360 ASSURANCE

AUDIT YORKSHIRE

# Digital – making the most of technology

Welcome

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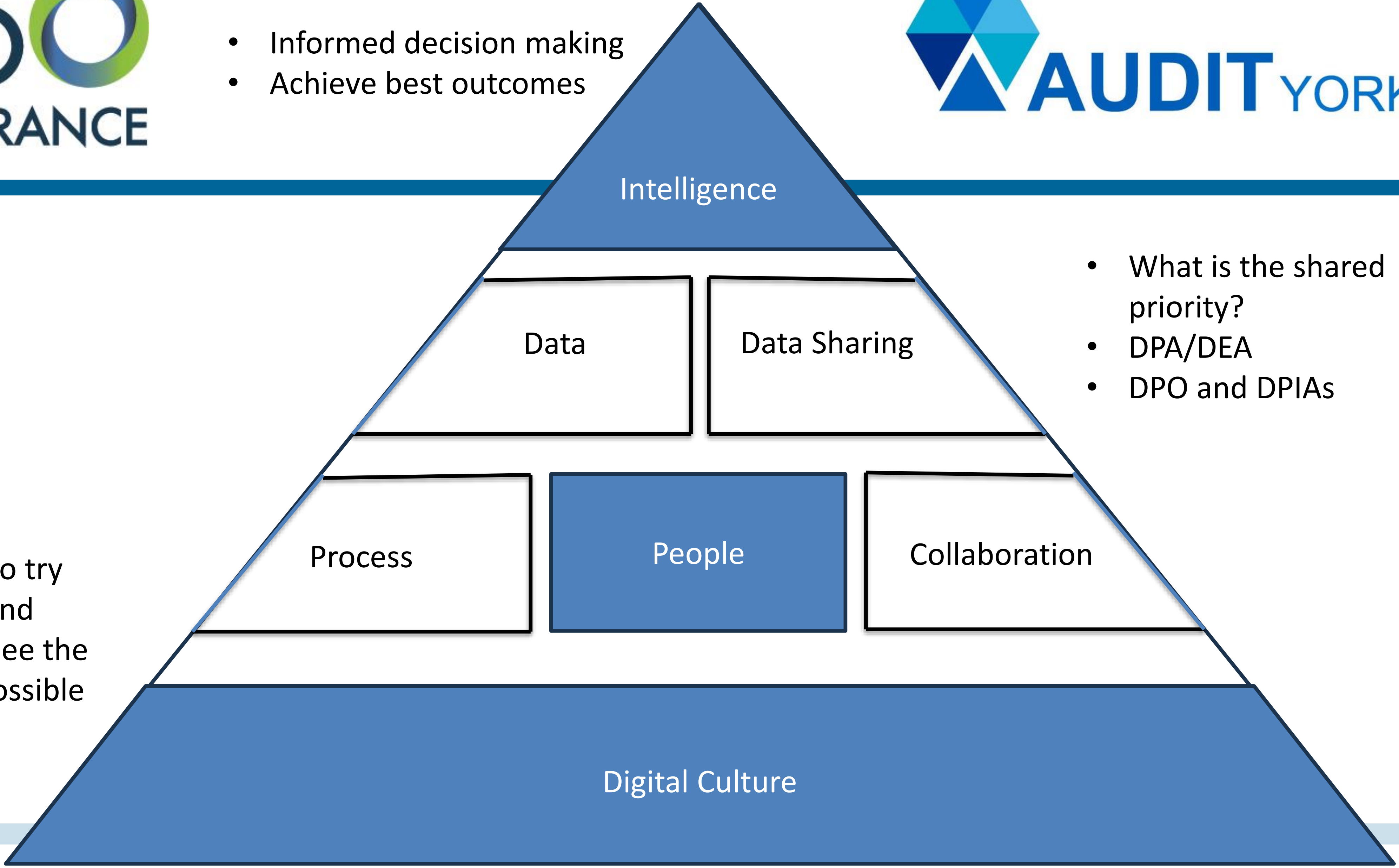
# Setting the Scene

Elaine Dower, Deputy Director, 360 Assurance

- Informed decision making
- Achieve best outcomes



- What is the shared priority?
- DPA/DEA
- DPO and DPIAs

Safe space to try things out and innovate – see the art of the possible

- Collect data in electronic form
- Replicate manual process eg speech-to-text transcripts
- Present/visualise data to make it more accessible/understandable eg Power BI
- Analysis – basic through to complex
- Automate processes – power automate to run the same reports every week/ month
- Continuous analysis – identifying anomalies/outliers in real time while there is still time to intercept
- AI (classical) – Boolean operators and logical conditions/rules to make predictions
- Machine learning (subset of AI) – supervised/unsupervised
- Generative AI
- Large Language Model (LLM) AI
- Agentic AI/ AI Agent

# Questions to consider when considering new technology

- What’s the objective(s)/priority(ies) you’re trying to achieve or problem you’re trying to solve and therefore what genuinely is the question you’re trying to answer?
- Co-design
- Fraud controls – access, segregation, inbuilt access/activity audit trails
- Cyber security – deep fake recognition
- Data ownership – especially with third party technology providers
- Is the platform on which the digital technology is running innovating and keeping pace?
- How will it interact with our legacy systems/ICT?
- What’s the skill gap for our staff to be able to use effectively and how will it be bridged?

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# Cyber Security – the pitfalls of increased technology and AI, within a fraud context

Richard Gentile, Principal Consultant – Digital Trust Cyber Security, PA Consulting Group

Unfortunately, Richard’s slides are not currently available.

# The Regulation of Digital Technology and AI in Healthcare

Dr Stewart Duffy, Solicitor & Legal Director

Weightmans/Cyxcel

# The Regulation of Digital Technology and AI in Healthcare

Dr Stewart Duffy, Solicitor & Legal Director

# EU definition from EU AI Act

- ‘AI system’ means a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments;

- Predictive AI
- Generative AI
- Range of methodologies of machine learning

# We don’t regulate AI

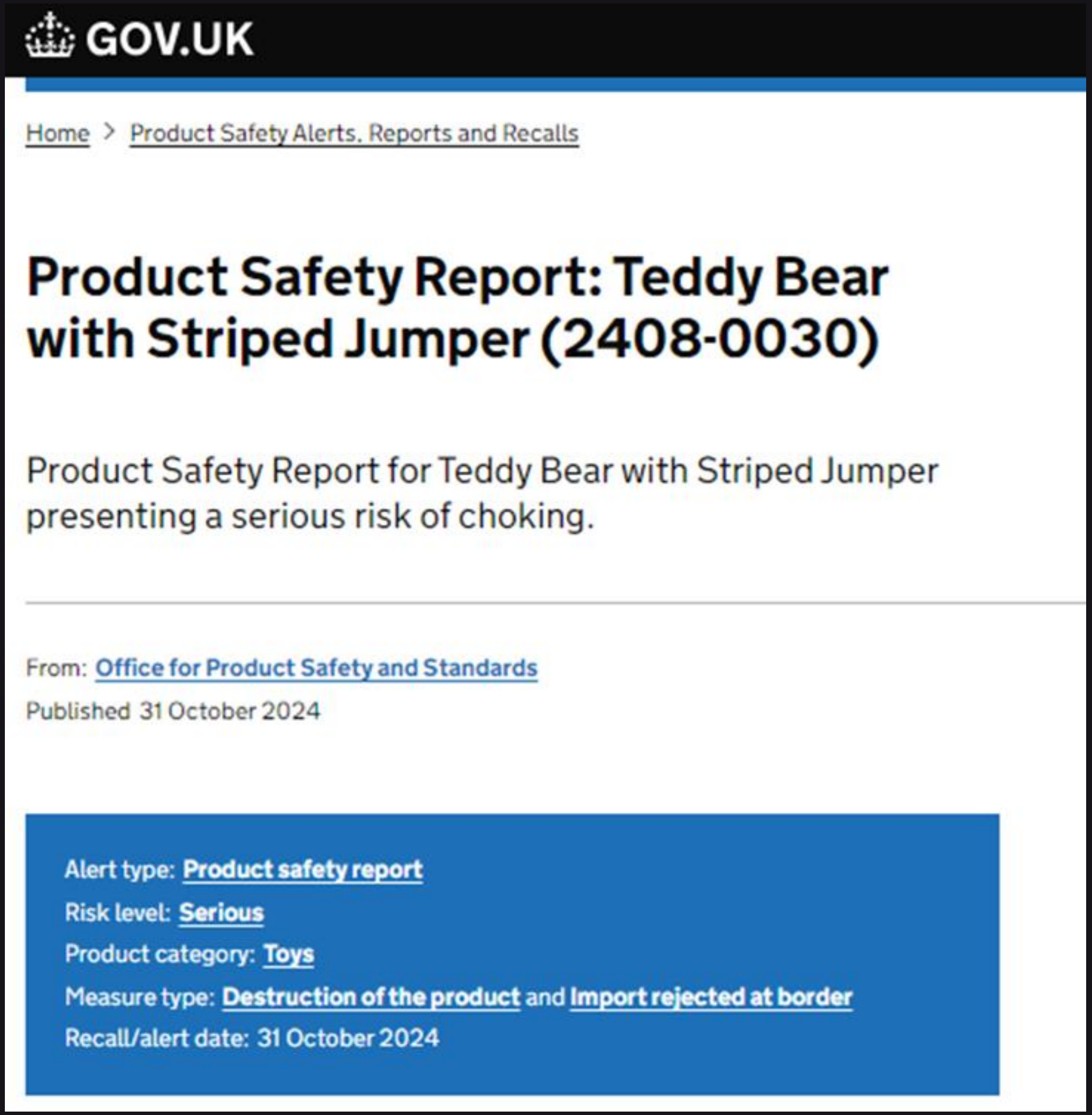
BUT….

CYXCEL®

# Regulation of AI and Digital Technology

- We regulate **products**
- We regulate **people**
- We regulate **risks**
- We recognise rights and impose obligations to ensure rights are respected

# We regulate products



GOV.UK

Home > Product Safety Alerts, Reports and Recalls

## Product Safety Report: Teddy Bear with Striped Jumper (2408-0030)

Product Safety Report for Teddy Bear with Striped Jumper presenting a serious risk of choking.

From: Office for Product Safety and Standards

Published 31 October 2024

Alert type: Product safety report

Risk level: Serious

Product category: Toys

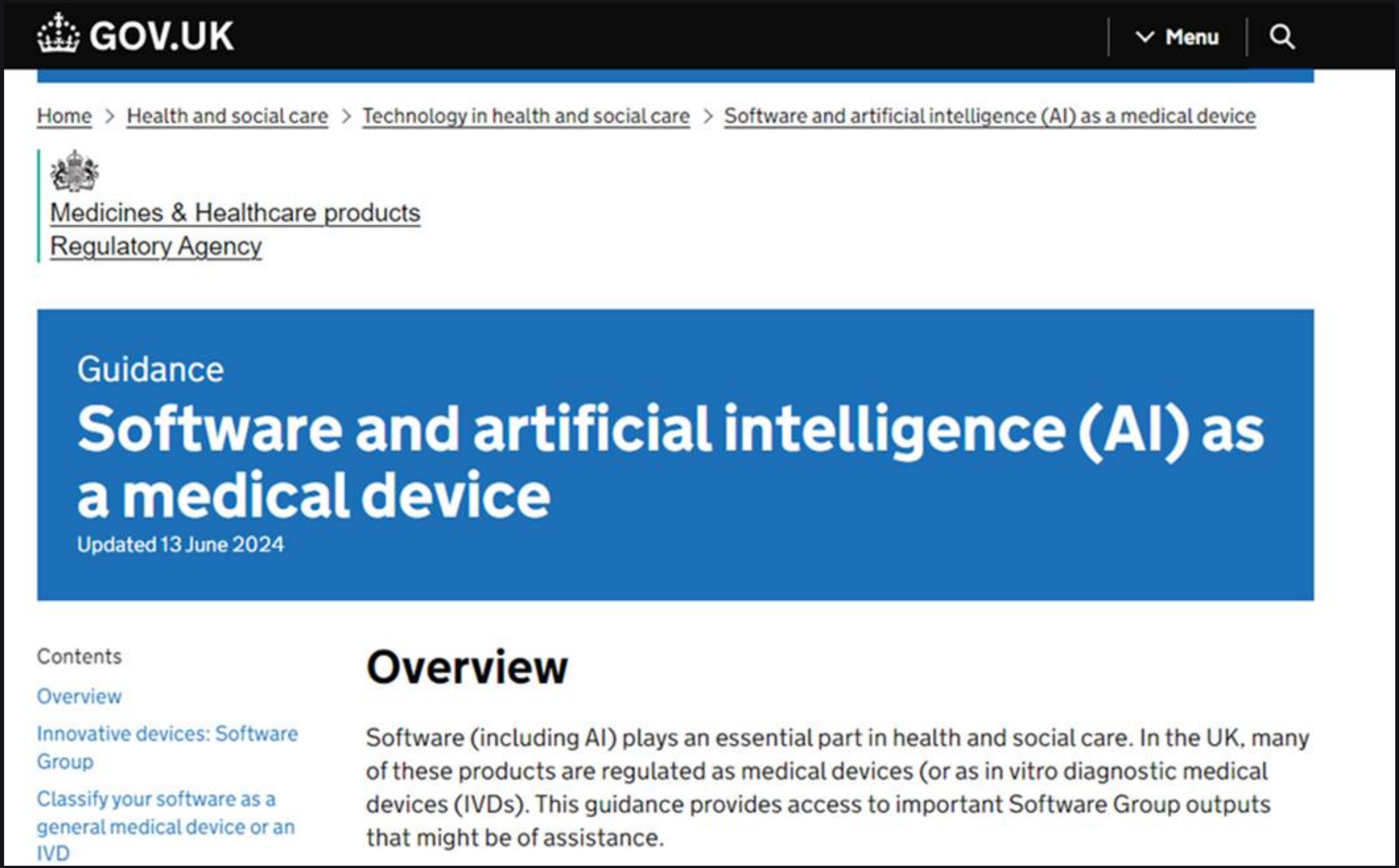
Measure type: Destruction of the product and Import rejected at border

Recall/alert date: 31 October 2024

# What is a Medical Device?

Definition EU

- (1) 'medical device' means any instrument, apparatus, appliance, **software**, implant, reagent, material or other article **intended by the manufacturer to be used, alone or in combination, for human beings for one or more of the following specific medical purposes:**
- diagnosis, prevention, monitoring, prediction, prognosis, treatment or alleviation of disease,
- diagnosis, monitoring, treatment, alleviation of, or compensation for, an injury or disability
- investigation, replacement or modification of the anatomy or of a physiological or pathological process or state,
- providing information by means of in vitro examination of specimens derived from the human body, including organ, blood and tissue donations,



GOV.UK

Home > Health and social care > Technology in health and social care > Software and artificial intelligence (AI) as a medical device

Medicines & Healthcare products Regulatory Agency

Guidance

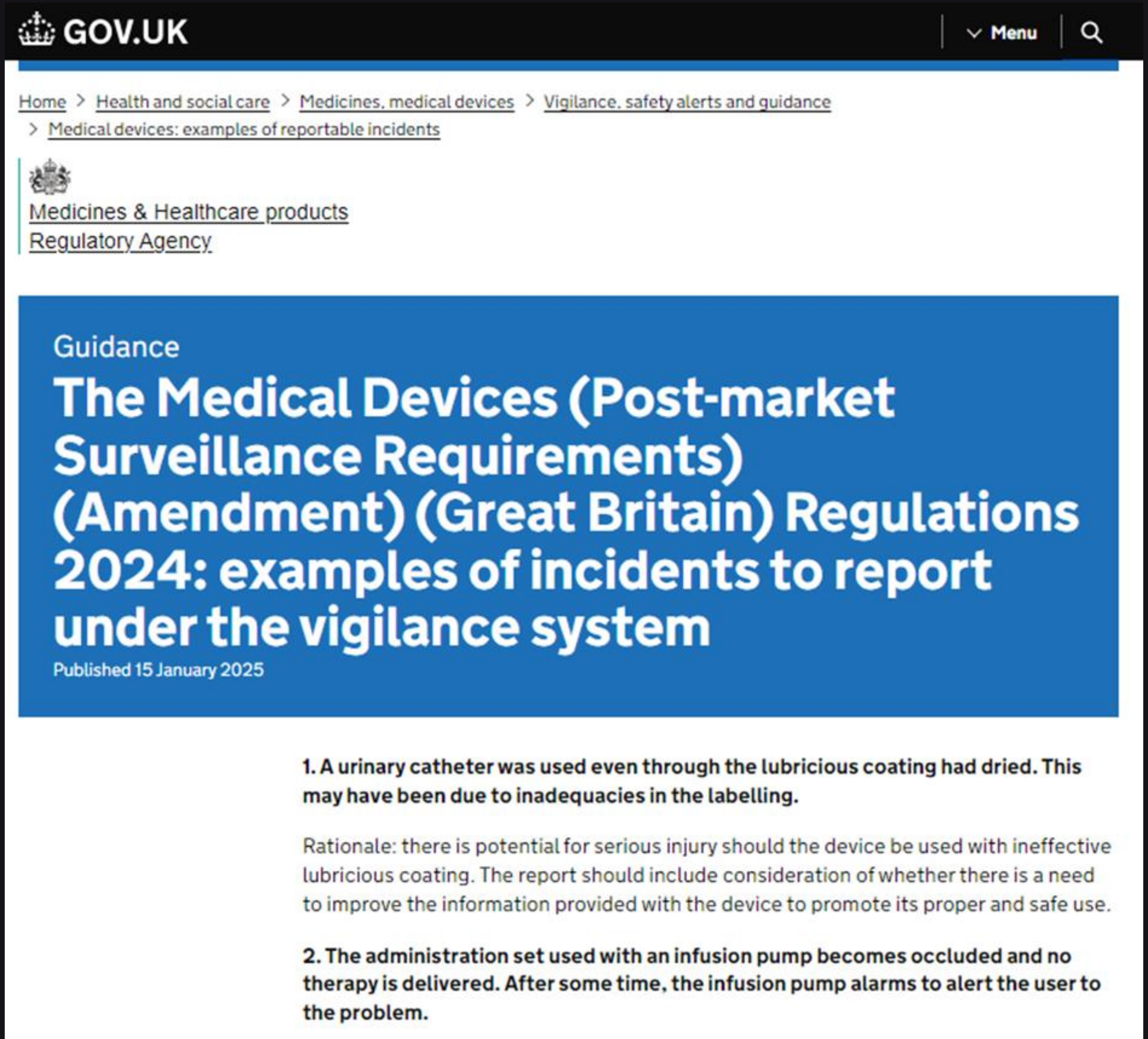
# Software and artificial intelligence (AI) as a medical device

Updated 13 June 2024

## Overview

Software (including AI) plays an essential part in health and social care. In the UK, many of these products are regulated as medical devices (or as in vitro diagnostic medical devices (IVDs). This guidance provides access to important Software Group outputs that might be of assistance.

