



Liverpool Clinical Commissioning Group



General Practice Data Flow

Agreement Commenced: Date of signature

Agreement expires: 31/3/2019

Unique Reference: 0003



Business Intelligence Team

Change History

| Version | Date | Author | Details |
|---------|------------|--------|---|
| 1.0 | 07/11/2011 | HMc | Document created DRAFT |
| 1.1 | 30/01/2012 | HMc | Aggregate data extraction section removed, 'Data Governance' added to 'Governance and Security' Section. Wording changes in 'Usage Approval Process' section. |
| 1.2 | 09/07/12 | DW | Clarification added to Prescribing section around repeat prescriptions |
| 1.3 | 24/7/12 | HMc | 'Patient Confidentiality' section added in 'Governance and Security'. References to the exclusion of read code 93C1 and records marked as 'private' added in appendix A. |
| 1.4 | 09/08/12 | DW | Read Code omissions updated for current smoker |
| 1.5 | 24/09/12 | DW | Age Field added to Appendix A, Extract 1, Members List |
| 1.6 | 15/02/13 | HMc | Extract parameters on uses of the data updated to include several new sharing parameters, pseudonymisation section update, appendix deleted and taken into separate document |
| 1.7 | 21/02/13 | HMc | Governance and Security section updated following advice from IG |
| 1.8 | 18/03/13 | LB | Added extra word 'DMIC' to para 2 of Summary and Benefits section on page 2 to provide clarity. Added 'Business Intelligence Team' to para 2 of Monitoring and Review section on page 7. Corrected typos on pages 4 and 5. |
| 1.9 | 27/02/14 | LB | Changed Sharing Agreement end dates to 31/03/2015 and changed version to 1.9 in preparation 2014/15 |
| 2.0 | 18/08/14 | HM | Included a fair processing clause pg 7 |
| 2.1 | 10/03/15 | DW | Changed Sharing Agreement end dates to 31/03/2016 and changed version to 2.1 in preparation 2015/16 Page 9. Changed naming of Cheshire and Merseyside Commissioning Support Unit to North West Commissioning Support Unit |
| 2.2 | 21/01/16 | HM | Included Arden and GEM CSU and Midlands and Lancashire CSU as data processors; inserted more explicit language in the 'usage for understanding populations health and disease' re data linkage (Page 3); removed reference to sharing data with clinical networks (page 3/4); included reference of sharing data with individuals with honorary contracts (page 3/4); updated entire legal basis section (page 6); removed reference to 'reversing pseudonymisation' in pseudonymisation section (page 6) |
| 2.3 | 28/11/16 | LB | Updated name of document and expiry dates to reflect 17/18. Changed opt out periods from 7 working days to 7 days in 'Extract Parameters' section. Corrected wording in 'Usage for Risk Stratification' section. Included agencies working for LCCG as bodies that will access to the data or reports. Removed clause prohibiting the use of information for research purposes. Section on use of data for Freedom of Information requests added. Added section on use of data for Research purposes. Amended references to HSCIC to 'NHS Digital'. Changed wording in 'Legal Basis for Information Sharing' to provide clarity on what data is transferred for pseudonymisation. |
| 2.4 | 21/02/17 | LB | Updated wording in extract diagram on page 6 and paragraph on pseudonymisation paragraph on page 7. |
| 2.5 | 29/03/17 | LB | Added further codes to list of those which will cause a patient to be excluded from this extract, to bring this sharing agreement into line with national risk stratification guidance. |
| 2.6 | 07/02/18 | LB | Changed expiry dates to 31/03/2019 and version to 2.6 to reflect 2018/19. Added Liverpool GP Provider Organisation into list of possible recipients of aggregate data on page 5. Updated codes in section 2.9 of Appendix A by adding in 13FT and changing 13F7 to 13F72. Amended an omission from Group set 2 of Appendix A by adding in the codes for sections 2.13 - 2.15. |

Summary and Benefits of the Project

This document outlines the specification and information governance arrangements for a General Practice aggregate data extraction (via searches) and a patient level data extraction. These data extracts will be used to support Liverpool Clinical Commissioning Groups and General Practices in development of routine Business Intelligence Reporting.

The data sharing agreement is between General Practice (data controller), Liverpool CCG (data processor) Arden and GEM Commissioning Support Unit (data processor) and Midlands and Lancashire Commissioning Support Unit (data processor). Commissioning Support Units are a nationally mandated service set up for the provision of data management and business intelligence to the health economy.

