

Witness Name: Philip Bowen
Statement No.: WITN7640001
Exhibits: WITN7640002-7
Dated: 1st January 2023

INFECTED BLOOD INQUIRY

WRITTEN STATEMENT OF PHILIP BOWEN

I provide this statement in response to a request under Rule 9 of the Inquiry Rules 2006 dated 13th December 2022.

I, Philip Bowen, will say as follows: -

Section 1: Introduction

1. Please set out your name, address, date of birth and any professional qualifications relevant to the duties you discharge on behalf of the Welsh government.

1.1 Philip Bowen, Deputy Director, Digital Policy and Delivery, Technology, Digital and Innovation, Health and Social Services Group, Welsh Government, Cathays Park, Cardiff CF10 3NQ. Date of Birth – GRO-C1968.

2. What have been the historic weaknesses and challenges of medical record-keeping in the NHS? Please consider on- and off-site record keeping for both hard-copy and digital records. In relation to hard copy records, the presentation by Inquiry counsel [INQY0000378] may be of assistance but your views are sought as to whether there are further issues relating to hard copy records that

may be identified and particularly in relation to weaknesses and challenges with digital records.

2.1 Presentation INQY0000378 highlighted a number of challenges associated with hard copy medical record keeping in the NHS. These include changes to policy and guidance over time, local and departmental variance in policy and practice, environmental issues like flood and fire, reorganisation of NHS bodies resulting in lost, destroyed or inaccessible records, questionable quality of some records due to transcribing errors, and the accessibility and durability of different media such as paper and microfilm/microfiche. I have nothing to add to the challenges highlighted.

2.2 The move to the digitalisation of the health and care system and the associated move to digital medical records can help address many of the challenges associated with managing hard copy records but it is not a panacea. There will always be challenges in keeping a comprehensive and accessible medical record. Challenges specific to digital records include the development, application and enforcement of data and information standards, the accessibility of digital records from legacy systems (which may not have been developed with interoperability in mind) and the scale of the health and care system with the associated costs (development and maintenance) of full digitisation of historical records.

3. What are the respective roles and responsibilities of the seven Local Health Boards and three NHS Trusts in Wales in relation to medical records management?

3.1 The Local Health Boards (LHBs) and NHS Wales Trusts (Trusts) are statutory bodies created under the provisions of the National Health Service (Wales) Act 2006 (chapters 1 and 2 respectively). Their specific functions are set out in Establishment Orders and Directions, as provided by the 2006 Act. LHBs and Trusts are responsible for all aspects of medical records management and compliance with relevant legislation and guidance. As the health and care system becomes increasingly digitised, LHBs and Trusts are reliant on the national digital infrastructure in Wales to store and, where appropriate, share records. Digital Health and Care Wales (DHCW) is a Special Health Authority with specific responsibilities around the development and maintenance of the national digital infrastructure in Wales. Responsibility for creating digital records remains with LHBs and Trusts and individuals providing health and care

services who have their own professional standards.

4. Who has responsibility for deciding whether, when and how to (a) move to digital records and (b) digitise historic medical records?

4.1 Welsh Government is committed to the digitalisation of the health and care system. Using technology, data and digital solutions to improve outcomes for citizens of Wales, deliver better quality and provide better value services is a key element of 'A Healthier Wales' (p.13, p.24-26), (exhibit WITN7640002) Welsh Government's plan for Health and Social Care. It is further enshrined in the underpinning draft *A Digital Strategy for Health and Social Care in Wales* which is due for publication in early 2023.

4.2 Through policy and investment decisions, Welsh Government can influence LHBs, Trusts and other organisations working within or contracted to the NHS in Wales to adopt digital health and care solutions that further the aim to create a digital health and care record. I have set out later in this statement some of the work Welsh Government is supporting to promote the digitalisation of the health and care system and the digitisation of medical records. Ultimately, as statutory organisations, LHBs and Trusts can decide whether to adopt digital solutions but, in my experience, there is a strong ethos of collaboration in Wales and a general acceptance of a 'Once for Wales' approach, which delivers better outcomes for patients and users and delivers value for money.

4.3 I acknowledge that digital solutions are typically forward looking and do not address the digitisation of historical, hard copy medical records. Ultimately, the decision to digitise historical medical records rests with the organisation with legal responsibility for those records. Clearly the paper record remains an important element of individual medical records, with the associated challenges (as described in presentation INQY0000378). Digitising historic records presents a resource and funding challenge, which must be balanced against other responsibilities of the respective organisations.

