Internal Business Case Template & Guidance

Creation of Chief Pharmacist Information Officer role at UHBristol

1. INTRODUCTION AND SUMMARY

This document defines the need, strategic context and preferred method for the appointment of a Chief Pharmacist Information Officer (CPIO) for UHBristol.

UHBristol has been named as one of 16 acute hospital trusts awarded a status of Global Digital Exemplar (GDE) by NHS England. Award of GDE recognises UHBristol's status as a key stakeholder for successful delivery of NHS Digital's strategy, to meet the challenges of the NHS' Five Year Forward View and Carter report, in line with the recommended approaches put forward in the Wachter report. The relationship of these national strategies to the CPIO role are discussed in section 3 of this document.

The purpose of the CPIO job will be:

- Support the trust CCIO(s) with the delivery of the GDE programme
- Advise the trust CCIO(s) and trust IM&T department on matters relating to clinical pharmacy, aseptic pharmaceutical manufacture and drug database management
- To provide leadership to the advancement of the Pharmacy Informatics service at UHBristol
- To plan, direct and manage the development of the Pharmacy Informatics team.
- Responsible for compliance of clinical system drug databases with dm+d
- To provide leadership in the Pharmacy department in relation to compliance with the Falsified Medicines Directive
- To advise the trust CCIO(s) and trust IM&T on the application of GS1 standards in relation to manufacture of pharmaceutical specials
- Accountable for ensuring the effective management of Pharmacy Informatics resources, policy and strategy development
- To ensure that Pharmacy processes are integral to on-going service design at UHBristol
- To lead on digital transformation of Pharmacy processes to meet the needs of the trust as the GDE programme progresses
- To provide leadership to EPMA Pharmacy teams within the GDE region
- To lead in the continued development of Pharmacy reporting
- To provide analysis of Pharmacy business requirements to the trust CCIO(s) and CSIP/GDE programme
- To support development of business cases for Pharmacy and IM&T in relation to clinical systems
- To co-ordinate Pharmacy hardware, software and resource requirements for GDE projects
- To advise on procurement, implementation and benefits realisation in GDE and non-GDE clinical system projects from a Pharmacy perspective
- To lead the Pharmacy Informatics approach to compliance with dm+d, FMD and GS1/Scan4Safety agendas
- To support Pharmacy in the enhancement of the Clinical service to a 7 day provision in line with Hospital Pharmacy Transformation and Sustainable Transformation Plans

The recommendation of this business case is that the trust appoints a Chief Pharmacist Information Officer.

Self-assessed investment criteria score: **445**

2. STRATEGIC CONTEXT

Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England. Robert M. Wachter 2016.
In 2016 Professor Robert Wachter and the advisory board reviewed the state of IT in secondary care in the NHS in England. Major recommendations of this review included:

Recommendation 3	**Develop a Workforce of Trained Clinician- Informaticians at the Trusts, and Give Them Appropriate Resources and Authority**
Description	*"For a large trust, there must be a senior clinician-informatician (chief clinical information officer, or CCIO), reporting at the level of the board or the CEO. Reporting to this person must be a cadre of clinician-informaticians [including Pharmacy]. To implement and optimise an EHR effectively, trusts must make such individuals available to major clinical areas and [pharmacy]. The Advisory Group estimates that an average-sized trust needs at least five such individuals on staff".* Serving a population of ~350,000, employing over 9,000 staff across 100+ clinical services and an annual operating income of ~£600m: UHBristol is considered larger than average by all appropriate metrics. In considering whether to offer government money to a trust to subsidise digital implementation, close attention should be paid to the adequacy of its plan to hire and support this workforce. Appointment of a CPIO is therefore clearly recommended by Wachter, and the review recommends that the allocation of government funds to support digitalisation projects (the GDE programme) is judged against the allocation, or not, of these roles.
Deliverables	By January 2017: *"Trusts seeking Phase 1 (2016-2019) national funding for digital implementation/improvement must prepare and defend their workforce plans; plans must include a demonstration that the clinician-IT workforce is sufficiently robust to lead successful digitisation within the trust."* As a GDE site UHBristol is a key organisation for Wachter's Phase 1 recommendation. By 2019: *"Trusts that have received national funding for Phase 1 digital implementation/improvement (those in the GDE programme) must have in place a CCIO; with sufficient support staff, to lead successful digitisation and benefits realization within the trust."* *"Average-sized trusts should have approximately five individuals on staff with skills in clinical practice [including pharmacy] and information technology; larger trusts should adjust these numbers proportionally."* In order to meet the recommendations of the Wachter review, UHBristol must appoint and appropriately empower a CPIO to

