

# **Clinical Safety of Health IT Systems Policy**

Policy number and category	C 31	Clinical	
Version number and date	1	July 2020	
Ratifying committee or executive director	Trust Clinical Governance Committee		
Date ratified	September 2020		
Next anticipated review	September 2023		
Executive director	Director of Nursing		
Policy lead	Clinical Safety Officer		
<b>Policy author</b> ( <i>if different from above</i> )	Clinical Safety Officer		
Exec Sign off Signature (electronic)	Arlanda		
Disclosable under Freedom of Information Act 2000	Yes		

## POLICY CONTEXT

The Clinical Safety of Health IT Systems Policy is a policy that provides a framework that supports compliance with the Health and Social Care Act 2012 Section 250. More specifically it relates to NHS Digital Standards DCB 0129 and 0160.

The policy is a Clinical Risk Management framework that identifies the need to apply risk assurance processes to the procurement, deployment, maintenance, updates/upgrades and decommissioning of Clinical Systems, or systems deemed to be in scope of the policy where there is a potential to cause harm to service users.

## POLICY REQUIREMENT (see Section 2)

All systems within scope of the policy must be risk assured through the processes outlined in Section 2 of this policy. Prior to the procurement of any system, the potential system should be triaged to determine whether it falls within scope of this policy.

Activities and processes within this policy are a co-ordinated effort between appropriate teams/functions and the Clinical Safety Officer. The role of the Clinical Safety Officer is to ensure that policy is being followed, and to approve hazards, incidents and clinical safety reports.





#### CONTENTS

1	INTF	INTRODUCTION			
	1.1	Rationale4			
	1.2	Scope of Policy			
	1.3	Principles (Beliefs)5			
2	POL	ICY (WHAT)			
3	PRO	CEDURE			
	3.2	Intelligent Procurement7			
	3.3	Third Party Products7			
	3.4	Clinical Risk Management File8			
	3.5	Clinical Risk Management Plan8			
	3.6	Governance9			
	3.7	Training9			
4	RES	PONSIBILITIES 11			
5	DEV	ELOPMENT AND CONSULTATION PROCESS			
5 6		ELOPMENT AND CONSULTATION PROCESS			
	REF	ERENCE DOCUMENTS 14			
	<b>REF</b> 6.1	ERENCE DOCUMENTS			
	<b>REF</b> 6.1 6.2	ERENCE DOCUMENTS       14         Relevant legislation, policies, procedures and processes       14         Legislation       14			
	<b>REF</b> 6.1 6.2 6.3 6.4	ERENCE DOCUMENTS       14         Relevant legislation, policies, procedures and processes       14         Legislation       14         Trust Policies       14			
6	<ul> <li>REF</li> <li>6.1</li> <li>6.2</li> <li>6.3</li> <li>6.4</li> <li>BIBL</li> </ul>	ERENCE DOCUMENTS       14         Relevant legislation, policies, procedures and processes       14         Legislation       14         Trust Policies       14         Procurement Regulations       14			
6 7	<ul> <li>REF</li> <li>6.1</li> <li>6.2</li> <li>6.3</li> <li>6.4</li> <li>BIBL</li> <li>GLO</li> </ul>	ERENCE DOCUMENTS       14         Relevant legislation, policies, procedures and processes       14         Legislation       14         Trust Policies       14         Procurement Regulations       14         IOGRAPHY       15			
6 7 8	<ul> <li>REF</li> <li>6.1</li> <li>6.2</li> <li>6.3</li> <li>6.4</li> <li>BIBL</li> <li>GLO</li> <li>AUD</li> </ul>	ERENCE DOCUMENTS       14         Relevant legislation, policies, procedures and processes       14         Legislation       14         Trust Policies       14         Procurement Regulations       14         IOGRAPHY       15         SSARY       16			





10.2	Appendix 2 – Clinical Risk Management Activities and Documentation 27	Process Map
10.3	Appendix 3 – Document Requirements	

10.0		20
10.4	Hazard Log	28
10.5	Clinical Safety Case	29
10.6	Clinical Safety Case Report (s)	30
10.7	Safety Incident Management Log	32





#### 1 INTRODUCTION

#### 1.1 RATIONALE

- 1.1.1 The following two standards, relating to clinical safety, are accepted for publication under section 250 of the Health and Social Care Act 2012 by the Data Coordination Board (DCB). In line with current DCB practice, each standard comprises:
  - A specification, which defines the requirements and conformance criteria to be met by the user of the standard how these requirements are met is the responsibility of the user
  - Implementation guidance, which provides an interpretation of the requirements and, where appropriate, defines possible approaches to achieving them.
- 1.1.2 Compliance with DCB0129 and DCB0160 is mandatory under the Health and Social Care Act 2012.
- 1.1.3 The Clinical Safety of Health IT Systems Policy provides a framework for which Birmingham and Solihull Mental Health NHS Foundation Trust (BSMHFT) will operate under to ensure that compliance with DCB0160 is achieved and maintained.

