**Integrated Digital Care Record(IDCR) - Five Year Strategic Plan Overview**

1. **Vision of an IDCR**

*‘****To capture the entirety of the patient's journey through their healthcare episode and to provide a single point of access to all aspects of that record in order to provide a safer, more structured, more streamlined journey for both the patient, staff, and the BNSSG care professionals.’***

1. **Future Digital Road Map – Weston Area Health NHS Trust**

With the clear instruction from NHS England, NHS Digital, and the National Information Board (NIB), and the Trust desire to make rapid progress, it is really important to continue on the journey of achieving a comprehensive Integrated Digital Care Record, and ultimately achieve a “paper free at the point of care” solution.

To enable this capability we have developed a clear and concise clinically approved digital road map for the first two years, and linked with the current clinical IT systems contract. We have also developed a longer term digital road map to show how we will achieve the paper free solution at the point of care.

There is real drive and a reinvigorated clinical engagement for this piece of work, lead by the clinical executive (Medical Director, Nursing Director, Chief Clinical Information Office), the Director of Finance, and the Head of Health Informatics. The end point being a full Integrated Digital Care Record which is delivered paper free at the point of care, that is shared with our Local Digital Road Map partners, to enhance the full patient pathway (using Connecting Care).

We will ensure that the local road map aligns to the Sustainability and Transformation Plan for Bristol, North Somerset and South Gloucester (BNSSG) footprint. The BNSSG local Connecting Care system is at the core of the interoperability plans for sharing data, and therefore the more data we capture electronically, the more comprehensive the shared record will become.

We believe that within five years we can implement and deliver an IDCR. There would be significant patient safety advantages and in particular with medicines management, decision support and error checking, as well as the earlier recognition of the acutely unwell patient.

We believe the benefits we could realise include;

* Electronic pharmacy medicines reconciliation and reduce adverse drug events
* Achieve paper-lite and ultimately paper free in the outpatient setting, increasing efficiency and access to information
* Reduced Emergency Department (ED) administration with single episodes of care across ED and Inpatients
* Medical records and coding efficiency gain
	+ Reduced costs on pulling casenotes for clinics
	+ Coding time (coding recorded at point of care via clinicians either through direct clinical narrative or simple mappings to payment coding schemes i.e. DD, ICD 10, OPCS using SNOMED)

We would have improved bed flow by use of a real time bed board and fewer RTT errors, with a system configured to minimise incorrect choices. We also believe we could increase our patient safety using the national CQUIN indicators and by improving workflow. This would make use of electronic clinical and nursing assessments i.e. Waterlow, VTE, nursing care plans, initial assessments.

We would have a fully integrated system that links (bi-directionally) directly with a limited number of specialists systems which would give the clinicians access to all the information in one environment.

We would be delivering against each element identified within the Digital Maturity Index (see Appendix 2).

This is an exciting and visionary digital road map that will have significant benefits for patient care and safety, and for improving the patient experience with full knowledge of their individual care records and journey. There will be both measureable and immeasurable benefits for the clinical staff with fast, easily accessible digital information and decision support tools. It is vital, therefore, that we make early and tangible progress on the digital road map to facilitate this massive cultural change programme for the Trust.

The aim is to build the digital capability within secondary care that:

* Delivers an Integrated Digital Care Record to doctors, nurses and all health professionals in real time, granting patients online access to their record, and use of electronic medicines management.
* Data captured electronically can support both professional and care recipients across the local health and care system and not just within the acute “patient” episode.
* Data security and encryption will form the foundation of all operating systems to ensure safe and secure storage and sharing of information.

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| Name: | Nicolas Lyons | Name: | Helen Richardson |
| Position: | Medical Director | Position: | Director of Nursing |
|  |  |  |  |
| Name: | Mark Price | Name: | Rob Little |
| Position: | Orthopaedic Consultant & CCIO | Position: | Director of Finance |
|  |  |  |  |
| Name: | Paul Faulkner |  |  |
| Position: | Head of Health Informatics |  |  |
| Date: |  August 2016 |  |  |

1. **Digital Roadmap for Weston Area Health NHS Trust**

For Weston Area Health NHS Trust the biggest challenge and most important theme from the BNSSG LDR is delivery of Paperless 2020:

Paperless 2020 – To develop and embed fully digital records in acute, community, mental health and social care. This will enable true electronic record keeping, and sharing of those records.

