



# IT Strategy Update University Hospitals of Leicester

# **hello** my name is...

Andy Carruthers

Acting Chief Information Officer



## Supporting Priorities (2)

Year 1  
2019-2020

### What are we trying to accomplish?

We will support safe and effective care by progressing our e-Hospital plans to implement user-friendly and integrated solutions that make people's jobs easier to do

### Why are we focusing on this area?

- To enable visibility and the sharing of patient records real time, anywhere, anytime
- To improve patient safety through better alerting and decision support based on capturing clinical data and transforming it into dashboards and clinical analytics
- To improve the efficiency of our workforce through better workflow of referrals, treatment and transfer to other health and social care partners
- To improve patient flow through ED, the wards and onward discharge or transfer out
- To improve and enable outpatient transformation



# The Vision for 2022

Being recognised as delivering a trusted, secure, class-leading IT service enabling a seamless digital service to our staff, patients and researchers.

## People Vision

To use our technology to Attract, Engage, Retain and Develop the best people to work for UHL

## Process Vision

To use our technology to create a paper-free, optimised, automated environment for UHL

## Technology Vision

To ensure we invest in the right technology to help UHL go beyond its vision for the future

## External Vision

To use technology to connect to our patients and partners in a way that creates joint value

## Innovation Vision

To use our technology to create an environment that stimulates innovation and creativity

# Context

2011

1

## Stabilisation

Started Partner procurement



2014

2

## Strategic EPR

Board Approved single EPR and choice of Cerner



2016

3

## Formal No

Having exhausted all efforts we formally close Cerner project

2017

4

## EPR Plan B

Board commitment to the next plan for a single EPR platform for UHL based around a best of breed interim approach

2018

5

## eHospital

2018/19 eHospital programme launched, linked to the delivery of the quality commitment



2019

6

## eHospital

2019/20 10 year contract signed with NerveCentre to deliver our EPR solution





# Strategic Points of Principle

1. All clinical and administrative output to be stored in a single patient history
2. All future programmes of work to be linked to organisational objectives (Quality Priorities)
3. Information to be available anywhere, any place and any time
4. Only invest in systems and services that use internationally recognised IT standards
5. Usability of data for research and clinical care
6. Systems must make it easy to follow best clinical practice
7. No dual data entry for any data
8. Patient access and contribution to clinical care and records
9. All new workflows should be digital by design and the information interoperable with our economy partners
10. All IT developments must be sustainable, safe and secure