#### 1.2 SCOPE OF POLICY

- 1.2.1 This policy is addressed to those persons in the Trust who are responsible for ensuring the safety of HIT Systems through the application of risk management.
- 1.2.2 This is a Trust wide policy and applies to all staff, service users, volunteers, visitors and contractors regardless of location, inclusive but not limited to prison services.
- 1.2.3 In the deployment, use, modification or decommissioning of a HIT System, the scope of the standard and this supporting guidance includes:
  - all clinical functionality which could potentially cause harm to patients
  - operational use and potential misuse of the clinical functionality and its potential to cause harm to patients
  - environmental considerations
  - organisational procedures
- 1.2.4 This standard applies to all HIT Systems including those that are also controlled by medical device regulations though the requirements are broadly consistent with the requirements of ISO 14971.
- 1.2.5 Whilst it is not possible to list all systems believed to be in scope, due to the volume, the following represent examples of systems that would fall in scope of this policy; Rio, EPMA, Inpatient Portal and IAPTUS.
- 1.2.6 Out of Scope of Policy
  - Systems, technology and/or equipment that do not meet the definition of a HIT System e.g. Microsoft Office, Windows 10;



- Interdependent systems, technology and/or equipment required for the HIT System to successfully execute its functioning, unless meeting the definition of a HIT System within its own right e.g. Blackberry Enterprise Service.
- Information Governance, financial reporting and statistical reporting tools E.g. Insight, Eclipse etc

#### 1.3 **PRINCIPLES (BELIEFS)**

1.3.1 The Trust positively supports individuals with learning disabilities and ensures that no-one is prevented from accessing the full range of mental health services available. Staff will work collaboratively with colleagues from learning disabilities services and other organisations, in order to ensure that service users and carers have a positive episode of care whilst in our services. Information is shared appropriately in order to support this.



#### 2 POLICY (WHAT)

- 2.1.1 It is recognised that on ratification of this policy, many systems would be considered noncompliant with the standards set within. The Trust are committed to ensuring that compliance with all systems is achieved within one year from the date of initial ratification. In order to achieve this, an implementation plan will be developed outlining required activity, outputs and milestones.
- 2.1.2 A Clinical Safety Officer (CSO) should be nominated for the Trust. The Clinical Safety Officer will be responsible for ensuring the safety of a Health IT System in the Trust through the application of the clinical risk management process. The nominated Clinical Safety Officer needs to satisfy the requirements set out by NHS Digital.
- 2.1.3 All systems within scope of the policy must be risk assured through the processes outlined in this section of the policy. Prior to the procurement of any system, the potential system should be triaged to determine whether it falls within scope of this policy.
- 2.1.4 The procurement, update or decommissioning of any system within the Trust, should be approved via the Systems Strategy Group.
- 2.1.5 During the full lifecycle of any system and/or technology within the scope of this policy, individuals MUST follow the Trust's Risk Management Policy.
- 2.1.6 All individuals involved in any activity outlined within this policy will receive training commensurate with the role and/or responsibilities.
- 2.1.7 Where there is evidence of the activities outlined in this policy and the below procedures are not being completed as expected, this MUST be Eclipsed. There should also be consideration for whether this constitutes an entry in the Trust's risk register. Furthermore, the Nominated CSO should be made aware.
- 2.1.8 The roles and responsibilities of personnel supporting the clinical risk management activities will need to be documented in the Clinical Risk Management File.



#### 3 PROCEDURE

3.1.1 This section details procedures within the context of clinical safety of HIT Systems which are required to ensure compliance with Standard DCB 0160.

#### 3.2 INTELLIGENT PROCUREMENT

- 3.2.1 Risk to patient safety can be considerably reduced through intelligent procurement. A formal framework for procurement should therefore be an integral component of clinical risk management. Examples would be the inclusion of safety impacting requirements in procurement contracts placed on the supplier of the Health IT System.
- 3.2.2 The Trust should:
  - ensure that the supplier has assessed the clinical risks associated with the Health IT System to be deployed is compliant with DCB0129.
  - request that the supplier's safety documentation is provided as this will form as key input into the Trust's own clinical risk management activities
  - request that a supplier agrees to implement new or updated standards that are applicable to the Health IT System that is to be deployed.
- 3.2.3 The Trust may procure and deploy a Health IT System from a Supplier which is not DCB0129 compliant. In this situation the Health IT System may not be supported by accompanying clinical risk management or safety documentation which may result in:
  - an increased risk to patient safety
  - the Trust having to produce the safety material that should have been provided by the supplier.
- 3.2.4 The Trust, as a result of conducting its own clinical risk assessment, may decide that the benefits of deploying a Health IT System which does not satisfy the requirements of DCB0129 outweigh any associated risk to patient safety. The deployment of a non DCB0129 compliant Health IT System would have to be authorised by executive lead.
- 3.2.5 As part of the procurement process the Trust will need to review the list of standards and identify which are applicable to their deployment and ensure that the Health IT System is compliant with these standards. Such compliance could be achieved through inclusion in procurement contracts. Where a Health IT System is non-compliant a defensible reason for non-compliance must be provided.

#### 3.3 THIRD PARTY PRODUCTS

3.3.1 Many HIT Systems are reliant on the use of third-party products. Such products can introduce a variety of risks particularly where a HIT System is reliant upon it or interoperates with it. Risks may also arise when software updates or patches are applied to these products. Such





products are, however, unlikely to have been risk assessed for health applications by the original supplier.

- 3.3.2 Where third party products and health software interact, the Trust will need to ensure that its own clinical risk management process takes this into account.
- 3.3.3 Suppliers who are compliant with DCB0129 are required as part of their clinical risk assessment activities to consider any third-party product incorporated into their Health IT System. The Trust should:
  - confirm that any third-party product used has been considered in the Supplier's safety documentation
  - review the extent of the Supplier's contractual responsibilities for risk control both for original supply and for updates and patches which may be passed to the Trust through them. In this situation there should be a requirement for the Supplier to maintain the associated Clinical Safety Case Report and provide updates highlighting changes in the level of risk.

