



Prescribing Services

# ADVICE AND GUIDANCE

## Data Protection by Design

| VERSION DATE | NOTES  | AUTHOR                  |
|--------------|--|-------------------------|
| 2021-09-24   | Redraft. Previous versions available at <a href="#">PSL DPIA</a> | Emma Cooper, Kafico Ltd |

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## 1. PROJECT CONTEXT

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### Eclipse Advice and Guidance

Advice and Guidance (Eclipse Live) is a centrally assured and funded NHS Digital service that has three functions:

- The provision of a centralised database to enable NHS organisations to evaluate their compliance with best practice guidelines.
- RADAR, a centralised set of best practice prescribing criteria enabling Practices to gain insight, education and prompts to review patients at potential risk from overdue monitoring needs.
- Diabetes Complete, a centralised tracking interface identifying compliance with National Guidelines for Diabetes Best Practice.

To date over 2000 GP Practices are utilising this system. Evaluated Practices are found to have a reduction of 5% in their emergency admission rates following the introduction of this system.

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## 2. DATA FLOWS

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### NHS Pathways / Eclipse / Advice and Guidance

*The initial uploads can either be manual or automated as described below. This is the decision of the GP Practice.*

*GP Data is extracted with nationally identified sensitive read codes removed (as specified by ISB-1572). This creates datasets containing only de-identified data used for data analysis. This data is fully encrypted to allow secure transmission of data to our high security data centre using AES 256bit encryption.*

#### **Manual Uploads**

1. Primary care data sets (Practice Code, Patient Reference / MiQuest, Number, Gender, Age in Years, Medication issue date, medication type (acute, repeat), Medication directions, code date, clinical code, code description, result 1 & result 2) are created from primary care system reporting tools, MiQuest and EMIS Population manager.
2. The data sets are then transmitted directly from the practice using Eclipse website using TLS1.1, 1.2 secure socket connections.

### ***Automated Uploads***

1. Primary care data sets (Practice Code, Patient Reference / MiQuest, Number, Gender, Age in Years, Medication issue date, medication type (acute, repeat), Medication directions, code date, clinical code, code description, result 1 & result 2) are created from bulk data extracts directly at practice by Apollo SQL Suite.
2. Transmitted directly from practice over AES-256bit web services.

*The remaining data flows describe the process regardless of the upload method.*

3. Upon landing in the PSL hosting facilities, a numeric identifier (Eclipse Identifier) is created for each patient. Data is summarised and stored for use with web-based applications.
4. This pseudonymised primary care data, with only internal practice identifier, is now held in NHSD certified, tested, approved data centre in disused nuclear bunker.
5. A 'Little Gemini' data set (Patient File, Practice Code, Patient reference / MiQuest Number, NHS Number) is created from primary care system reporting tools, MiQuest and EMIS Population manager. File is encrypted using AES-256bit encryption.
6. Transmitted as data directly from practice using Eclipse website hosted within the N3 network using TLS1.1, 1.2 secure socket connections.
7. Upon landing in the PSL hosting facilities, the practice Code and patient reference in the Little Gemini data set are used to find the Eclipse Identifier for each patient within the dataset. The Eclipse identifier along with the encrypted (AES 256) patient identifiable information are transmitted over a secure encrypted tunnel to the Trusted 3rd Party server hosted within the N3 network at a local hospital.
8. SUS Secondary care data sets (APC Episodes File, APC Spells File, A and E File, Out Patient File) are created by the CSU. All files contain patient NHS Number as Identifier along with SUS admission information type, dates codes and cost. Full fields available in diagram below.