- Imposes evidential requirements to demonstrate that the device is fit for its intended purpose;
- Imposes obligations in relation to post-marketing surveillance
- Notifiable incidents



Home > Health and social care > Medicines, medical devices > Vigilance, safety alerts and guidance > Medical devices: examples of reportable incidents

Medicines & Healthcare products Regulatory Agency

Guidance

## The Medical Devices (Post-market Surveillance Requirements) (Amendment) (Great Britain) Regulations 2024: examples of incidents to report under the vigilance system

Published 15 January 2025

**1. A urinary catheter was used even through the lubricious coating had dried. This may have been due to inadequacies in the labelling.**

Rationale: there is potential for serious injury should the device be used with ineffective lubricious coating. The report should include consideration of whether there is a need to improve the information provided with the device to promote its proper and safe use.

**2. The administration set used with an infusion pump becomes occluded and no therapy is delivered. After some time, the infusion pump alarms to alert the user to the problem.**

# We Regulate People

General
Medical
Council

Professional standards

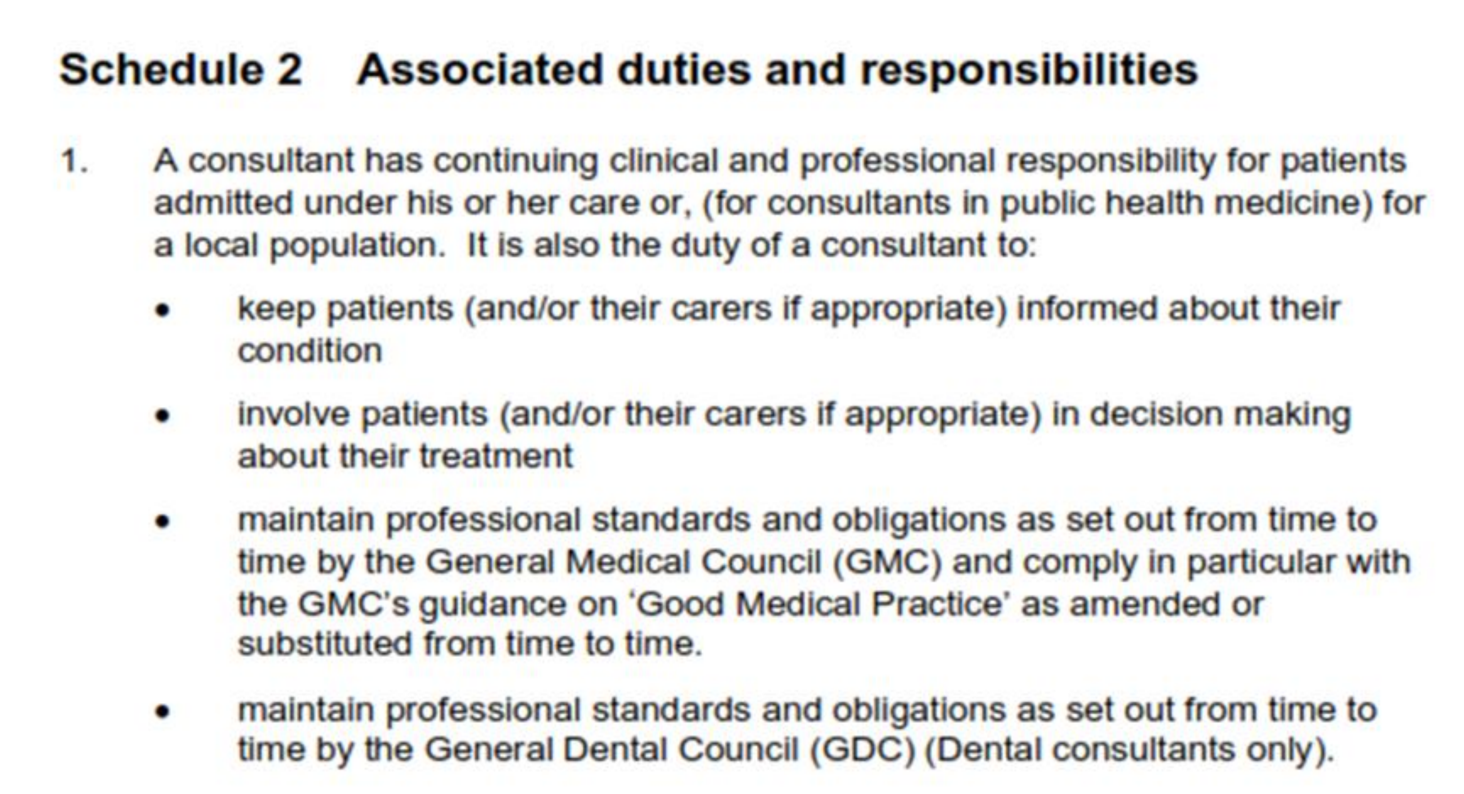
In effect: 30 January 2024

Delegation and referral

# Delegating safely and appropriately

- 66 You must be confident that any person you delegate to has the necessary knowledge, skills and training to carry out the task you're delegating. You must give them clear instructions and encourage them to ask questions and seek support or supervision if they need it.

# Employment – Contractual Obligations



## Schedule 2 Associated duties and responsibilities

1. A consultant has continuing clinical and professional responsibility for patients admitted under his or her care or, (for consultants in public health medicine) for a local population. It is also the duty of a consultant to:

   - keep patients (and/or their carers if appropriate) informed about their condition
   - involve patients (and/or their carers if appropriate) in decision making about their treatment
   - maintain professional standards and obligations as set out from time to time by the General Medical Council (GMC) and comply in particular with the GMC's guidance on 'Good Medical Practice' as amended or substituted from time to time.
   - maintain professional standards and obligations as set out from time to time by the General Dental Council (GDC) (Dental consultants only).

Care Quality Commission

# Regulation 5: Fit and proper persons: directors

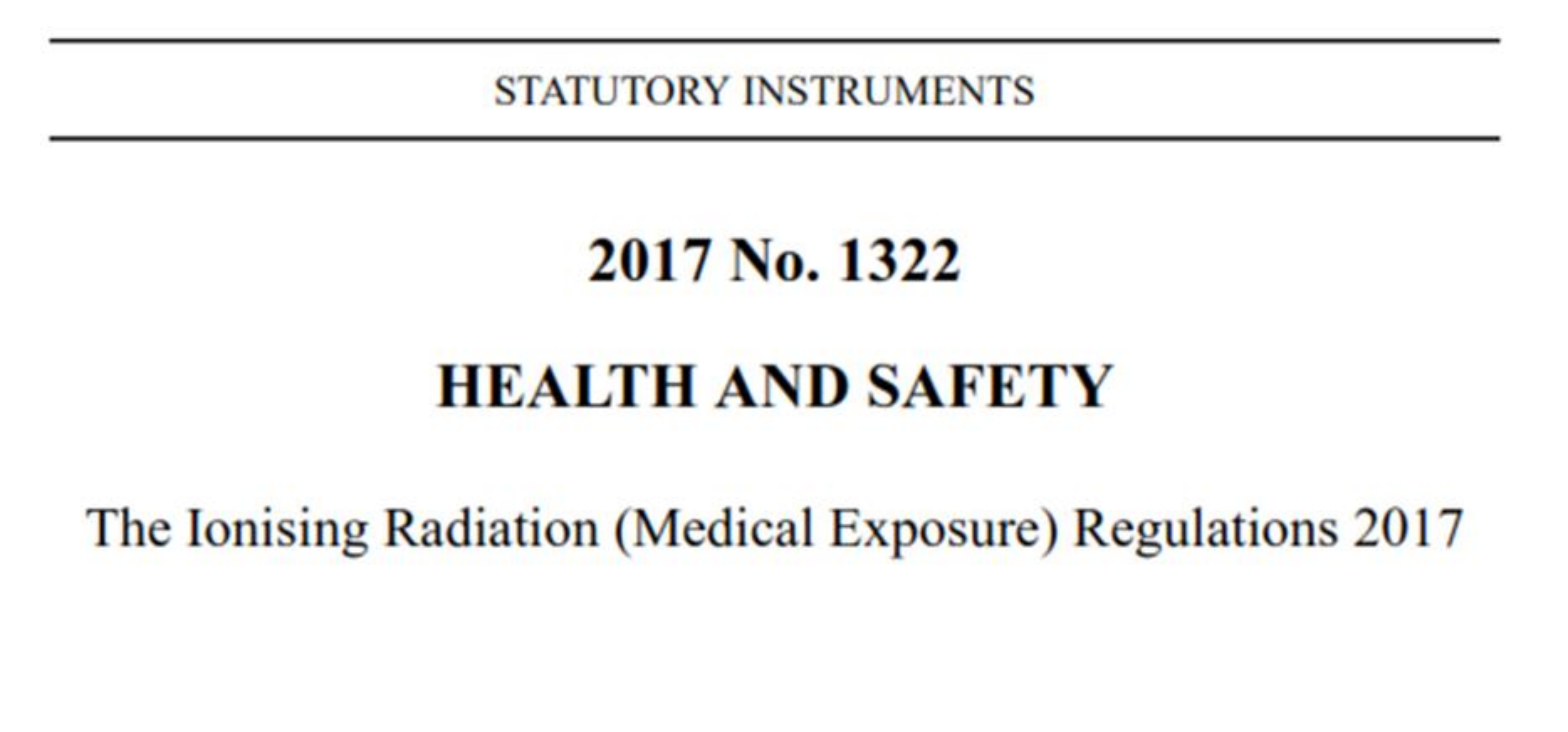
Guidance for providers and CQC inspectors

January 2018

## An example of mismanagement:

- “Failing to implement quality, safety and/or process improvements in a timely way, where there are recommendations or where the need is obvious.”

# We regulate risks



STATUTORY INSTRUMENTS

**2017 No. 1322**

**HEALTH AND SAFETY**

The Ionising Radiation (Medical Exposure) Regulations 2017

# IRMER

Regulation 12(9)

- "This regulation **requires the employer to ensure that a clinical evaluation of the outcome of each exposure,** other than exposures to carers and comforters, is recorded, as set out in the employer's procedures. **It is recommended that such an evaluation should be accurate and timely, such that it contributes appropriately to the care of the exposed person.** In practice clinical evaluation might include the resulting diagnostic findings or therapeutic implications, as appropriate or, in the case of therapy exposures, a clear record that the exposures delivered are consistent with those prescribed, or where these have deviated, the basis for this."

- **"evaluation"** means interpretation of the outcome and implications of, and of the information resulting from, an exposure;

# Regulation of Risks within the NHS

- CQC
- Network Information Systems Regulations
- Clinical Risk Standards (under statutory framework) DCB0129, DCB0160 and DTAC
- NHS Duties re Climate Change and Modern Slavery – NHS Act 2006 as amended

# CQC Regulations

- Regulation 12 – Safe Care and Treatment

- Regulation 15 – Premises and Equipment

- “All premises and equipment used by the service provider must be –

  Suitable for the purpose for which they are being used.

# We recognise rights and impose obligations to ensure rights are respected

- Rights to life, bodily integrity, autonomy e.g under ECHR
- Protected by traditional common law torts – clinical negligence including informed consent, product liability
- Human Rights Act 1998
- Rights in relation to Data Protection

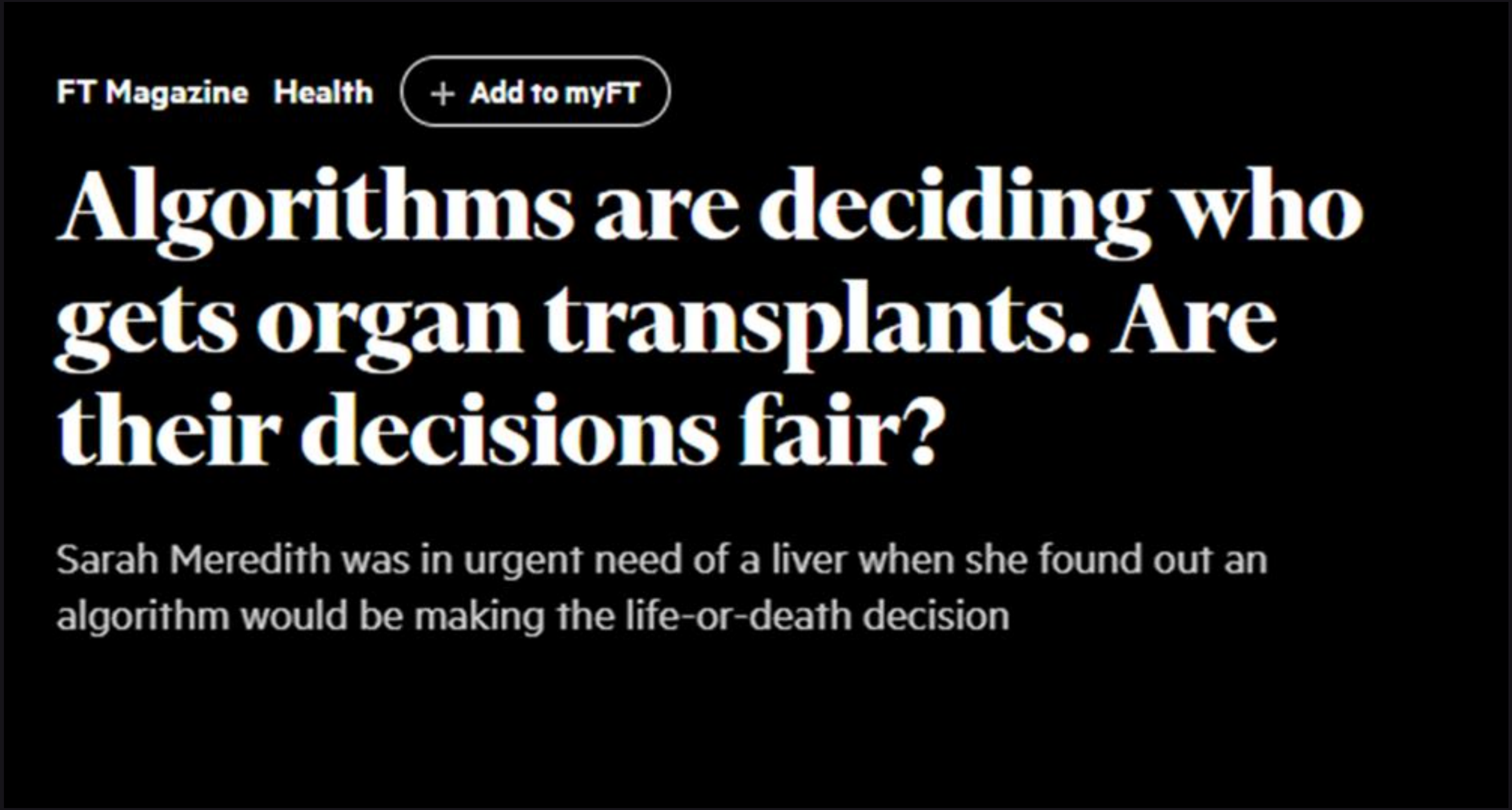
# UK GDPR – Article 22

- The data subject shall have the right not to be subject to a **decision based solely on automated processing**, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her.