#### 3.4 CLINICAL RISK MANAGEMENT FILE

- 3.4.1 All clinical risk documentation needs to be subject to configuration control so that any subsequent changes can be tracked.
- 3.4.2 The purpose of the Clinical Risk Management File is to provide a physical or logical repository of all records and documents that are produced by the clinical risk management process and required by this standard. If the documents are referenced from the Clinical Risk Management File, then they must be capable of being retrieved.
- 3.4.3 Consideration should be given to ensuring adequate back-up or archiving procedures are in place to guarantee that the Clinical Risk Management File and the artefacts it contains, or references remain preserved and recoverable throughout the life of the HIT System, including decommissioning.

#### 3.5 CLINICAL RISK MANAGEMENT PLAN

- 3.5.1 The purpose of the Clinical Risk Management Plan is to document and schedule the clinical risk management activities to support the safe deployment, maintenance and decommissioning of the HIT System.
- 3.5.2 The Clinical Risk Management Plan SHOULD:
  - define and describe the HIT System and the clinical context in which it will be used
  - state the relevant procedures, policies and resources required to ensure effective and efficient clinical risk management
  - adhere to the Trust's quality improvement and project management processes and requirements
  - define all the phases of the HIT System lifecycle and quantify which clinical risk activities are applicable at a particular phase
  - specify the criteria that are to be used to estimate the clinical risk and evaluate the acceptability of the clinical risk



- identify key roles of responsibility and authority for each clinical risk activity. Additionally, it needs to identify what other resources are required to support the activity, e.g. reviewer, subject matter expert, test analyst, etc.
- define those members of staff who are able to approve the safety documentation
- record under what circumstance or periodicity the plan should be reviewed. Triggers could be at a transition to the next phase in the HIT System lifecycle, a change of resource or in line with existing governance arrangements. The motivation for review is to maintain an up to date and effective plan and to support a process of continual improvement.
- 3.5.3 The extent of the Clinical Risk Management Plan needs to be commensurate with the scale and clinical functionality of the HIT System whilst addressing the clinical risk management activities specified within this standard.
- 3.5.4 The Clinical Risk Management Plan needs to be approved by the Clinical Safety Officer prior to use.
- 3.5.5 The Clinical Risk Management Plan forms part of the Clinical Risk Management File.
- 3.5.6 Please refer to appendix 2 to establish full documentation requirements relating to Clinical Safety.

#### 3.6 GOVERNANCE

- 3.6.1 The Trust wide Systems Strategy Group will maintain authority to:
  - Approve/Decline procurement of Systems and Technology that are considered in scope of this policy.
  - Approve/Decline Requests for Change to current Systems and Technology that are considered in scope of this policy.
  - Approve/Decline the Decommissioning of current Systems and Technology that are considered in scope of this policy
- 3.6.2 Individuals will be required to provide a paper and appropriate assurance documentation for the procurement of any Systems and Technology to the Systems Strategy Group.
- 3.6.3 Where a decision has been made, a rationale will be provided by the Systems Strategy Group for that decision and advice on how to progress.
- 3.6.4 Individual project, programme and systems groups/boards may develop proposals independently, however proposals must be presented in the form of a paper to the Systems Strategy Group for a decision to be made.

#### 3.7 TRAINING

- 3.7.1 It is the responsibility of individuals undertaking activities associated with this policy to ensure that they have received and maintained the appropriate level of training commensurate with their role.
- 3.7.2 For the purposes of simplicity, there will be three levels of training: Level One, Two and Three



3.7.3 The levels of training are broken down as follows:

Level	Туре	Whom
One	Basic Awareness – e-Learning Package provided through Trust e-Learning Platform	Anyone within the Trust that wants to learn more about the requirements
Two	Intermediate Awareness – e- Learning Package provided through e-Learning for Healthcare Platform	Staff working within any function where the management of a system forms part of their role, ICT Functions and Programme Management staff
Three	Advanced Awareness – 1 Day workshop run by NHS Digital.	Clinical Safety Officer (Statutory Requirement), Heads of ICT and Programme Management Office Functions and individuals responsible for overall compliance and accountability for risk.

3.7.4 It will be the responsibility of individuals undertaking training to keep up to date with regulatory changes, these will be communicated through policy changes and Trust communications channels by the Clinical Safety Officer, their deputy, and/or the Systems Strategy Group.





#### 4 **RESPONSIBILITIES**

POST(S)	RESPONSIBILITIES	REF
Director of Nursing	The Executive lead remains responsible for authorising the deployment of a Health IT System. Within the Clinical Risk Management Plan, the executive lead will need to specify those individuals who are able to approve the clinical risk management documentation. As a minimum this will be the Clinical Safety Officer.	
Deputy Director of ICT / CIO	The Deputy Director of ICT / CIO remains responsible for the overall portfolio of ICT and Strategic Development. They will form part of the Systems Strategy Group.	
Chief Clinical Information Officer (CCIO)	The CCIO remains responsible for the overall clinical leadership of digital systems and technology. They will chair the Systems Strategy Group.	
Head of ICT	The Head of ICT will remain responsible for ensuring collaboration between ICT Staff and Clinical Leadership to enable appropriate standards to be applied and systems and technology to meet compliance with all assurance requirements.	
Clinical Safety Officer	The Clinical Safety Officer (CSO) will be responsible for	
	• approval of the Clinical Risk Management Plan to confirm that the plan is appropriate and achievable in the context of the Health IT System deployment, modification, and decommissioning	
	• ensuring that clinical risk management activities are completed in accordance with the Clinical Risk Management Plan	
	• the review and approval of all safety documentation including Clinical Safety Case Reports and Hazard Logs	
	• the review of evidence in the Clinical Risk Management File to ensure	