5. The Inquiry has been informed by several Trusts that the *Records Management Code of Practice for Health and Social Care 2021*

[RLIT0001284] is the main guidance document in records management for

NHS England (“DHSC Records Management Code 2021). What is the equivalent Code that applies within Wales?

5.1 The *Records Management Code of Practice for Health and Social Care 2022* published by Welsh Government (exhibit WITN7640003).

6. The DHSC Records Management Code 2021 makes the following recommendation: “*Wherever possible organisations should be moving away from paper towards digital records.*” (p.4)

- a) Does this or an equivalent recommendation apply in Wales?**
- b) Please comment on the extent to which the Seven Local Health Boards and three NHS Trusts in Wales are moving away from paper towards digital records, providing specific data where possible.**
- c) Please set out the measures taken by the Welsh Government to support and enable the seven Local Health Boards and three NHS Trusts to move towards digital records.**
- d) Is there an obligation or requirement for all seven Local Health Boards and three NHS Trusts to digitise medical records within a particular time period?**
- e) What are the barriers that continue to exist preventing all seven Local Health Boards and three NHS Trusts having achieved a move to contemporaneous digital records?**
- f) What are the barriers that continue to exist preventing the digitisation of historic records in all seven Local Health Boards and three NHS Trusts?**

This question included a number of sub-questions.

6.1 a) Yes. See paragraph two of page one of the above referenced Code i.e. “*Wherever possible organisations should be moving away from paper towards digital records.*”

6.2 b&c) I have provided a combined answer to questions 6b and 6c. The Inquiry will appreciate the difficulty associated with providing data to support the narrative within the timescale it required. I would be happy to consider further requests for supporting data based on this initial statement.

6.3 Digital architecture and infrastructure need to be robust enough to support the aim of moving to a digitalised health and care system, which uses digital health and care records to provide the right information to the right people (including citizens)

at the right time to allow effective decisions about care and treatment. Moves to a digital health and care record, enabled by Digital Transformation initiatives, also present the opportunity to structure and code data in a way that (subject to appropriate safeguards) allows it be used for purposes other than direct care, such as analysis for service improvement and research etc. To provide some structure to my response I have provided information under the subheadings of Strategy and Policy, Digital Architecture and Infrastructure and Welsh Government's Investment in Digital Transformation.

Strategy and Policy

6.4 As referenced in 4 above, Welsh Government is refreshing *A Digital Strategy for Health and Social Care in Wales*. This sets out an all-Wales focus on user-centred care through the adoption of technology, service interoperability, modern workforce development and digital innovation built upon high-quality data. This will further the aim of digitalising the health and care system and moving towards digital health and care records.

6.5 Welsh Government has recently appointed Wales' first Chief Digital Officer (CDO) for Health and Social Care who will lead digital transformation in these two sectors. The CDO will be accountable for using digital, technology and innovation to drive service transformation and create better digital services for patients and clinicians. The CDO took up their role on Tuesday 3rd January 2023.

6.6 A digitally capable workforce is key to releasing the ambitions of a digital health and care system and a digital health and care record. In 2020, Health Education and Improvement Wales (HEIW - a Special Health Authority) and Social Care Wales (SCW – the social care regulator in Wales with responsibility for workforce development, service improvement and social care research) published their workforce strategy for health and social care (exhibit WITN760004). Theme four of that strategy is to build a digitally ready workforce, acknowledging a mismatch between the pace of digital and technological change and the ability to embed them into everyday work in health and social care. The strategy draws on the Topol Review (exhibit WITN7640005) and the highlights the need to “raise the profile of digital literacy, skills and capabilities as an integral part of service and digital transformation” (p25). Education and organisational development are seen as key

to accelerating the pace of change. Welsh Government enables the work of HEIW and SCW through funding arrangements.

6.7 A Digital Workforce Review (carried out by DHCW for Welsh Government over the course of 2022 and into 2023) aims to increase the understanding of the size, distribution, and capability of the digital workforce across the NHS in Wales, providing a foundation for strategic digital workforce planning. The Review considered the development of a Digital Health Professional Framework, workforce data collection and analysis and the development of a high-level workforce description. The Review is outlining the actions required to implement a plan to develop and expand the workforce with the skills and competencies the NHS requires. The Digital Capability Framework developed by HEIW supports this through a focus on 'non-digital' staff.