## By 2022 We Will...

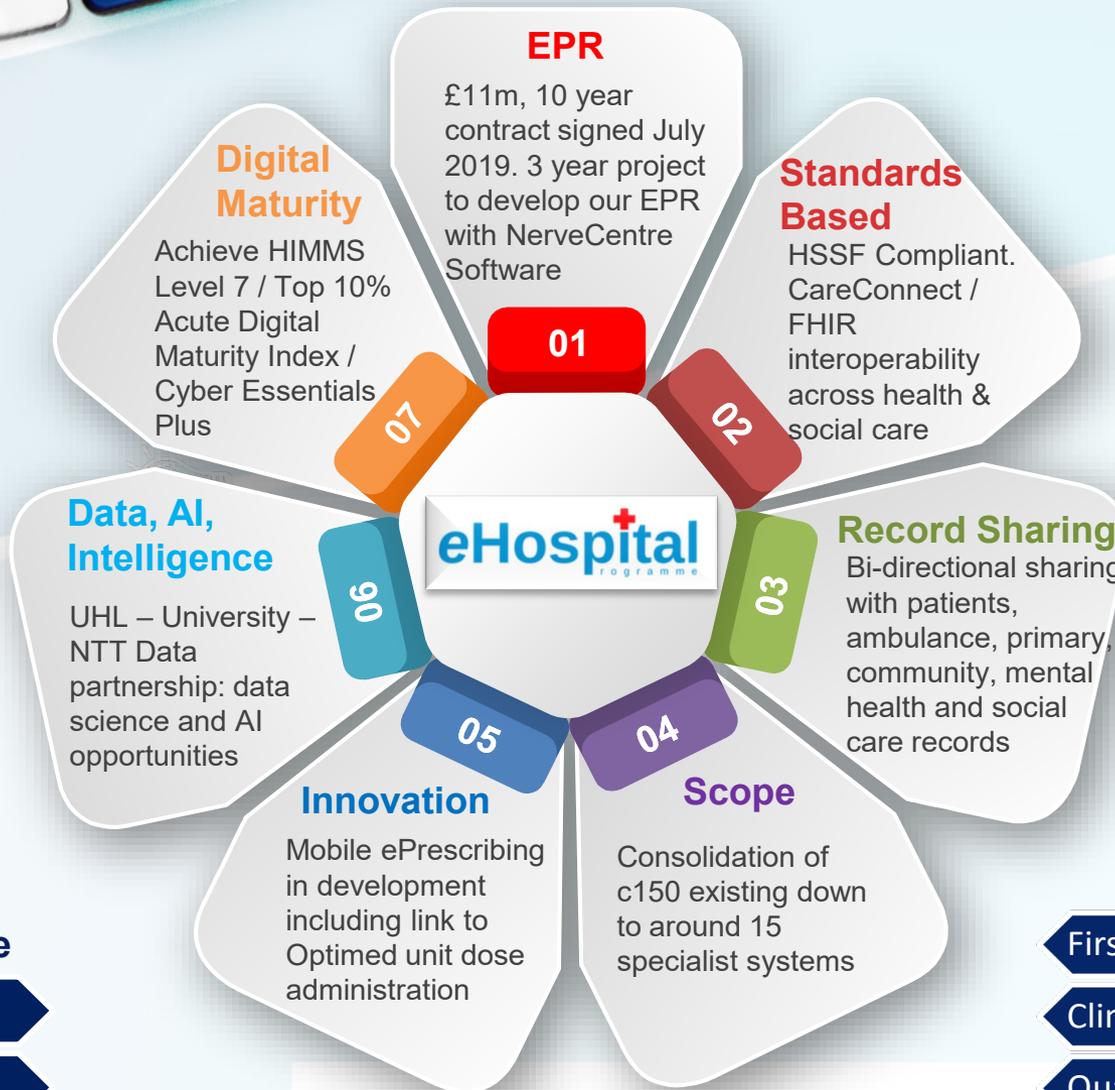
- Have all information available about a patient through a robust single patient record
- Have patients able to contribute to their record
- Deliver clinical functionality everywhere (eg NerveCentre, eMeds, EDRM...)
- Have our patients able to interact with UHL's digital services
- Have easy access & contribute to GP / partner information
- Implement computer assisted processes (diagnosis etc)
- Automate clinical escalation
- Have our staff free to work completely from any location
- Enable virtual clinical services
- Ensure information for research is readily available
- Deliver back office optimisation
- Leverage inward investment through research
- Be seen as a leader for the human factors around cyber security and information Governance
- Have IT be seen as a recruitment asset
- Increase the scope of our 24x7 IT support services
- Be in the top 10 % of acute trusts for NHS digital maturity
- Achieve HIMMS / EMRAM Level 7
- All supported through a safe, secure scalable infrastructure

A close-up photograph of a computer keyboard. The central focus is a blue key with a white mouse cursor icon and the text 'social networks' in white. To its right is a white key with a grey upward-pointing arrow. To its left is a white key with a grey downward-pointing arrow. The keyboard is set against a green background.