	it is complete and supports the Clinical Safety Case Report	
	• providing a recommendation to executive lead regarding whether the Health IT System is safe to deploy	
	• raising any unacceptable safety risks to executive lead.	
All Staff	All staff will be responsible for reporting any incidents or issues relating to Trust systems and technology.	
ICT Staff	All ICT Staff will have responsibility to ensure they have understanding commensurate with own role and responsibilities.	
Service, Clinical and Corporate Managers/Directors	Service, Clinical, and Corporate Managers/Directors will be responsible for providing subject matter expertise relevant to specific systems and technology to help ensure that systems and technology are clinically directed.	
ICT Managers	Will be responsible for ensuring that the have knowledge and skills commensurate with role and responsibilities and will be responsible for ensuring that staff within the team have appropriate training and qualifications relevant to the scope of this policy.	
Policy Lead	The policy lead will be responsible for ensuring that the policy remains contemporary, and that any changes in legislation, regulations and/or standards are appropriately reflected within policy amendments and cascade to appropriate stakeholders.	



#### 5 DEVELOPMENT AND CONSULTATION PROCESS

CONSULTATION SUMMARY				
Date policy issued for consulta	15/01/2020			
Number of versions produced	for consultation	1		
COMMITTEES OR MEETING	S WHERE THIS POLICY WAS	FORMALLY DISCUSSED		
PDMG		April 2020		
WHERE ELSE PRESENTED	SUMMARY OF FEEDBACK	ACTIONS / RESPONSE		





#### 6 **REFERENCE DOCUMENTS**

#### 6.1 RELEVANT LEGISLATION, POLICIES, PROCEDURES AND PROCESSES

- This policy may have interdependencies on the below legislation and Trust policies, procedures, and processes. It is therefore advisable to consider them in relation when ensuring overall compliance with this policy.
- This policy should also be reviewed on any updates to the below legislation and Trust policies, procedures, and processes.

#### 6.2 LEGISLATION

- Computer Misuse Act 1990
- Data Protection Act 2018 and General Data Protection Regulation
- Equality Act 2010
- Freedom of Information Act 2000
- Health and Safety Act at Work 1974
- Health and Social Care Act 2012 (Specifically Section 250)
- National Health Service Act 2006
- Regulation of Investigatory Powers Act 2000
- The Copyright, Designs and Patents Act 1988
- The EU Regulation on In Vitro Diagnostic Devices 2017/746
- The EU Regulation on Medical Devices 2017/745

#### 6.3 TRUST POLICIES

- C 25 Duty of Candour
- C 41 WHAT Handover Policy
- C 42 Internet Access Policy
- C 58 Learning from deaths
- CG 01 Policy Development and Management
- CG 09 Business Continuity Policy
- CG 20 Remote Working and Remote Access Policy
- IG 02 ICT Policy
- IG 09 Registration Authority Policy
- HR 05 Professional Registration
- RS 01 Risk Management Policy
- RS 02 The Reporting, Management and Learning from Incidents policy
- RS 16 Health and Safety Policy
- RS 19 Diagnostic and Therapeutic Equipment
- SFI 01 Standing Financial Instructions

#### 6.4 **PROCUREMENT REGULATIONS**

- Public Contract Rules 2015
- Future Operating Model
- Standing Financial Instruction Waivers
- Procurement Strategy





#### 7 **BIBLIOGRAPHY**

No bibliographical information to add to section.

Clinical Safety of Health IT Systems Policy





#### 8 GLOSSARY

TERM	DEFINITION
Clinical Safety Officer (previously referred to as Responsible Person)	Person in a Trust responsible for ensuring the safety of a HIT System in that organisation through the application of clinical risk management.
Clinical Risk	Combination of the severity of harm to a patient and the likelihood of occurrence of that harm.
Clinical Risk Analysis	Systematic use of available information to identify and estimate a risk.
Clinical Risk Control	Process in which decisions are made and measures implemented by which clinical risks are reduced to, or maintained within, specified levels.
Clinical Risk Estimation	Process used to assign values to the severity of harm to a patient and the likelihood of occurrence of that harm.
Clinical Risk Evaluation	Process of comparing a clinical risk against given risk criteria to determine the acceptability of the clinical risk.
Clinical Risk Management	Systematic application of management policies, procedures and practices to the tasks of analysing, evaluating and controlling clinical risk.
Clinical Risk Management File	Repository of all records and other documents that are produced by the clinical risk management process.
Clinical Risk Management Plan	A plan which documents how the Trust will conduct clinical risk management of a HIT System.
Clinical Risk Management Process	A set of interrelated or interacting activities, defined by the Trust, to meet the requirements of this standard with the objective of ensuring clinical safety in respect to the deployment of HIT Systems.
Clinical Safety	Freedom from unacceptable clinical risk to patients.
Clinical Safety Case	Accumulation and organisation of product and business process documentation and supporting evidence, through the lifecycle of a HIT System.
Clinical Safety Case Report	Report that presents the arguments and supporting evidence that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given environment at a defined point in a HIT System's lifecycle.
Harm	Death, physical injury, psychological trauma and/or damage to the health or well-being of a patient.



