

## Data Protection Impact Assessment (DPIA) Template

A Data Protection Impact Assessment (DPIA) must be completed whenever a new service, process or information asset is introduced or there is a change to an existing process or service. Steps 1 - 3must be completed for all projects / proposals. If advised to do at the end of Step 3 please complete Step 4. Completed DPIAs should be emailed to <u>elft.information.governance@nhs.net</u>

<u>Step 1. Project / proposal details</u> *Complete for all projects / proposals* 

#### Project / proposal name: Oxehealth Digital Care Assistant

**Description of project / proposal:** Explain broadly what project aims to achieve and what type of processing it involves. Please attach a document or link to other documents, such as a project proposal if you have one. Is it a new electronic system, service acquisition, software, information sharing proposal or something else?

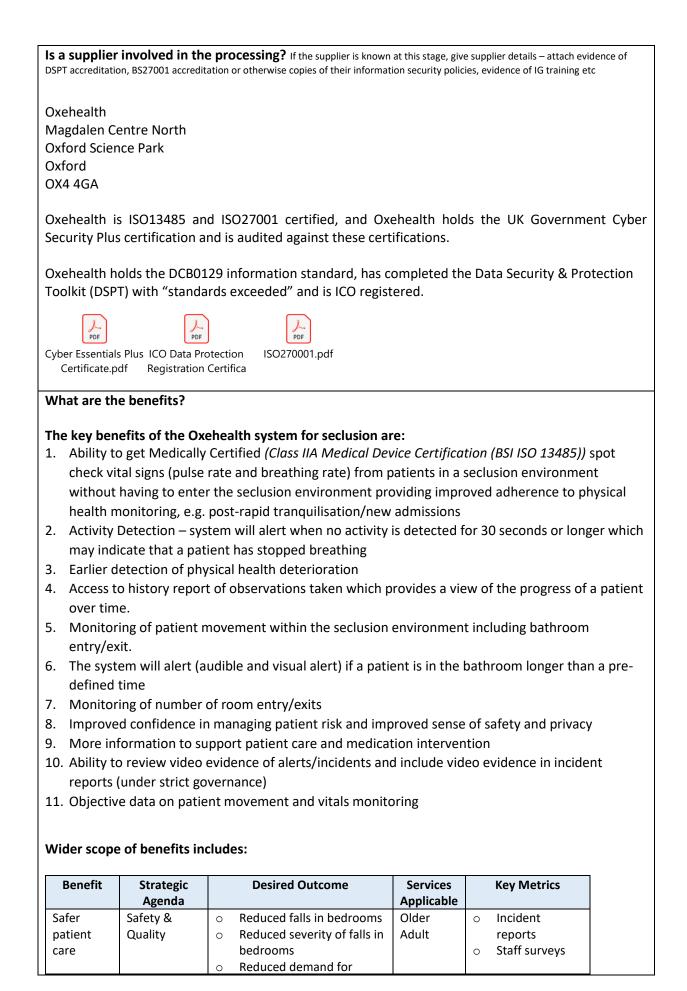
Oxehealth is a spin-out from Oxford University which develops proprietary software that supports clinical staff in caring for the safety and health of their patients.

East London NHS Foundation Trust is procuring the following Oxehealth software modules:

- Oxehealth Vital Signs (a Class IIa medical device in Europe)
- Activity Detection for Seclusion
- High Risk Activity Alerts Edge of Bed, Out of Bed, Out of Room, Multiple People, Dwelling in en suite bathroom timer
- Activity Report
- Vital Signs Trend Report

In this project, East London NHS Foundation Trust wishes to deploy the Oxehealth Software & Oxehealth Services to improve and supplement its patient care and safety monitoring regimes.

**Give an overview of the processing:** How will you collect, use, store and delete data? What is the source of the data? Will you be sharing data with anyone? Attach a flow diagram or describe data flows. What types of processing identified as likely high risk are involved?