9. Uploaded by CSU to secure SFTP site hosted, by Prescribing Services Ltd within the HSCN network. Secure AES-256bit encryption is utilised for the transmission.
10. Upon landing in the PSL hosting facilities, Data arrives through secure channels to a monitored folder in the PSL hosting facilities. When files are detected they are processed instantly.
11. Steps:
  - ✓ Files are read into memory.
  - ✓ For each line of the file the NHS Number is read into memory, encrypted and transmitted using AES encrypted channels to the QUHKL server.
  - ✓ The QUEKL server compares the ciphertext to encrypted NHS Numbers stored.
  - ✓ Where a match is found, the Eclipse Identifier is returned
  - ✓ The NHS Number is removed from the file line and replaced with the Eclipse Identifier.
  - ✓ Data is stored de-identified in a secure SQL Server
  - ✓ Files are permanently deleted.
12. De-identified SUS, data linked using derived Eclipse identifier, is now held in NHSD certified, tested, approved data centre in disused nuclear bunker.
13. User access to web-based application which uses Microsoft technologies (ASP.Net and SQL Server).
14. Access is limited to authorised users and utilises role-based access using 2 factor authentication.
15. Utilises primary care data and SUS Data which is pseudonymised for practice users who can only use the available patient reference for identification of patients with access to their own primary care system.
16. Practices that are using 'Little Gemini' can perform reidentification of patients raised via patient alerts and long-term condition manager.
17. This allows an authorised user to request display the NHS Number .
18. This sends the Eclipse identifier to the QEHLK to search for patient information. Where found an encrypted NHS number is returned and displayed in a separate window. The NHS number is not stored or cached, and all access logged.
19. Presentation of the NHS Number can only be performed when accessed via a secure HSCN connection.

**Note: In Diagram below, where N3 is indicated, please read as HSCN**

### Primary Care Data

**Source:** Practice EMIS / TPP / Vision / Microtest

**Format:** CSV

**Contents:**

**Demographics File**

Practice Code  
Patient Reference / MiQuest Number  
Gender  
Age in Years

**Medication File**

Practice Code  
Patient reference / MiQuest Number  
Issue Date  
Medication  
Type (Repeat / Acute)  
Med Directions

**Clinical File**

Practice Code  
Patient reference / MiQuest Number  
Date  
Code  
Code Description  
Result 1 & Result 2

GP Data is extracted with nationally identified sensitive read codes removed (as specified by ISB-1572). This creates datasets containing only de-identified data used for data analysis. This data is fully encrypted to allow secure transmission of data to our high security data centre using AES 256bit encryption.

### Patient Identifiable Information (Reduced File – Little Gemini)

**Source:** Practice EMIS / TPP / Vision / Microtest

**Format:** Data upload

**Contents:**

Patient File  
Practice Code  
Patient reference / MiQuest Number  
NHS Number

### SUS Secondary Care Data

**Source:** CSU

**Format:** CSV

**Contents:**

APC Episodes File  
APC Spells File  
A and E File  
Out Patient File

All files contain patient NHS Number as Identifier along with SUS admission information type, dates codes and cost.

**Full Field List:** see page 3-6

### Apollo Uploads

**Creation Method:**

Created from bulk data extracts directly at practice by Apollo SQL Suite.

**Transmission Method:** Transmitted directly from practice over AES-256bit web services. No patient identifiable information is included in any file.

1

### Manual Uploads

**Creation Method:**

Created from primary care system reporting tools, MiQuest and EMIS Population manager.

**Transmission Method:** Transmitted directly from the practice using Eclipse website using TLS1.1, 1.2 secure socket connections. No patient identifiable information is included in any file.

1

**Creation Method:**

Created from primary care system reporting tools, MiQuest and EMIS Population manager. File is encrypted using AES-256bit encryption.

**Transmission Method:** Transmitted as data directly from practice using Eclipse website hosted within the N3 network using TLS1.1, 1.2 secure socket connections.

2

**Creation Method:**

Created by CSU

**Transmission Method:**

Uploaded by CSU to secure SFTP site hosted by Prescribing Services Ltd within the N3 network. Secure AES-256bit encryption is utilised for the transmission.

3

1

An anonymous numeric identifier (Eclipse Identifier) is created for each patient. Data is summarised and stored for use with web-based applications.

2

Practice Code and patient reference are used to find the Eclipse Identifier for each patient within the dataset. The Eclipse identifier along with the encrypted (AES 256) patient identifiable information are transmitted over a secure encrypted tunnel to the Trusted 3rd Party server hosted within the N3 network at a local hospital.

3

Data arrives through secure channels to a monitored folder. When files are detected they are processed instantly.  
Steps:

1. Files are read into memory
2. For each line of the file the NHS Number is read into memory, encrypted and transmitted using AES encrypted channels to the QEHKL server.
3. The QUEKL server compares the ciphertext to encrypted NHS Numbers stored.
4. Where a match is found the ECLIPSE Identifier is returned
5. The NHS Number is removed from the file line and replaced with the anonymised Eclipse Identifier.
6. Data is stored de-identified in a secure SQL Server
7. Files are permanently deleted

Database within the N3 only available for access by Prescribing Services Ltd N3 server.