# ‘Profiling’

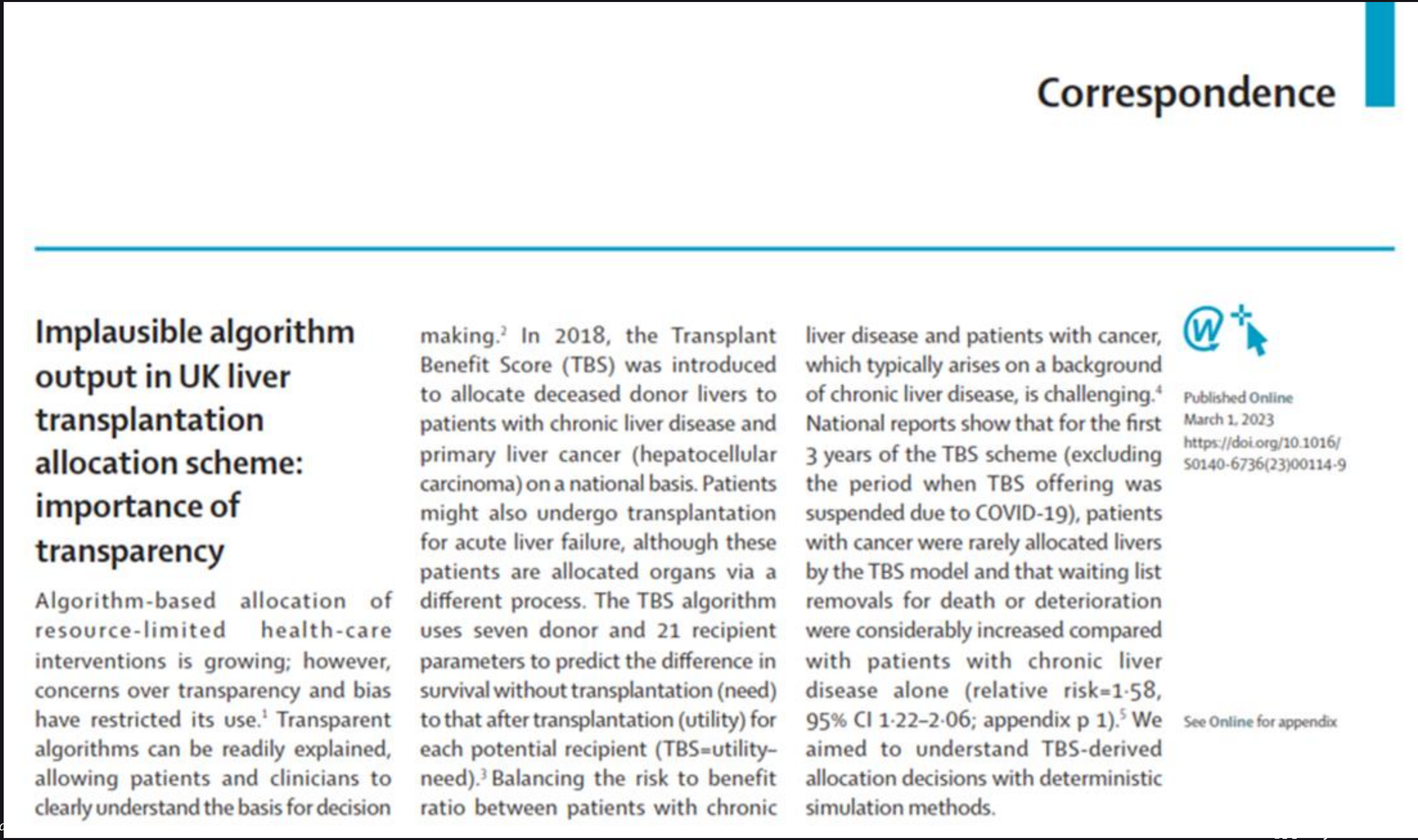
- ‘means any form of **automated processing** of personal data consisting of the **use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that natural person’s** performance at work, economic situation, **health**, personal preferences, interests, reliability, behaviour, location or movements;

# Examples



# Algorithms are deciding who gets organ transplants. Are their decisions fair?

Sarah Meredith was in urgent need of a liver when she found out an algorithm would be making the life-or-death decision



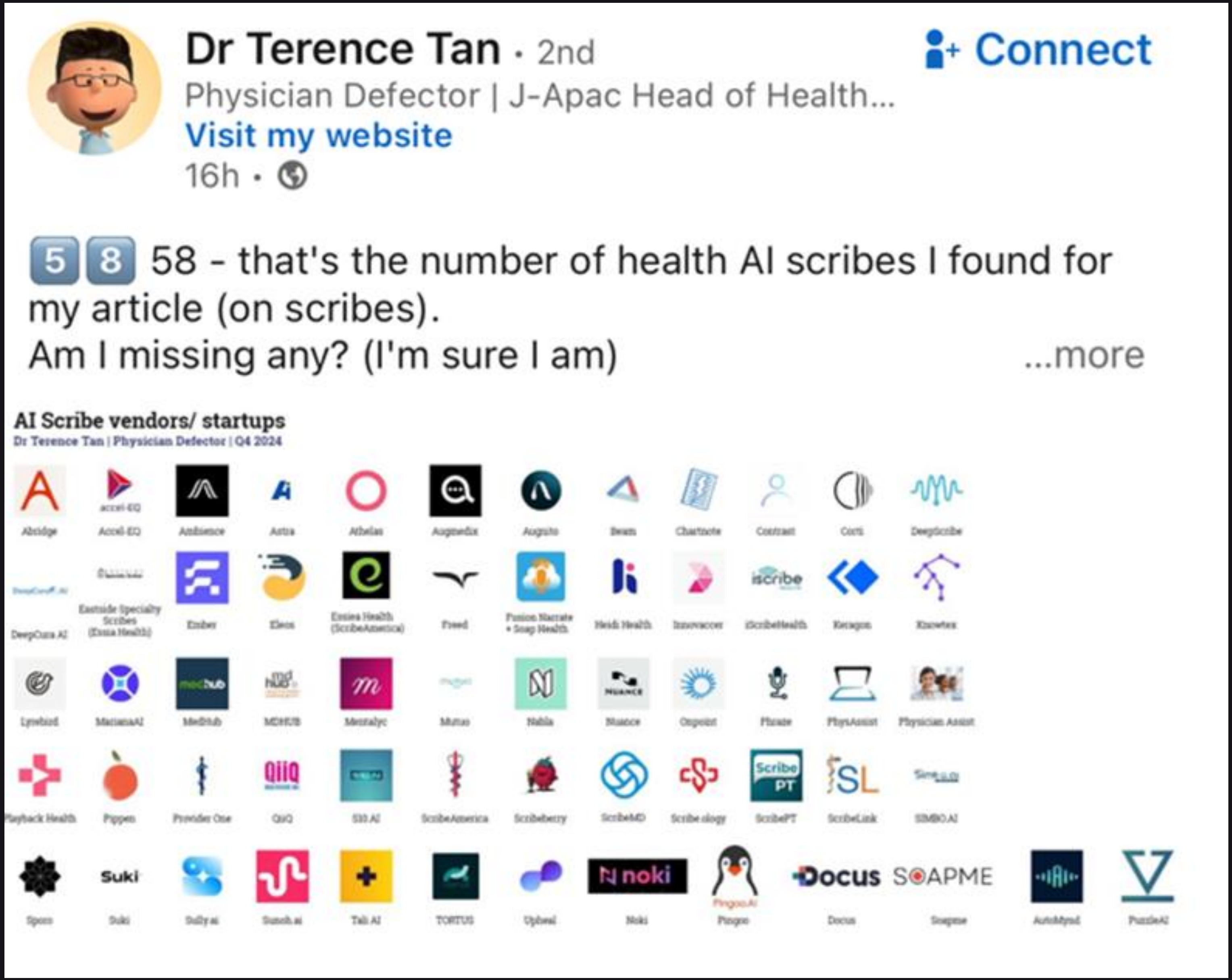
Correspondence

# Implausible algorithm output in UK liver transplantation allocation scheme: importance of transparency

Algorithm-based allocation of resource-limited health-care interventions is growing; however, concerns over transparency and bias have restricted its use.[1] Transparent algorithms can be readily explained, allowing patients and clinicians to clearly understand the basis for decision making.[2] In 2018, the Transplant Benefit Score (TBS) was introduced to allocate deceased donor livers to patients with chronic liver disease and primary liver cancer (hepatocellular carcinoma) on a national basis. Patients might also undergo transplantation for acute liver failure, although these patients are allocated organs via a different process. The TBS algorithm uses seven donor and 21 recipient parameters to predict the difference in survival without transplantation (need) to that after transplantation (utility) for each potential recipient (TBS=utility–need).[3] Balancing the risk to benefit ratio between patients with chronic liver disease and patients with cancer, which typically arises on a background of chronic liver disease, is challenging.[4] National reports show that for the first 3 years of the TBS scheme (excluding the period when TBS offering was suspended due to COVID-19), patients with cancer were rarely allocated livers by the TBS model and that waiting list removals for death or deterioration were considerably increased compared with patients with chronic liver disease alone (relative risk=1·58, 95% CI 1·22–2·06; appendix p 1).[5] We aimed to understand TBS-derived allocation decisions with deterministic simulation methods.

Published Online
March 1, 2023
https://doi.org/10.1016/S0140-6736(23)00114-9

See Online for appendix



Dr Terence Tan • 2nd

Physician Defector | J-Apac Head of Health...

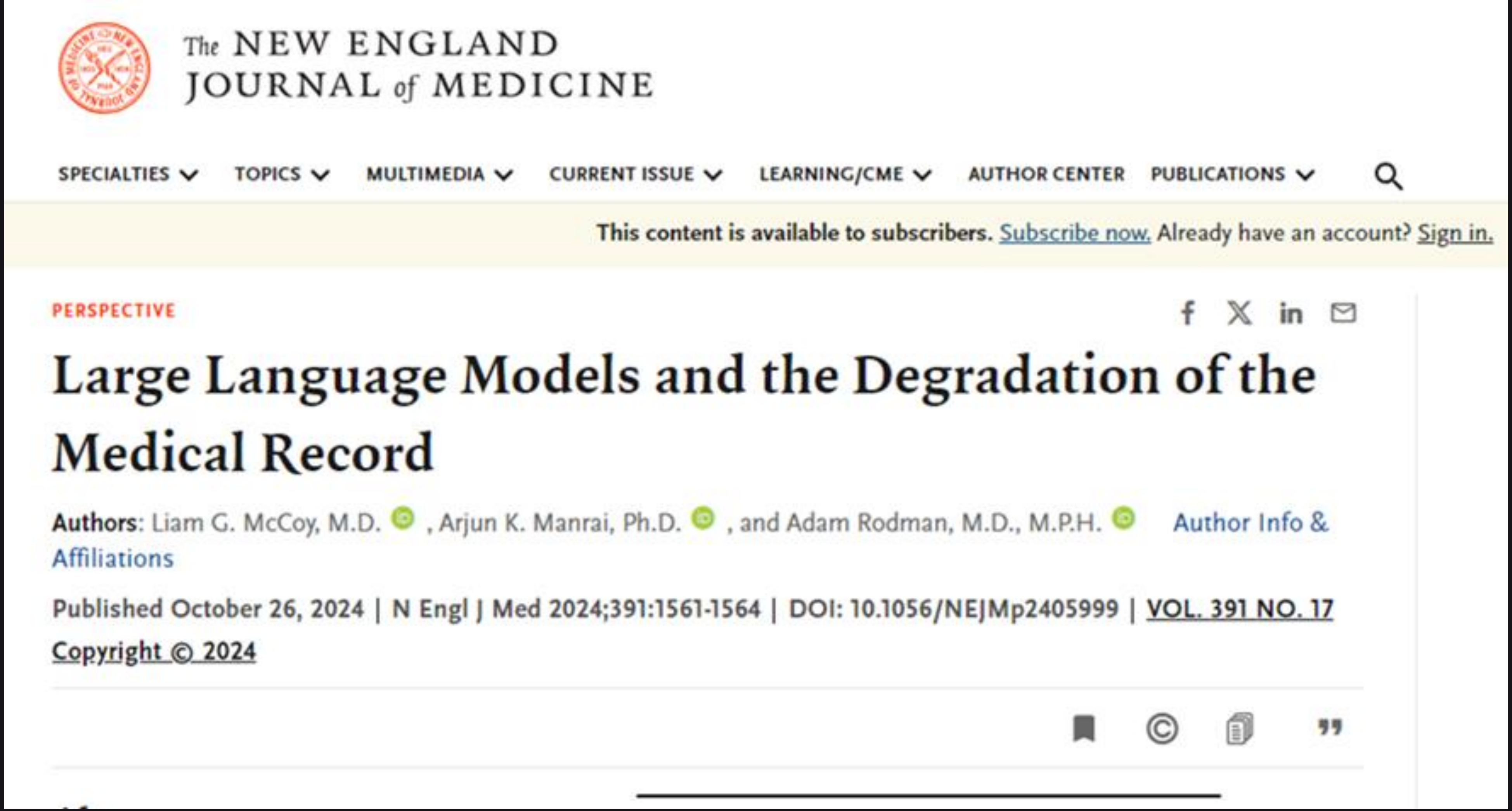
Visit my website

16h •

5️⃣8️⃣ 58 - that's the number of health AI scribes I found for my article (on scribes).
Am I missing any? (I'm sure I am) ...more

AI Scribe vendors/ startups

Dr Terence Tan | Physician Defector | Q4 2024



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PERSPECTIVE

# Large Language Models and the Degradation of the Medical Record

Authors: Liam G. McCoy, M.D. , Arjun K. Manrai, Ph.D. , and Adam Rodman, M.D., M.P.H. Author Info & Affiliations

Published October 26, 2024 | N Engl J Med 2024;391:1561-1564 | DOI: 10.1056/NEJMp2405999 | VOL. 391 NO. 17

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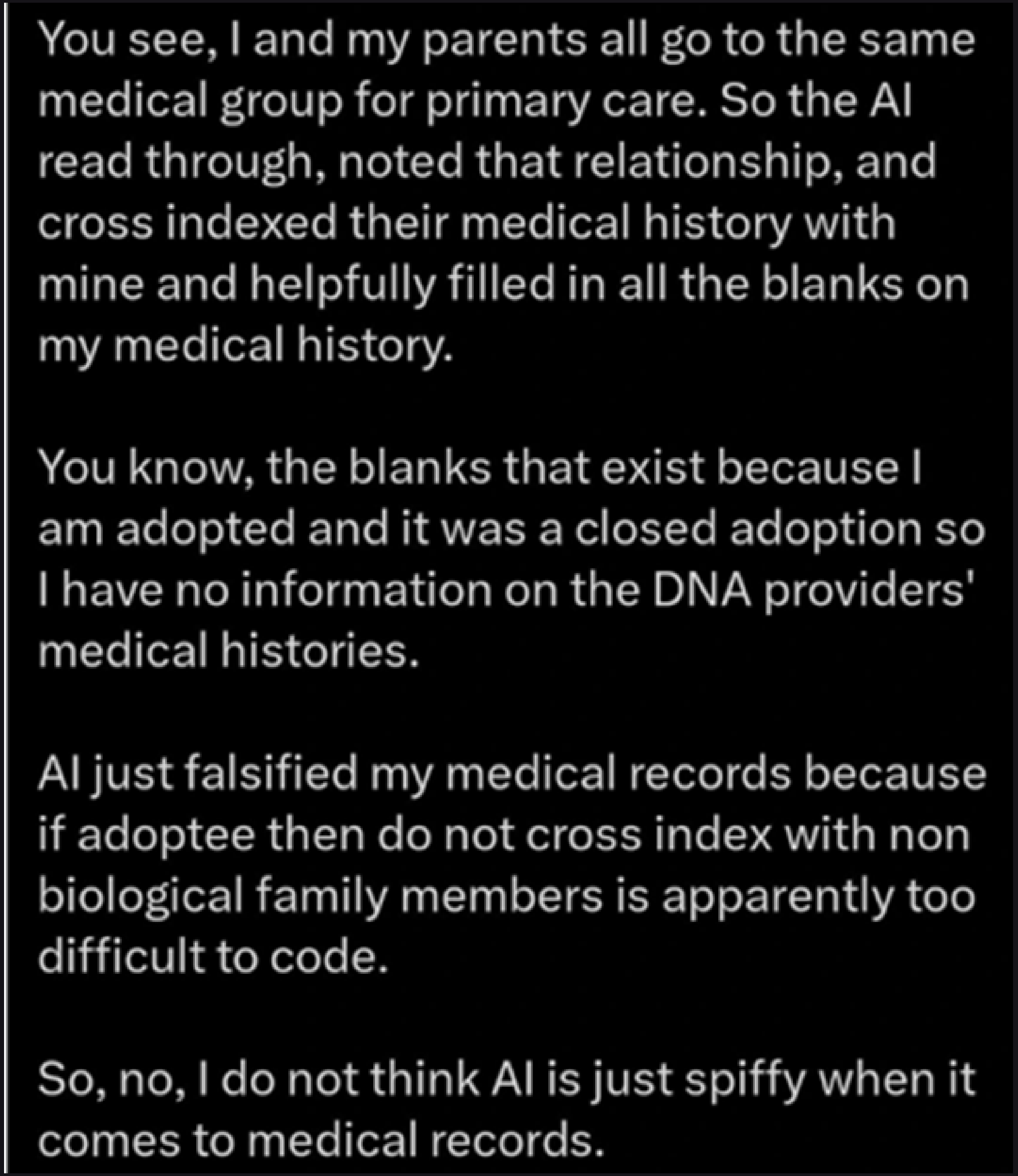
# Hallucinations...