The plan to achieve this is in accordance with the Seven Capabilities which are described within Driving Digital Maturity (DDM) which is a Programme of work within the NIB (National Information Board) Domain G Paper Free at Point of Care. The Seven Capabilities are described in the following diagram:



1. **Development IN FIRST TWO Years**

For the first two years and ongoing into the Five year programme of work there will be the need for cultural and business change in order to adopt and realise the efficiency gains that will materialise with a full Integrated Digital Care Record. In order to bridge the gap between systems and operational practice there will be a need for some business change analysts to work with operational staff to understand processes and procedures and how they would be reflecting in the development of key systems. The costs for the business change analyst’s roles have been associated with the first task outline below but these posts will span the whole of the 2 year plan. The Trust has secured the capital funding to deliver the first two years of the Roadmap plan. There will be a requirement for ongoing resources and investment to support the 3-5 year programme of works.

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| Task1: | 1. Upgrade our current PAS system to the latest available code to ensure suppliers support and maintenance is ongoing. This will also give the trust a stable supported code base to increase functionality.
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| Associated Costs (Cerner): | £350,000 | Implementation Timescales: | 4 Months |
| Trust Resource/Costs: | * Testers £60,000
* Trainers £30,000
* Business Change Analysts £160,000
 | DDM Capability: | Records, Assessments and Plans |

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| Task2: | 1. Enhance the system to allow the automatic transfer of an ED patient’s electronic record into the inpatient record on admission (ED Single Encounter). This will simplify the admission process, aid patient flow, and support reporting and capacity planning.
 |
| Associated Costs (Cerner): | £100,000 | Implementation Timescales: | 4 Months |
| Trust Resource/Costs: | * Testers £60,000
* Trainers £30,000
 | DDM Capability: | Records, Assessments and Plans |

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| Task3: | 1. Automate the capture and recording of Vital Signs and to feed into the PAS (Integrated Digital Care Record). This will reduce transcription errors, release more time to care, generate NEWS triggering alerts, and ensure Vital Signs are available.
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| Associated Costs (Cerner): | £30,000 | Implementation Timescales: | To be confirmed |
| Trust Resource/Costs: | * Vital Signs devices £48,000
* Trainers £30,000
 | DDM Capability: | Decision Support |

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| Task4: | 1. Automate the saving of Outpatient letters against the IDCR (Integrated Digital Care Record) and send the letters electronically to the GP either via existing Electronic Document Transfer, or Connecting Care. This will ensure ease of access to the correspondence for clinicians and care professionals, reduce the burden on administration, the timely delivery of correspondence to GP colleagues, and cost saving with regards to printing and postage.
 |
| Associated Costs (Cerner): | £12,000 | Implementation Timescales: | 4 Months |
| Trust Resource/Costs: | * Testers £5,000
* Interface £20,000
 | DDM Capability: | Records, Assessments and PlansTransfers of Care |

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| Task5: | 1. Review, develop, and implement the clinical/nursing assessments within our current PAS system e.g. VTE, Falls, Waterlow. This will ensure the assessments are saved against the patient record. Thus standalone databases to capture this information can be decommissioned, reducing the burden on administration, automation of reporting that may increase time to care, and more information to share with care professionals, both internally and across BNSSG.
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| Associated Costs (Cerner): | N/A | Implementation Timescales: | To be confirmed |
| Trust Resource/Costs: | * Development £15,000
 | DDM Capability: | Records, Assessments and Plans |

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| Task6: | 1. Review, develop, and implement the patient portals (mPages) to increase the visibility of activity against the IDCR (Integrated Digital Care Record). These patient portals will become more useful as we capture more information.
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| Associated Costs (Cerner): | £35,000 | Implementation Timescales: | To be confirmed |
| Trust Resource/Costs: | * Development and training £15,000
 | DDM Capability: | Records, Assessments and Plans |

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| Task7: | 1. Develop the ability to access key clinical systems from within the IDCR (Integrated Digital Care Record, such as radiology and pathology systems. This will improve the speed of access to relevant patient information stored on clinical systems (with further developments also in the 3-5 years).
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| Associated Costs (Cerner): | £5,000 approx. per instance£20,000 | Implementation Timescales: | To be confirmed |
| Trust Resource/Costs: | * Interface work £5,000
 | DDM Capability: | Asset & resource optimisation |

* 1. **Development IN FIRST TWO Years – Cost Summary**

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| **Task** | **Cerner Cost** | **Trust Cost** |
| System Code Upgrade (Task1) | £350,000 | £60,000£30,000£160,000 | TestersTrainersBusiness Change Analysts |
| ED Single Encounter (Task2) | £100,000 | £60,000£30,000 | TestersTrainers |
| Vital Signs Monitoring (Task3) | £30,000 | £48,000£30.000 | Vital Signs devicesTrainers |
| Outpatient Letter (Task4) | £12,000 | £5,000£20,000 | TestersInterface |
| Nursing Assessments (Task5) | £0 | £15,000 | Development |
| Patient Portal – mPages (Task6) | £35,000 | £15,000 | Development and training |
| Accessing Key systems within the EPR (Task7) | £20,000 | £5,000 | Interface work |
| **Total Capital Costs (funded)** | **£547,000** | **£478,000** | **£1,025,000** |