**Data held:**  
Eclipse patient identifier  
Encrypted NHS Number  
Encrypted Name \*  
Encrypted Address \*  
Encrypted DOB \*

\* only available through full patient identifiable extract

**Eclipse / NHS Pathways Data Repository**

Pseudonymised primary care data with only internal practice identifier  
Held in NHSD certified, tested, approved data centre in disused nuclear bunker, with full disaster recovery, highly restricted role-based access using two factor authentication. All access is fully auditable.

**SUS Data Repository**

De-identified SUS, data linked using derived Eclipse identifier  
Held in NHSD certified, tested, approved data centre in disused nuclear bunker, with full disaster recovery, highly restricted role-based access using two factor authentication. All access is fully auditable.

Managed Database service hosted within the N3 Network at the Queen Elizabeth Hospital Kings Lynn. Servers are provided as a managed service including updates, backups and fully firewalled to only access from Prescribing Services Ltd N3 server. Only encrypted information beyond anonymised Eclipse identifier is stored and the QEHKL does not have the ability to decrypt data. No medical information is stored at this site.

**NHS Pathways / Eclipse / Advice and Guidance / VISTA**

Application is web based using Microsoft technologies (ASP.Net and SQL Server). Access is limited to authorised users and utilises role-based access using 2 factor authentication. All access is encrypted using SSL TLS1.1,1.2 and access is fully audited.

Utilises primary care data, SUS Data

All data is pseudonymised for practice users who can only use the available patient reference for identification of patients with access to their own primary care system. All user details are anonymised for use by the CCG.

Application allows the management of long term conditions. Viewing and processing of alerts of patients at risk and the request of advice and guidance from consultants. Analytics for prescribing, patient care and SUS.

All access is logged along with the patient accessed, the user accessing the information, the date and time accessed and the IP address of the authenticated user

**NHS Pathways / Eclipse / Advice and Guidance / VISTA – Secure N3 hosted version**

Application is web based using Microsoft technologies (ASP.Net and SQL Server). Access is limited to authorised users and utilises role-based access using 2 factor authentication. All access is encrypted using SSL TLS1.1,1.2 and access is fully audited.

Utilises primary care data, SUS Data

All data is pseudonymised for practice users who can only use the available patient reference for identification of patients with access to their own primary care system. All user details are anonymised for use by the CCG.

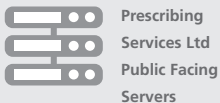
Application allows the management of long term conditions. Viewing and processing of alerts of patients at risk and the request of advice and guidance from consultants.

All access is logged along with the patient accessed, the user accessing the information, the date and time accessed and the IP address of the authenticated user.

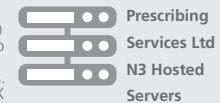
The Secure N3 version of the application performs identical tasks to the public hosted version but in addition allows the identification of patients identified in the patient alerts and long term condition manager for practices utilising TPP through the display of the patient's N3 number.

Where authorised a user may request the NHS number of a patient. This sends the Eclipse identifier to the QEHKL to search for patient information. Where found an encrypted NHS number is returned and displayed in a separate window. The NHS number is not stored or cached and all access logged.

Dual ITSEC E3 Common Criteria Compliant Firewalls



Prescribing  
Services Ltd  
Public Facing  
Servers



Prescribing  
Services Ltd  
N3 Hosted  
Servers

Server administration access protection is implemented using two factor authentication using Cryptocards where the Juniper SRX firewall authenticates remote access VPN with Cryptocards using multiple encrypted radius servers. Cryptocard protected (using hardware tokens) VPN's are utilised with individual user rules / policies. To protect the segregation between the N3 and non-N3 servers no external access to N3-connected LAN is permitted and all internet based traffic will be routed to internal gateway segregated from N3- connected LAN by 2 firewalls in line with the NHS CFS design rules. An internet gateway is the only external gateway and is secured by two separate firewalls. Two Juniper SRX210 firewalls between N3 connection and Internet gateway, all inactive ports disabled. The Firewalls used are Juniper SRX firewalls which are ITSEC E3 Common Criteria EAL4 compliant.