You see, I and my parents all go to the same medical group for primary care. So the AI read through, noted that relationship, and cross indexed their medical history with mine and helpfully filled in all the blanks on my medical history.

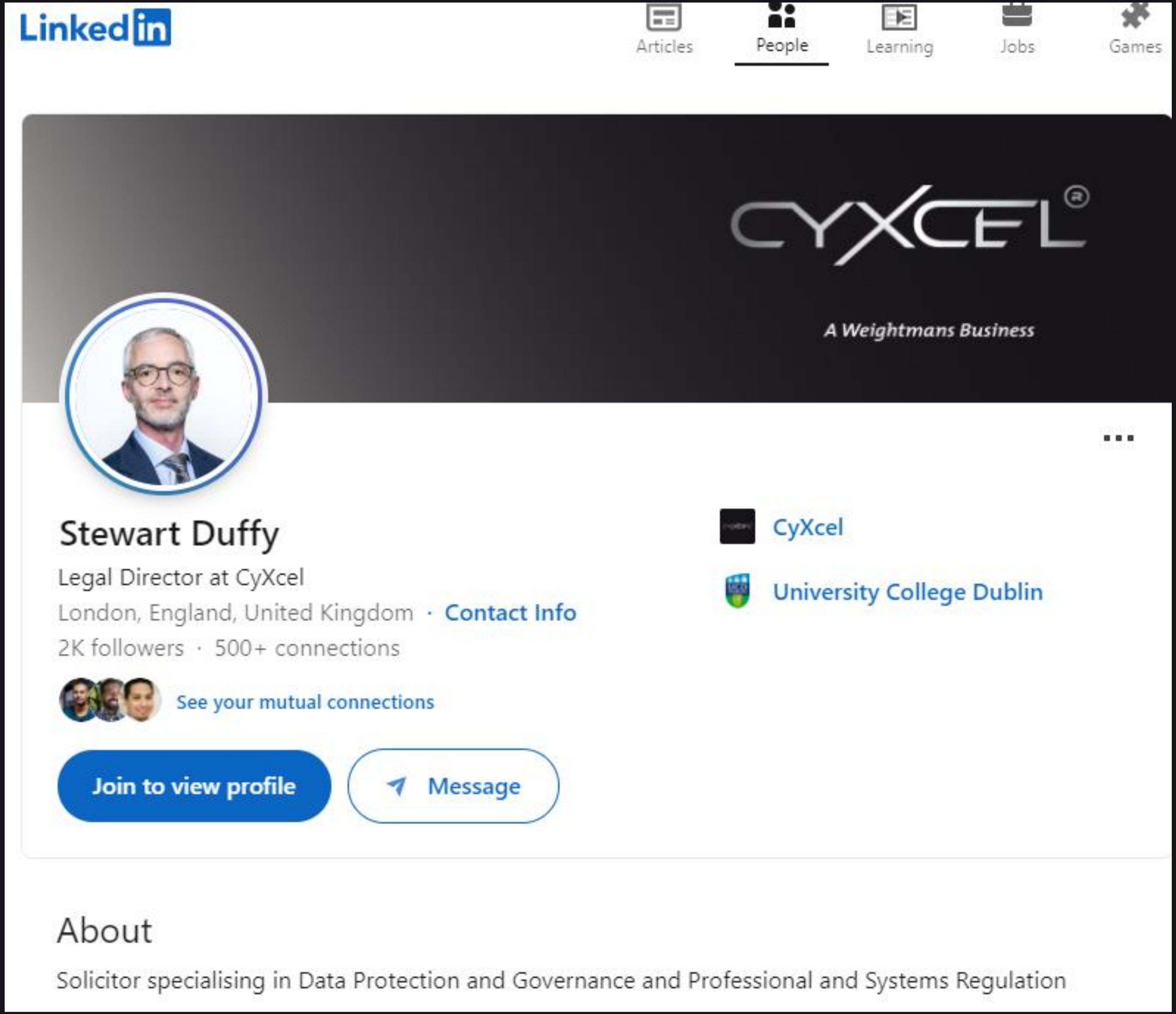
You know, the blanks that exist because I am adopted and it was a closed adoption so I have no information on the DNA providers' medical histories.

AI just falsified my medical records because if adoptee then do not cross index with non biological family members is apparently too difficult to code.

So, no, I do not think AI is just spiffy when it comes to medical records.

# Regulation of AI and Digital Technology

- Is the use of AI in Healthcare Regulated?
- Is a technology neutral approach to regulating products and risk the right approach?
- Is AI a special case which should be treated preferentially to other technologies?



Stewart Duffy

Legal Director at CyXcel

London, England, United Kingdom · Contact Info

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## About

Solicitor specialising in Data Protection and Governance and Professional and Systems Regulation

# Cybersecurity. Law. Technology. Geopolitics.

CyXcel is a next-gen professional advisory business — created to manage crises, solve challenges, and seize opportunities for everyone in the digital world.

# Everything, Everywhere, All at Once

Paul Rice, Chief Digital Information Officer, Bradford Teaching Hospitals NHS FT and Airedale NHS FT

NHS
Airedale
NHS Foundation Trust

NHS
Bradford Teaching Hospitals
NHS Foundation Trust

# Everything everywhere all at once...

Paul Rice, PhD, MSc, BA, MPLA, PGDip, FBCS

CDIO

Bradford Teaching Hospitals NHS Foundation Trust

Airedale NHS Foundation Trust

# What is digital transformation?

**Applying the culture, processes, business models and technologies of the Internet era to respond to Peoples raised expectations**

**Tom Loosemore, Public Digital**

**Digital transformation is the integration of digital technology into all areas of a business, fundamentally changing how you operate and deliver value to customers. It's also a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure.**

***The Enterprisers Project***

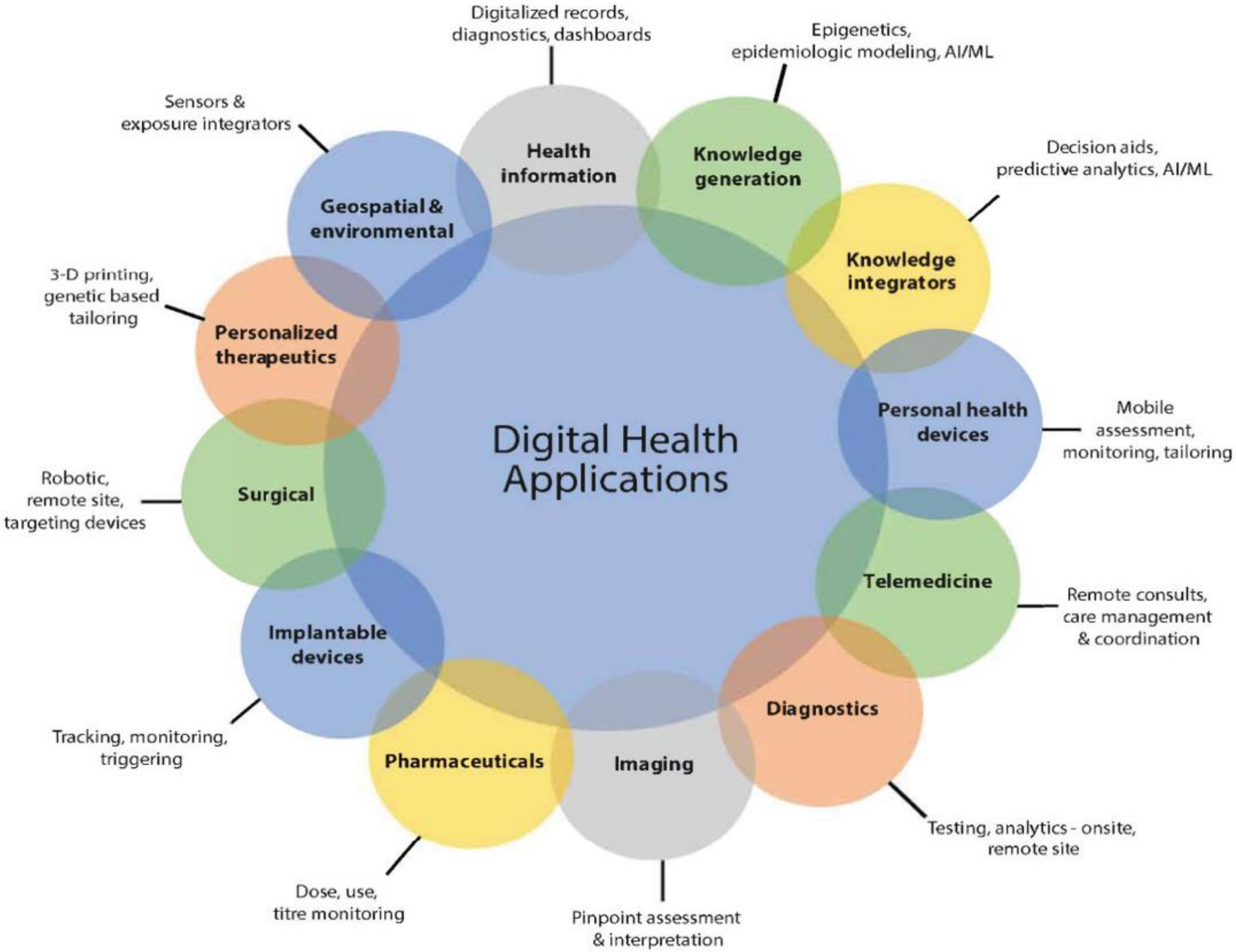
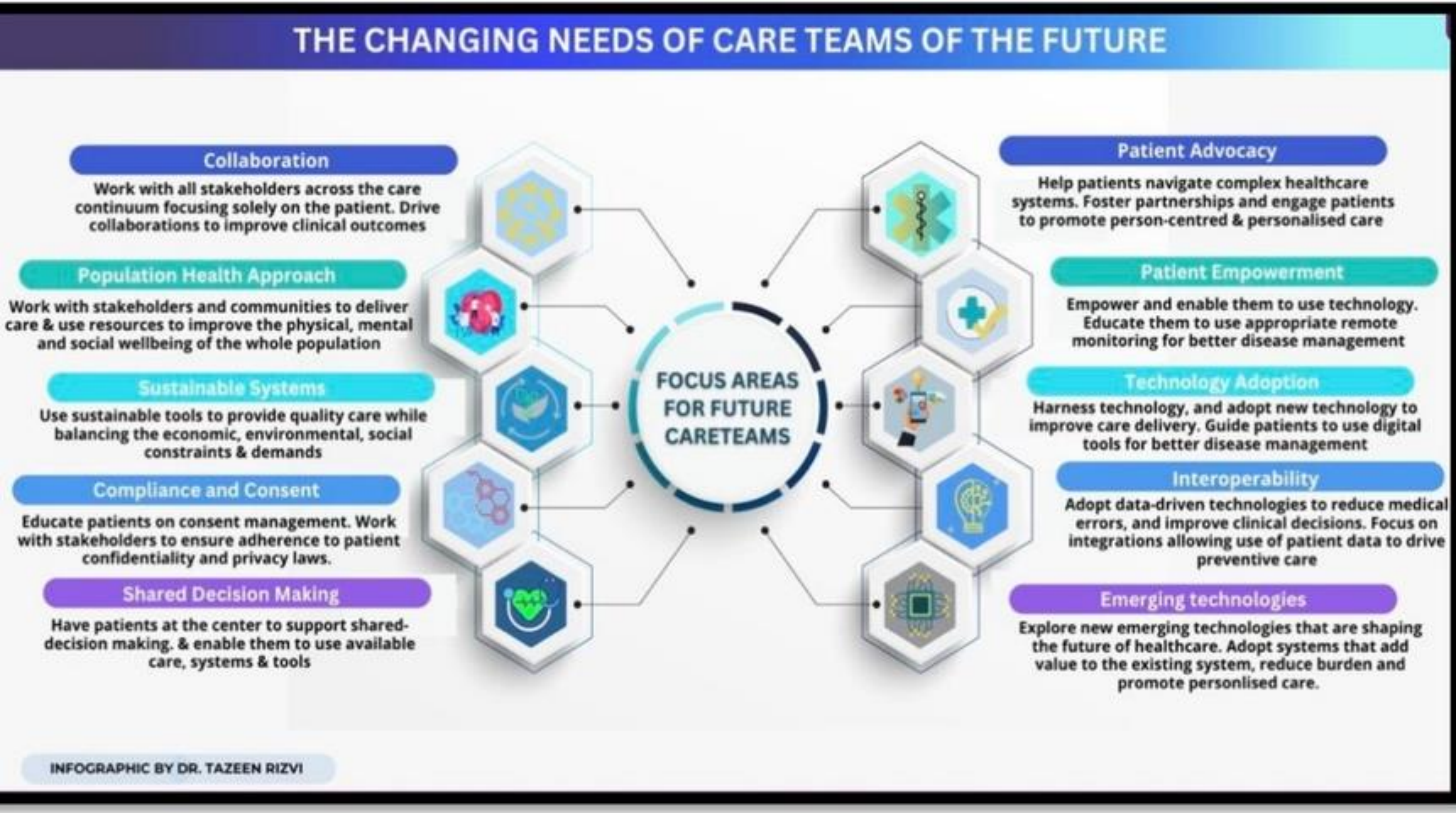

Digital Health Applications
Digitalized records, diagnostics, dashboards
Health information
Epigenetics, epidemiologic modeling, AI/ML
Knowledge generation
Decision aids, predictive analytics, AI/ML
Knowledge integrators
Mobile assessment, monitoring, tailoring
Personal health devices
Remote consults, care management & coordination
Telemedicine
Testing, analytics - onsite, remote site
Diagnostics
Pinpoint assessment & interpretation
Imaging
Dose, use, titre monitoring
Pharmaceuticals
Tracking, monitoring, triggering
Implantable devices
Robotic, remote site, targeting devices
Surgical
3-D printing, genetic based tailoring
Personalized therapeutics
Sensors & exposure integrators
Geospatial & environmental

**FIGURE 1 | Evolving Applications of Digital Technology in Health and Health Care**

**SOURCE:** National Academy of Medicine. 2019. *Digital Health Action Collaborative, NAM Leadership Consortium: Collaboration for a Value & Science-Driven Health System.*

# THE CHANGING NEEDS OF CARE TEAMS OF THE FUTURE



FOCUS AREAS FOR FUTURE CARETEAMS

### Collaboration

Work with all stakeholders across the care continuum focusing solely on the patient. Drive collaborations to improve clinical outcomes

### Population Health Approach

Work with stakeholders and communities to deliver care & use resources to improve the physical, mental and social wellbeing of the whole population

### Sustainable Systems

Use sustainable tools to provide quality care while balancing the economic, environmental, social constraints & demands

### Compliance and Consent

Educate patients on consent management. Work with stakeholders to ensure adherence to patient confidentiality and privacy laws.