Hazard	Potential source of harm to a patient.	
Hazard Log	A mechanism for recording and communicating the on-going identification and resolution of hazards associated with a HIT System.	
Trust	Organisation within which a HIT System is deployed or used for a healthcare purpose.	
HIT System	Product used to provide electronic information for health or social care purposes. The product may be hardware, software or a combination.	
Initial Clinical Risk	The clinical risk derived during clinical risk estimation taking into consideration any retained risk control measures.	
Intended Use	Use of a product, process or service in accordance with the specifications, instructions and information provided by the Supplier to customers.	
Issue	The process associated with the authoring of a document. This process will include reviewing, approval and configuration control.	
Likelihood	Measure of the occurrence of harm.	
Lifecycle	All phases in the life of a HIT System, from the initial conception to final decommissioning and disposal.	
Supplier	Person or organisation with responsibility for the design, manufacture, packaging or labelling of a HIT System, assembling a system, or adapting a HIT System before it is placed on the market and/or put into service, regardless of whether these operations are carried out by that person or on that person's behalf by a third party.	
Patient	A person who is the recipient of healthcare.	
Patient Safety	Freedom from harm to the patient.	
Post-Deployment	That part of the lifecycle of a HIT System after it has been manufactured, released, deployed and is ready for use by the Trust.	
Procedure	Specified way to carry out an activity or a process.	
Process	Set of interrelated or interacting activities which transform inputs into outputs.	



Release	A specific configuration of a HIT System delivered to a Trust by the Supplier as a result of the introduction of new or modified functionality.
Residual Clinical Risk	Clinical risk remaining after the application of risk control measures.
Safety Incident	Any unintended or unexpected incident which could have, or did, lead to harm for one or more patients receiving healthcare.
Safety Incident Management Log	Tool to record the reporting, management and resolution of safety incidents associated with a HIT System.
Severity	Measure of the possible consequences of a hazard.
Third Party Product	A product that is produced by another organisation and not by the HIT System Supplier. Examples include operating systems, library code, database and application servers and network components.
Executive	Person or group of people who direct(s) and control(s) the Trust and has overall accountability for a HIT System.



Birmingham and Solihull Mental Health NHS Foundation Trust

#### 9 AUDIT AND ASSURANCE

ELEMENT TO BE MONITORED	LEAD	TOOL	FREQ	REPORTING ARRANGEMENTS	ACTING ON RECOMMEN D-ACTIONS AND LEAD(S)	CHANGE IN PRACTICE AND LESSONS TO BE SHARED
System Registry	CSO	TBD	Contemporan eously	System Strategy Group		
Eclipse Incidents	CSO	TBD	Contemporan eously	System Strategy Group		
Clinical Safety Case Reports	CSO	TBD	Contemporan eously	System Strategy Group		
Systems awaiting procurement, update, decommissioning	CSO	TBD	Contemporan eously	System Strategy Group		
Training Records	Relevant Managers	TBD	Contemporan eously	System Strategy Group		
Hazard and Incident Logs	CSO	TBD /	Contemporan eously	System Strategy Group		





#### **APPENDICES** 10

This section of the policy contains relevant appendices

Clinical Safety of Health IT Systems Policy





#### 10.1 APPENDIX 1 – EQUALITY ANALYSIS SCREENING FORM.

Title of Proposal	Clinical Safety of Health IT Systems Policy			
Person Completing this proposal			Chief Nursing Information Officer / Nominated Clinical Safety Officer	
Division	Corporate	Service Area	Programme Management Office	
Date Started	14 <sup>th</sup> January 2020	Date completed	July 2020	
Main purpose and a organisation.	ims of the proposal and how it	fits in with the wide	r strategic aims and objectives of the	
<ul> <li>To provide a risk assurance framework around the procurement, deployment, usage, maintenance, updating/upgrading and decommissioning of Health Information Technology Systems within the scope of the policy.</li> <li>To ensure that patient safety is considered in the full lifecycle of Health Information Technology Systems within the scope of the policy.</li> <li>To ensure that identified hazards and risks associated with the aforementioned systems are mitigated and that the risks and hazards are reduced as low as practicably possible.</li> <li>To ensure compliance with the Health and Social Care Act 2012 Section 250 and to ensure that the standards as determined by NHS Digital and the Data Co-ordination Board (DCB) are adhered to.</li> </ul>				
Who will benefit from the proposal?				
support th	<ul> <li>Service Users will benefit from this policy in an indirect way as it ensures that the systems and technology tha support the delivery of care and treatment are risk assured, this in turn allows for reduction / elimination of the likelihood that any malfunction could lead to harm.</li> </ul>			