## Admitted Patient Care (APC) Episodes Fields

|   |  |  |   |  |   |
|---|--|--|---|--|---|
| SUS Version                                     | PbR Spell Start Date                         | Duration of Elective Wait                | Secondary Procedure Date 12                   | Anaesthetic During Labour                    | Applicable Date                           |
| NHS RID (From Provider)                         | PbR Spell End Date                           | Intended Management                      | Spell Dominant Procedure                      | Anaesthetic Post Labour                      | Extract Date                              |
| Generated Record ID                             | Hospital Provider Spell Discharge Date       | Decided To Admit Date                    | Advanced Cardiovascular Support Days          | Location Class of Delivery Place (Actual)    | Report Period Start Date                  |
| CDS Record Type                                 | Hospital Provider Spell End Date             | Episode Duration                         | Advanced Respiratory Support Days             | Location Type of Delivery Place (Actual)     | Report Period End Date                    |
| Reason Access Provided                          | Ready for Discharge Date                     | Episode Duration (Grouped)               | Basic Cardiovascular Support Days             | Birth Order                                  | Organisation Code Type Sender             |
| CDS Group Derived                               | PbR Delayed Discharge Days Derived           | Length of Stay (Hospital Provider Spell) | Basic Respiratory Support Days                | Birth Weight                                 | Dominant Staging Loaded Date              |
| CDS Group Indicator                             | Spell Exclusion Reason                       | PbR NCC PCC Adjusted Length of Stay      | Critical Care Level 2 Days                    | Delivery Method                              | Extract Type                              |
| Bulk Replacement CDS Group                      | Applicable Costing Period                    | PbR Final Adjusted Length of Stay        | Critical Care Level 3 Days                    | Delivery Place Change Reason                 | Location Class at Epistart                |
| Pseudonymised Status                            | Episode Number                               | Spell ACC Length Of Stay                 | Critical Care Unit Function                   | Delivery Place Type Actual                   | Org Code Location at Epistart             |
| Confidentiality Category                        | First Regular Day Night Admission            | Spell NCC Length Of Stay                 | Dermatological Support Days                   | Delivery Place Type Intended                 | Org Code Type Location at Epistart        |
| NHS Number                                      | Last Episode in Spell Indicator              | Spell PCC Length Of Stay                 | Neurological Support Days                     | First Antenatal Assessment Date              | Intended Care Intensity at Epistart       |
| Lead Care Activity Indicator                    | Neonatal Level of Care                       | Spell Primary Diagnosis                  | Renal Support Days                            | Gestation Length                             | Age Group Intended at Epistart            |
| RTT Period End Date                             | Operation Status                             | Spell Secondary Diagnosis                | Liver Support Days                            | Gestation Length Assessment                  | Sex Of Patients at Epistart               |
| RTT Period Start Date                           | Operation Start Date                         | HRG Submitted                            | Episode ACC Length Of Stay                    | Live or Still Birth                          | Day Period Availability at Epistart       |
| RTT Status                                      | Episode End Date                             | HRG Version (Submitted)                  | Episode NCC Length Of Stay                    | Status of Person Conducting Delivery         | Night Period Availability at Epistart     |
| Unique Booking Reference Number (Converted)     | CDS Activity Date                            | Core HRG (Calculated)                    | Episode PCC Length Of Stay                    | NHS Number Status Ind (Baby)                 | Location Class at Epiend                  |
| RTT Length (Derived)                            | Episode Start Date Original                  | Episode HRG Version (Calculated)         | APC Tariff ID                                 | Sex (Baby)                                   | Org Code Location at Epiend               |
| Age At CDS Activity Date                        | Commissioner Serial No (Agreement No)        | Episode Dominant Procedure               | Market Forces Factor                          | Costing Batch Sequence                       | Org Code Type Location at Epiend          |
| Patient Type                                    | NHS Service Agreement Line No                | Grouping Algorithm Version               | Market Forces Factor ID                       | Count of Days Suspended                      | Intended Care Intensity at Epiend         |