	support the CCIO.
Timeline	2017
Recommendation 4	**Strengthen and Grow the CCIO Field, Others Trained in Clinical Care and Informatics, and Health IT Professionals More Generally**
Description	*"In addition to CCIOs, the workforce of both clinician and non-clinician informaticians, researchers with expertise in clinical informatics, programme evaluators, and system optimisers (data processers, analysts, quality and safety leads) needs to be increased and nurtured. Without the right people and skills, digitisation will fail, or at least not achieve its full potential."* Chief Pharmacist Information Officers are an integral aspect of this recommendation.
Deliverables	2017: *"The Faculty of Clinical Informatics, working closely with the British Computer Society and the Royal Colleges, should launch an accreditation and professionalisation agenda designed, ultimately, to certify and professionalise the CCIO workforce."* *"Establish and launch a programme designed to rapidly train CCIOs, CIOs, and other healthcare informaticians in executive leadership and informatics. The first few "classes" in this intensive 6-12 month training program should focus on training individual who will work at the trusts in [the GDE programme]."* By 2019: *"The Faculty of Clinical Informatics, working closely with the British Computer Society and the Royal Colleges, should complete the training and certification of at least 100 new graduates"* Trusts should encourage, nurture and invest in Clinical Informatists from a variety of clinical disciplines, including Pharmacy. In order to meet the recommendation a CPIO needs to be in post in 2017 so that a place on the appropriate training course can be secured for the 2017 academic year intake. Failure to do so will risk exclusion form this training due to increasing demand and future cost.
Timeline	2017
Recommendation 9	**Ensure Interoperability as a Core Characteristic of the NHS Digital Ecosystem – to Support Clinical Care and to Promote Innovation and Research**
Description	Interoperability is a key recommendation *and* one of the 10 overarching principles set out by the review. A significant proportion of the use of clinical systems is involved, or affected by the medicines databases within those systems. The appropriate adoption on dm+d and SNOMED CT to drug files for clinical systems is in it's infancy in secondary care. Appropriate adoption, control and management of these drug databases in accordance with these standards is a critical element of these systems. Without appropriate strategic direction, guidance and oversight from a CPIO; the trust risks not realising compliance with these standards, and therefore will face a significant handicap in achieving interoperability between systems in the context of medicines. This is a well-documented high risk area.

	The effort required for this task is considerable, and is front-end loaded i.e. is more suitably undertaken at the beginning of the GDE programme, not the end.
Deliverables	By 2020: Complete regional interoperability should be established, so the medical records freely flow with a region, with appropriate privacy and security safeguards.
Timeline	2020 (with significant workload prior to this)

Next steps on the NHS five year forward view. March 2017.

Chapter 7: Funding and efficiency (NHS' 10 point efficiency plan)
4: Get best value out of medicines and pharmacy
Reduction in medicines waste, optimisation of medicines sue, appropriate provision of NICE recommended technologies, appropriate uptake of biosimilars, adoption of NHS clinical commissioners and CCGs recommendations on transition of top medicines of low clinical value from prescription only to over-the-counter-prescriptions, monitoring of drug costs and implementation of promising savings opportunities and consolidation of pharmacy infrastructure and stock holding. These concepts, key areas of change in the delivery of medicines via pharmacy for patients, are *all* directly affected, and in many cases wholly reliant on the appropriate adoption and continuing development of clinical information systems in the acute sector.