These data extracts would be the cornerstone to the intelligence required by Liverpool CCG to commission services effectively in the future. Some benefits of data sharing through this agreement can be listed below:-

1. Extraction and analysis of the data is wholly standardised and automated which allows for key efficiencies in data management and manipulation to be realised.
2. Data extraction is streamlined. Instead of extracting data each month for numerous different audits the data can be extracted in one go to answer many questions.
3. Intelligence is improved through ability to 'segment' the data. Extracting the data in this way allows much more flexible manipulation of the data to answer various commissioning questions CCG's may have e.g. what is the make-up (ethnicity/age/co-morbidity profile etc) of the population who have diabetes whose Hba1c isn't managed to 7.5?
4. Data across different health care settings can be 'linked' to provide much richer intelligence on the 'make up' of patient cohorts and how patients use services. For example; intelligence on how many COPD and Diabetic patients have routine contacts in an outpatient department; linking chronic disease information to the use of urgent care to provide enhanced information on 'frequent attenders'; linking chronic disease information to community data to understand case managed lists for integrated care; linking prescribing data to secondary care/chronic disease to inform management.
5. Reporting on quality and outcomes becomes much more functional, as information outputs have the ability to 'drill down' on performance indicators to patient level and are in near real time.
6. As datasets from secondary and primary care are being warehoused together, systems to validate secondary care data against primary care data can be developed to help improve data quality.
7. Intelligence can be used to create a risk of admission score, utilising variables that are recorded in primary care systems e.g. number of disease registers, how many prescriptions people have, and other predictive modelling

Extract Parameters and uses of the data

GP's are being asked to sign up to two extracts. A monthly extraction of aggregate searches data and an extract of specific patient level data items as detailed in Appendix A.

Usage for Quality and Health Outcomes indicators - aggregate searches

Practices will be sent a list of indicator criteria at the beginning of each month and be given 7 days to opt out of any of the audits. The data will be extracted via EMIS web searches modules for use in reporting to practices and the CCG on quality and health outcomes (as currently happens). Practices can opt out of this sharing arrangement or any part of any audit at any time.

Usage for fulfilling Freedom of Information requests - aggregate searches

The Freedom of Information (FOI) Act 2000 is part of the Government's commitment to greater openness in the public sector, a commitment supported by NHS Liverpool CCG.

The FOI Act enables members of the public to question the decisions of public authorities whilst ensuring that the services provided are delivered effectively. The CCG has a statutory duty to consider all requests made for information under the Act. **It should be noted that Personal Data is classed as an 'Absolute exemption' and therefore cannot be requested under the Act.**

This sharing agreement allows the CCG to extract information in order to fulfil requests made under the FOI Act, **provided that practices are not identified in the data that is shared at any time.**

As above, practices will be sent a list of indicator criteria at the beginning of each month and be given 7 days to opt out of any of the audits which disaggregate to practice level. Practices can opt out of this sharing arrangement or any part of any audit at any time.

Usage For Research Purposes - aggregate searches

Research is key to finding new methods of improving patient care and assessing the clinical value of existing health interventions.

This sharing agreement allows the CCG to extract information for the purposes of research at **aggregate level only**. If patient –level data is requested, this will require a separate sharing agreement. Sharing of this data will only be permitted if the research project has been through a formal process of approval (including an ethics committee, where necessary).

Practices will be sent a list of indicators at the beginning of each month and be given 7 days to opt out of any of the audits. The data will be shared only with the body conducting the research, who will be specified in the audit schedule (see Communications & Opt Out Arrangements section).

In addition to the above aggregate data, practices are being asked to sign up to an extract of data items as detailed in Appendix A. The use of this data is detailed below.

Usage for Risk Stratification - patient level data items

The extract details in Appendix A will be used for the purpose of risk stratification. This is the process by which patients are allocated a 'risk of admission score' (e.g. 57% at risk of an admission). This score can be based on different variables e.g. service utilisation, co-morbidities, drugs prescribed etc. There are various statistical models available to generate this score. The risk score can be generated using secondary, primary, community and social care data. The more data that goes into the model, the more statistically accurate the risk prediction becomes. This extract of primary care data will be used to create a 'risk score' for the patients in your practice. This information will be made available securely to the practice on an Intelligence Portal to inform how you may want to organise/commission services around your patients.