| Age at Start of Episode Derived                 | Provider Reference No                        | Grouping Reference Data Version          | Tariff Initial Amount National                | Current Period Number                        | Age Group Intended at Epiend              |
| Age At Start of Spell                           | Commissioner Reference No                    | Grouping HRG Version                     | Tariff Day Case National                      | PbR Days Beyond Tripoint                     | Sex Of Patients at Epiend                 |
| Spell Age                                       | SHA Commissioner                             | Spell Core HRG                           | Tariff Long Stay Payment National             | PbR Spell Trimpoint Days                     | Day Period Availability at Epiend         |
| Episode Age                                     | SHA Provider                                 | HRG Dominant Grouping Variable           | Tariff Long Stay Rate National                | Significant Specialised Service Code         | Night Period Availability at Epiend       |
| Year of Birth                                   | Organisation Code (Code of Provider)         | HRG Procedure Scheme                     | Tariff Service Adjustment National            | Specialised Service Code 1                   | Spare 1                                   |
| Birth Month                                     | Provider Site Code                           | Unbundled HRG 1                          | Tariff Short Stay Elective National           | Specialised Service Code 2                   | Spare 2                                   |
| Age at Spell End Original                       | Organisation Code (Code of Commissioner)     | Unbundled HRG 2                          | Tariff Short Stay Emergency National          | Specialised Service Code 3                   | Spare 3                                   |
| Age at Record Start                             | Commissioner Code (Original Data)            | Unbundled HRG 3                          | Aggregate Unbundled Adjustment National       | Specialised Service Code 4                   | Spare 4                                   |
| Age At End of Spell                             | Commissioner Site Code                       | Unbundled HRG 4                          | Tariff Financial Adjustment National          | Specialised Service Code 5                   | Spare 5                                   |
| Age at Spell Start Original                     | Spell Commissioner Code                      | Unbundled HRG 5                          | Tariff Adjustment Future Use_1 National       | BPT Indicator 1                              | FCE NPOC                                  |
| Age at Record End                               | PCT Derived from GP                          | Unbundled HRG 6                          | Tariff Adjustment Future Use_2 National       | BPT Indicator 1 Action                       | FCE Service Line                          |
| Age Range Derived                               | PCT Derived from GP Practice                 | Unbundled HRG 7                          | Applied MFF Elective                          | BPT Indicator 2                              | FCE Service Line List                     |
| Age Range Derived (Mother)                      | GP Practice Derived from PDS                 | Unbundled HRG 8                          | Applied MFF Non Elective                      | BPT Indicator 2 Action                       | Spell NPOC                                |
| Carer Support Indicator                         | Site code of Treatment (at start of episode) | Unbundled HRG 9                          | MFF Adjustment                                | BPT Indicator 3                              | Spell Service Line                        |
| Legal Status Classification Code                | Organisation Code Type Provider              | Unbundled HRG 10                         | Tariff Pre MFF Adjusted National              | BPT Indicator 3 Action                       | Commissioning Region                      |
| Ethnic Category Code                            | Provider Code (Original Data)                | Unbundled HRG 11                         | Tariff Total Payment National                 | BPT Indicator 4                              | Data Quality Indicator                    |
| Marital Status                                  | Provider Location Derived                    | Unbundled HRG 12                         | Tariff Initial Amount Non Mandatory           | BPT Indicator 4 Action                       | Unbundled exclusion reason                |
| NHS Number Status Indicator                     | Organisation Code Type Commissioner          | Programme Budgeting Category             | Tariff Day Case Non Mandatory                 | BPT Indicator 5                              | CDS Schema Version                        |
| Gender Code                                     | GP PCT Type (Derived)                        | Spell Programme Budgeting Category       | Tariff Spec Serv Adjustment Non Mandatory     | BPT Indicator 5 Action                       | Query Date                                |
