

Privacy Impact Assessment extension of access to Streams for clinicians at Barnet Hospital Royal Free London NHS Foundation Trust

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Other relevant documents to this Strategy:

Integrated Risk Management Framework
Standing Orders & Standing Financial Instructions
Incident Reporting Policy
Serious Incident Policy

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Section 1 – New/Change of System/Project General Details

Name:	Streams – Extension to Barnet Hospital
Objective:	<p>The objectives of this project are to extend access to the existing live Streams application to six devices at Barnet Hospital, one of the three Hospitals operated by the Trust. The Streams application is currently only available to clinicians at the Royal Free Hospital.</p> <p>The underlying Streams application has already been subject to a privacy impact assessment (carried out under the previous name for the Streams application, the “Waking Project”)(“existing Streams PIA”). It will be subject to a forthcoming separate and independent audit to confirm its compliance with data protection legislation (“Streams Audit”).</p> <p>Hence this privacy impact assessment does not seek to repeat the existing Streams PIA. Accordingly, it only considers the privacy issues arising from the extension of the Streams application to the Barnet Hospital. It does not consider the underlying Streams application itself (save to the extent amended by this extension).</p> <p>This privacy impact assessment considers the position under both the current Data Protection Act 1998 and the position under the EU General Data Protection Regulation (which will apply in the UK from May 2018).</p>
Background: Why is the new system / change in system required?	<p>The Streams application is already in live use at the Royal Free London Hospital.</p> <p>Streams is a secure instant alert App providing an alert, diagnosis and detection system for acute kidney injury. The App addresses what clinicians call “failure to rescue”, when the right nurse or doctor doesn’t get to the right patient in time. Each year, many thousands of people in UK hospitals die from conditions like sepsis and acute kidney injury, which are preventable, because the warning signs aren’t picked up and acted on in time. This has significant implications for the long-term health of the patient and cost to the NHS.</p> <p>Streams quickly reviews test results for acute kidney injury. If one is found, the system sends an urgent secure smartphone alert to the right clinician to request help, along with information about previous conditions so they can make an immediate intervention. This is critical since the condition is time-sensitive and can cause the patient condition to rapidly deteriorate without the correct clinical response.</p> <p>The Streams app also allows clinicians to chat securely and collaborate in the treatment of patients via a chat facility,</p>

	<p>avoiding duplication of effort but allowing extra help when needed.</p> <p>This project will extend the Streams application to six devices at the Barnet Hospital. Patients are transferred between Barnet and the Royal Free for logistic and medical reasons. Doctors also regularly move between Barnet and the Royal Free Hospitals to review patients. This extension of the service will cover the inpatients at Barnet Hospital.</p>
Benefits:	<p>This project will extend access to the Streams application to clinicians at Barnet Hospital. This will mean that clinicians at Barnet Hospital will receive alerts via the Streams system. This will help those clinicians to better detect and treat acute kidney injury, which will be of significant benefit to patients.</p>
Constraints:	<p>Clinicians will need to identify and authenticate themselves to gain access to Streams at Barnet Hospital.</p> <p>The Streams configuration will need to be modified to assign users to the site at which they work to support alerting of the relevant patients. Although Streams operates on a single site currently the location of patients at both sites is already provided to Streams since the patients move between sites.</p> <p>Devices will be set up with Streams and Air Watch for use at Barnet Hospital as at Royal Free Hospital, which will require access to the Trust WiFi at Barnet Hospital.</p> <p>The WiFi coverage at Barnet Hospital needs to be reviewed to ensure it is sufficient.</p>
Relationships: (For example, with other Trusts, organisations)	<p>The Streams application has been developed in collaboration with DeepMind Technologies Limited. DeepMind will also provide assistance with the configuration changes needed to extend access to Streams at Barnet Hospital.</p> <p>The relationship between the Trust and DeepMind is one of a data controller to a data processor, with the Trust retaining its data controller responsibilities throughout. DeepMind is not entitled to use patient information for any purpose other than the operation of Streams.</p>
Quality Expectations	<p>The functionality being rolled out at Barnet will be the same as Royal Free Hospital.</p> <p>Patients will be informed of the Streams application, the data shared and its benefits through a variety of channels.</p>
Previous PIAs for this project:	<p>Streams has been previously called 'Waking Project', for which the existing Streams PIA was conducted.</p>
Cross reference to other projects:	<p>None.</p>
Project Manager:	<p>Name: [REDACTED]</p>