#### 

			Ambulance services and A&E attendance			and interviews
Safer patient care	Safety & Quality	0	Reduced incidences or early warnings to violence/aggression, self- harm (e.g. ligatures) Earlier warnings to contraband and smoking related incidents	PICU	0	Incident reports Staff surveys and interviews
Safer patient care	Safety & Quality	0	Undisturbed night observations	All	0 0	Staff surveys DCA system data
Safer patient care	Safety & Quality	0	Improved adherence to physical health monitoring, e.g. post-rapid tranquillisation, new admissions Earlier detection of physical health deterioration	All, especially seclusion & S136 suites	0	Physical health monitoring Incident reports Staff surveys
Better patient experience	Safety & Quality	0	Improved sleep quality, sense of safety and privacy	All	0	Patient feedback
Better staff experience	Safety & Quality, Recruitment, Retention	0	Improved confidence in managing patient risk, improve sense of safety and peace of mind	All	0 0 0	Staff surveys and interviews Staff morale Staff sickness & absence
More effective care	Safety & Quality	0	More information to support patient care & medication interventions	All	0	Staff surveys and interviews
Objective, auditable data	Governance	0 0 0 0	Objective data on patient activity and vital signs Objective video data & reports for serious incidents (under strict governance) Audit trail Reduced cost for litigation	All	0	n/a
Saved clinical time	Operational, Financial	0	Reduction in time spent on avoidable enhanced observations Reduction in time spent on non-direct care activities Faster L1 and L2 observations at night	All	0 0 0	Enhanced observation hours Agency/bank spend Staff surveys and interviews Time-and- motion study

<u>Step 2. Contact details</u> Complete for all projects / proposals. Please contact the IG team if anything is unclear

Work stream lead / project manager details					
Information Asset Owner (if different from above). This will be a Service Director, Corporate Director / Associate Director					
Information Asset Administrator (or System Own	er). This will usually be a team manager, IT super user etc				
Name	Job title				
Email	Phone				
Executive Director sponsor details. Required for large scale change, acquisitions etc, not for small projects					

## <u>Step 3. Screening questions.</u> Complete for all projects / proposals

Answering YES to any of the screening questions represents a potential high risk to the rights and freedoms of individuals and therefore a full DPIA must be completed to ensure those risks are identified, assessed and fully mitigated.

Screening questions	Yes or No		
Will the project / proposal involve the collection / processing of information about			
individuals? (this could be service users, carers, staff, stakeholders etc)			
Does it introduce new or additional information technologies that can substantially reveal	Yes		
business sensitive information / have a high impact on the business?			
Will it require individuals to provide information about themselves?	No		
Will information about individuals be disclosed to organisations / individuals who have not	Yes		
previously had routine access to the information?			
Will information about individuals be used for a new purpose or in a new way?	Yes		
Does it use technology that could be seen as intrusive e.g. automated decision making?			
Will it result in making decisions about individuals that may have an impact on them e.g.	No		
research, service planning, commissioning new services?			
Will it change the delivery of an individual's direct care?	Yes		
Will it require you to contact individuals in a way they might find intrusive?	No		
Does it involve any other organisations?	No		
Does it require individuals to consent to their information being processed?	No		
Does it involve new or significantly changed handling of a considerable amount of personal /	Yes		
business sensitive information about an individual in a database or system?			
Does it involve new or significantly changed consolidation, interlinking, cross referencing, or	No		
matching of personal / business sensitive data?			
Does it use cloud services / is it stored in 'the cloud'?	Yes		
Is it about children or vulnerable groups of adults e.g. service users?	Yes		
Will it be used for research purposes / projects?	No		

If you answered YES to any of the above questions please complete Step 4. If you answered NO to all questions then please send your DPIA to <u>elft.information.governance@nhs.net</u>. We will assess your request and either confirm our data protection support for your project / proposal or request further information. Please contact the IG team if anything is unclear.

# <u>Step 4. Full Data Protection Impact Assessment</u> Complete only when advised a full DPIA is necessary at the end of Step 2

at the end of Step 3

## 4.1 Processing

What data will be collected / processed? Does it include health or any other special categories of data? If so, please list. These are health, racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership; and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation

# Types of Data

Data is collected from every installation of the Oxehealth software in a room. The equipment used to do this is known as an "Oxeroom" installation with the data stored in a securely encrypted format. This encrypted data is stored on a server which is not in the Oxeroom but is located nearby on the same site - this is referred to as an "Oxeserver". Finally, some of the data collected is stored on secure remote servers based in the UK.

In this project, the data falls into one of four possible categories:

# Non-Personal Data

a) <u>Anonymised Video Data</u> - Oxehealth will anonymise the camera feed so that the individual is not identifiable from the video. Some modules within the Oxehealth Software permit staff to view Anonymised Video Data. Oxehealth will also compress and encrypt this feed and transfer it securely to its secure remote UK servers. Anonymised Video Data is required to ensure the Oxehealth Service delivers the Contract Purpose to the contracted standard. The Anonymised Video Data cannot be viewed by unauthorised persons because it is encrypted and – even were it decrypted -



the anonymisation prevents individuals being identified (example, see right).