## Improving our infrastructure

- eEquip programme has now updated 5,500 PCs and laptops to windows 10 and replaced 1,800 iOS mobile devices
- All remaining equipment will be updated by March 2020
- Wifi upgrade is in progress and will include all three hospital sites
- Upgrade trust mobiles to 4G by March 2020
- Bring Your Own Device (BYOD) pilot underway (iOS)
  - sign up by email [byodsupport@uhl-tr.nhs.uk](mailto:byodsupport@uhl-tr.nhs.uk)
- Managed print at LGH
  - Board approval & project start up in October

# eHospital Programme 2019 - 22



## Enabling Infrastructure

Device As A Service

Mobile First

Cloud First

First of type

Clinically Led

Quality & Safety Focused

“PAS Last” Approach

# The Journey To Level 7

					Quality, safety, efficiency analytics	Cross organisational data sharing	90% documentation & CPOE, 95% closed loop	Removal of paper charts
			Closed loop meds administration (pilot)	Closed loop blood transfusion tracking	Advanced CDS (Sepsis, AKI) BYOD, CE assessment		Full closed loop & integration of drug charts with CPOE & EHR	
			Intrusion prevention & mobile device management		Reporting on timeliness of nursing task completion	Full physician documentation / SNOMED		
CPOE with CDS (Inpatients & ED)	Regional image sharing via IEP	Offline charts for system downtime	Nursing tasks triggered by risk scores (NEWS)		90% electronic nursing documentation	CPOE with CDS (Outpatients)		
			RBAC, 50% nursing documentation electronic					
CDR, Single Results Portal	Security policies	Electronic Document Records Management					Full Electronic Document Records Management	
eRequesting, CRIS & PACS								