	Title:	Project Manager
	Department:	IM&T
	Telephone:	[REDACTED]
	Email:	[REDACTED]
Information Asset Owner:	Name:	[REDACTED]
	Title:	Consultant Nephrologist
	Department:	Nephrology
	Telephone:	[REDACTED]
	Email:	[REDACTED]
Information Asset Administrator:	Name:	[REDACTED]
	Title:	Head of Systems Integration
	Department:	IM&T
	Telephone:	[REDACTED]
	Email:	[REDACTED]
Customers and Stakeholders:	Patients with tests carried out in diagnostic services used by Royal Free London NHS Foundation Trust (Pathology and Radiology) Royal Free London NHS Foundation Trust NHS Foundation Trust Staff DeepMind	

Section 2 – Privacy Impact Assessment Key Questions

Overview	
1. Will the system /project/process (“asset”) contain personal data or sensitive data? About whom is data processed?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Patient <input checked="" type="checkbox"/> Staff <input type="checkbox"/> Other (specify)
2. Purpose for the collection of the data. For example, patient treatment, health administration, research, audit, staff administration	The purpose of this project is to extend access to the existing live Streams application to clinicians at the Barnet Hospital. The Streams application is used for patient treatment.
3. Does the asset involve new privacy-invasive technologies. For example, visual surveillance, digital image and video recording, profiling, data mining, and logging of electronic traffic?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Details: This is just an extension of access to the existing live Streams application.
Details of personal data processed	
4A. Personal	<input checked="" type="checkbox"/> Name Address <input checked="" type="checkbox"/> Post Code <input checked="" type="checkbox"/> Date of Birth <input checked="" type="checkbox"/> GP <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Next of Kin <input checked="" type="checkbox"/> Hospital No. <input checked="" type="checkbox"/> Sex <input checked="" type="checkbox"/> NHS Number <input type="checkbox"/> National Insurance Number
4B. Sensitive	<input checked="" type="checkbox"/> Treatment Dates <input checked="" type="checkbox"/> Diagnosis <input type="checkbox"/> Religion <input type="checkbox"/> Occupation <input type="checkbox"/> Ethnic Origin <input checked="" type="checkbox"/> Medical History <input type="checkbox"/> Other (please state here):
5. How many individuals’ personal data will be processed by the asset?	The Streams application contains details for 1.97 million records for 1.33 million patients.
6. Who provides the information for the asset?	<input checked="" type="checkbox"/> Patient <input checked="" type="checkbox"/> Staff <input type="checkbox"/> Others – please specify

Others – please specify e.g. Interface from another asset	
7. Will the asset collect new data items which have not been collected before?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Details: The Trust uses a single patient database to capture clinical records for patients treated at all Trust locations. The extension to the Barnet Hospital will not involve uploading additional records about patients onto the Streams application. The Trust's Hospitals already operate with shared infrastructure allowing patients and doctors to move seamlessly between those hospitals.
8. Does the asset involve changing the medium for disclosure for publicly available information in such a way that data becomes more readily accessible that before? (for example, from paper to electronic via the web?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Data protection rights	
9. Does the asset involve new or changed data collection policies that may be unclear or intrusive?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10. How will individuals be informed of the asset?	This will use the same notification process as is used by the Royal Free Hospital. The Trust's website includes a range of information about the partnerships with DeepMind, including a dedicated webpage with a video explaining the operation of Streams. That page is currently presented as the top story on the carousel on the home page of the Trust's website. The website also includes FAQs about the arrangement and details of how to opt-out of these arrangements. See: https://www.royalfree.nhs.uk/patients-visitors/how-we-use-patient-information/our-work-with-deepmind/ https://www.royalfree.nhs.uk/news-media/news/google-deepmind-qa https://www.royalfree.nhs.uk/news-media/news/new-app-helping-to-improve-patient-care/ As set out above, the Trust's Hospitals already operate as a combined organisation and the website is applicable to patients at all the Trust Hospitals.

