorities

Children & Young Persons	Emergency & Urgent Care	Integrated Medicine	Patient Access, Prevention & Planned Care	Surgery & Cancer	Women's Health	Clinical Support Services
Capture nursing documentation on Medway EPR to operate paperless at point of care (HIMSS level 3)						Blood Tracking
Capture medical documentation on Medway EPR to operate paperless at point of care (HIMSS level 6)						Digital Histo-Cytology
Capture non-Radiology images into PACS to operate paperless at point of care (HIMSS level 5)						
Implement standardised care pathways with decision support and closed loop medication administration (HIMSS level 6)						
Partner with UCLP, Google DeepMind, Health Innovation Network, System C to develop and adopt innovative solutions						
Unified Communications Platform to improve productivity, virtual collaboration, remote working and customer service						
Digital comms to increase market share and income	Paperless ED	Develop patient portal to support self management of long term conditions		New Theatre System and digital pre-assessment forms	Implement Foetal Monitoring and integrate with EPR	Community e-prescribing
	Interoperability with LAS & OoH records	Tele-health *e.g. remote devices, wearable tech*	E-referral-grading-booking process	UCLH vanguard Cancer system	Integration of Maternity with ICE and JAC	

Governance

The proposed governance structure to oversee the delivery of the Digital Strategy :-

Trust Board

- Monitor delivery of Digital Strategy
- Ratify annual digital development plans and investment priorities

Trust Management Group

- Monitor delivery of Digital Strategy
- Approve annual digital development plans and investment priorities

Digital Steering Group

- Manage delivery of Digital Strategy
- Recommend digital development plans and investment priorities
- Link to PMO for service improvement and CIP

Clinical Advisory Group

- Promotes adoption of Digital Strategy
- Develops annual development plans and investment priorities

Investment Model

A investment model has been developed to prioritise IT funding to deliver the Digital Strategy :-

- Trust goals
- STP/LDR goals
- National goals
- Innovation

- Empower patients
- Patient volumes
- Evidence Base
- Prevention

Strategic Goals (25%)

Risk (15%)

Health Gain (30%)

Benefit Realisation (30%)

- Clinical
- Financial
- Reputational
- Cyber
- National Targets

- Rate of RoI
- Time for RoI
- Efficiency savings
- Staff volumes
- Transform to Digital

All future investments in technology should be prioritised using the model in advance of a full business case

section 05

06 Acknowledgements

Acknowledgements

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