

# Connecting digital systems in England



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Overseeing the comprehensive digitisation of health and care in England by 2024



### Technology vision: guiding principles



**NHS**<sup>×</sup>

#### Reduced burden on staff, so they can focus on patients

Citizens have tools to access information and services directly Clinical information can be safely and digitally accessed

Improvement of patient safety across the NHS

Increased NHS productivity



## **NHSX Missions**



## CCIO 7

- 1. Citizen ID
- 2. Staff ID
- 3. Medications
- 4. Dates and scheduling
- 5. Clinical observations
- 6. Basic pathology
- 7. Diagnostic codes



## Technology vision: our approach

- Standards and platforms a model of centrally agreed standards and local delivery.
- Market-led digital innovation only building from the centre where it makes sense for us to do so, e.g. platforms and common technologies.
- **Developing local capability** help to build up local tech skills and capability.



## What are our core standards?





## What have we done so far?



**CareConnect** - a library of FHIR profiles which can be used across a range of specifications

**Transfers of Care** - FHIR based documents for Discharges from acute care, mental health and A&E and outpatient clinic letters

**GPConnect** - a service to access a HTML view of the GP record for any patient

NHS Number - a national identifier for all patients across England

**SNOMED in primary care** - roll out of SNOMED as the single terminology across all of our general practices in England (around 8000) is almost complete

**dm+d in primary care** - implementation of a single terminology for medicines across general practice and within the national prescriptions service

**Medication standards** - guidance for dose and product-based translation

### Making medicine prescribing safer

- Improve safety
- Reduce waste
- Improve health
- Join up care
- Support people

#### Medicines use is increasing

Medication is the most common form of NHS treatment that people receive.



medications in the

UK every year

#### But their use also comes with risks



Million errors in the medications process in one year.



Around 5 deaths every day because of errors in prescription, dispensing or the monitoring of medications.



of people with long term conditions don't take their medicines properly

#### Why?

- Lack of understanding
- Side effects Inconvenient or painful
- Doubts about its effectiveness
- Forgetfulness or lack of ordered lifestyle





Of the total NHS budget



spent on medicine is wasted





Million in savings in five disease areas if people took their medicines better.



## **Medicine prescribing**





#### **Dose-based**

"Flucloxacillin, 250mg orally three times a day for 7 days"

## Mental conversion

#### **Product-based**

"Flucloxacillin 125mg/5ml oral solution sugar free, two 5mls spoonfuls three times a day for 7 days"

#### or

"Flucloxacillin 250mg capsules, one capsule three times a day for 7 days"

## What systems support our interoperability?

#### **Personal Demographics Service -**

master demographics and source of information on NHS Numbers

#### National Record Locator -

supports the discovery of information about a patient from across the country

#### National Event Management

Service - supports subscriptions to national events such as changes to demographics, birth notifications and the creation of new records

NHS Login - a national service for managing patient authentication

**NHS Identity** - a national service for managing the identity of health and care professionals

## **Terminology Server (in procurement)** - a national service for accessing terminologies and classifications

#### Spine Secure Proxy - a

national service for managing authentication and authorisation between providers and consumers

## Case study: Linking Epic and Cerner

West Suffolk NHS Foundation Trust and Cambridge University Hospitals NHS Foundation Trust use Cerner and Epic respectively.

A link between these two systems was created to enable sharing of the data they hold including problems, medications, allergies and test results.

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During the weekend of the launch of this link, a patient was admitted with stage 4 ovarian cancer undergoing chemotherapy. She was vague about her current treatment and prognosis but staff were able to access a recent scan to expedite her treatment and not require a repeat CT scan. This made a huge difference to her care and the time taken for clinical staff to provide treatment.

## What's next for us?



**GPConnect** - access to structured information from the GP record

NHS Identity - rollout of our staff identity standards using OpenID Connect and OAuth 2.0

NHS Login - rollout of our patient authentication service using OpenID Connect and OAuth 2.0

SNOMED in Mental Health - rollout of SNOMED in Mental Health providers

**CareConnect** - rollout access to the data held in their systems using our FHIR standards

**ICD11** - participating in field trials for the next generation of the standard

Pathology standards - creation of a common ordering catalogue and FHIR based messaging