- b) <u>Algorithm Processed Data</u> These are mathematical results (e.g. wave forms derived from camera pixels) from various processing stages of the algorithms (software calculations measuring movement, for example) including the final log file. Algorithm Processed Data are used in conjunction with the Anonymised Video Data to ensure the Oxehealth Service delivers the Contract Purpose to the contracted standard. These data are also encrypted and sent to Oxehealth's secure remote UK servers. These data cannot be used to identify an individual.
- c) <u>User Interface Output Data</u> When the algorithm has completed its processing of the camera feed, saving the information to the log file, it extracts room status reports (known as User Interface Output Data, an example of which would be an alert to an individual getting out of bed, or a vital sign recording that was taken) which are supplied to an output server (known as the User Module) so that they can be displayed to Partner's staff as visual and audible statuses. These User Interface Output Data are recorded by the User Module and drive the audible alerts and screen displays. These data cannot be used to identify an individual.

Anonymised Video Data, Algorithm Processed Data and User Interface Output Data ("Non-Personal Data") do not constitute personal data in circumstances where Oxehealth does not have access to Salient Video Data in respect of the same footage.

#### Personal Data

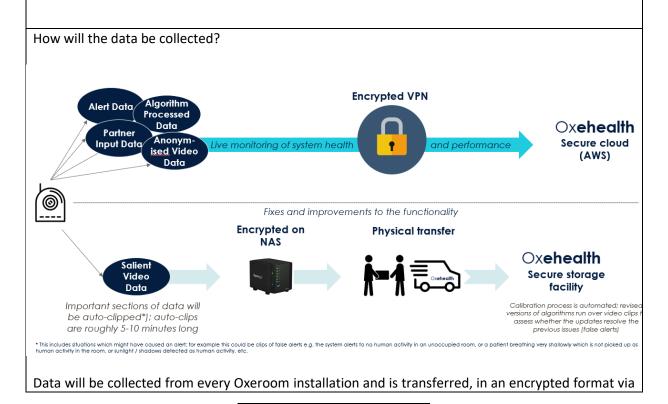
Salient Video Data – The Oxehealth Vital Signs product module requires the display of raw video feed to a user when they seek to take a pulse rate or breathing rate measurement as part of its medical device certification. Other modules may offer the option of setting up a raw video feed in response to a user action, at the discretion of Partner when specifying system set up. The Oxeserver also stores encrypted raw video data on a [24 hour] "rolling buffer", meaning that encrypted video from each room is held securely for [24 hours] before being recorded over and becoming irrecoverable.<sup>1</sup> The raw video for these periods is called Salient Video Data. Salient Video



Data which contains images of staff, patients or other personnel is personal data. This is referred to as "Personally Identifiable Salient Video Data". Salient Video Data which does not contain images of staff, patients or other personnel is not personal data. In contrast to Anonymised Video Data, Salient Video Data is encrypted but not anonymised because the identifiable data is required fully to investigate the algorithm's performance (example image, see right). In contrast to Anonymised Video Data, Salient Video Data, Salient Video Data will be short episodes (typically up to 10-15 minutes in length) so the total volume of video is expected to be low.

Salient Video Data may be "clipped" (marked for retention on the Oxeserver so that it is not recorded over) by Oxehealth remotely, and transported to Oxehealth's facilities from time to time. See "C. Usage of Data at Oxehealth" below for usage of Salient Video Data.

Salient Video Data is held separately to the Anonymised Video Data, Algorithm Processed Data and User Interface Output Data. Oxehealth will periodically collect the Salient Video Data and transport it by hand to Oxehealth's secure data storage facility (see data journey below).



<sup>1</sup> Note: The rolling buffer may vary from a minimum of 24 hours up to approximately 72 hours.

Ethernet cabling, to the Oxeserver, located in a secure Partner facility.

The Oxehealth Software modules hosted on Oxeserver are accessed by staff through fixed monitors located securely on Partner's premises or through dedicated tablets through a secured, encrypted wi-fi connection.

From the Oxeserver, data travels to Oxehealth via two mediums - over the internet and by the physical movement of storage devices by Oxehealth staff.

# a) Data that travels to Oxehealth via the Internet (over encrypted connection)

Oxehealth will routinely transport Non-Personal Data via the internet. These data allow Oxehealth to monitor and improve the system for the purpose of providing the Oxehealth Service to the Partner as per the contracted standard.