7  
6  
5  
4  
3  
2  
1  
EMRAM



Key : Complete Partial Planned

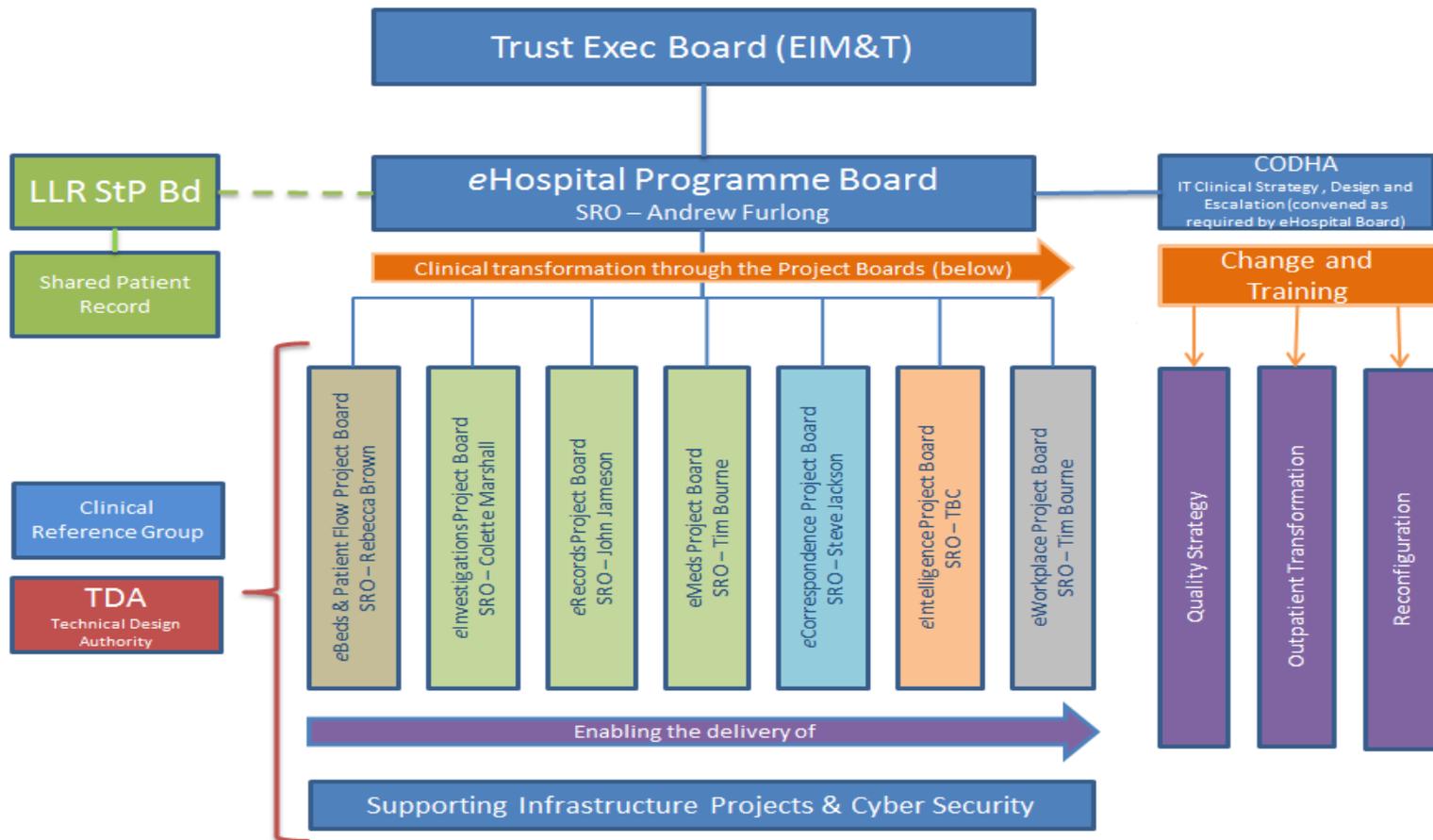


## How will the EPR be delivered?

- On 30<sup>th</sup> July we signed an £11m 10 year partnership with NerveCentre to develop our EPR by 2022
- We will work in collaboration to design the system to meet our needs
- Initial focus will be on mobile ePrescribing, order comms and capturing consultations in Outpatients
- We will also continue to build new features into the inpatient setting e.g.
  - SNOMED diagnosis coding
  - Comorbidities
  - Prepopulated discharge summaries
  - eReferrals via mobile devices
- The Cito EDRM solution is being upgraded and will link in patient context to complement the NerveCentre EPR by providing access to key documents and correspondence forming the patient's hospital record

social networks

# Governance



# Workstreams

## eMeds

SRO Tim Bourne, CMIO

## eCorrespondence

SRO Steve Jackson, CMIO

## eInvestigations

SRO Collette Marshall, DMD

## eRecords

SROs John Jameson, DMD /  
Julia Ball, CNIO

## eBeds & Patient Flow

SRO Rebecca Brown, COO

## eIntelligence

SROs Ben Teasdale, Digital Innovation  
Lead & Julia Ball, CNIO

## eWorkplace

SRO Tim Bourne, CMIO





# High level EPR phasing

## 2019/20

- Ambulance transfers of care
- Infection prevention & control module
- Inpatient SNOMED coding, casenotes and letters
- Transfers of care (Integrated needs assessment) via MESH
- Wireless blood glucose & blood pressure
- Mobile bed management
- Ward based dashboards & analytics
- GPConnect Viewer
- EDRM (Cito) Upgrade & relaunch