| Total Previous Pregnancies                      | SHA from GP (Derived)                        | Spell Report Flag                        | Tariff Long Stay Rate Non Mandatory           | Episode Duration Days Derived                | Unique Query Id                           |
| Postcode Sector of Usual Address                | SHA Type from GP (Derived)                   | PbR Excluded Indicator                   | Tariff Long Stay Payment Non Mandatory        | Error Reason                                 | Prime Recipient                           |
| Organisation Code (PCT of Residence)            | PCT Derived from GP Practice (Mother)        | Episode Exclusion Reason                 | Aggregate Unbundled Adjustment Non Mandatory  | Excluded Critical Care Days                  | Copy Recipients                           |
| Patient Postcode Derived PCT Type               | Consultant Code                              | Code Cleaning                            | Tariff Adjustment Future Use_1 Non Mandatory  | Finished Indicator                           | Ward Code at Episode Start Date           |
| Patient Postcode Derived PCT                    | Main Specialty Code                          | PbR Costed Indicator                     | Tariff Financial Adjustment Non Mandatory     | First Attendance                             | Ward Security Level at Episode Start Date |
| Organisation Code Type PCT of Residence         | Treatment Function Code                      | Grouping Method                          | Tariff Adjustment Future Use_1 Non Mandatory  | First Staging Loaded Date                    | Ward Code at Episode End Date             |
| Area Code of Usual Address                      | Consultant Code Type                         | Configurable Indicator                   | Tariff Adjustment Future Use_2 Non Mandatory  | HES Identifier                               | Ward Security Level at Episode End Date   |
| Area Code Derived                               | Consultant Organisation Code                 | Diagnosis Scheme In Use                  | Tariff Adjustment Future Use_2 Non Mandatory  | Mandatory                                    | Derived Commissioner                      |
| Organisation Code (PCT of Residence - Mother)   | Organisation Code Type Consultant            | Primary Diagnosis Code                   | Applied MFF Elective Non Mandatory            | Intended Procedure Status                    | Derived Commissioner Type                 |
| Patient Postcode Derived PCT Type (Mother)      | Specialty Function Code Original             | Secondary Diagnosis Code 1               | Applied MFF Non Elective Non Mandatory        | Interchange ID                               | Open Spell Indicator                      |
| Patient Postcode Electoral Ward                 | Elective Consultant Code                     | Secondary Diagnosis Code 2               | Tariff Pre MFF Adjusted Non Mandatory         | Last Did Not Arrive Date                     | NHSE Planning Commissioner                |
| SHA Type from Patient Postcode                  | Elective Consultant Code Type                | Secondary Diagnosis Code 3               | Tariff Total Payment Non Mandatory            | Last Entry Review Date                       |   |
| Census Output Area 2001                         | Elective Specialty Function Code             | Secondary Diagnosis Code 4               | Non Mandatory Core Tariff (with UB)           | Last Staging Loaded Date                     |   |
| Country   | Elective Consultant Organisation Code        | Secondary Diagnosis Code 5               | Optional APC BPT Adjustment                   | Location Type Code                           |   |
| County Code                                     | Organisation Code Type Elective Consultant   | Secondary Diagnosis Code 6               | Tariff Initial Amount Local                   | Logically Deleted Date                       |   |
| ED County Code                                  | Antenatal Consultant Code                    | Secondary Diagnosis Code 7               | Tariff Day Case Local                         | Maximum Episode Date                         |   |
| ED District Code                                | Antenatal Consultant Specialty Code          | Secondary Diagnosis Code 8               | Tariff Short Stay Emergency Local             | Onset Method                                 |   |
| Electoral Ward Division                         | Antenatal Consultant Code Type               | Secondary Diagnosis Code 9               | Tariff Long Stay Rate Local                   | Organisation Code Type Location              |   |
| Government Office Region Code                   | Antenatal Specialty Function Code            | Secondary Diagnosis Code 10              | Aggregate Unbundled Adjustment Local          | Other Indicator                              |   |
| Local Authority Code                            | Antenatal Consultant Organisation Code       | Secondary Diagnosis Code 11              | Tariff Long Stay Payment Local                | Outcome Of Attendance                        |   |