Usage for Quality and Health Outcome Indicators - aggregate and patient level data items

The extract in Appendix A would be developed to construct a list of Quality and Health Outcome indicators for each practice, neighbourhood, locality and at a CCG level. This information will be used to facilitate quality improvement in General Practices and will be made available securely to the practice on an Intelligence Portal. As the data is patient level it would allow the ability for practices to 'drill down' on the indicators to identify patients who aren't managed to the indicator criteria in order that they can be investigated further. Practices will be sent a list at the beginning of each month of the quality and health outcome indicators being constructed by the data in appendix A. Practices can opt out at any time from any of the indicators on the list.

Usage for understanding health needs, populations and disease - patient level data items

The data would be an invaluable source of information to understand at a population level the nature of health and disease to inform CCG strategy, service provision and improve health outcomes for the city. This sharing agreement allows the data to be linked to other data sets on pseudonym and population health analysis to be undertaken by Liverpool CCG that doesn't disaggregate down to practice/organisation level at any time using this data. Practices will be informed on a monthly basis of each of these uses as per the table below. Practices can opt out at any time from any of these piece of work.

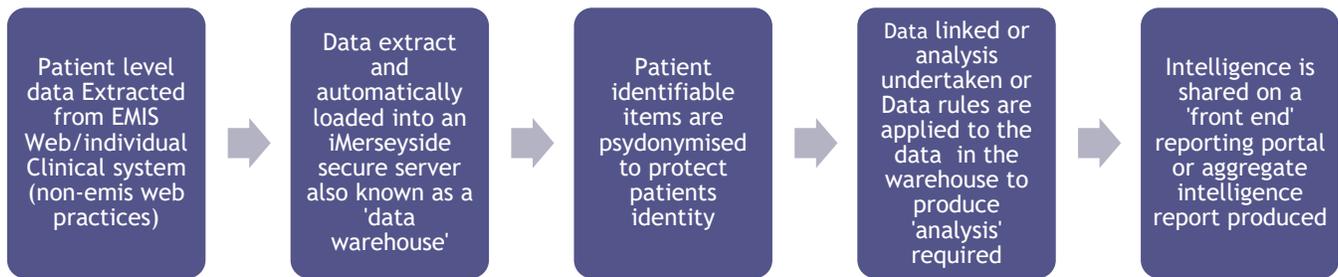
Communication and opt out arrangements

A monthly work programme will be communicated at the beginning of the month. The following information will be provided to the named information lead in each practice via the EMIS web email account. Practices will be given 7 days to opt out of the audits where indicated. **Practices can withdraw their data from any specific project at any time they wish** by informing Information and Intelligence Services. Ad hoc requests will be dealt with as they arise. Practices will be asked to opt in for any changes to the sharing agreement beyond the below.

| Usage area | Information provided to practice | Opt out period | Who will have access to the data / reports |
|--|---|--|---|
| Usage for Quality and Health Outcomes indicators – aggregate searches | Audit purpose, how the data will be used, indicators, read codes and date ranges will be listed | Practice will be given 7 days to opt out of any part of any audit run at practice level | GP Practices (data controller) CCG employees or those with honorary contracts e.g. public health analysis within Liverpool City Council |
| Usage for Risk stratification – data items | Monthly extract to build a risk of admissions score on the intelligence portal | Practices can opt out at any time | Arden and GEM CSU (data processor) |
| Usage for Quality and Health Outcomes indicators – data items | Audit purpose, how the data will be used, indicators, read codes and date ranges will be listed | Practice will be given 7 days to opt out of any audit that is run at practice level | Midlands and Lancashire CSU (data processor) Agencies contracted or commissioned to carry out work for, or on behalf of, Liverpool CCG (e.g. Local Diabetes Partnership) |
| Usage for understanding health needs, populations and disease – data items | Audit purpose, how the data will be used, indicators, read codes and date ranges will be listed | Practices will be informed monthly of the population level analysis being undertaken and can opt out at any time. For analysis that disaggregates to practice/organisational level, Practices will be given 7 days to opt out. | Liverpool GP Provider Organisation |
| Usage for fulfilling Freedom of Information requests- aggregate searches | Audit purpose, how the data will be used, indicators, read codes and date ranges will be listed | Practice will be given 7 days to opt out of any audit that is run at practice level | The requestor. Information will also be uploaded to the FOI publication scheme on the LCCG website. |
| Usage for Research Purposes | Audit purpose, how the data will be used, indicators, read codes and date ranges will be listed, which institution is carrying out the research | Practice will be given 7 days to opt out of any audit that is run at practice level | The institution named against the specific extract in the audit schedule. |

It should be noted that information included in reports to the CCG Governing Body, for example, may later be made public as part of the CCG's statutory duties. Opt out arrangements apply as per the table above.