### Shared Decision Making

Have patients at the center to support shared-decision making. & enable them to use available care, systems & tools

### Patient Advocacy

Help patients navigate complex healthcare systems. Foster partnerships and engage patients to promote person-centred & personalised care

### Patient Empowerment

Empower and enable them to use technology. Educate them to use appropriate remote monitoring for better disease management

### Technology Adoption

Harness technology, and adopt new technology to improve care delivery. Guide patients to use digital tools for better disease management

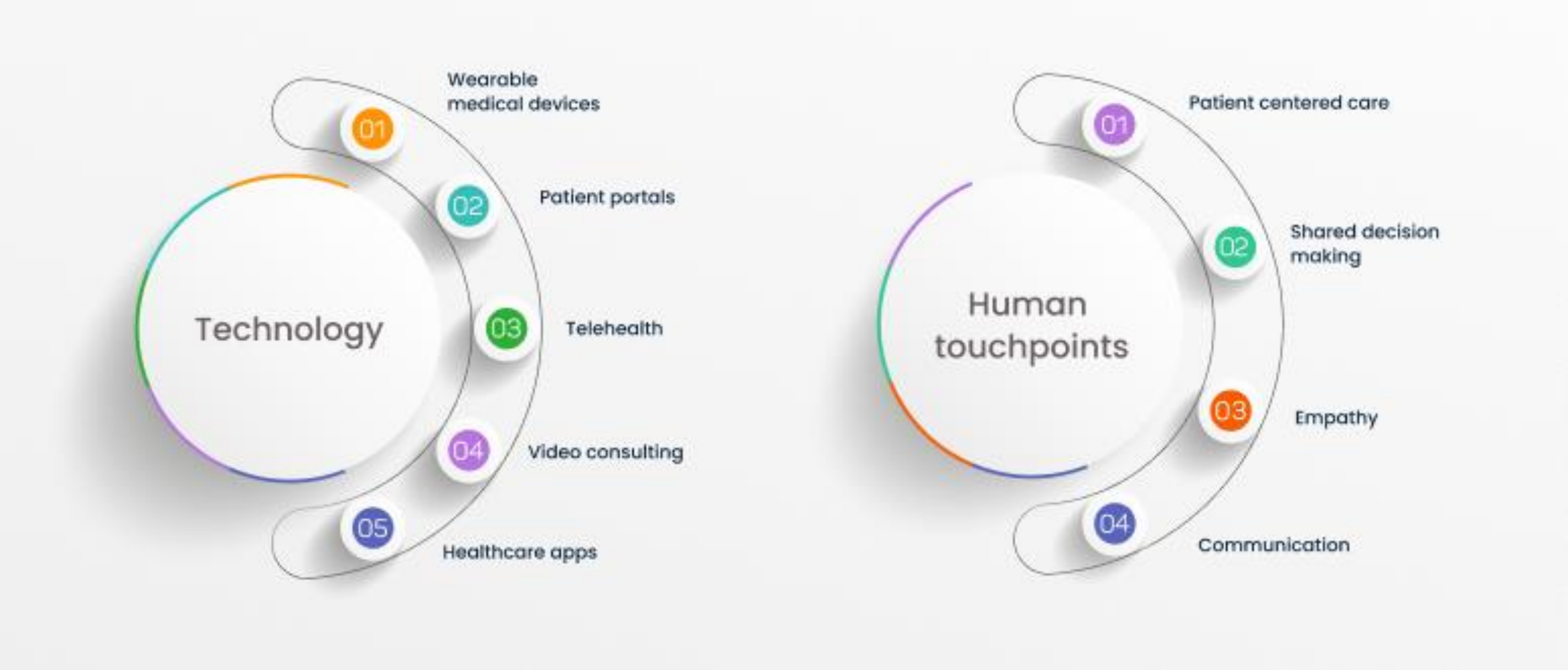
### Interoperability

Adopt data-driven technologies to reduce medical errors, and improve clinical decisions. Focus on integrations allowing use of patient data to drive preventive care

### Emerging technologies

Explore new emerging technologies that are shaping the future of healthcare. Adopt systems that add value to the existing system, reduce burden and promote personlised care.

INFOGRAPHIC BY DR. TAZEEN RIZVI



Technology

01 Wearable medical devices

02 Patient portals

03 Telehealth

04 Video consulting

05 Healthcare apps

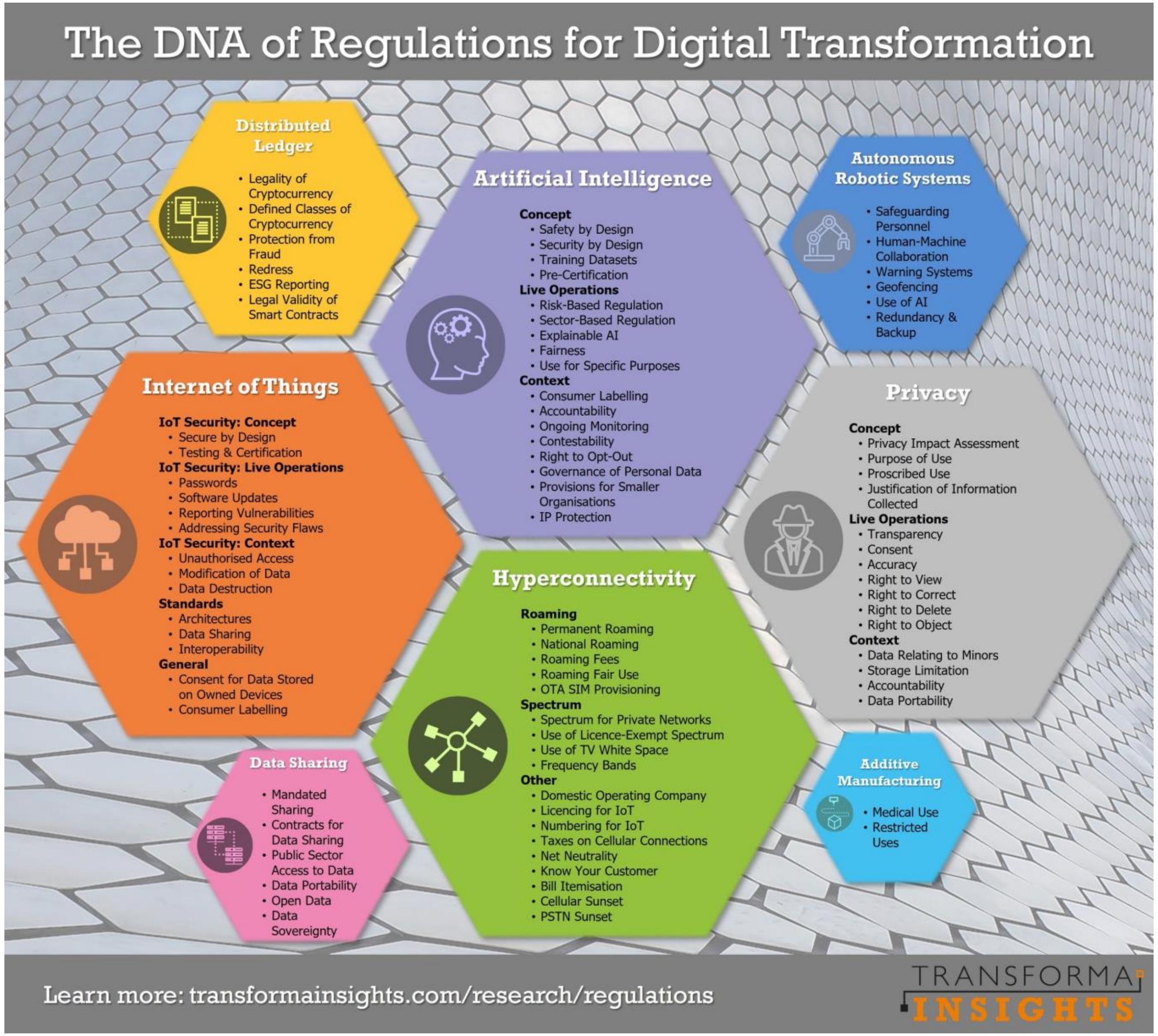
Human touchpoints

01 Patient centered care

02 Shared decision making

03 Empathy

04 Communication



# The DNA of Regulations for Digital Transformation

## Distributed Ledger

- Legality of Cryptocurrency
- Defined Classes of Cryptocurrency
- Protection from Fraud
- Redress
- ESG Reporting
- Legal Validity of Smart Contracts

## Artificial Intelligence

**Concept**
- Safety by Design
- Security by Design
- Training Datasets
- Pre-Certification

**Live Operations**
- Risk-Based Regulation
- Sector-Based Regulation
- Explainable AI
- Fairness
- Use for Specific Purposes

**Context**
- Consumer Labelling
- Accountability
- Ongoing Monitoring
- Contestability
- Right to Opt-Out
- Governance of Personal Data
- Provisions for Smaller Organisations
- IP Protection

## Autonomous Robotic Systems

- Safeguarding Personnel
- Human-Machine Collaboration
- Warning Systems
- Geofencing
- Use of AI
- Redundancy & Backup

## Internet of Things

**IoT Security: Concept**
- Secure by Design
- Testing & Certification

**IoT Security: Live Operations**
- Passwords
- Software Updates
- Reporting Vulnerabilities
- Addressing Security Flaws

**IoT Security: Context**
- Unauthorised Access
- Modification of Data
- Data Destruction

**Standards**
- Architectures
- Data Sharing
- Interoperability

**General**
- Consent for Data Stored on Owned Devices
- Consumer Labelling

## Privacy

**Concept**
- Privacy Impact Assessment
- Purpose of Use
- Proscribed Use
- Justification of Information Collected

**Live Operations**
- Transparency
- Consent
- Accuracy
- Right to View
- Right to Correct
- Right to Delete
- Right to Object

**Context**
- Data Relating to Minors
- Storage Limitation
- Accountability
- Data Portability

## Hyperconnectivity

**Roaming**
- Permanent Roaming
- National Roaming
- Roaming Fees
- Roaming Fair Use
- OTA SIM Provisioning

**Spectrum**
- Spectrum for Private Networks
- Use of Licence-Exempt Spectrum
- Use of TV White Space
- Frequency Bands

**Other**
- Domestic Operating Company
- Licencing for IoT
- Numbering for IoT
- Taxes on Cellular Connections
- Net Neutrality
- Know Your Customer
- Bill Itemisation
- Cellular Sunset
- PSTN Sunset

## Data Sharing

- Mandated Sharing
- Contracts for Data Sharing
- Public Sector Access to Data
- Data Portability
- Open Data
- Data Sovereignty

## Additive Manufacturing

- Medical Use
- Restricted Uses

Learn more: transformainsights.com/research/regulations

TRANSFORMA INSIGHTS

NHS
Bradford Teaching Hospitals
NHS Foundation Trust

# Digital and Data Transformation Strategy

# 2025-2030

Becoming a clinically driven, digitally outstanding Trust

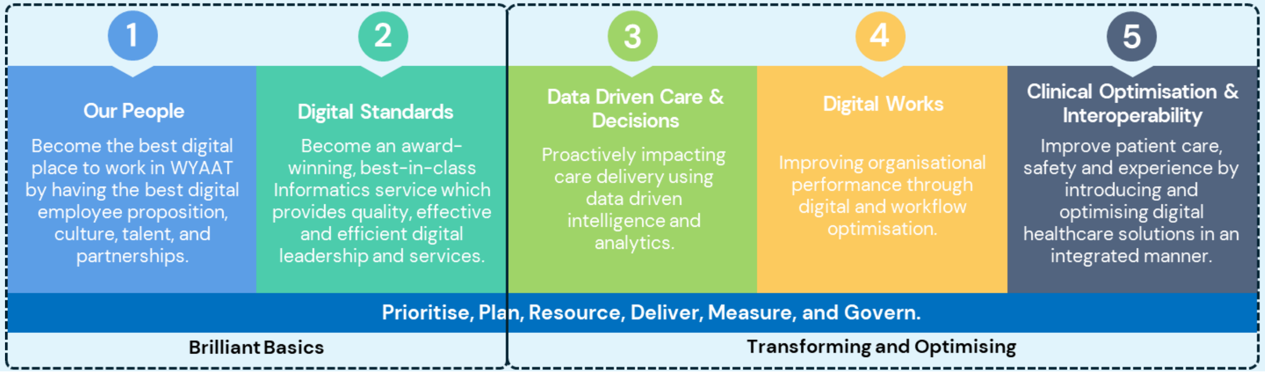
# Delivery – *How we will be a clinically driven, digitally outstanding Trust*

## Bridging Priorities to Outcomes

5 Strategic areas of activity shall be achieved concurrently:

(1) Brilliant Basics and

(2) Transforming and Optimising.



1 **Our People**
Become the best digital place to work in WYAAT by having the best digital employee proposition, culture, talent, and partnerships.

2 **Digital Standards**
Become an award-winning, best-in-class Informatics service which provides quality, effective and efficient digital leadership and services.

3 **Data Driven Care & Decisions**
Proactively impacting care delivery using data driven intelligence and analytics.

4 **Digital Works**
Improving organisational performance through digital and workflow optimisation.

5 **Clinical Optimisation & Interoperability**
Improve patient care, safety and experience by introducing and optimising digital healthcare solutions in an integrated manner.

**Prioritise, Plan, Resource, Deliver, Measure, and Govern.**

**Brilliant Basics** | **Transforming and Optimising**

- Empowering and Enabling Patients to contribute to their care plans
- Improved convenience, flexibility and efficiency
- Better demand management, capacity and flow
- Improved staff wellbeing and morale
- Care in the right place at the right time
- Ensuring best use of limited resources
- Staff productivity and efficiency gains
- Safe and effective care
- Improved accessibility and inclusion
- Reductions in avoidable harm
- Improved patient experience
- Reductions in avoidable attendance and admissions
- Improved health outcomes
- Reduced length of stay
- Minimise carbon footprint
- Reduced impact on physical estate
- Improved Elective Recovery Times
- Reduction of paper and manual processes
- Increased use of AI and Automation
- Convergence of Clinical Systems
- Reduced Operating Costs
- Risk Reduction
- Improved Capability Scores
- People Development and Attraction

# Strategic Objective 5 – *Clinical Optimisation – Bringing it together*

5

**Clinical Optimisation & Interoperability**

Improve patient care, safety and experience by introducing and optimising digital healthcare solutions in an integrated manner

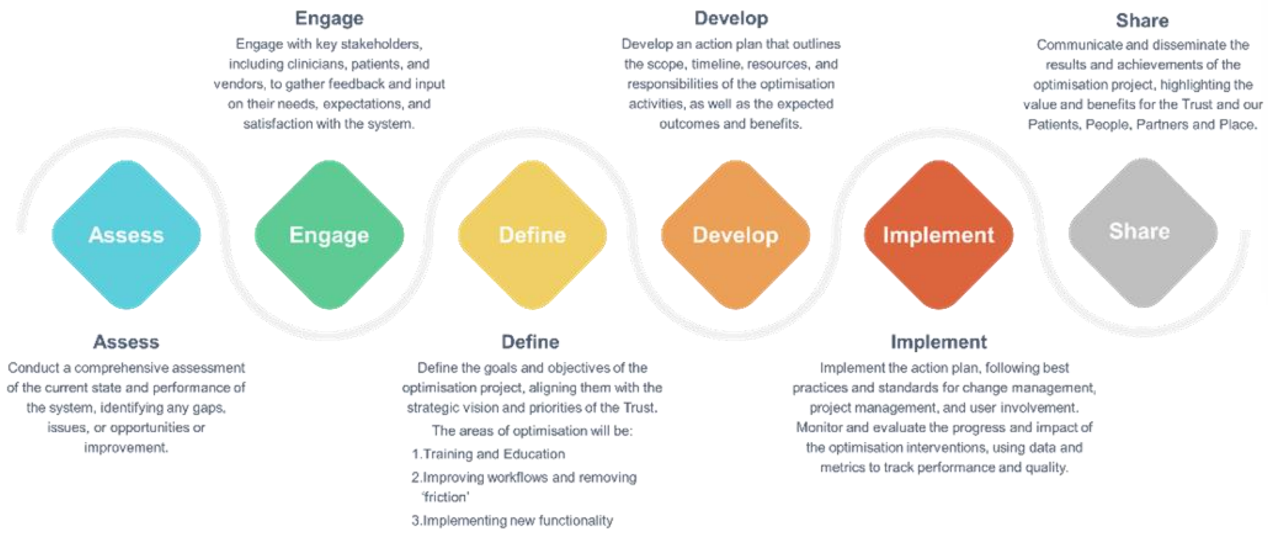
**Transforming and Optimising**

## A fresh approach to clinical optimisation and change

Clinical Optimisation means making the most of what a Clinical System can do to support clinical outcomes. Optimisation can take many forms; it can be by way of an 'Everyday Approach' in the form of small fixes that make it easier to use (for example, a new field or form). Conversely, optimisation can mean undertaking significant change to implement, change or replace a new digital system or workflow.