	<p>A general privacy notice setting out how the Trust uses patient information is also available from our website. This includes a video to better explain these uses:</p> <p>https://www.royalfree.nhs.uk/patients-visitors/how-we-use-patient-information/ https://www.royalfree.nhs.uk/patients-visitors/privacy-statement/</p> <p>These notices will need to be revised in light of the EU General Data Protection Regulation. That process is being undertaken separately to the extension of the Streams application.</p> <p>In addition, banners and posters will be erected in situ to notify the public.</p>
11. Are you relying on individuals (patients/staff) to provide express consent for the processing of personal data or sensitive data?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
12. If yes, how will that consent be obtained? Please state:	Not applicable.
13. What procedures are in place for blocking of data by individual request?	The process will be the same as used at the Royal Free Hospital. Patients can write to, email, or phone the Trust's Information Governance Manager. On receipt of the request to block the processing of data the request is recorded in a log and passed to the system administrator in a secure directory. The system manager confirms deletion of the patient's information and that future transfers of data are blocked. This confirmation is fed back to the patient.
15. What procedures are in place for individual's subject access right?	Subject access requests will be dealt with using the current general subject access process. Patients can write to the Trust's Information Governance Manager who will process that request in the ordinary way. The patient's information is retrieved from the Streams data warehouse in a spreadsheet format and provided to the patient by the Trust's Information Governance Manager.
16. What procedures are in place for rectifying data by individual request?	Requests to rectify personal data are unlikely to affect the Streams application but will be dealt with using the current general processes. Patients are able to write to the Trust's Information Governance Manager who will process that request in the ordinary way.
17. What procedures are in place for individual's data portability right?	The right to data portability in the EU General Data Protection Regulation only arises where the processing condition relied upon is consent or performance of a contract. It is not relevant to the Streams application.
18. What procedures are in place for individual's right to erasure?	The right to erasure in the EU General Data Protection Regulation only arises in limited circumstances and will not apply to personal data in the Streams application. However, the individual's rights to

	block the use of their personal data in the Streams application is set out above.
Data quality	
19. What checks have been made regarding the adequacy, relevance and necessity for the collection of personal and / or sensitive data for this asset?	The extension of access to Streams to clinicians at Barnet Hospital will not change the types of personal data currently being processed nor the purposes for which it will be processed. The information processed by the Streams application is needed for treatment of the patient and hence is relevant and necessary. Access to information about the patient's historical records is required in order for Streams to operate and detect potential acute kidney injury once a new test is run for a patient.
20. How will the information be kept up to date and checked for accuracy and completeness?	The extension of access to Streams to Barnet Hospital will not change the measures used to confirm the accuracy of the data. The IT systems at Barnet that hold patient information will not be affected by the introduction of Streams.
21. Is automated decision making used? If yes, how do you notify the individual?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Details: As set out above, the purpose of the Streams application is to review test results and send out an alert to clinicians where necessary. Notification to individuals is discussed at point 10 above.
22. Have you assessed that the processing of personal/sensitive data will not cause unwarranted damage or distress to the individuals concerned? What assessments has been carried out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Details: The extension of access to Streams to Barnet Hospital will not change the types of personal data currently being processed nor the purposes for which it will be processed. The processing of the personal/sensitive data for the purpose of detecting acute kidney injury is unlikely to result in damage or distress.
23. What are the retention periods (what is the minimum timescale) for this data? (please refer to the Records Management: NHS Codes of Practice)	The extension of access to Streams to Barnet Hospital will not change the retention period. The Streams application was originally populated with records for patients who had a blood test in the last five years. This retention period was agreed upon following discussions with the lead renal consultant at the Royal Free as the minimum necessary to allow Streams to function safely. There is a clinical requirement for access to historical data in order to provide a baseline to compare against a new result and to provide access to a clinically rich record to enable an appropriate care intervention. If there is no baseline test result it is not possible to generate an AKI alert. There is currently no process to remove patient records at the end of this five-year period and so the amount of data stored on Streams will increase over time. The proportionality of the current