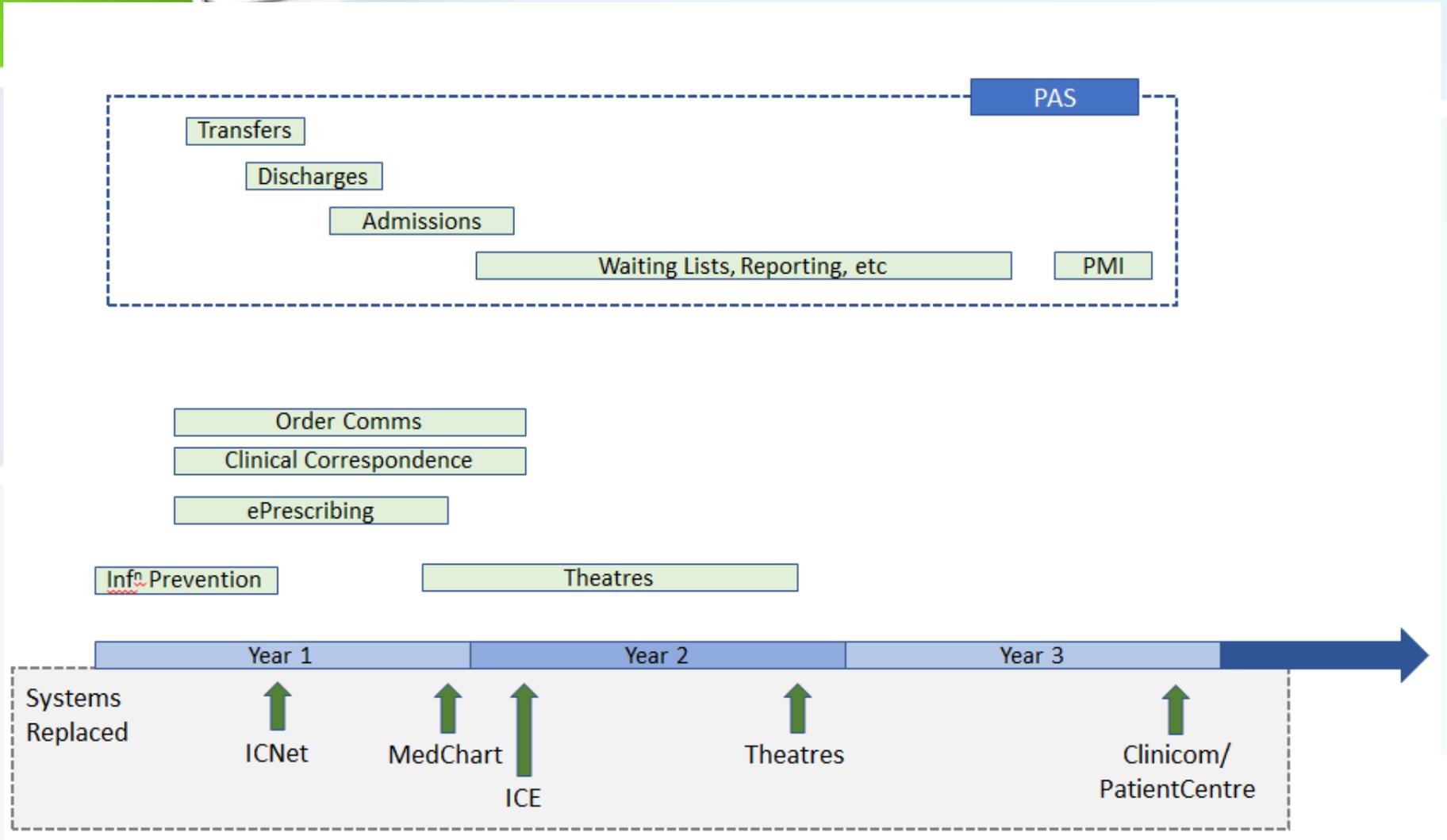
## 2020/21

- Mobile ePrescribing & integration with Optimed logistics
- Transfers of care structured messaging
- Outpatient SNOMED , clinical noting and letters/transfers of care
- Outpatient ePrescribing
- Preadmission assessments & consent
- Care Planning module
- Clinic scheduling and eRS support
- Mobile order communications
- CareConnect

## 2021/22

- Full spine demographics support
- Self check in / patient record online
- Staff & patient scheduling
- Waiting lists and core PAS capabilities
- Theatres module

# Consolidation





## The Value of Data

- A key area of focus is to ensure the information we collect is fit and useful for patient care, safety, audit and research purposes by design, and accessible for analysis and reporting
- We have agreed a partnership with UoL and NTT Data to develop a “data safe haven” to assist with improving our data analysis capabilities



# Supporting LLR System Objectives

- Removing paper from UHL & moving to shareable, coded information collection incrementally supports record sharing, supporting pathways and BI/Research LLR roadmap lines
- Hybrid solution enables a flexible approach to supporting UHL's contribution to LLR shared record
- Contractual commitment to compliance with interoperability standards (FHIR/ToC/CareConnect/PDS)
- Aiming to embed visibility of LLR records / care plans in UHL clinician workflow – reduce barriers to consuming shared record and enable bidirectional contributions
- All information relating to the patient's care (delivered by UHL or LLR partners) must come back into the clinician's view
- In August we received £1.3m Health System Led Investment funding to support projects aimed at improving record sharing with our LLR health and care partners