Digital Architecture and Infrastructure

6.8 In March 2019 Welsh Government commissioned the independent Digital Architecture Review (DAR) of digital infrastructure in NHS Wales that, through the identification of priority areas, was intended to support the ambition for digital transformation across Wales. The DAR considered three aspects: current state assessment, future state assessment and improvement options. Following on from the DAR, Welsh Government commissioned the All-Wales IT Infrastructure Review (AWIIR), which considered IT infrastructure at a health board/trust level.

6.9 Welsh Government asked Digital Directors of NHS Wales LHBs and Trusts to commence a programme of work to address the findings of both the DAR and AWIIR. Cardiff and Vale University Health Board agreed to host the All Wales Infrastructure Programme (AWIP), with funding for a three-year programme provided by Welsh Government. AWIP is the mechanism for adopting a coherent and unified approach to the underlying architectural building blocks across health boards and trusts in order to provide consistency, certainty, and security to NHS projects.

6.10 Over the course of the financial years 2022-23 and 2023-24 AWIP is and will continue to deliver strategy and approach products. Broadly speaking, this will comprise primary scope documents and discovery and strategy documents, which will then be developed into a set of architectural templates / patterns to capture the design

structures of various system components / elements so that they can be reused to standardise development across Wales.

6.11 AWIP in and of itself does not deliver technical platforms. It enables other parts of the NHS in Wales to implement future-ready technical platforms through the production of detailed documentation on how these should be procured, implemented and configured to maximise the benefit from any investment. This ensures the adoption of a common digital standard across NHS Wales by digital teams as they consider individual services (whether these are new or being refreshed). Adoption of common digital standards allows staff to be leveraged in a more efficient way across health board/trust boundaries, common purchasing agreements, and other efficiency measures.

6.12 Of course, digital architecture and infrastructure must be secure and resilient to protect the integrity of digital records and ensure that a digitised health and care system can function. The Inquiry will be aware that cyberattacks present a significant threat across the health and care system. Welsh Ministers are the Competent Authority for health settings in Wales under the Network and Information Systems (NIS) Regulations 2018 and are responsible for overseeing the operation of the NIS Regulations within those settings. To support Welsh Ministers, the NHS Wales Cyber Resilience Unit (CRU), a Welsh Government function, was established from 1 April 2021. The CRU is hosted by DHCW, its objective is to enable Welsh Government to identify and address cyber security risks and vulnerabilities and help it evaluate the baseline cyber security posture across the Welsh health sector. The overarching goal is to provide secure and sustainable patient care against an increasingly digitised and web-enabled environment amidst the threat landscape in healthcare.

6.13 Welsh Government has set out in official guidance that the CRU has the delegated authority for the operational aspects of the NIS regulations. This includes:

- NIS assessments against the Cyber Assessment Framework (CAF).
- Reviewing of remediation plans by Operators of Essential Services (OES) – LHBs and Trusts etc.
- Supporting OES in identifying and reporting NIS incidents.
- Reporting on the status of NHS Wales cyber posture to the Competent Authority.

- The following deliverables and activities have been produced to date in accordance with the CRU's delegated authority:
- Workshops with each OES in order to provide advice and guidance in completing the Cyber Assessment Framework (CAF).
- Baseline CAF assessments completed by each OES.
- Cyber assurance reports to each OES based on their CAF submission.
- An overall cyber baseline report submitted to Welsh Government
- Producing initial cyber risk registers for each OES based on their CAF submission.
- Arranging workshops with each OES to agree and finalise their cyber risk registers.

6.14 To bring to life the way in which digital health and care records are managed and accessed in Wales I have described below some of the key components of the NHS Wales Digital Architecture and Infrastructure.

6.15 As a relatively small nation, Wales benefits from the ability to implement solutions at a national level. This includes a number of national repositories of health data and records. For example:

- The Welsh care Records Service (WCRS) holds records including GP e-referrals (made via the Welsh Clinical Communications Gateway), e-discharges, clinic letters, clinic notes, pre-assessment notes and theatre operation notes.
- The Welsh Results Report Service (WRRS) holds records of diagnostic tests, including test requests and diagnostic reports.
- WCRS and WRRS are managed by DHCW and certified to British Standard 10008 i.e. '*Evidential weight and legal admissibility of electronically stored information*'. This means that, subject to business processes, organisations like LHBs and Trusts in Wales can rely on the digital record as the legally admissible record and do not have to maintain hard copies. Of course, the maintenance of a British Standard provides its own overheads and there are limitations on the extent to which LHBs and Trust compliance with the Standard can be verified. That said, the work to certify these repositories to

the Standard is a positive step in moving to a digital record that can replace hard copy records.