Impacts on different Personal Protected Characteristics – Helpful Questions:						
Does this proposal promote equality of opportunity? Eliminate discrimination? Eliminate harassment? Eliminate victimisation?			Filler Fi	Promote good community relations? Promote positive attitudes towards disabled people? Consider more favourable treatment of disabled people? Promote involvement and consultation? Protect and promote human rights?		
Please click in the	ne relevant ir	npact box or	leave blan	k if you feel there is no particular impact.		
Personal Protected Characteristic	No / Minimum Impact	Negative Impact	Positive Impact	Please list details or evidence of why there might be a positive, negative or no impact on protected characteristics.		
Age	No Impact					
Is it easy for some	Including children and people over 65 Is it easy for someone of any age to find out about your service or access your proposal? Are you able to justify the legal or lawful reasons when your service excludes certain age groups					
Disability	No Impact					
Including those with physical or sensory impairments, those with learning disabilities and those with mental health issues Do you currently monitor who has a disability so that you know how well your service is being used by people with a disability? Are you making reasonable adjustment to meet the needs of the staff, service users, carers and families?						
Gender	No Impact					



This can include male and female or someone who has completed the gender reassignment process from one sex to					
another					
Do you have flexi	ble working a	rrangements	for either sex	?	
Is it easier for eith					
Marriage or Civil Partnerships	No Impact				
	People who are in a Civil Partnerships must be treated equally to married couples on a wide range of legal matters Are the documents and information provided for your service reflecting the appropriate terminology for marriage and civil partnerships?				
Pregnancy or Maternity	No Impact				
Does your service	This includes women having a baby and women just after they have had a baby Does your service accommodate the needs of expectant and post-natal mothers both as staff and service users? Can your service treat staff and patients with dignity and respect relation in to pregnancy and maternity?				
Race or Ethnicity	No Impact				
Including Gypsy or Roma people, Irish people, those of mixed heritage, asylum seekers and refugees What training does staff have to respond to the cultural needs of different ethnic groups? What arrangements are in place to communicate with people who do not have English as a first language?					
Religion or Belief	No Impact				



Including humanists and non-believers Is there easy access to a prayer or quiet room to your service delivery area? When organising events – Do you take necessary steps to make sure that spiritual requirements are met?					
Sexual Orientation	No Impact		ssary steps t		
Does your service couples?	Does staff in your workplace feel comfortable about being 'out' or would office culture make them feel this might not be a				
Transgender or Gender Reassignment	No Impact				
	This will include people who are in the process of or in a care pathway changing from one gender to another Have you considered the possible needs of transgender staff and service users in the development of your proposal or service?				
Human Rights	No Impact				
Affecting someone's right to Life, Dignity and Respect? Caring for other people or protecting them from danger? The detention of an individual inadvertently or placing someone in a humiliating situation or position?					
If a negative or disproportionate impact has been identified in any of the key areas would this difference be illegal / unlawful? I.e. Would it be discriminatory under anti-discrimination legislation. (The Equality Act 2010, Human Rights Act 1998)					



	Yes	No				
What do you consider the	High Impact	Medium Impact	Low Impact	No Impact		
level of negative impact to be?				No Impact		
	If the impact could be discriminatory in law, please contact the <b>Equality and Diversity Lead</b> immediately to determine the next course of action. If the negative impact is high a Full Equality Analysis will be required.					
If you are unsure how to answer the above questions, or if you have assessed the impact as medium, please seek further guidance from the <b>Equality and Diversity Lead</b> before proceeding.						
If the proposal does not have a negative impact or the impact is considered low, reasonable or justifiable, then please complete the rest of the form below with any required redial actions, and forward to the <b>Equality and Diversity Lead</b> .						
Action Planning:						
How could you minimise or remove any negative impact identified even if this is of low significance?						
There has been no identified impact within the associated domains.						
How will any impact or planned actions be monitored and reviewed?						



• There has been no identified impact within the associated domains; however this will be reviewed on an ongoing basis. These domains will be considered in the full lifecycle of systems and technology.

How will you promote equal opportunity and advance equality by sharing good practice to have a positive impact other people as a result of their personal protected characteristic.

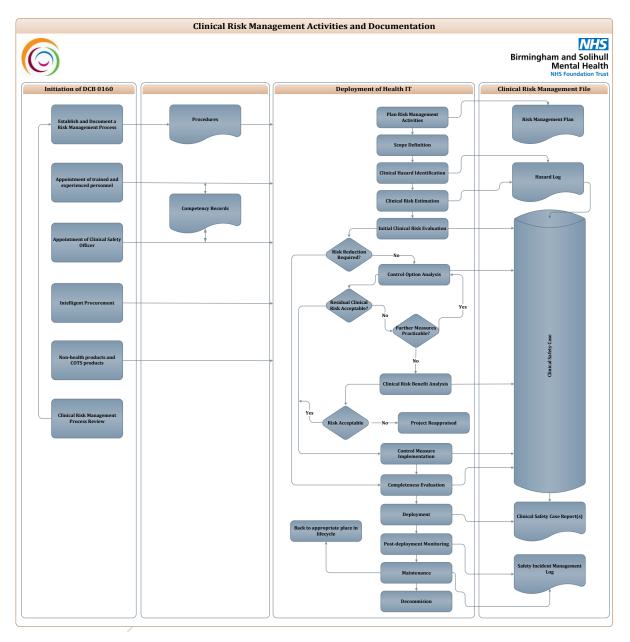
• During the full lifecycle of systems and technology, the associated domains will be considered to ensure that systems and technologies do not negatively impact individuals with protected characteristics,

Please save and keep one copy and then send a copy with a copy of the proposal to the Senior Equality and Diversity Lead at hr.support@bsmhft.nhs.uk. The results will then be published on the Trust's website. Please ensure that any resulting actions are incorporated into Divisional or Service planning and monitored on a regular basis.