The role of CPIO is a key factor in the success of UHBristol pharmacy projects in line with the five year forward view.

Chapter 10: Harnessing technology and innovation
"[of the GDE trusts] These organisations are the most advanced IT hospitals in the NHS and have committed to work to become world class exemplars for the rest of the NHS to learn from. Their task is not only to become great, but to work with other acute trusts to develop a blueprint that can be deployed to other hospitals, reducing the time and cost for further adoption."

Crucial elements of providing a blueprint for the regional and the nation are:

- identify the best practice for management of medicines databases
- develop and refine digitally empowered business process for clinical pharmacy
- integrate clinical systems with pharmacy stock control, change control and aseptic pharmaceutical manufacturing systems
- development, adoption of and integration with newly emerging technologies unique to the Pharmacy industry, including message brokers for referral of complex patients to community pharmacy
- establishment and development of working links with the Academic Health Science Networks

The role of CPIO is the clear choice for development of the above, and crucial for the success of GDE from a Pharmacy perspective.

Health and Social Care Information Centre NHS Digital strategy: Information and technology for better care. March 2015.

2: Establishing shared architecture and standards so everyone benefits
"deliver one of the key commitments in the NIB Framework – for all health and care organisations to adopt the guidance set out in the Academy of Royal Medical Colleges' publication Standards for the Clinical Structure and Content of Patient Records. This will improve the timely integration

of information across care settings and require the systematic use of standard clinical terminology across health and social care"

The CPIO role provides a key link between secondary and primary care sectors, including both GP practices and community pharmacies. The CPIO holds a unique positon with access to the expanding network of Pharmacists in primary care, which will prove invaluable in the trust's work to comply with the standards mentioned.

Personalised Health and Care 2020: Using Data and Technology to Transform Outcomes for Patients and Citizens; A Framework for Action. November 2014.

6: Give care professionals and carers access to all the data, information and knowledge they need
v. "…the entire health system should adopt SNOMED CT by April 2020."

x. "Information technology has a vital role in incident reporting on adverse drug reactions, device defects and counterfeits. Building on the good work in GP systems the HSCIC will, in partnership with the Medicines and Healthcare Products Regulatory Agency (MHRA), produce proposals to ensure that reporting standards are implemented in all information systems in hospital, pharmacy and other sectors."

The National Information Board (NIB) identifies the above key proposals in their framework for action. Clearly, the adoption of SNOMED CT to clinical systems is a significant challenge for the trust, and a significant proportion of this work will be concentrated in the drug database build and maintenance. The CPIO role is crucial to provide oversight of all clinical system drug databases across the trust, to mitigate the risk of systems being managed 'in silos' by individuals assigned by individual projects. The expertise provided by the CPIO ensures that drug build and maintenance processes are efficient, safe, and in compliance with national standards and long-term objectives. The CPIO is unique amongst the CCIO/CIO network in that they will have an established relationship with the MHRA, familiarity with MHRA guidance and reports, and the expert knowledge necessary to appropriately action alerts to ensure patient safety standards are maintained.

Operational productivity and performance in English NHS acute hospitals: Unwarranted variations: An independent report for the Department of Health by Lord Carter of Coles. February 2016.

2 Optimising clinical resources: Hospital pharmacy and medicines optimisation
"b) ensuring that more than 80% of trusts' pharmacist resource is utilised for direct medicines optimisation activities, medicines governance and safety remits".

The ability for UHBristol to reach Carter's 80:20 ratio for clinical pharmacy services is undoubtedly reliant on the successful development, implantation and continuous improvement of clinical systems. The role of CPIO is critical in ensuring that clinical systems are integrated to, and where appropriate the driver for improvement of, best practice.