- Records in WCRS and WRRS are accessed via the Welsh Clinical Portal (WCP) which is often referred to as the 'Single Patient Record' because it provides a composite view of information held in repositories and other systems - for example a summary record from GP systems - with a single log on. WCP is used by all seven LHBs and Velindre Cancer Centre (hosted by Velindre University NHS trust). As an indication of usage, in November 2022 (latest available figures) nearly 440,000 patient records were accessed by users within those organisations and over 33,000 unique users were recorded.
- The Welsh Patient Administration System (WPAS) is another key national system widely used by LHBs. Six out of seven LHBs use WPAS, as does Velindre Cancer Centre. The remaining LHB uses its own patient administration system. Welsh Government hasn't mandated the use of WPAS. As a statutory body, the LHB in question can decide how to deliver services, including the requirement for interoperability between local and national systems.
- Ensuring digital records are appropriately accessed is an important element of maintaining patient trust and confidentiality. WCP and WPAS are integrated with the National Intelligent Integrated Audit Solution (NIIAS) which provides LHBs and Trusts with proactive audit functionality and generates alerts based on user activity within national electronic systems. NIIAS integrates with the Electronic Staff Record (the national staff record for the NHS in Wales, which holds demographic details of staff) and can, for example, highlight where users may be looking at their own records or the digital records of family members and neighbours.
- DHCW also manages a number of services that help manage patient demographic data so that digital medical records are accurate and searches of digital health and care systems are faster and safer. An example is the Welsh Demographic Service which maintains a register of Welsh residents' demographic details including name, address, date of birth, GP details and NHS number.

- The electronic Master Patient Index (eMPI) links records for an individual patient held across different information systems to a single “gold standard” identity record. It ensures any new patient registration or changes of name and address are recorded once and copied across to all the systems that need to know about such updates.

6.16 All these systems i.e. WCRS, WRRS, WCP, NIIAS, WDS, eMPI are managed by DHCW, as ‘Business as Usual’ operational products and systems, with core funding provided by Welsh Government.

Investment in Digital Transformation

6.17 Welsh Government’s Digital Priorities Investment Fund (DPIF) supports the transformation of health and social care in Wales by providing strategic funding for digital projects and programmes. I have provided a summary of DPIF supported projects and programmes at Appendix A. Please note a specific reference to a Digital Transformation initiative Vein to Vein Blood Tracking, which aims to make blood sampling safer, reduce errors associated with manual labelling, reduce waste of blood products, and the need to resample. This delivers benefits for the patient, including reduced instances of re-sampling and fewer ‘never events’. These transformational programmes will further the aim of digitalising the health and care system in Wales so driving the move towards digital health and care records. The Inquiry will appreciate the challenges inherent in attempting to achieve this strategic aim – including funding – associated with operationalising these systems and the increased demand this places on the existing infrastructure and services I have already referred to in this statement.

6.18 c) See the answer to 6b, above.

6.19 d) No.

6.20 e) I suggest that the above answers and the information at WITN7640007 are sufficient in answering this question. The availability of digital systems, digital infrastructure and architecture that allow persistent and standardised digital records to be created in a way that facilitates appropriate accessibility and interoperability is critical. Policy, investment and workforce considerations all present challenges. I

have provided an overview of the various initiatives in which Welsh Government is enabling LHBs and Trusts to address these challenges.

6.21 The organisations with legal and operational responsibility for managing medical records would be best placed to provide detailed answers to these questions. The availability of staff resources and funding are two significant barriers per ongoing dialogue between the Welsh Government and these NHS delivery partners.

7. The DHSC Records Management Code 2021 states that “*Managing electronic records presents a significant challenge, especially for typical health and socialcare organisations, where electronic records are stored in a large variety of databases, email and file systems (including shared drives), which have no standardisation in place. The risk of alteration or deletion makes this challenge even greater.*” [Paragraph 147] Please compare the relative risks of alteration or deletion of paper and electronic records. To what extent can digitisation of records minimise the risk of human error or deliberate tampering?

7.1 If designed with appropriate data standardisation and audit logs of user activity, digital systems can mitigate the risk of human error, and inappropriate alteration and deletion. It is important to recognise that there is no failsafe system but the controls applied at a system level can mitigate such risks. National repositories of data that interface with national and local systems provide further controls that can prevent and record inappropriate or inadvertent alteration or deletion.

7.2 The management of hard copy records is not my area of expertise but my perception is that policies, procedures and physical controls that determine access to records are the primary mechanisms through which access to records (that could lead to inappropriate alteration or deletion) is managed. It is my assumption that records stored locally and at departmental level may have weaker controls and present a greater risk but I cannot confirm this with any level of certainty. If the Inquiry would like a more detailed assessment and comparison of risks the organisations with legal and operational responsibility for managing these records would be best placed to provide.