1. **Development for three to five Years**

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| Task | **Implementation Timescales** | **Associated Costs** | **DDM Capability** |
| 1. Mobile Working across the trust and within the community
 | TBC | TBC | Remote Care |
| 1. Electronic Document Management
 | TBC | TBC | Records, Assessments and Plans |
| 1. Electronic Prescribing and Medicines Management
 | TBC | TBC | Medicines Management and OptimisationDecision Support |
| 1. Interface between Pathology and Integrated Digital Care Record
 | TBC | TBC | Orders & Results Management |
| 1. Review and consolidate key clinical systems
 | TBC | TBC | Asset & Resource Optimisation |
| 1. Patient Portal – Connecting Care
 | TBC | TBC | Transfers of Care |
| 1. GS1 and Peppol compliant
 | TBC | TBC | Asset & Resource Optimisation |
| 1. TeleHealth/TeleMeds
 | TBC | TBC | Remote Care |
| Total Estimated Capital Costs ( not yet funded) |  | £15m |  |

In order to achieve the paper free solution there will need to be new investment in the Integrated Digital Care Record which will enable progress towards the end point of the road map journey. This will maximise the benefits to patients, staff, and the care professionals within the Trust and the wider Bristol, North Somerset, and South Gloucester footprint. It is likely that the Trust will need to procure new clinical systems in the first two years of the Road map to enable this to be implemented over the next three years. The process and requirements are currently under development to take this forward. It is clear that there will need to be significant capital investment to provide the systems which will deliver on this Roadmap for the Trust and the initial estimates are for an investment of £15m over a three year period, commencing in 2018/19. This capital funding will need to be secured through the STP and Local Digital Road map footprint as a priority.

1. **HOW THIS STRATEGY LINKS TO THE LOCAL DIGITAL ROADMAP**

The Digital Roadmap for Weston Area Health NHS Trust links to and supports the overall aims and strategies of the Local Digital Roadmap (LDR) for Bristol, North Somerset and South Gloucestershire (BNSSG) of which Weston Area Health NHS Trust is a Provider Organisation. The following is a slightly amended extract taken from the BNSSG LDR which illustrates this point.

In the last 20 years, the way we live our lives, support our recreation and leisure, read and share news, shop, bank and communicate have changed beyond all recognition.

Our ability to operate efficiently, share information, support our fellow humans and develop society is now a ‘digital first’ activity for most of the population. In Bristol, North Somerset and South Gloucestershire we have a rich and impressive heritage of digital vision and delivery.

The Bristol, North Somerset and South Gloucestershire (BNSSG) Local Digital Roadmap (LDR) is not simply a point in time assessment of ‘what to do next’ but a continuation of a long journey.

* We initiated our award winning Connecting Care programme and began the journey of breaking our organisational ‘silos’ to benefit our population long before the Five Year Forward View described the high priority of ‘interoperability’.
* Our digital delivery to date illustrates two important message, firstly, we are very capable collaborators and we can work together across our system when we commit to doing so. Secondly, when we collaborate we can achieve real benefits for the people that we are all here to serve.
* The Connecting Care Programme has brought together 17 organisations (including Weston Area Health NHS Trust) that have shared their data, their people, their expertise and their money.
* Like the rest of England, we have some significant challenges to overcome in Bristol, North Somerset and South Gloucestershire if we are to deliver the standard of health and social care that our population requires and deserves, within the very real operational and financial constraints that exist. Our work together on digital transformation has proven that we can collaborate to deliver real, system wide transformation.

Our focus in our roadmap is on five key building blocks –

1. Primary Care At Scale – focus on maximising digital across GP practices and Out of Hours services.
2. Paperless 2020 – Embedding digital records in acute, community, mental health and social care.
3. Connecting Care - Information sharing to include putting citizens at the heart of their ‘personal health records’.
4. The Information Engine – Fully utilising our electronic data to power our planning and delivery engine.
5. Infrastructure & Support - Ensuring we do all of the above on a solid, efficient infrastructure and delivery mechanism.

We will deliver these five major themes locally, but in full alignment with our local Sustainability and Transformation Plan and the National Information Board strategy. Our work together on digital transformation to date has proven to me that we can collaborate to deliver real, system wide transformation.

We recognise that what we want to do and deliver is not going to be easy or straightforward, but we have a common purpose to serve the one million people in Bristol, North Somerset and South Gloucestershire by meeting their needs for health care and social care. Our common vision is that, by developing our digital programme, we will make a lasting contribution to the health, well being and opportunity of our population.