Whatever the scale of optimisation and change, we will apply a refreshed end-to-end methodology which will ensure well-designed, coproduced and clinically driven change – and one which incorporates all our strategic objectives, with the patient at its heart. This will be enhanced with a comprehensive engagement plan towards the priority and sequencing of optimisation.

Our approach to delivering a variety of optimisation programmes, with EPR as a priority will be as follows:



**Engage**

Engage with key stakeholders, including clinicians, patients, and vendors, to gather feedback and input on their needs, expectations, and satisfaction with the system.

**Develop**

Develop an action plan that outlines the scope, timeline, resources, and responsibilities of the optimisation activities, as well as the expected outcomes and benefits.

**Share**

Communicate and disseminate the results and achievements of the optimisation project, highlighting the value and benefits for the Trust and our Patients, People, Partners and Place.

**Assess**

Conduct a comprehensive assessment of the current state and performance of the system, identifying any gaps, issues, or opportunities or improvement.

**Define**

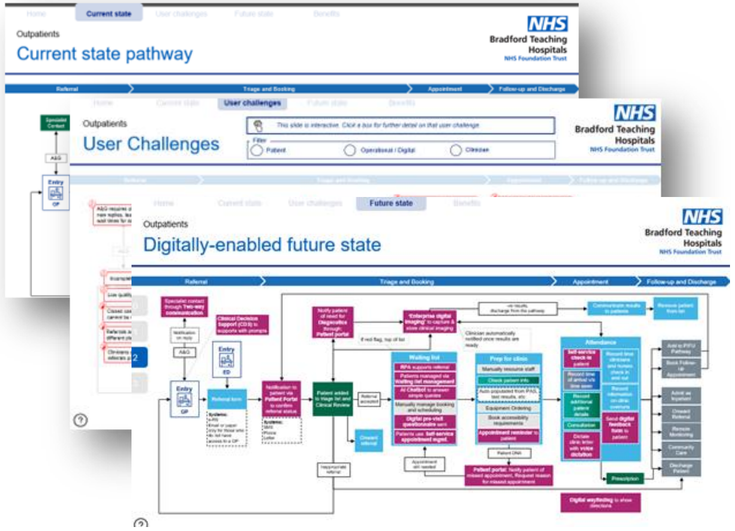
Define the goals and objectives of the optimisation project, aligning them with the strategic vision and priorities of the Trust.

The areas of optimisation will be:

1. Training and Education
2. Improving workflows and removing 'friction'
3. Implementing new functionality

**Implement**

Implement the action plan, following best practices and standards for change management, project management, and user involvement. Monitor and evaluate the progress and impact of the optimisation interventions, using data and metrics to track performance and quality.



# Thanks for Listening

Questions?

Contact: Paul.Rice@bthft.nhs.uk

360 ASSURANCE

AUDIT YORKSHIRE

# NHS Federated Data Platform Overview

Jon Cort, Chief Information Officer, Chesterfield Royal Hospital NHS FT

Unfortunately, Jon’s slides are not currently available.

# AI: From Everyday Convenience to Healthcare Innovation

Clarence Mpofu, Managing Director, Barts Assurance
(part of Barts Health NHS Trust)

# What is AI?

*‘From Everyday Convenience to Healthcare Innovation—Enhancing Lives with Intelligence, Efficiency, and Precision’.*

**Presenter:**

Clarence Mpofu, BSc, FCCA. MBA
*(Managing Director- Barts Assurance)*

27th March 2025

# What is AI?

Artificial Intelligence (AI) is the simulation of human intelligence in machines designed to think and learn like humans.

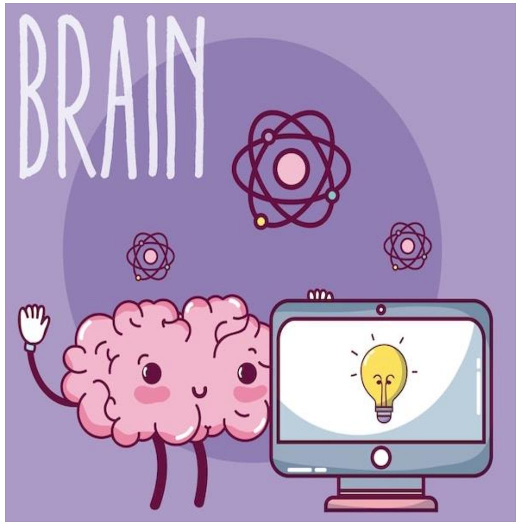
Key Aspects of AI:

- **Learning:** AI systems can learn from data (open and closed data).

  NB: Open data consists of digital records that are available for everyone to see, access and use without any restriction.

  Closed data, on the other hand, consists of digital records restricted to one or more users. For commercial applications, it's far more common than open data.

- **Reasoning:** AI makes decisions based on logic.
- **Problem Solving**: AI solves complex problems.



**Artificial intelligence can:**

speed up operations improve operational quality
improve decision-making and save money

# Types of AI

- **Narrow AI (Weak AI)**:

  Designed for a specific task (e.g., voice assistants like Siri, image recognition).

- **General AI (Strong AI)**:

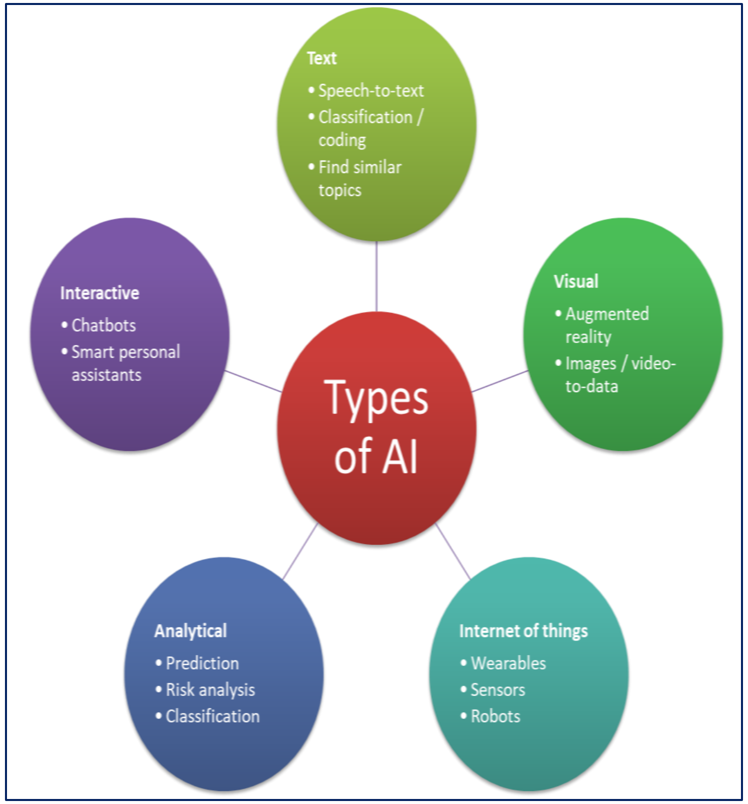
  A hypothetical AI that would perform any intellectual task a human can do (still under development).

- **Super intelligent AI**:

  AI that surpasses human intelligence (theoretical at this point).

# Examples of AI

- **Voice Assistants** (e.g., Siri, Alexa, Google Assistant):
  - Recognise and respond to voice commands.
- **Recommendation Systems** (e.g., Netflix, Amazon):
  - Use past behaviour to predict what you might like to watch or purchase.
- **Autonomous Vehicles**:
  - Cars that use AI to drive themselves by analysing surroundings.
- **Facial Recognition**:
  - Used in security systems to recognise individuals based on their facial features.
- **Chatbots**:
  - AI systems used for customer service, answering common queries.



Types of AI

Text
- Speech-to-text
- Classification / coding
- Find similar topics

Visual
- Augmented reality
- Images / video-to-data

Internet of things
- Wearables
- Sensors
- Robots

Analytical
- Prediction
- Risk analysis
- Classification

Interactive
- Chatbots
- Smart personal assistants

# How AI is Used in Daily Life?

- **Smartphones**:
  AI powers features like predictive text, facial recognition, and navigation.

- **Online Shopping**:
  AI recommends products based on browsing history.

- **Streaming Services**:
  AI suggests movies or shows based on past preferences.

- **Social Media**:
  AI curates your feed, analyses trends, and offers personalised content.

**Interesting fact:**

*New AI cameras have been trialled that could help detect drivers under the influence of drugs or drink. Developed by Acusensus, the cameras identify unusual driving patterns and then send alerts to police officers who can carry out further investigations. The trial took place in Devon and Cornwall in December 2024*

# Humans vs AI

The things that make us uniquely human is our ***capacity for creativity, empathy and emotional intelligence***. This sets human intellect apart from AI.

Unlike AI, which follows set rules and algorithms, ***humans possess the innate ability to think critically, adapt to new situations and express complex emotions***

AI systems are already much better than people at logically and arithmetically correct gathering (selecting) and processing (weighing, prioritising, analysing, combining) large amounts of data. ***They do this quickly, accurately and reliably.***

# How AI is Used in the NHS?

- **Diagnostics**:

  AI helps analyse medical images (e.g., X-rays, MRIs) for early signs of diseases like cancer.

- **Predictive Analytics**:

  AI is used to predict patient outcomes, such as the likelihood of readmission or the risk of developing certain conditions.

- **Personalised Treatment**:

  AI systems can recommend personalized treatment plans based on a patient's medical history and genetics.

- **Virtual Health Assistants**:

  Chatbots or AI assistants help patients with appointment scheduling, medication reminders, and general health inquiries.

- **Robotic Surgery**:

  AI-driven robots assist surgeons in performing more precise and minimally invasive surgeries.

- **Managing Health Records**:

  AI can streamline electronic health record management, making it easier for healthcare professionals to access critical patient information.

## Benefits of AI in the NHS

- **Improved Accuracy**:
  AI systems can identify patterns that may be missed by ‘human’ doctors.

- **Efficiency**:
  AI can process large amounts of data quickly, saving time in diagnosis and treatment.

- **Cost Reduction**:
  AI can help streamline processes and reduce costs.

- **Better Patient Outcomes**:
  AI can provide more personalised care and faster interventions.

# Practical Examples-Barts Health NHS Trust

## AI used to spot missing appointments

**An artificial intelligence tool trained to read clinical letters has prevented a number of patients from missing out on key appointments.**

A team at St Bartholomew’s Hospital used machine learning to analyse thousands of outpatient letters within the congenital heart disease service and to understand if the correct action had been taken by either the patient or the clinical team.

This could range from booking a follow-up appointment, a referral to another specialist or a request for a scan.

The machine was taught to identify key phrases within patient letters and check them against electronic health records.

Over six months the system read 1,500 letters and identified 16 so-called ‘high risk’ cases where action was needed to prevent delays in care or even serious harm.
The technology was also deployed within uro-oncology.

It is the first time AI has been used in this way at Barts Health.

# Practical Examples-Barts Health NHS Trust

## Using AI to ease A&E pressures

**A new initiative using artificial intelligence (AI) and personalised clinical coaching is set to improve care for thousands of patients with long-term conditions across North East London.**

Launched in December 2025, by NHS North East London in partnership with Health Navigator, UCLPartners, and Barts Health NHS Trust, this three-year programme will proactively identify patients at risk of unplanned hospital visits and provide them with targeted support.

The programme uses advanced AI technology to screen patients and pinpoint those who could benefit from early intervention. Trained clinical coaches will then provide personalised advice and self-management techniques over the phone to help patients avoid unnecessary hospital visits.

Forecasting models suggest it will significantly alleviate pressure on the NHS, with an anticipated annual reduction of:
13,000 A&E attendances.
26,673 unplanned bed days over three years.

The programme's success builds on a pilot in Staffordshire, which demonstrated reductions in emergency hospital visits, GP referrals to secondary care, and overall bed days.

# Practical Examples-Barts Health NHS Trust

**An artificial intelligence tool that can detect heart disease in record time is helping to see more patients on the waiting lists.**

The first-of-its-kind programme analyses MRI scans of the heart in just 20 seconds whilst the patient is in the scanner.

This compares to around 13 minutes when done manually by a human. The technology can also detect changes to the heart's structure with 40 per cent greater accuracy and extracts more information than a person is able to.

Each year around 120,000 cardiac MRI scans are performed in the UK. Around 7,500 of these take place at our Barts Heart Centre, located at St Bartholomew's Hospital.

It is estimated that using artificial intelligence will save around 3,000 clinician days every year nationwide, helping us to see more patients on our waiting lists, which have increased as a result of the pandemic.

At the start of the programme the technology was being used on over 140 patients a week across St Bartholomew's, UCL and Royal Free hospitals.

Barts Heart Centre cardiologist Dr Rhodri Davies said: *"The beauty of the technology is that it replaces the need for a doctor to spend countless hours analysing the scans by hand. "We are continually pushing the technology to ensure it's the best it can be, so that it can work for any patient with any heart disease."*

*Dr Sonya Babu-Narayan from the British Heart Foundation, which funded research into the technology, said: "Innovations like this help fast-track diagnoses and ease workload so that in future we can give more patients the best possible care much sooner."*

# Challenges and Ethical Considerations of AI

- **Data Privacy**: Ensuring patient data is securely handled.
- **Bias**: AI systems must be trained on diverse, unbiased datasets to avoid discriminatory outcomes.
- **Job Displacement**: Automation *might* impact certain job roles, though it may also create new opportunities.
- **Regulation**: Proper frameworks and standards must be developed /are being developed to ensure safe AI use.

No UK AI regulation. However the UK government has announced plans to introduce legislation in 2025 to address AI risks, making voluntary agreements with AI developers legally binding.

**Other laws affecting AI**

There are several domestic laws that will affect the development or use of AI, including but not limited to:

- Data protection laws
- Intellectual property laws
- Human rights laws (particularly, anti-discrimination laws such as the Equality Act 2010 and the Human Rights Act 1998)
- Consumer and competition laws
- The proposed Digital Information and Smart Data Bill

# Future of AI in the NHS

- **AI-driven Drug Discovery**:

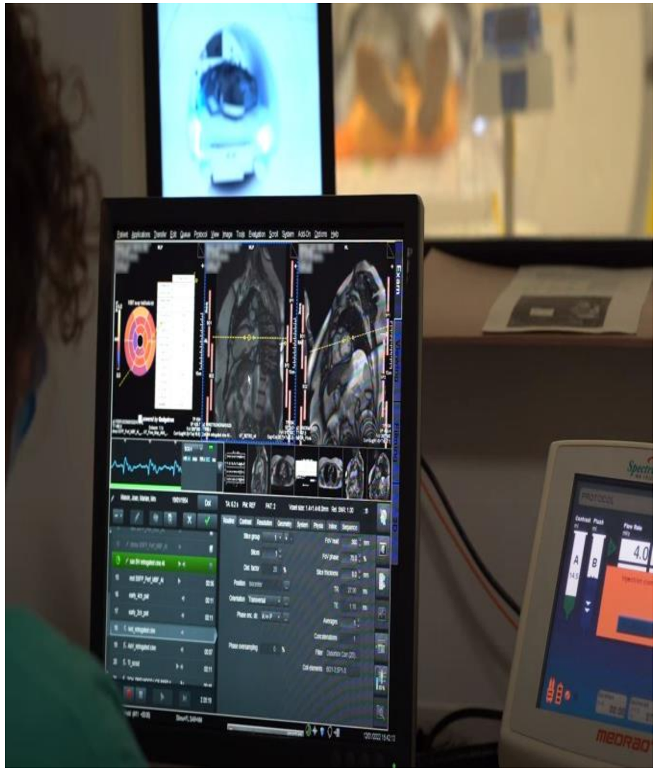
  AI can help identify new treatments faster by analysing medical research data.