"reviewing the provision of all local infrastructure services, which could be delivered collaboratively with another trust or through a third party provider"

The role of CPIO is again critical to advise on, initiate and manage business relationships with Pharmacy departments from other trusts and third party service providers, in the context of MHRA and Department of Health requirements.

"d) each trust's Finance Director, working with their Chief Pharmacist, ensuring that coding of medicines, particularly high cost drugs, are accurately recorded within NHS Reference Costs"

The CPIO role, a specialist in the field of Pharmacy informatics, will work closely with and act as deputy for the Chief Pharmacist to achieve this target.

Hospital Pharmacy Transformation Programme – University Hospital Bristol NHS Foundation Trust & Division of Diagnostics and Therapies; Pharmacy Operating Plan 2017/18 and 2018/19. Steve Brown 2016.

Relevant key elements for the development of the pharmacy service outlined:

- *"Increasing the application of automation, clinical technology and informatics to deliver efficiencies and enable more effective clinical prioritisation"*
- *"Implementation of Electronic Prescribing and Medicines Administration"*
- *"Further development of clinical transfer of care using PharmOutcomes to integrate with community pharmacy"*
- *"increasing application of automation is an ongoing piece of work in the dispensary and ward environments, and IT systems such as Webtracker, Connecting Care and PharmOutcomes… Further development of such systems is crucial in moving the service forward."*

The CPIO role will provide leadership for and advise on prioritisation and co-ordination of Pharmacy involvement in all of the above objectives.

3. OPTIONS APPRAISAL

Option 1: Trust appoints a CPIO (preferred option)	
How will the initiative improve patient care?	CPIO will be responsible for duties listed (section 1). A dedicated role, as recommended by numerous national strategies, and supported by the current literature (section 2): will enable the trust to better implement clinical systems and achieve GDE and non-GDE objectives, which are ultimately focused on ambitious improvements to patient care and experience.
Impact on clinical services provision (both direct and associated services)	COIO will help to provide a co-ordinated approach from Pharmacy to digital transformation projects in all clinical areas.
Impact on clinical support services	
Impact on non-clinical services	CPIO will advise the trust CCIO(s), trust IM&T, PSU, Pharmacy Production and Radiopharmacy departments on matters relating to digital transformation of aseptic pharmaceutical manufacture, automation and drug database management
Impact on workforce and training	CPIO will advise on training materials for Pharmacy professionals for clinical and non-clinical systems
Impact on estate and infrastructure (including IT)	N/A
Financial implication	AfC 8b Mid-point +24% on cost
Option 2: Do nothing	
How will the initiative improve patient care?	Risk to trust as key objectives of CPIO not met. Lack of dedicated CPIO role. Clincial system projects continue to operate with Pharmacy involvement 'silo-working' with lack of sufficient dedicated resource to provide overall strategy in this area.

Impact on clinical services provision (both direct and associated services)	Lack of dedicated role to co-ordinate Pharmacy approach to digital transformation projects in all clinical areas.
Impact on clinical support services	
Impact on non clinical services	Lack of dedicated role to provide expert advice to the trust CCIO(s), trust IM&T, PSU, Pharmacy Production and Radiopharmacy departments on matters relating to digital transformation of aseptic pharmaceutical manufacture, automation and drug database management
Impact on workforce and training	N/A
Impact on estate and infrastructure (including IT)	N/A
Financial implication	N/A

4. PREFERRED OPTION

Option 1: Trust appoints a CPIO.

6. AFFORDABILITY

Cost of role taken on by IM&T in anticipation of successful award of GDE milestone payments.

This section to be expanded on at divisional level?