8. In a statement to the Inquiry [12th September 2022, WITN4665008] Suzanne Rankin, Chief Executive Officer of Cardiff and Vale University Health Board, described how digitisation enabled the destruction of hard copies, depending on the type of record: “*Microfiche, scanned to CD, Digitally Scanned Records and Electronically Scanned*’ - some categories of these records no longer have the original copy available, others can be ‘reconstituted on demand”, while others are also still available in the original copy.

How common is it for digitised records to completely supersede hard copies?

Under what circumstances are hard copies still retained?

Is partial digitisation more common than full digitisation?

8.1 In my professional experience it is uncommon that digital records completely supersede hard copies unless a new service is being introduced, using a digital user interface and a digital records repository and where there are no legacy, hard copy records. Legacy records generated and stored in hard copy are likely to stay as hard copy records unless there is specific funding and resource available to convert them into a digital format.

9. In a statement to the Inquiry on behalf of University Hospitals Bristol and Weston NHS Trust, [7th September 2022, WITN7125001] Eric Sanders outlined how the Trust has gone through several stages of digitisation: “*The Trust has a historic scanning system which was called ‘Aurora’, later to become Document 1. The records held in this repository are available via our internet portal and will soon be incorporated into our Electronic Document System... The Trust also historically commissioned an external scanning contractor and also used a company called Gateway. These records are all available on our Casenote tracking system.*”

What are the specific challenges of such repeated migrations of records?

9.1 I am unable to comment with authority on what are in the main operational challenges faced by LHBs and Trusts in Wales which would be better directed to the organisations with legal and operational responsibility for managing records and those who have experience of these challenges. I hope my previous answers have provided an outline of the steps being taken to move towards digital health and care records in Wales and the ways Welsh Government is supporting this.

10. In a statement to the Inquiry on behalf of Chelsea and Westminster Hospital NHS Foundation Trust, Roger Chinn, Chief Medical Officer of the Trust, [3rd October 2022, WITN7266001] described how many of the Trust's medical records were destroyed in a serious fire at an Iron Mountain storage facility in East London where the “*the bulk of the Trust's medical records*” were held. As a result of the incident, the Trust's action plan involved “*ultimately a consideration of deploying a digital solution for future records.*”

Would you say that individual moves towards digitisation have been reactive rather than proactive?

10.1 I am unable to comment with authority on this question, which would be better directed to the organisations with legal and operational responsibility for managing records and those who have experience of these issues. I hope my previous answers have outlined the drive towards digital health and care records in Wales.

11. What are the difficulties that continue to exist with maintaining medical records and providing access to them across the NHS in Wales? Please explain in particular any ongoing issues relating to the following:

11.1 I am unable to comment with authority on what are in the main operational challenges faced by LHBs and Trusts in Wales. I hope my previous answers have provided an outline of the steps being taken to move towards digital health and care records in Wales and the ways in which the Welsh Government is supporting this.

12. What actions are already being taken or might be taken to address any ongoing difficulties?

12.1 Please see my response to question 11, above.

13. How may developments in and use of data analysis and artificial intelligence products have assisted either:

- Earlier identification of the link between receiving blood products and receiving a diagnosis of Hepatitis C and/or HIV; or
- A comprehensive ‘look back’ exercise to identify those who may have received contaminated blood or blood products through the course of NHS treatment.

13.1 I am not aware of any specific developments in this area in Wales. My Welsh Government colleagues have not highlighted to me any examples of this type of

activity. I would need to seek further information from individuals outside Welsh Government. Accordingly, I can make further enquiries if the Inquiry would like me to do so.

Section 3: Other

I have no other comments.

Statement of Truth

I believe that the facts stated in this witness statement are true.

GRO-C

Signed:

Dated: Tuesday 17 January 2023

Table of exhibits:

Date	Notes/ Description	Exhibit number
2019	A Healthier Wales	WITN7640002
2022	Records Management Code of Practice for Health & Social Care Wales 2022	WITN7640003
2021	Health and Social Care Workforce Strategy - HEIW	WITN7640004
2019	HEE – Topol Review	WITN7640005
2018	The Network and Information Systems Regs 2018: Guidance to the Health sector in Wales	WITN7640006
2023	Summary of projects and programmes currently being supported by Welsh Government's Digital Priorities Investment Fund	WITN7640007