Extract Process and Data Management



For security features of this process please see [Governance and Security](#) section below. To understand [Pseudonymisation](#) process - see below.

Governance and Security

Data Governance

It is essential that all processing and use of personal data is in line with the Data Protection Act. In order to protect the rights of individuals there is a statutory duty placed on those who decide 'how' and 'why' such data is processed – the 'data controller'. The data controller for this General Practice extraction is the GP Practice as they are the statutory body. Therefore all proposed use of the data must be in agreement with GP practices. The CCG/CSU will only be acting as a 'data processor' for this data ensuring that it is processed for the purposes it is collected and in accordance with the Data Protection Act and other best practice guidance e.g. National Information Governance policy.

This essentially means that **ALL** decisions regarding the use of the data rest with the GP Practice. The data processors cannot utilise or disclose this information to a third party e.g., Department of Health, without your express permission, unless covered by the terms of this agreement.

The information will only be used in accordance with the specific purpose that it is provided for and will be at all times treated as confidential and handled in a secure manner.

The shared information will **not** be used for the following:

- Advertising, Marketing & Public Relations
- Trading/sharing in personal information

Security of the servers/data warehouse (LCCG/CSU)

Data will be extracted and warehoused on a secure server hosted by Informatics Merseyside (IM) or Blackpool Hospitals (BTH) and administered by the nationally mandated Data Service for Commissioners Regional Offices (DSCRO) which are organisations that support CCGs on data management. The following security features are in place to ensure the data is secure.

- Servers have routine, auditable back up procedure to prevent data loss
- Secure anti-virus software
- Servers in secure room with key access and log book for access
- Building has swipe card access for every floor.
- Computers have time out screens and screen lock functions for users.
- Users have secure password to network that is forced to change every three months.
- This process is regularly audited by external auditors to ensure it is fit for purpose

Legal basis for Information Sharing

The data items shared contain the patient identifiable items of NHS number, date of birth and post code.

The national section 251 exemption for Risk Stratification allows the flow of this data for the purposes of risk stratification if the data processor is an approved risk stratification provider by NHS Digital. Both CSU's involved in data processing are approved.

Flows of these data items for secondary analytical uses are also permitted if the data is pseudonymised at source on behalf of the General Practice (data controller), with a data processing agreement in place with the data processor. In addition, controls must be in place to ensure that the onward organisation receiving the pseudonymised data has no means to reverse that pseudonymisation.

In the case of this sharing agreement the data will be extracted centrally by facilitators within Liverpool CCG business Intelligence department on behalf of each General Practice. Patient identifiable data is then pseudonymised in a controlled area on the server, with access granted only to those individuals undertaking the pseudonymisation. Those using the pseudonymised data within Liverpool CCG and/or the CSU will not have access to this area and will have no means to reverse the pseudonymisation.

Accredited Safe Haven Status, (granted by the NHS Digital) allows data linkage to occur on pseudonym, as long as reporting outputs are in aggregate form and there is small number suppression. Both the CSU's and Liverpool CCG are an Accredited Safe Haven.

Pseudonymisation

The data extracted will be housed in a secure data warehouse as above. Liverpool CCG and the CSU's have implemented Pseudonymisation following guidance from NHS Digital on how to manage patient level/identifiable data in a Data Warehouse. This means the following 'patient identifiable' data items will be 'masked' on landing so they cannot be viewed.

- Postcode – only show the first four characters
- Date of Birth – set to 1st of January followed by the year of birth or age at activity date
- NHS Number – this has been hashed as a unique key that can be joined to other tables but consists of a random sequence of 10 characters

Subject Access

Subject access requests will be dealt with by the data controller in accordance with the provisions of the Data Protection Act 1998.

Complaints

Complaints will be dealt with in accordance with Liverpool CCG Complaints Policy.

Transmission

In line with Department of Health recommendations, the use of laptops or other portable media for storing/transferring person identifiable or other sensitive information is not allowed under this agreement unless it is encrypted to standards approved by the DoH. Data will be transmitted via approved secure routes in this case NHS net to NHS net or encrypted email.

Information breaches

Partners will take steps to avoid any breach (intentional or otherwise) or disclosure to third parties outside the remit of this Agreement. Breaches must be reported through to Liverpool CCG Incident reporting procedures, fully investigated and a report provided to Liverpool CCG.