To deliver the service to the contracted standard, on occasion, Oxehealth need to obtain a "reference image" of a room via the internet. A "reference image" is images of an empty room over a 60 second period that do not contain any personal data. Prior to transferring the "reference image", Oxehealth verifies that there is no personal data contained within the image by cross-checking Anonymised Video Data and Algorithm Processed Data to ensure no individuals are present. Once this is confirmed, Oxehealth's internal process requires two separate, internal sign offs before the "reference image" can be transferred: Systems Team sign-off and Executive Team sign-off.

All data travels using a secure connection (encrypted) from the on-site Oxeserver to secure Oxehealth servers. None of this data is personal data (see above).

# b) Data that arrives at Oxehealth via the physical movement of storage devices

Personally Identifiable Salient Video Data is typically too large to transmit via secure internet connection. Instead, this is encrypted and physically transferred on a portable storage device.

The storage devices will be exchanged on a regular basis, with the devices physically being transferred to Oxehealth's secure data storage facility. During this transfer process Oxehealth staff (or a delegated secure courier agreed prior to the transfer with East London NHS Foundation Trust in writing) will accompany the storage devices at all times.

Once in the secure data storage facility, the data will be transferred onto medium term storage located in a secure server room. Once the transfer is complete, deletion utilities are run to ensure the data can no longer be accessed on the storage device.

Where will it be collected from?

See above

What will it be used for?

### Non-Personal Data

As set out above, the vast majority of data used in the project is not personally identifiable. Anonymised Video Data, Algorithm Processed Data and User Interface Output Data do not constitute personal data in circumstances where Oxehealth does not have access to Salient Video Data in respect of the same footage (the "Non-Personal Data").

Oxehealth only uses Non-Personal Data for the purpose of providing the Oxehealth Service to the Partner.

Non-Personal Data is deleted following expiry or termination of the agreement between Oxehealth and the Partner.

Personal Data

As set out above, Salient Video Data may be "clipped" and transported to Oxehealth's facilities from time to time. Data is clipped for two reasons.

First, Oxehealth may clip empty room Salient Video Data (i.e. does not contain images of people) from time to time to ensure there are no local phenomena which could prevent Oxehealth from delivering the Contract Purpose to the contracted standard (for example, to verify that there are no unidentified local light effects or that there have been no changes in the room set up or contents that contravene the Software Modules' Instructions for Use's Contraindications, Warnings or Cautions). Oxehealth can ensure the room is empty and that this data is not personal data using Anonymised Video Data and Algorithm Processed Data.

Second, Oxehealth may clip Salient Video Data containing images of people ("Personally Identifiable Salient Video Data"). This data is personal data. This clipping process is triggered by Partner staff or Oxehealth in one of three ways:

- 1. By a member of the Partner's staff who believe that they have identified something in the functioning of the system which they wish to bring to the attention of Oxehealth's engineers in order to ensure the Oxehealth Service delivers the Contract Purpose to the contracted standard
- 2. By Oxehealth flagging data that they believe should be reviewed to ensure the Oxehealth Service delivers the Contract Purpose to the contracted standard
- 3. By a member of the Partner's staff flagging the need to store data to support an internal or external investigation (for example, into a suspected serious adverse event).

Much of the data analysis on Salient Video Data for the Contract Purpose will be performed automatically, using computers, over Salient Video Data and Anonymised Video Data.

From time to time, Oxehealth's engineers may need to review a short period of Salient Video Data to understand why certain system outputs are being generated or are failing to be generated – these short periods will only be viewed by Oxehealth staff.

No copies of the data will be created for this and no still images will be taken. The data will be accessed directly from the server.

All staff with access to the data will be fully trained as to its use, the sensitive nature of this data, and everyone will be required to follow the staff code of conduct. All Oxehealth staff are DBS screened. No Salient Video Data will be used for marketing, or publicity purposes.

The Personally Identifiable Salient Video Data will only be kept for as long as is needed to answer queries raised by East London NHS Foundation Trust staff or by engineers at Oxehealth. To support this, all data files are date and time stamped so that retention can be tracked.

Oxehealth undertakes periodic reviews with the Partner to consider the Personally Identifiable Salient Video Data held, the reason for the data retention and confirmation of Personally Identifiable Salient Video Data deleted.