Our vision is matched by a commitment: to keep working together until we have made it a reality. Better use of data and technology has the power to improve health, transforming the quality and reducing the cost of health and care services. It can give patients and citizens more control over their health and wellbeing, empower carers, reduce the administrative burden for care professionals, and support the development of new medicines and treatments”.

**APPENDIX 1 - National digital domains & programmes**

In April 2016, the *National Information Board* published details of 10 Domains and 33 Programmes which will be run at a national level to transform health and care services. The outlined strategy above focuses on the delivery of ‘G – Paper-free at Point of Care’.

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| A - Self Care and Prevention | 1. Citizen Identity
2. NHS.UK
3. Health Apps Assessment & Uptake (inc. wearables)
4. Widening Digital Participation
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| B – Urgent and Emergency Care | 1. Clinical Triage Platform
2. Patient Relationship Management
3. Access to Service Information
4. Out of Hospital Care
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| C – Transforming General Practice | 1. General Practice Operational Systems and Services
2. Adopting Existing Technologies in General Practice
3. Technology for General Practice Transformation
4. GP Data for Secondary Uses
 |
| D – Integrated Care | 1. Integrated Care – Business Change
2. Integrated Care – Interoperability and Architecture
3. Social Care Integration
4. Personal Health Record
 |
| E – Digital Medicine | 1. Digitising Community Pharmacy
2. Pharmacy Supply Chain and Secondary Uses
3. Integrating Pharmacy Across care Settings
 |
| F- Elective Care | 1. Digital Referrals
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| G – Paper-free at Point of Care | 1. Driving Digital Maturity
2. Digital Child Health
3. Digital Diagnostics
4. Workforce and Professional Capabilities
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| H – Data Outcomes for Research and Oversight | 1. National Data Services Deployment
2. Data Content (inc. GP data, PLICS and PCOMS)
3. Innovative uses of Data
 |
| I - Infrastructure | 1. Digital Interoperability Platform and Spine
2. NHS Mail2
3. HSCN
4. Wi-fi
 |
| J – Public Trust & Security | 1. Cyber-Security
2. National Opt-out Model
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**APPENDIX 2 - DIGITAL MATURITY INDEXES Baselines**

The table below summarises the scoring from the recent digital maturity assessment.

This assessment was carried out in December 2015. The areas shaded in blue represent places in which we *fall below* the national average. It is acknowledged that these are ‘self-scoring’ marks, and to that extent they have not been scrutinised or challenged by peers locally. However, they provide a good steer as to where we are now, and what we need to focus on in future years.

| **Area / Question** | **National Average** | **Weston** | **Year 1-2** | **Year 3-5** |
| --- | --- | --- | --- | --- |
| Strategic Alignment | **76%** | 75% | 85% | 95% |
| Leadership | **77%** | 50% | 85% | 95% |
| Resourcing | **66%** | 30% | 50% | 70% |
| Governance | **74%** | 45% | 70% | 90% |
| Information Governance | **73%** | 75% | 85% | 95% |
| Records, Assessments & Plans | **44%** | 25% | 50% | 80% |
| Transfers Of Care | **48%** | 50% | 70% | 90% |
| Orders & Results Management | **55%** | 51% | 60% | 85% |
| Medicines Mgt & Optimisation | **30%** | 0% | 0% | 95% |
| Decision Support | **36%** | 0% | 25% | 75% |
| Remote & Assistive Care | **32%** | 33% | 45% | 80% |
| Asset & Resource Optimisation | **42%** | 25% | 50% | 80% |
| Standards | **41%** | 33% | 55% | 80% |
| Enabling Infrastructure | **68%** | 43% | 60% | 80% |

**APENDIX 3 – PAS PROCUREMENT Background**

The Trust Board at a meeting on 3 March 2015 approved the Final Full Business Case (FBC), including the supplier and system as Cerner UK, to provide a remotely Hosted Managed Service until 30 September 2017 for Patient administration (PAS) and A&E systems.

The Original FBC was approved by the Trust Board in May 2014 and subsequently rejected by the NHS Trust Development Authority (NTDA) in January 2015. This FBC was submitted to the NTDA in May 2014 and had identified that the preferred option was Computer Sciences Corporation (CSC) with Lorenzo software and a Remotely Hosted Managed Service with full Disaster Recovery. There was a considerable period when the decision was delayed, linked with the acquisition process of the Trust itself. The NTDA informed the Trust in a letter from their Director of Finance on 5 January 2015 that the FBC was rejected. The decision was made based on the proposed acquisition of the Trust and technical reasons associated with the acquisition. The NTDA required the Trust to terminate the PAS procurement process and to inform the bidders of the termination. They also required the Trust to procure an interim service through an appropriate procurement framework and in line with advice from the Health and Social Care Information Centre (HSCIC).