10.2 APPENDIX 2 – CLINICAL RISK MANAGEMENT ACTIVITIES AND DOCUMENTATION PROCESS MAP



The above process map provides a visual overview of Clinical Risk Management Activities and Documentation required by NHS Digital to ensure compliance with DCB0160 and the Health and Social Care Act 2012 Section 250.





#### 10.3 APPENDIX 3 – DOCUMENT REQUIREMENTS

#### 10.4 HAZARD LOG

- 10.4.1 The Hazard Log is a mechanism for recording and communicating the on-going identification and resolution of hazards associated with the HIT System. It is organised so that it enables a systematic approach to the management of hazards and supports the effective collation of safety case evidence. Such on-going revisions will:
  - incorporate new hazards, when identified
  - record the mitigation of defined hazards through the implementation of clinical risk control mechanisms
  - reference supporting evidence
  - record the status of actions.
- 10.4.2 Whilst the Hazard Log is a living document and continues to be updated during the lifecycle of the HIT System, a base-lined version is to be issued with each Clinical Safety Case Report.
- 10.4.3 Each version of the Hazard Log has to be reviewed and approved by the Clinical Safety Officer to signify that the clinical safety information recorded is accurate and appropriate.
- 10.4.4 An example Hazard Log template is presented at Table 2. It is not prescriptive or definitive but illustrates how, reading from left to right, a well-structured Hazard Log supports effective clinical risk management and promotes the collection of relevant evidence in a timely manner. Table 2 summarises the entries that are recorded in each column of a Hazard Log.

FIELD	DESCRIPTION
Hazard number	A unique number for the hazard
Hazard name	A short descriptive name for the hazard
Hazard description	A short description of the hazard
Potential Clinical Impact	Description of effect of hazard in the care setting and potential impact on the patient
Possible Causes	Possible cause(s) that may result in the hazard. These may be technical, human error, etc. Note: a hazard may have multiple causes

10.4.5 Table 2 – Hazard Log Entries



Existing Controls	Identification of existing controls or measures that are currently in place and will remain in place post implementation that provide mitigation against the hazard, i.e. used as part of initial Hazard Risk Assessment		
INITIAL HAZARD RISK			
Severity	The severity of the hazard as defined in Table 7		
Likelihood	The likelihood of the hazard as defined in Table 8		
Risk Rating	The derived risk rating from the combination of likelihood and severity according to Table 9		
ADDITIONAL CONTRO			
Design	Identification of design features or configurations implemented in the Health IT System in order to provide mitigation against the hazard.		
Test	Identification of testing to be completed in order to provide mitigation against the hazard		
Training	Identification of training to be implemented in order to provide mitigation against the hazard.		
Business Process Change	Identification of any Business Process Changes implemented in order to mitigate against the hazard		
<b>RESIDUAL HAZARD RI</b>	SK ASSESSMENT		
Severity	The severity of the mitigated hazard as defined by Table 7		
Likelihood	The likelihood of the mitigated hazard as defined by Table 8		
Risk Rating	The derived mitigated risk rating from the combination of likelihood and severity according to Table 9		
ACTIONS			
Summary	Summary of the action being taken with regard to mitigation of the hazard or individual causes		
Owner	The owner of the action		
Hazard Status	The status of the hazard:		
	<ul> <li>'Open' not all clinical risk management actions, owned by the Supplier, in respect of this hazard, have been completed.</li> <li>'Transferred' all clinical risk management actions owned by the Supplier, in respect of this hazard, have been completed but not all actions, owned by the deploying Trust, have been completed.</li> <li>'Closed' all clinical risk management actions in respect of this hazard have been completed.</li> </ul>		

### 10.5 CLINICAL SAFETY CASE

10.5.1 The Clinical Safety Case is a structured argument which is supported by a body of relevant evidence that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given operating environment. The argument provides an explanation of how the supporting evidence can be interpreted as indicating that the HIT Clinical Safety of Health IT Systems Policy



System exhibits an adequate degree of safety, e.g. by demonstrating compliance with requirements or sufficient mitigation of identified hazards.

- 10.5.2 The supporting evidence is the result of observation, analysis, testing or simulation that provides information from which system safety can be claimed.
- 10.5.3 Parallels can be drawn between a Clinical Safety Case and legal proceedings:
  - presentation of a defence (argument) without evidence is unfounded; how does the defence hold?
  - presentation of evidence without a legal argument is unexplained; what is the meaning of the evidence?
- 10.5.4 The Clinical Safety Case should not be thought of as a physical issued document but rather the intellectual planning that needs to be considered and undertaken in order to establish the safety argument and generate the supporting evidence. Every effort should be made to establish the safety argument as soon as practical in the lifecycle. This will ensure that resource and effort is directed efficiently to generate relevant evidence. If consideration of the safety argument is left until later in the lifecycle it may become difficult to explain how the available evidence supports claims over the safety of the HIT System. Such an approach may result in gaps or lack of evidence which may result in additional work, delays and increased costs.
- 10.5.5 The Clinical Safety Case will evolve during the lifecycle of the HIT System and is to be reviewed to ensure that it continues to provide sufficient confidence in the safety of the HIT System.
- 10.5.6 The relationship between the Clinical Risk Management File, the Clinical Safety Case and the Clinical Safety Case Report can be understood by considering a filing cabinet analogy:
  - the filing cabinet itself can be thought of as the Clinical Risk Management File, i.e. the repository in which relevant information is stored
  - the organisation, indexing and cross referencing of the information within the filing cabinet can be thought of as the Clinical Safety Case, i.e. the planning and structure
  - the retrieval of information from the filing cabinet can be thought of as the Clinical Safety Case Report, i.e. presentation of information that has previously been organised to support a safety position at any point in time. It is permissible for this presentation to be incomplete at a point in time. For example, it may not be possible to present particular evidence at an early iteration of the report, but it should be possible to present the need for that evidence.