| SHA Old Org Code                                | Organisation Code Type Antenatal Consultant  | Secondary Diagnosis Code 12              | Tariff Total Payment Local                    | PCT Responsible                              |   |
| Electoral Ward 1998                             | Registered GMP Code                          | Procedure Scheme In Use                  | Local Core Tariff (with UB)                   | Record Extraction Indicator                  |   |
| Hospital Provider Spell No                      | GP Code (Original Data)                      | Primary Procedure Code                   | PbR Final Tariff                              | Re-costing Requested Flag                    |   |
| ADMINISTRATIVE CATEGORY (AT START OF EPISODE)   | GP Practice Code                             | Secondary Procedure Code 1               | Final Tariff Applied                          | Resuscitation Method                         |   |
| ADMINISTRATIVE CATEGORY (ON ADMISSION)          | GP Consortium Code                           | Secondary Procedure Code 2               | App Period Spell Status Indicator             | Service Original                             |   |
| Patient Classification                          | GP Practice Code (Original Data)             | Secondary Procedure Code 3               | Hospital Provider Spell Duration Days Derived | Service Top-up Percentage                    |   |
| Admission Method (Hospital Provider Spell)      | GP Practice Code (Derived)                   | Secondary Procedure Code 4               | Number of Episodes in PbR Spell               | Short Stay Redn Pcnt                         |   |
| Admission Method (Original Data)                | Referrer Code                                | Secondary Procedure Code 5               | RAP DH Tariff Adjustment Child                | Significant Service ID                       |   |
| Admission Type (Derived)                        | Referring Organisation Code                  | Secondary Procedure Code 6               | RAP Validation Child Indicator                | Specialty Service Top-up                     |   |
| Admission Subtype (Derived)                     | Code of GP                                   | Secondary Procedure Code 7               | RAP Spell Type                                | Temporary Cost Period Status                 |   |
| Discharge Destination (Hospital Provider Spell) | Organisation Code GP                         | Secondary Procedure Code 8               | PbR Generated Interchange ID                  | Test Indicator                               |   |
| Discharge Method (Hospital Provider Spell)      | Organisation Code Type GP Practice           | Secondary Procedure Code 9               | PbR Spell Cost ID                             | Update Type                                  |   |
| Source of Admission (Hospital Provider Spell)   | GP Code (Mother)                             | Secondary Procedure Code 10              | PbR Spell Cost Version Date                   | Version Sequence Number                      |   |
| Start Date (Hospital Provider Spell)            | Organisation Code GP (Mother)                | Secondary Procedure Code 11              | PbR Spell Const Version Number                | Number of Commissioners in PbR Spell         |   |
| End Date (Hospital Provider Spell)              | Organisation Code Type GP (Mother)           | Secondary Procedure Code 12              | PbR Spell Complete Indicator                  | Number Diagnosis                             |   |
| Spell In PbR/Not In PbR                         | GP Code Type                                 |  | PbR Spell Error Status                        | Number Procedures                            |   |
| Spell Version As At Date And Time               | GP Code Type (Mother)                        |  | PbR Spell Frozen Indicator                    | Number Unbundled HRGs                        |   |
| Delay Discharge Reason                          | First GP Organisation Code                   |  | Spell Service ID                              | Number Unbundled Priced HRGs                 |   |
| Delayed Discharged Days                         | GP Practice Code Original                    |  | Spell Service Version                         | Excluded Episodes in Hospital Provider Spell |   |
| Administrative Category (Derived)               | GP Practice Code Derived                     |  | PbR Spell Status Indicator                    | Number Hospital Provider Spell ID            |   |
| Elective Admission Type                         | GP Practice Code derived (Mother)            |  | Match Criterion Indicator                     | Number SSCs                                  |   |
|   | Organisation Code Type Referrer              |  | Number of Babies                              | Number BPT Indicators                        |   |
|   | Referrer Code Type                           |  | Location Class of Delivery Place (Intended)   | Organisation Code (Sender)                   |   |
|   | Organisation Code Type Prime Recipient       |  | Location Type of Delivery Place (Intended)    | Staging Loaded Date                          |   |
|   |  |  |   | Protocol Identifier                          |   |
|   |  |  |   | Unique CDS Identifier                        |   |