	approach, and the clinical and technical implications of an alternative approach of removing records at the end of the five-year period, will be considered in further depth as part of the Streams audit.
24. How will the data be destroyed when it is no longer required?	The data will be deleted from the system database and backups once the retention period is passed.
25. Does the asset involve new linkage of personal data with data in other collections, or is there significant changes in data linkages?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cookies and marketing	
26. Do you intend to send direct marketing messages by electronic means? This includes both live and pre-recorded telephone calls, fax, email, text message and picture (including video)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
27. If applicable are there procedures in place for an individual's request to prevent processing for purposes of direct marketing in place?	Not applicable.
28. Does the asset comply with privacy laws such as the Privacy and Electronic Communications Regulations 2003 (e.g. use of cookies)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not applicable
Third parties	
29. Will the information be shared with any third party as data controller?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
30. Is the third-party data controller of the system registered with the Information Commissioner? What is their notification number?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not applicable
31. Will a third-party data processor be used. Does the contract with the data processor contain all the necessary information	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Details:

Governance clauses including information about Data Protection and Freedom of Information?	<p>The arrangements with DeepMind are set out in an Information Processing Agreement and Services Agreement dated 10 November 2016.</p> <p>Minor amendments to these agreements may be needed as a result of the EU General Data Protection Regulation but these can be addressed in due course.</p>
Security	
32. Where will the information be kept/stored/accessed?	<input type="checkbox"/> On paper <input type="checkbox"/> On a database saved on a network folder/drive <input type="checkbox"/> Website <input checked="" type="checkbox"/> On a dedicated system with access from the Trust Network <input type="checkbox"/> Other – please state below:
33. Is there a system level security policy in place for the asset?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Details: The Royal Free London System Level Security Policy and The DeepMind Network Security Policy.
34. Will any information be sent offsite If yes, where is this information being sent.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Details: The extension of access to Streams to Barnet Hospital will not change the way in which the data is currently being stored. The service is hosted within a secure England-based data centre which complies with HSCIC data security standards and is independently certified to ISO20000 (IT Service Management), ISO27001 (Information Security Management), and ISO9001 (Quality Management) standards. Further information is set out in the Logical Connection Architecture.
35. Please state by which method the information will be transported	<input type="checkbox"/> Fax <input type="checkbox"/> Email <input type="checkbox"/> Via NHS Mail <input type="checkbox"/> Website <input type="checkbox"/> Via Courier <input type="checkbox"/> By Hand <input type="checkbox"/> Via Post – internal <input type="checkbox"/> Via Telephone <input type="checkbox"/> Via Post – external <input checked="" type="checkbox"/> Other – please state below: Details: The extension of access to Streams to Barnet Hospital will not change the way in which the data is transferred. This involves sending securely encrypted HL7 messages over dedicated N3 VPN between the Trust's integration engine and Streams message handler.
36. Who will have access to the information?	The extension will result in the clinicians at Barnet Hospital having access to the Streams application.