#### 10.6 CLINICAL SAFETY CASE REPORT (S)

- 10.6.1 The Clinical Safety Case Report is the physical document that summarises all the key elements of the Clinical Safety Case and references all supporting material in a clear, comprehensible and concise format. It serves to communicate the Clinical Safety Case to the end users and Executive but also where appropriate to other bodies such as regulators.
- 10.6.2 As the underlying Clinical Safety Case continues to evolve during the HIT System lifecycle, then there is a need to issue Clinical Safety Case Reports in support of key milestones.





10.6.3 Typically, a Clinical Safety Case Report will be issued at:

- Pre-Deployment: The supplier's Clinical Safety Case Report will be a key input to support the transition to live use of the HIT System. The scope of the Clinical Safety Case Report will extend to cover both normal and abnormal modes of system operation including associated recovery procedures. Human factors and the possibility of user error will be important considerations. Hazards identified in the Supplier's Clinical Safety Case Report and any assumptions made about clinical use will need to be considered in the specific deployment. The integration and the interaction of the HIT System with other systems will also need to be considered from a clinical risk perspective.
- Post Deployment: If assumptions made at pre-deployment about the intended use or operating environment are not realised during use then the Clinical Safety Case will need to be re-examined and the effect on the HIT System re-documented in a Clinical Safety Case Report. Similarly, if the anticipated benefit of clinical risk control measures is not realised then the Clinical Safety Case will need to be re-examined and the effect on the HIT System re-documented in a Clinical Safety Case Report.
- Maintenance: If during use, the HIT System is subjected to any change or modification or if its operating environment or clinical use is changed then the Clinical Safety Case Report needs to be re-evaluated and re-issued as appropriate. In practice this will involve undertaking clinical risk analysis, evaluation and control activities on the changes introduced and also on new or impacted interfaces within the system.
- Decommission: Here the focus of the clinical risk management process will be to identify, analyse, evaluate and control those hazards associated with removing the HIT System from service rather than preserving the level of clinical risk associated with its use. Consideration needs to extend to include any clinical risk associated with retaining any clinical capability, existing interfaces with any other retained and integrated system, preservation and migration of health information and back-up or recovery requirements.
- 10.6.4 A single Clinical Safety Case Report may be maintained; being re-issued in accordance with local configuration control procedures, or individual standalone Clinical Safety Case Reports may be issued.
- 10.6.5 The Clinical Safety Case Report is the primary vehicle for presenting a statement of the clinical safety of the HIT System. It therefore needs to be a readable document rather than simply a listing of the Clinical Safety Case or the content of the Clinical Risk Management File.
- 10.6.6 It needs to provide the reader with:
  - a summary of all the relevant knowledge that has been acquired relating to the clinical risks associated with the HIT System at that point in the lifecycle
  - a clear and concise record of the process that has been applied to determine the clinical safety of the HIT System
  - a summary of the outcomes of the assessment procedures applied
  - a clear listing of any residual clinical risks that have been identified and the related operational constraints and limitations that are applicable.
- 10.6.7 The structure of a Clinical Safety Case Report will reflect the organisation of the underlying Clinical Safety Case, which in turn will be influenced by the requirements of this standard. Clinical Safety of Health IT Systems Policy C31 - Version 1





An example structure is provided in Table 6 but should not be considered to be prescriptive or definitive.

#### 10.7 SAFETY INCIDENT MANAGEMENT LOG

- 10.7.1 The Trust needs to establish and use a Safety Incident Management Log to support the effective communication, resolution and archiving of safety related incidents. The log should be used during the deployment, use, maintenance or decommissioning of a Health IT System. A Safety Incident Management Log could either be kept for a specific Health IT System or as a single central log.
- 10.7.2 The Safety Incident Management Log should serve to provide a common portal to all Trust staff so that they have an up to date view of the status and management of both current and historical safety incidents associated with a Health IT System. Use of the log needs to be limited to record only those incidents that result or have the potential to result in a clinical risk.
- 10.7.3 The Safety Incident Management Log should record the following parameters:
  - Reference Number: Unique identifier
  - Reported by: Name and contact details of person reporting the incident
  - · Reported Date: Date on which the incident was reported
  - Incident Summary: Narrative of incident including as much detail as is available, for example, prevailing conditions, causes and observed effects including any harm that occurred
  - Clinical Risk Assessment: Determination of clinical risk by considering severity of the incident, the likelihood of re-occurrence and known mitigation for relevant hazards
  - System Configuration: Details of system affected
  - Journal: Record of work conducted, including date and time, to resolve the incident. This entry would also identify any permanent risk control measures introduced to prevent re-occurrence. Should include "who" "when" and "what"
  - Made Safe Date: Date at which the incident was made safe through the introduction of short-term risk controls
  - Closed Date: Date at which the incident was resolved through the introduction of permanent risk control measures
  - Cause: Summary of root cause analysis conducted.