- **AI-powered Virtual Care**:

  AI could enhance telemedicine by providing more personalised remote consultations.

- **Continuous Monitoring**:

  Wearable devices powered by AI can track patient health in real time and alert healthcare providers to potential issues.



# SUMMARY

- **AI** is revolutionising many industries, including healthcare.
- Its application in daily life and the NHS shows promise in improving efficiency, accuracy, and patient care.
- While there are challenges, the future of AI in healthcare is exciting and holds immense potential for better care and innovation.

# Live Demonstration

**Comparison of a Trust's Procurement Policy with the new Procurement Act using ChatGPT**

**(**https://www.legislation.gov.uk/uksi/2025/163/contents/made)

*NB: On 24 February 2025, the Procurement Act 2023 came into force, driving greater efficiency, transparency, and fairness in public sector procurement. The Act introduces stronger rules on the exclusion of suppliers where they pose particular risks to public procurement*

Asking Questions

# Data Security and Protection Toolkit (DSPT)

John Hodson, Senior Information Assurance, NHSE

# Data Security and Protection Toolkit

## DSPT Update

March 2025

John Hodson

# Changes to the Data Security and Protection Toolkit

## What has happened

Significant change to DSPT in 24-25 with NCSC Cyber Assessment Framework (**CAF**) replaces National Data Guardian 10 data security standards as underlying **DSPT** framework for large NHS Organisations (Trusts, CSUs, ALBs and ICBs) still covering both **cyber** and **information governance.**

New Framework, questions, guidance and language.

Responding at a higher (**outcome**) level than previously.

Scope is '**Essential service**' which for NHS Organisations is everything.

## Why

Key element of **Cyber security strategy for health and social care: 2023 to 2030** supporting organisations are better able to manage their cyber risk.

Aim is:

Good **decision-making** over **compliance.**

**Ownership of information risks at the local organisation level** where those risks can most effectively be managed.

Support a culture of evaluation and improvement and **understanding the effectiveness** of practices.

## What this means

A **health and care overlay** to CAF has been developed and implemented into the DSPT.

Organisations asked to confirm their achievement level of **Not achieved/Partially Achieved/Achieved** against 47 Outcomes. Additional questions covering key data collection and policies (Audit, MFA and RTACA).

A profile sets out the **expected achievement levels** which, if met,  leads to a **Standards Met** DSPT status.

The expected achievement levels for some outcomes is Not achieved for 24-25.

# Data Security and Protection Toolkit

## Lessons from engagement

Engagement programme on pre-launch and on-going

Webinars popular, now run monthly and moved to **YouTube** to make them more accessible.

Organisations worried about the **bar being raised**, and **scope creep**, guides re-written to highlight this clearly.

**Engagement continuing** throughout the year and beyond and summary audit guide published early.

**Expectations** (no statements/evidence required) for Interim assessment recognises the work involved.

## Challenges remaining

Concern about **raising expectations** in future years.

**Profile to be published up to 2030** to support planning.

**Profile to 2030** linked to Cyber Improvement programme resourcing and will not be achieved across every outcome by 2030.

Explaining how being **Not Achieved** for an **outcome is expected in 2024-25** and beyond.

**Recognised** that there may be a **reduction** in the number of organisations achieving Standards met.

## What we need your help with

**Developing reporting to senior management and boards** from within the DSPT.

**Support** to produce a **dashboard/report** which demonstrates the progress being made in a sensitive way.

Looking for **volunteers** to support us in **developing** and **testing** this.

Continuing to **engage and provide feedback** on the DSPT. Would appreciate coming back to a future session to listen and update.

# Interim Assessment

# Interim Assessment

## Interim deadline

All NHS Organisations submitted a snapshot at December 2024.

## Summary

No one reported that that are meeting all expected levels or haven’t started yet

## Most met

B1.a Policy, development

E1.a Privacy and transparency

E2.a Managing data subject rights

## Least met

A3.a Asset management

B3.a Understanding Data

E4.a Managing Records

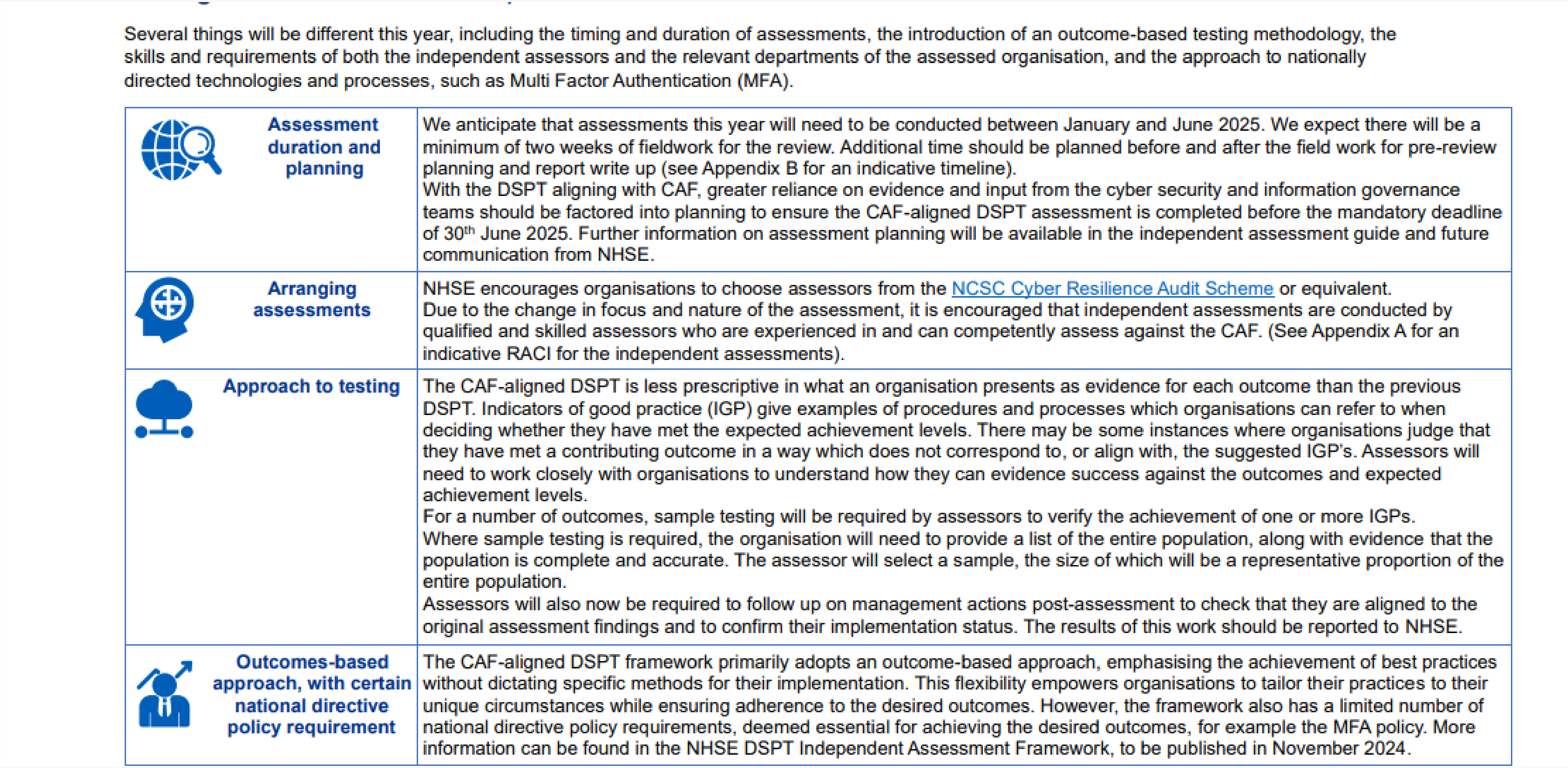
## Typical organisation

Trusts - not meeting 12 outcomes

ICBs - not meeting 8 outcomes

# Audit

# Changes to the Audit process



Several things will be different this year, including the timing and duration of assessments, the introduction of an outcome-based testing methodology, the skills and requirements of both the independent assessors and the relevant departments of the assessed organisation, and the approach to nationally directed technologies and processes, such as Multi Factor Authentication (MFA).

| | |
|---|---|
| **Assessment duration and planning** | We anticipate that assessments this year will need to be conducted between January and June 2025. We expect there will be a minimum of two weeks of fieldwork for the review. Additional time should be planned before and after the field work for pre-review planning and report write up (see Appendix B for an indicative timeline).<br>With the DSPT aligning with CAF, greater reliance on evidence and input from the cyber security and information governance teams should be factored into planning to ensure the CAF-aligned DSPT assessment is completed before the mandatory deadline of 30th June 2025. Further information on assessment planning will be available in the independent assessment guide and future communication from NHSE. |
| **Arranging assessments** | NHSE encourages organisations to choose assessors from the NCSC Cyber Resilience Audit Scheme or equivalent.<br>Due to the change in focus and nature of the assessment, it is encouraged that independent assessments are conducted by qualified and skilled assessors who are experienced in and can competently assess against the CAF. (See Appendix A for an indicative RACI for the independent assessments). |
| **Approach to testing** | The CAF-aligned DSPT is less prescriptive in what an organisation presents as evidence for each outcome than the previous DSPT. Indicators of good practice (IGP) give examples of procedures and processes which organisations can refer to when deciding whether they have met the expected achievement levels. There may be some instances where organisations judge that they have met a contributing outcome in a way which does not correspond to, or align with, the suggested IGP's. Assessors will need to work closely with organisations to understand how they can evidence success against the outcomes and expected achievement levels.<br>For a number of outcomes, sample testing will be required by assessors to verify the achievement of one or more IGPs.<br>Where sample testing is required, the organisation will need to provide a list of the entire population, along with evidence that the population is complete and accurate. The assessor will select a sample, the size of which will be a representative proportion of the entire population.<br>Assessors will also now be required to follow up on management actions post-assessment to check that they are aligned to the original assessment findings and to confirm their implementation status. The results of this work should be reported to NHSE. |
| **Outcomes-based approach, with certain national directive policy requirement** | The CAF-aligned DSPT framework primarily adopts an outcome-based approach, emphasising the achievement of best practices without dictating specific methods for their implementation. This flexibility empowers organisations to tailor their practices to their unique circumstances while ensuring adherence to the desired outcomes. However, the framework also has a limited number of national directive policy requirements, deemed essential for achieving the desired outcomes, for example the MFA policy. More information can be found in the NHSE DSPT Independent Assessment Framework, to be published in November 2024. |

# Audit Mandatory Outcomes 24/25

| Outcome | Expected achievement level |
|---|---|
| A2.a Risk management process | Partially achieved |
| A4.a Supply chain | Partially achieved |
| B2.a - Identity verification, authentication and authorisation | Partially achieved |
| B4.d - Vulnerability management | Partially achieved |
| C1.a Monitoring coverage | Partially achieved |
| D1.a - Response plan | Partially achieved |
| E2.b – Consent | Achieved |
| E3.a Using and sharing information sharing for direct care | Achieved |

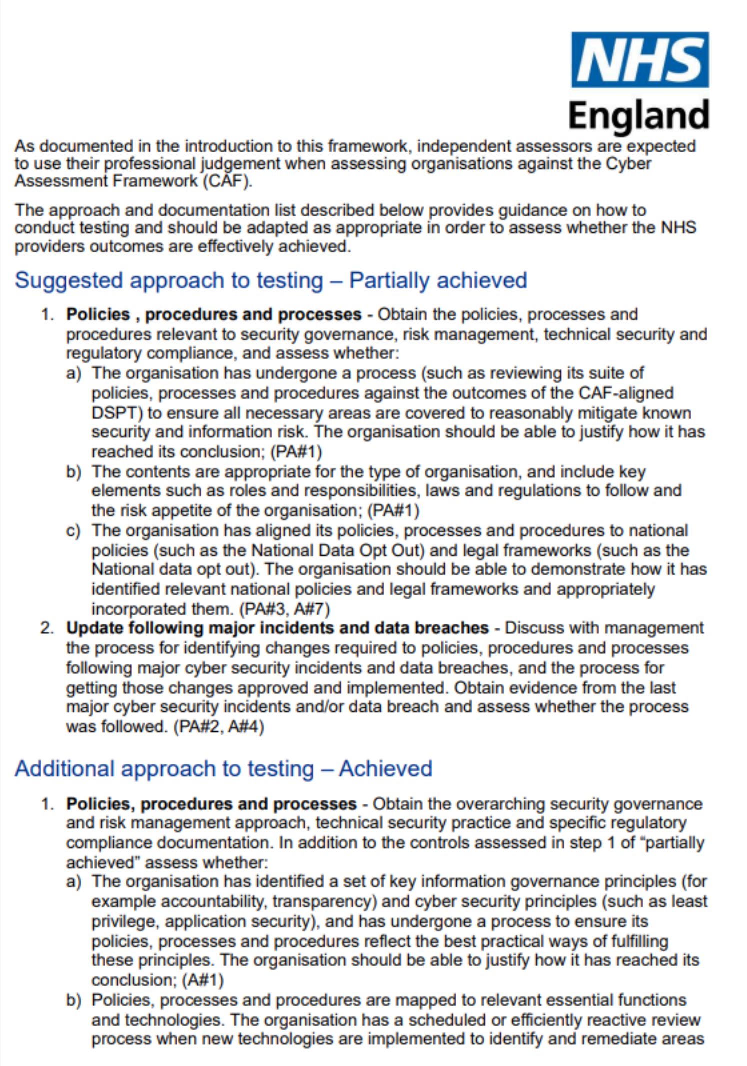
Plus 4 outcomes chosen with the org…

**Detailed guides: web [Audit guides - NHS England Digital](); PDF https://www.dsptoolkit.nhs.uk/Help/Independent-Assessment-Guides**

For each outcome a suggested approach to testing for Partially Achieved and Achieved

Suggested Documentation for Partially Achieved* and Achieved

*Where Partially achieved is available



NHS England

As documented in the introduction to this framework, independent assessors are expected to use their professional judgement when assessing organisations against the Cyber Assessment Framework (CAF).

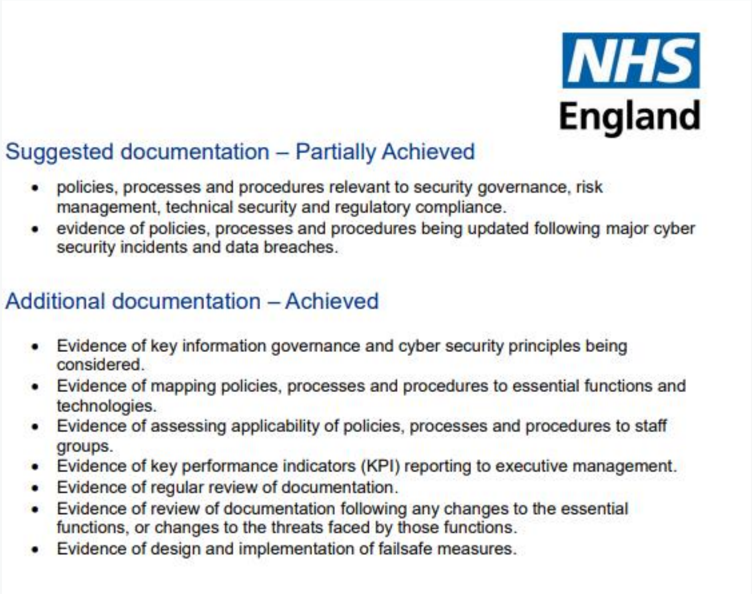
The approach and documentation list described below provides guidance on how to conduct testing and should be adapted as appropriate in order to assess whether the NHS providers outcomes are effectively achieved.