At least twice per year, Oxehealth provides its Partner with a Salient Video Data Report which confirms the purpose, principles and review process for any Personally Identifiable Salient Video Data collected for the Partner and a log of the personal data retained, reasons for retentions and date of next review. Oxehealth will process all personal data generated in the project in accordance with this DPIA and documented instructions from East London NHS Foundation Trust, the Data Controller.

Salient Video Data will be securely deleted at the end of the project or when no longer required, whichever is the earlier. In addition, East London NHS Foundation Trust have the ability to request that Oxehealth delete Personally Identifiable Salient Video Data at any time.

In order to support communication on the ward regarding the Oxehealth software, templates for ward signage and information leaflets can be provided by Oxehealth on request.

Will it be processed manually? Yes or No

No Will it be processed electronically? Yes or No Yes How is access controlled? For example passwords, Smartcard, locked door Oxehealth has implemented an Information Security Management System (ISMS) for assessing and managing security technology and policies to ensure measured protection of all assets (including Partner information assets). Amongst the many controls in place, Oxehealth's storage servers are within a secure UK facility which has strict access controls. All server room physical access and file electronic access are logged and audited. The facility is within an alarmed building which has 24hour security guards. In addition to strong physical security, the Oxehealth network also has a high level of electronic security to minimise the likelihood of a network-based attack. The Oxehealth network is protected with a perimeter Unified Threat Management (UTM) firewall, scanning and protecting the gateway from external threats (including intrusion prevention, anti-virus, anti-spyware and botnets). Staff use different sets of credentials for Virtual Private Network (VPN), remote machine access and fileserver access. Staff VPN access is granted to selected staff and is audited. Logging and patternbased alerts are active on the firewall and VPN. The system and network are subject to regular Penetration Testing by certified third party information security specialists. Whilst the data is being recorded it will be stored on the local compute equipment securely at East London NHS Foundation Trust (Oxeserver). Any data transfer over the internet will be in encrypted format. During transfer of the data back to Oxehealth's secure facility the servers will be accompanied at all times by a member of the Oxehealth team or a secure courier. Will only the minimum data necessary be collected / stored / processed? Yes Will be anonymised, pseudonymised or collated with other data? No Will any third parties access the data? Who? For example if another organisation wants access to our systems No Will it be sent off site or shared externally i.e outside the Trust or outside its computer network? Yes or No Yes

If sent off site, where to? Name the other agency / company / location / country

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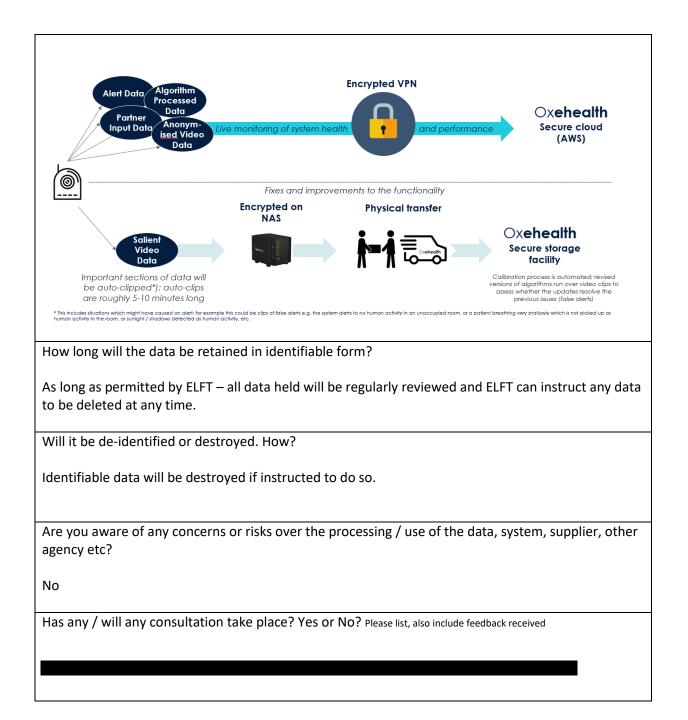
This data is stored physically on secure servers in the UK and Oxehealth has no intention of moving its business, or this data, outside of the UK.

If so, is there a contract / data controller to processor agreement, information sharing agreement?  ${\mbox{\tiny If}}$  yes, please attach

There is a contract that covers this.

How will it be sent?

<sup>&</sup>lt;sup>2</sup> Note: The rolling buffer may vary from a minimum of 24 hours up to approximately 72 hours.



**4.2 Cloud considerations.** You must complete this if you answered Yes in Step 2 to 'Does it use cloud services / is it stored in 'the cloud'?