Any Serious Untoward Incidents occurring within the scope of the information shared under this agreement must be reported to the participating organisations within 1 day of the incident occurring. The SUI must be fully

investigated. The GP practices reserves the right to be informed at every stage of the investigation. Disciplinary action will be the responsibility of the organisation where the incident has occurred. This agreement will be reviewed in light of any lessons learnt from such incidents.

Information will only be accessible to those authorised by this agreement or for whom it is essential to access the information to complete the purpose of the sharing.

Confidentiality

Partner organisations must have confidentiality clause within staff contracts of employment and or require staff participating in this agreement to sign confidentiality agreements. Staff must have current CRB checks where agreements require the sharing of sensitive data in particular children's data

Where training needs to meet the requirements of this agreement are assessed and identified, each organisation will ensure that the resource is made available to staff.

Fair Processing

The data controller (in this case the GP Practice) must advertise how patient data is being used to give patients information on whether to opt out of data sharing agreements. Examples of this can be through patient leaflets, posters, letters or discussion in patient groups.

Patient Confidentiality

Some patients may still wish to opt out of sharing data in the same way as they may have done for the national spine. Patients' data will not be shared if any of the read codes listed below are included on their record. Patients will also be hidden from the extract if a practice marks their records as 'private' from within the clinical system. Both methods are acceptable.

| | |
|-------|--|
| 93C1 | Refused consent for upload to local shared electronic record |
| 93C3 | Refused consent for upload to national shared electronic record |
| 9M1.. | Informed dissent for national audit |
| 9R1.. | Confidential patient data |
| 9R11 | Conf data- patient not to see |
| 9R12 | Conf data- not to be reported |
| 9R13 | Conf data- staff not to see |
| 9R14 | Conf data- paramedics not to see |
| 9R15 | Conf data- other Dr not to see |
| 9R1Z | Confidential data NOS |
| 9Nd1 | No consent for electronic record sharing |
| 9Nd9 | Declined consent for Primary Care Trust to review patient record |
| 9NdH | Declined consent to share patient data with specified third party |
| 9NdJ | Consent withdrawn to share patient data with specified third party |
| 9Oh8 | Personal risk assessment declined |
| 9Oh5 | Multi-professional risk assessment declined |
| 9Nu4 | Dissent from disclosure of personal confidential data by HSCIC |
| 9Nu5 | Dissent withdrawn from disclosure of personal confidential data by HSCIC |

Dissemination

Copies of this agreement will be provided to each of the signatory organisations. A master copy will be held by Liverpool CCG. Liverpool CCG will support any changes or amendments to this agreement.

This information sharing agreement will be adopted by the signatory organisations. Key staff will be identified in each organisation to ensure that the protocols in this agreement are adhered to.

Information Governance

All signatories to this agreement are required to have approved Information Governance Policies in place that state the legal, ethical and professional obligations to protect service user information.

Signatories to this agreement must ensure that all staff, contractors or other third parties who are involved in the processing of information covered by this agreement have received appropriate Information Governance training.

Monitoring & Review

Review of this agreement will be overseen by Liverpool CCG, with reference to the signatory organisations, and in particular if there are changes to the agreed purpose or processes. This document will also be reviewed whenever there are changes to legislation or guidelines that may affect the sharing of the information covered by the agreement.

Staff are required to report any adverse incidents to the Business Intelligence Team that may affect the validity of the statements in this agreement and any breaches of security or confidentiality.

Any queries relating to this agreement should be addressed to Liverpool CCG.

Effective Date

This ISA is considered to be effective following signature of all parties and from the date on the signature page of the agreement unless prior authorisation to share has been approved by the Caldicott Guardian.

Information Sharing Agreement

You agree to share the following extracts against the parameters specified within this document.

GP Practice

| | |
|--|--|
| GP Practice | |
| Address | |
| Contact Details | |
| Signature | |
| Name | |
| Designation | |
| Information processing lead for Practice including contact details | |
| Deputy Information Processing lead for Practice | |

Liverpool CCG

| | |
|---------------------------------|--|
| Signature of Caldicott guardian | |
| Name | |
| Contact Details | |

Arden and GEM CSU

| | |
|-----------------|--|
| Signature | |
| Name | |
| Contact Details | |

Midlands and Lancashire CSU

| | |
|-----------------|--|
| Signature | |
| Name | |
| Contact Details | |

Date of expiry: 31.03.2019