7. ISSUES AND RISKS

Issue title and description			
Number and scale of meds clinical and non-clinical systems			
Risk title and description		Probability	Impact
Lack of reediness to implement clinical and non-clinical systems		Likely	Financial + patient safety (as delayed implementation of new system with corresponding lack of benefits)
Preferred option mitigation	Trust appoints a CPIO		
Risk title and description		Probability	Impact
Risk of not achieving milestone payments from GDE		Likely	Financial + patient safety (as delayed implementation of new system with corresponding lack of benefits)
Preferred option mitigation	Trust appoints a CPIO		
Risk title and description		Probability	Impact
Sub-optimal (or failure of) implementation of clinical systems resulting in increased resource spend		Likely	Financial + patient safety (as delayed implementation of new system with corresponding lack of benefits)
Preferred option mitigation	Trust appoints a CPIO		

Used to assess against Risk Mitigation scoring criteria

8. EXTERNAL APPROVALS

The appointment of a CPIO is aligned with NHS national digital strategies.

The appointment of a CPIO by UHBristol is supported by Ann Slee, ePrescribing Lead NHS England.

9. TIMESCALES

This business case sets out a proposal for a permanent position.

10. CONCLUSION AND RECOMMENDATIONS

The CPIO role is key to the success of GDE and the department, division, trust and NHS strategy.

11. SCORING CRITERIA

Summary Guide to Scoring Criteria

Strategic Fit – the extent to which the proposed investment is consistent with the corporate strategic objectives highlighted in the investment philosophy above (or other agreed corporate strategic objectives) and will contribute to delivery of those objectives.

Patient care - the extent to which the proposed investment will improve the quality of patient care in the Trust and/or the patient experience of Trust services.

Cost & Revenue - the extent to which the proposed investment will support the Trust's Cash Releasing Efficiency Savings or revenue protection.

Risk Mitigation - the extent to which the proposed investment addresses existing or anticipated strategic, financial, operational, regulatory, political or reputation risks.

Weightings will be applied to the scoring of investments against these criteria as proposed below. The weighting will be formally agreed by the Trust Board and incorporated into the Investment Policy.

Strategic fit	25%
Patient care	25%
Cost & Revenue	20%
Risk mitigation	30%

SCORING MATRIX FOR EVALUATION OF AN INVESTMENT

SCORE	STRATEGY FIT	PATIENT CARE	COST / REVENUE	RISK MITIGATION
5	Clear evidence that the case **delivers a specific & tangible** element of the Trust's Strategy	Clear evidence that the case **delivers a specific & tangible** improvement to patient care	Is key to a **real** and **sustainable** cost savings**; increases** revenue and agreed with key stakeholders	**Very high** risk score (≥ 20) as per Trust's Risk Assessment Matrix
4	Clear evidence that the case **directly drives** a **specific & tangible** element of the Trust's Strategy	Clear evidence that the case **directly drives** a **specific & tangible** improvement in patient care	Case identifies real **potential for future** sustainable cost savings and / or revenue growth	**High** risk score (15 to 19) as per Trust's Risk Assessment Matrix
3	Clear evidence that the case **directly drives** the delivery of the Trust's Strategy & Mission	Clear evidence that the case **directly drives** the Strategy on improving patient care	Case directly **influences** other opportunities for future cost savings and / or revenue growth	**Medium** risk score (9 to 14) as per Trust's Risk Assessment Matrix
2	Evidence that the case **influences** a **specific** part of supports the wider delivery of the Trust's Strategy & Mission	Evidence that the case **influences** a **specific** part of the Strategy on improving patient care	Case **maintains** our current cost base and / or revenue	**Moderate** risk score (4 to 8) as per Trust's Risk Assessment Matrix
1	Evidence that the case **influences** the delivery of the Trust's Strategy & Mission	Evidence that the case **influences** improvements in patient care	**No impact** on cost saving and / or revenue	**Low** risk score (1 to 3) as per Trust's Risk Assessment Matrix
0	**No impact** on delivering the Trust's Strategy & Mission	**No impact** on patient care improvements	**Reduces** revenue or increases cost	**No risk**, score 0
Scores	*5*	*4*	*4*	*4*
Weighting	*x 25*	*x 25*	*x 20*	*x 30*
Weighted scores	*125*	*100*	*100*	*120*
Total score	*445*			