Which country is the cloud provider based in? England

Is the cloud service hosted on HSCN? Yes

What business continuity plans are in place if the provider ceases trading?

Covered in contract

What secure arrangements are in place at the end of the contract with the cloud provider to transfer the data?

Covered on contract.

Who would legally own any data uploaded to the cloud application by the Trust?

ELFT owns all right, title and interest in the Salient Video Data, Anonymised Video Data and User Interface Output Data. Oxehealth owns all right, title and interest in the Algorithm Processed Data. For the avoidance of doubt, Algorithm Processed Data constitutes Oxehealth Confidential Material. What information & cyber security policies does the cloud provider have? Please attach information / embed a link

Oxehealth is ISO13485 and ISO27001 certified, and Oxehealth holds the UK Government Cyber Security Plus certification and is audited against these certifications.

Oxehealth holds the DCB0129 information standard, has completed the Data Security & Protection Toolkit (DSPT) with "standards exceeded" and is ICO registered.

Cyber Essentials Plus ISO270001.pdf Certificate.pdf

Please send your completed DPIA to <u>elft.information.governance@nhs.net</u>. We will assess your request and either confirm our data protection support for your project / proposal or request further information.

# Information Governance assessment

To be completed by the information governance team who will advise you once the assessment is complete

Compliance area	Assessment of compliance	Compliance agreed by IG <u>Manager</u> Y / N
Principle 1 Lawfulness, fairness and transparency Transparency: Are data subjects aware what data processing will be done? Fair: Is the processing as described? Lawful: Processing must meet the tests described in GDPR [article 5, clause 1(a)], that personal data shall be: "(a) processed lawfully, fairly and in a transparent manner in relation to individuals	The Legal basis for processing is Article 6 (c) Legal obligation, read in conjuction with the Health and Social Care act and Article 9 (2)(h).	Y by DPO
Principle 2 Personal data can only be obtained for "specified, explicit and legitimate purposes" [article 5, clause 1(b)]. Is the data only being used for the specific processing purpose that the subject has been made aware of?	Data will only be processed to support patient safety monitoring	Y by DPO
Principle 3 Data collected on a subject should be "adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed" [article 5, clause 1(c)]. Is only the minimum amount of data kept for specific processing?	Data is limited to vital signs observations and monitoring	Y by DPO
Principle 4 Personal data shall be accurate and, where necessary, kept up to date. [article 5, clause 1(d)]. Baselining ensures good protection and protection against identity theft. Are there rectification processes in the data management / archiving activities	Retention periods are clearly defined and stored for limited periods	Y by DPO
<b>Principle 5</b> Regulator expects personal data is "kept in a form which permits identification of data subjects for no longer than necessary" [article 5, clause 1(e)]. Is this recognised and what processes are in place to ensure it happens?	Company has clear processes in place for managing personal data	Y by DPO

Principle 6 Requires processors to handle data "in a manner [ensuring] appropriate security of the personal data including protection against unlawful processing or accidental loss, destruction or damage" [article 5, clause 1(f)]. Is the security adequate? Is there a system level security policy? Information sharing Is an information sharing or third	Company is ISO 27001 and Cyber Essentials Plus certified					Y by DPO Y by DPO	
party access agreement							
required? Y/N							
Cloud considerations Has the Information Security Manager approved the Cloud section? Y/N	ICT involved in rollout Y by DPO				Y by DPO		
Risks	Likelihood						
Assess the source of risk & nature	Severity	1	2	3	4	5	
of potential impact on the rights		Rare	Unlikely	Possible	Likely	Almost	
& freedoms of individuals. Include associated compliance &	5	5	10	15	20	25	
corporate risks as necessary	4 Major	4	8	12	16	20	
	3 Moderate	3	6	9	12	15	
	2 Minor	2	4	6	8	10	
	1 Negligible	1	2	3	4	5	
	Is the risk great enough to report to the ICO? N Add comments: Likelihood = 2 Severity = 3 Risk = 6						
Asset register / data flows mapping Has the asset been added to the relevant asset register? Y/N	To be added						

Information governance team to forward to DPO

# **Data Protection Officer approval**

## **DPO comments**

Project underway prior to information governance involvement therefore DPIA done retrospectively, supported by DPIA supplied by provider

DPO approval granted? Y/N
Yes
DPO name:
DPO signature:
DPO approval date:
07.01.2021

DPO to return form to information governance team for documenting and returning to project manager

Date returned by IG team t	to project manager:
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