### Suggested approach to testing – Partially achieved

1. **Policies , procedures and processes** - Obtain the policies, processes and procedures relevant to security governance, risk management, technical security and regulatory compliance, and assess whether:
   a) The organisation has undergone a process (such as reviewing its suite of policies, processes and procedures against the outcomes of the CAF-aligned DSPT) to ensure all necessary areas are covered to reasonably mitigate known security and information risk. The organisation should be able to justify how it has reached its conclusion; (PA#1)
   b) The contents are appropriate for the type of organisation, and include key elements such as roles and responsibilities, laws and regulations to follow and the risk appetite of the organisation; (PA#1)
   c) The organisation has aligned its policies, processes and procedures to national policies (such as the National Data Opt Out) and legal frameworks (such as the National data opt out). The organisation should be able to demonstrate how it has identified relevant national policies and legal frameworks and appropriately incorporated them. (PA#3, A#7)
2. **Update following major incidents and data breaches** - Discuss with management the process for identifying changes required to policies, procedures and processes following major cyber security incidents and data breaches, and the process for getting those changes approved and implemented. Obtain evidence from the last major cyber security incidents and/or data breach and assess whether the process was followed. (PA#2, A#4)

### Additional approach to testing – Achieved

1. **Policies, procedures and processes** - Obtain the overarching security governance and risk management approach, technical security practice and specific regulatory compliance documentation. In addition to the controls assessed in step 1 of "partially achieved" assess whether:
   a) The organisation has identified a set of key information governance principles (for example accountability, transparency) and cyber security principles (such as least privilege, application security), and has undergone a process to ensure its policies, processes and procedures reflect the best practical ways of fulfilling these principles. The organisation should be able to justify how it has reached its conclusion; (A#1)
   b) Policies, processes and procedures are mapped to relevant essential functions and technologies. The organisation has a scheduled or efficiently reactive review process when new technologies are implemented to identify and remediate areas



NHS England

### Suggested documentation – Partially Achieved

- policies, processes and procedures relevant to security governance, risk management, technical security and regulatory compliance.
- evidence of policies, processes and procedures being updated following major cyber security incidents and data breaches.

### Additional documentation – Achieved

- Evidence of key information governance and cyber security principles being considered.
- Evidence of mapping policies, processes and procedures to essential functions and technologies.
- Evidence of assessing applicability of policies, processes and procedures to staff groups.
- Evidence of key performance indicators (KPI) reporting to executive management.
- Evidence of regular review of documentation.
- Evidence of review of documentation following any changes to the essential functions, or changes to the threats faced by those functions.
- Evidence of design and implementation of failsafe measures.

# Case study: Scoring – Organisation’s risk scoring

**When scoring the risk rating of the organisation, there is three steps to take:**

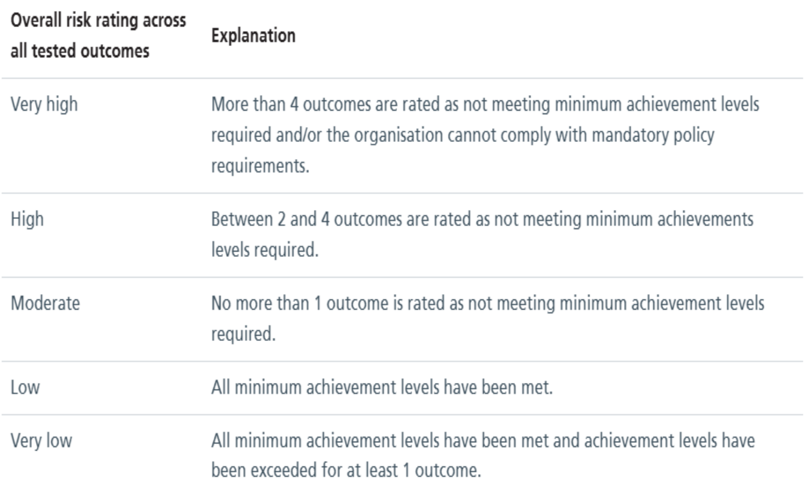
1. **Complete the assessment of every IGP for each outcome in scope. This will give you the outcome level risk rating**
2. **Assess the outcome result against the minimum requirement level for each outcome.**
3. **Compare the number of outcomes that have not met the minimum achievement levels to the table below and assign an overall rating to the organisation.**

1

| Outcome | Description | IGP # | Organisation assessment | KPMG assessment | Comment | Overall assessment |
|---|---|---|---|---|---|---|
| **A2.a** | Your organisation has effective internal processes for managing risks to the security and governance of information, systems and networks related to the operation of your essential function(s) and communicating associated activities. This includes a process for data protection impact assessments (DPIAs). | PA#1 | Not Achieved | Agree but Insufficient | We obtained and inspected documentation, and noted that this IGP is Not Achieved. | **Overstated** |
| | | PA#2 | Achieved | Agree | We obtained and inspected documentation, and noted that this IGP is Achieved. | |
| | | PA#3 | Partially Achieved | Agree | We obtained and inspected documentation, and noted that this IGP is Partially Achieved. | |
| | | PA#4 | Not Achieved | Agree but Insufficient | We obtained and inspected documentation, and noted that this IGP is Not Achieved. | |
| | | PA#5 | Partially Achieved | Understated | We obtained and inspected documentation, and noted that this IGP is Achieved. | |
| | | PA#6 | Partially Achieved | Understated | We obtained and inspected documentation, and noted that this IGP is Achieved. | |
| | | PA#7 | Achieved | Overstated | We obtained and inspected documentation, and noted that this IGP is Partially Achieved. | |

| Objective | Outcome | Minimum achievement level | Outcome result | Minimum achievement level met? | Overall Risk Assessment |
|---|---|---|---|---|---|
| A | A2.a | Partially Achieved | Not Achieved | Achievement not met | High |
| | A4.a | Partially Achieved | Not Achieved | Achievement not met | |
| B | B2.a | Partially Achieved | Achieved | Achievement exceeded | |
| | B4.d | Partially Achieved | Partially Achieved | Achievement met | |
| C | C1.a | Partially Achieved | Partially Achieved | Achievement met | |
| D | D1.a | Partially Achieved | Partially Achieved | Achievement met | |
| E | E2.b | Achieved | Achieved | Achievement met | |
| | E3.a | Achieved | Achieved | Achievement met | |

2



| Overall risk rating across all tested outcomes | Explanation |
|---|---|
| Very high | More than 4 outcomes are rated as not meeting minimum achievement levels required and/or the organisation cannot comply with mandatory policy requirements. |
| High | Between 2 and 4 outcomes are rated as not meeting minimum achievements levels required. |
| Moderate | No more than 1 outcome is rated as not meeting minimum achievement levels required. |
| Low | All minimum achievement levels have been met. |
| Very low | All minimum achievement levels have been met and achievement levels have been exceeded for at least 1 outcome. |

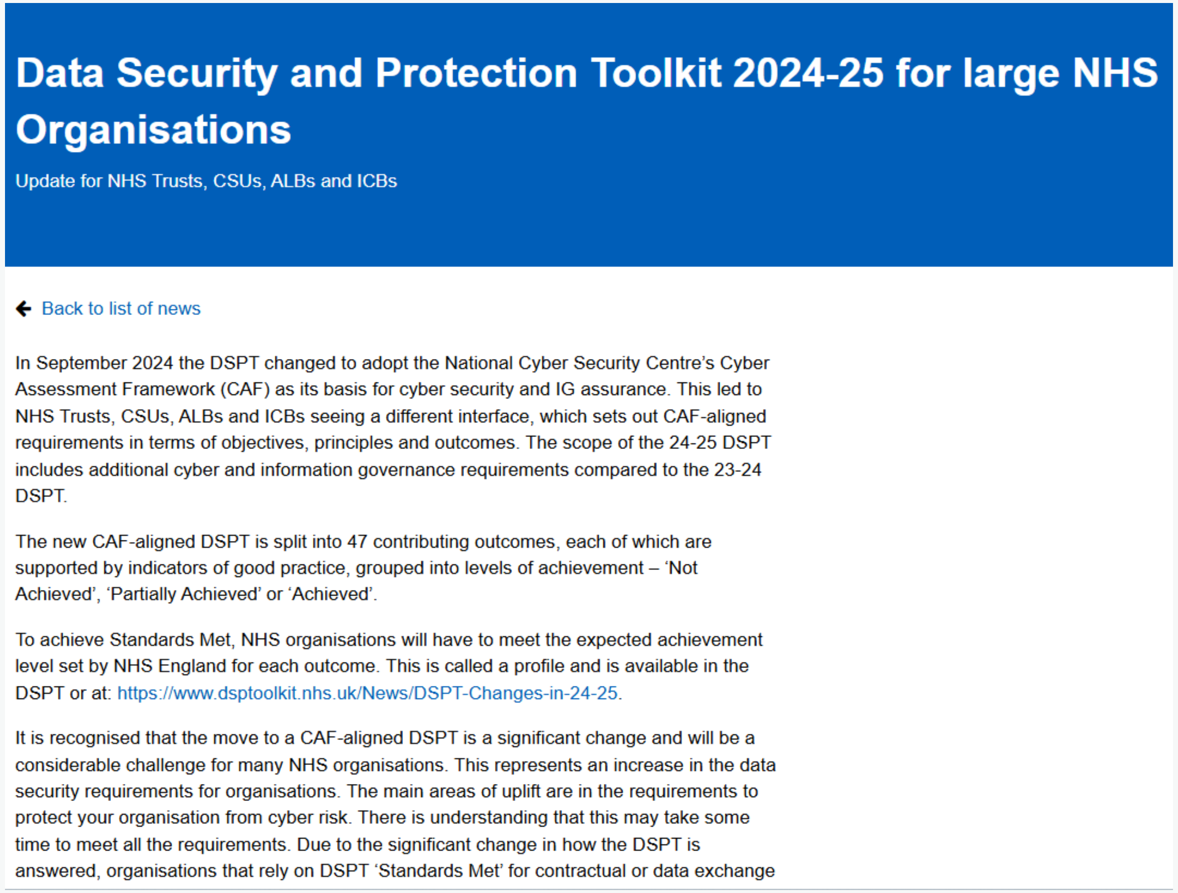
3

# A few things that can help

# Expectations Statements

https://www.dsptoolkit.nhs.uk/News/154

Produced following user feedback to set out what being Approaching Standards means for organisations and a recognition of the volume of change this year.



## Data Security and Protection Toolkit 2024-25 for large NHS Organisations

Update for NHS Trusts, CSUs, ALBs and ICBs

In September 2024 the DSPT changed to adopt the National Cyber Security Centre's Cyber Assessment Framework (CAF) as its basis for cyber security and IG assurance. This led to NHS Trusts, CSUs, ALBs and ICBs seeing a different interface, which sets out CAF-aligned requirements in terms of objectives, principles and outcomes. The scope of the 24-25 DSPT includes additional cyber and information governance requirements compared to the 23-24 DSPT.

The new CAF-aligned DSPT is split into 47 contributing outcomes, each of which are supported by indicators of good practice, grouped into levels of achievement – 'Not Achieved', 'Partially Achieved' or 'Achieved'.

To achieve Standards Met, NHS organisations will have to meet the expected achievement level set by NHS England for each outcome. This is called a profile and is available in the DSPT or at: https://www.dsptoolkit.nhs.uk/News/DSPT-Changes-in-24-25.

It is recognised that the move to a CAF-aligned DSPT is a significant change and will be a considerable challenge for many NHS organisations. This represents an increase in the data security requirements for organisations. The main areas of uplift are in the requirements to protect your organisation from cyber risk. There is understanding that this may take some time to meet all the requirements. Due to the significant change in how the DSPT is answered, organisations that rely on DSPT 'Standards Met' for contractual or data exchange

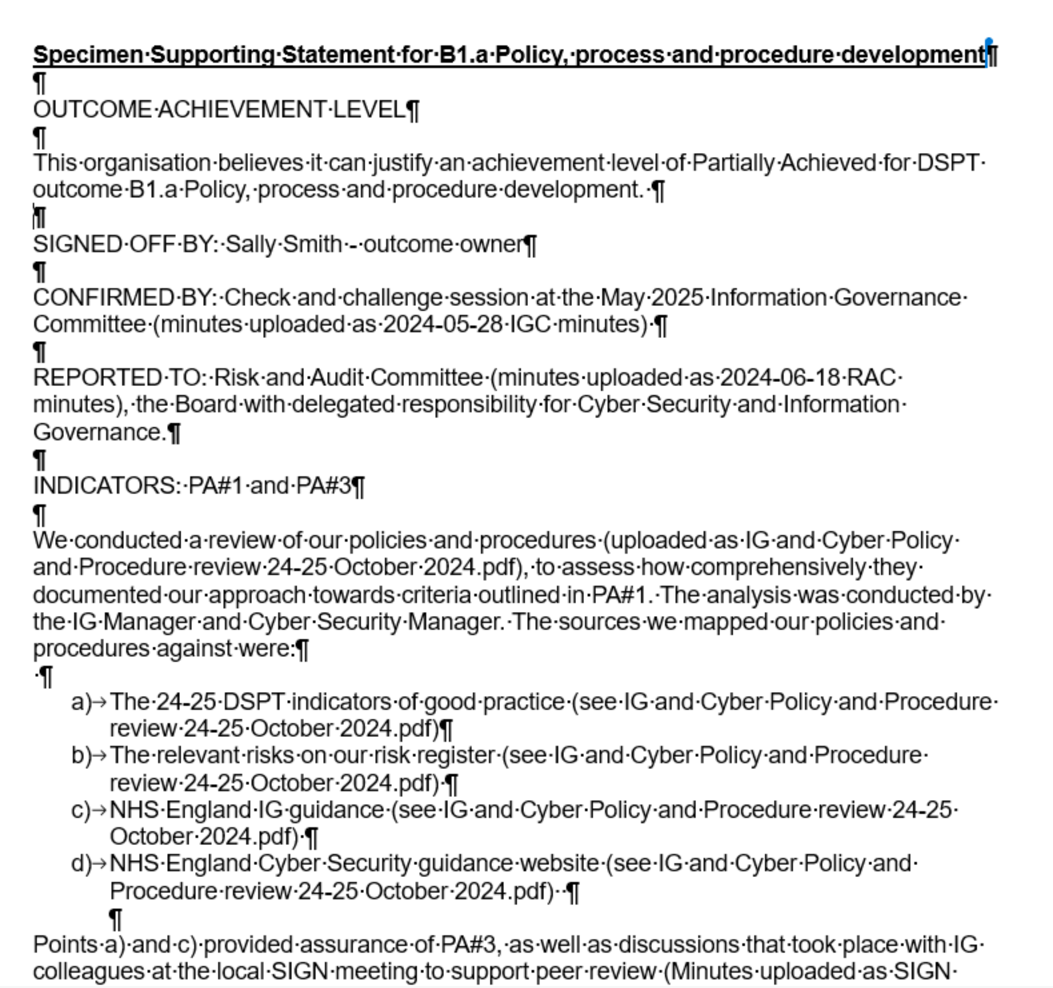
# Specimen Supporting Statements

Produced following user feedback
Two launched this week

The templates are examples only. Organisations are free to use an approach that suits their environment

Available in the Overview section of the help menu

Speak to your auditor about what they need



**Specimen Supporting Statement for B1.a Policy, process and procedure development**

OUTCOME ACHIEVEMENT LEVEL

This organisation believes it can justify an achievement level of Partially Achieved for DSPT outcome B1.a Policy, process and procedure development.

SIGNED OFF BY: Sally Smith - outcome owner

CONFIRMED BY: Check and challenge session at the May 2025 Information Governance Committee (minutes uploaded as 2024-05-28 IGC minutes)

REPORTED TO: Risk and Audit Committee (minutes uploaded as 2024-06-18 RAC minutes), the Board with delegated responsibility for Cyber Security and Information Governance.

INDICATORS: PA#1 and PA#3

We conducted a review of our policies and procedures (uploaded as IG and Cyber Policy and Procedure review 24-25 October 2024.pdf), to assess how comprehensively they documented our approach towards criteria outlined in PA#1. The analysis was conducted by the IG Manager and Cyber Security Manager. The sources we mapped our policies and procedures against were:

a) The 24-25 DSPT indicators of good practice (see IG and Cyber Policy and Procedure review 24-25 October 2024.pdf)
b) The relevant risks on our risk register (see IG and Cyber Policy and Procedure review 24-25 October 2024.pdf)
c) NHS England IG guidance (see IG and Cyber Policy and Procedure review 24-25 October 2024.pdf)
d) NHS England Cyber Security guidance website (see IG and Cyber Policy and Procedure review 24-25 October 2024.pdf)

Points a) and c) provided assurance of PA#3, as well as discussions that took place with IG colleagues at the local SIGN meeting to support peer review (Minutes uploaded as SIGN

# On going help and support

## Exeter Helpdesk

https://www.dsptoolkit.nhs.uk/Home/Contact

ssd.nationalservicedesk@nhs.net

Tel: 0300 303 5035

## Scheduled Webinars

3rd Tuesday of the month

https://www.dsptoolkit.nhs.uk/News/webinars

Includes Immersive Sims

## Cyber Associates Network

Peer Support

Lots of different perspectives

Webinar recordings

## IG Networks

GMIGG

Y&H IGN

Mix of IG and Cyber

## Regional Security Leads

Advice and Support

Improvement plans

# Questions and Feedback

# Thank you for coming

We hope to see you again soon