	<p>As is the case in the Royal Free Hospital, the clinicians access will be regulated by Microsoft Active Directory. Whenever a user tries to sign in to the app, they are authenticated against the Trust's LDAP (Lightweight Directory Access Protocol) servers and only allowed to proceed if an account with the appropriate privileges exists for them.</p> <p>As is currently the case, the application will log user access and certain usage details. Note that this is a 'read-only' application, with no data entry and no ability to update or change the underlying data (save in respect of the chat facility which does allow data input).</p> <p>There will be no change to DeepMind's administrator access, which is strictly limited, logged and audited.</p>
<p>37. Is there a useable audit trail in place for the asset. For example, to identify who has accessed a record?</p>	<p><input checked="" type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>Details: The extension of Streams to Barnet Hospital will not change the current audit arrangements. The Streams application maintains logs of all access to this data.</p>
<p>38. Has an information risk assessment been carried out and reported to the Information Governance Lead? Where there any risks highlighted? Please provide details and how these will be mitigated?</p>	<p><input checked="" type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>Details: The extension of access to Streams to Barnet Hospital will not change the current security measures. The service is hosted within a secure England-based data centre which complies with HSCIC data security standards and is independently certified to ISO20000 (IT Service Management), ISO27001 (Information Security Management), and ISO9001 (Quality Management) standards. Further information is set out in the Logical Connection Architecture.</p> <p>The iPhones containing the Streams application are managed by AirWatch mobile device management software and can be remotely wiped if a loss or theft is reported. AirWatch imposes mandatory PIN controls on the iPhones.</p>
<p>39. Is there a contingency plan/backup policy in place to manage the effect of an unforeseen event? Please provide a copy.</p>	<p><input checked="" type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>Details: The extension of access to Streams to Barnet Hospital will not change the current contingency measures. Details of the measures taken to protect information on the main Streams servers is set out in the Logical Connection Architecture.</p> <p>All data shared with Streams is backed up by the Royal Free London NHS Foundation Trust IT Department in accordance with its Information Governance Statement of Compliance (IGSoC) submission to NHS Digital. All data shared with Streams is</p>

	accessible through the trust's own IT systems in the event of Streams not being available.
International transfers	
40. Are you transferring any personal or sensitive data to a country outside the UK? If yes, where?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
40. What is the data to be transferred outside the UK?	Not applicable
41. Are measures in place to mitigate risks and ensure an adequate level of security when the data is transferred to this country?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
42. Have you checked the country has an adequate level of protection for data security?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Form Completed by:	Name [REDACTED] Title IT Director Signature Date 24/08/17

Section 3 – Evaluation

Assessment	
1. Legal basis for processing personal data	The legal basis for processing personal data is the need to protect the vital interests of the patient (Schedule 2, paragraph 4 of the Data Protection Act 1998 and Article 6(1)(d) of the EU General Data Protection Regulation). This conclusion will be subject to further legal confirmation in accordance with the undertakings given to the Information Commissioner.
2. Legal basis for the processing of sensitive personal data	The legal basis for processing personal data is the provision of healthcare (Schedule 3, paragraph 8 of the Data Protection Act 1998 and Article 9(2)(h) of the EU General Data Protection Regulation). This conclusion will be subject to further legal confirmation in accordance with the undertakings given to the Information Commissioner.
3. Legal basis for use of confidential patient information	The operational use of Streams in Barnet Hospital is for the purpose of direct care. This provides a legal basis for the use of that information
4. Transparency of information provided to individuals	The general measures to inform patients about the Streams application (as set out in Section 2, part 10) together with the specific communications plan for the extension access Streams to Barnet Hospital should provide sufficient transparency about this extension.
5. Measures to ensure adequacy and relevance of personal data	The data is needed for the same purposes as for the underlying Streams application. The data is adequate and relevant as it is based on the clinical need for the operation of the Streams application.
6. Measures to ensure accuracy of personal data	The measures to ensure accuracy are the same as for the Royal Free Hospital. The accuracy of personal data is checked against five data fields; Medical Record Number, NHS number, First Name, Surname and Date of Birth.
7. Retention of personal data	The retention periods are the same as for the underlying Streams application and are satisfactory based on the clinical need to retain data for this period.
8. Upholding individual rights.	The measures to respond to requests from patients to exercise their data protection rights are the same as for the underlying Streams application and are satisfactory.
9. Security measures	The security measures are defined in the Trust's System Security Policy.
10. Transborder dataflow	Not applicable.
Conclusions	
11. Is the PIA approved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
12. If not, please state the reasons why and action plan put in place to ensure the PIA can be approved including any timeframes.	

**Information Governance
Committee Approval.**

Name [REDACTED]
Title Senior Information Risk Owner (SIRO)
Signature
Date 25/08/17