## Admitted Patient Care (APC) Spells Fields

|   |  |                                      |
|---|--|--------------------------------------|
| SUS Version                                 | Number Procedures                            | Non Mandatory Core Tariff (with UB)  |
| Pseudonymised Status                        | Number Unbundled HRGs                        | Optional APC BPT Adjustment          |
| Reason Access Provided                      | Number Unbundled Non Priced HRGs             | Tariff Initial Amount Local          |
| NHS Number                                  | Number Unbundled Priced HRGs                 | Tariff Day Case Local                |
| RTT Period End Date                         | Excluded Episodes in Hospital Provider Spell | Tariff Short Stay Emergency Local    |
| RTT Period Start Date                       | Number SSCs                                  | Tariff Long Stay Rate Local          |
| RTT Status                                  | Number BPT Indicators                        | Aggregate UnBundled Adjustment Local |
| Unique Booking Reference Number (Converted) | PbR Spell Trimpoint Days                     | Tariff Long Stay Payment Local       |
| Age At CDS Activity Date                    | PbR Days Beyond Trimpoint                    | Tariff Total Payment Local           |
| Age At Start of Spell                       | Spell ACC Length Of Stay                     | Local Core Tariff (with UB)          |
| Age At End of Spell                         | Spell NCC Length Of Stay                     | PbR Final Tariff                     |
| Spell Age                                   | Spell PCC Length Of Stay                     | Final Tariff Applied                 |
| Patient Type                                | Spell Primary Diagnosis                      | PbR Costed Indicator                 |
| Carer Support Indicator                     | Spell Secondary Diagnosis                    | Grouping Method                      |
| Legal Status Classification Code            | Spell Dominant Procedure                     | Configurable Indicator               |
| Ethnic Category Code                        | Primary Procedure Code                       | Code Cleaning                        |
| Marital Status                              | Significant Specialised Service Code         | Spell Core HRG                       |
| NHS Number Status Indicator                 | Specialised Service Code 1                   | Core HRG Version (Calculated)        |
| Gender Code                                 | Specialised Service Code 2                   | HRG Submitted                        |
| Organisation Code (PCT of Residence)        | Specialised Service Code 3                   | HRG Version (Submitted)              |
| Patient Classification                      | Specialised Service Code 4                   | Grouping Algorithm Version           |
| Admission Type (Derived)                    | Specialised Service Code 5                   | Grouping Reference Data Version      |
| Admission Subtype (Derived)                 | BPT Indicator 1                              | Grouping HRG Version                 |
| Ready for Discharge Date                    | BPT Indicator 1 Action                       | Unbundled HRG 1                      |
| Delay Discharge Reason                      | BPT Indicator 2                              | Unbundled HRG 2                      |
| Spell In PbR/Not In PbR                     | BPT Indicator 2 Action                       | Unbundled HRG 3                      |
| Spell Exclusion Reason                      | BPT Indicator 3                              | Unbundled HRG 4                      |
| Spell Version As At Date And Time           | BPT Indicator 3 Action                       | Unbundled HRG 5                      |
| Applicable Costing Period                   | BPT Indicator 4                              | Unbundled HRG 6                      |
| Provider Reference No                       | BPT Indicator 4 Action                       | Unbundled HRG 7                      |
| Commissioner Reference No                   | BPT Indicator 5                              | Unbundled HRG 8                      |
| SHA Commissioner                            | BPT Indicator 5 Action                       | Unbundled HRG 9                      |
| SHA Provider                                | Tariff Initial Amount National               | Unbundled HRG 10                     |
| Organisation Code (Code of Provider)        | Tariff Day Case National                     | Unbundled HRG 11                     |
| Provider Site Code                          | Tariff Short Stay Emergency National         | Unbundled HRG 12                     |
| Organisation Code (Code of Commissioner)    | Tariff Service Adjustment National           | Spell Programme Budgeting Category   |
| Commissioner Code (Original Data)           | Tariff Long Stay Rate National               | Number of Babies                     |
| Commissioner Site Code                      | Tariff Long Stay Payment National            | PbR Spell Error Status               |
| Organisation Code Type Commissioner         | Aggregate UnBundled Adjustment National      | PbR Spell Frozen Indicator           |
| PCT Derived from GP                         | Tariff Financial Adjustment National         | PbR Spell Status Indicator           |
| PCT Derived from GP Practice                | Tariff Adjustment Future Use_1 National      | Match Criterion Indicator            |
| GP Practice Derived from PDS                | Tariff Adjustment Future Use_2 National      | RAP DH Tariff Adjustment Child       |
| Main Specialty Code                         | Applied MFF Elective                         | RAP Validation Child Indicator       |
| Treatment Function Code                     | Applied MFF Non Elective                     | RAP Spell Type                       |
| Registered GMP Code                         | MFF Adjustment                               | Applicable Date                      |
| GP Code (Original data)                     | Tariff Pre MFF Adjusted National             | Extract Date                         |
| GP Practice Code                            | Tariff Total Payment National                | Extract Type                         |
| GP Consortium Code                          | Tariff Initial Amount Non Mandatory          | Spare 1                              |
| GP Practice Code (Original Data)            | Tariff Day Case Non Mandatory                | Spare 2                              |
| GP Practice Code (Derived)                  | Tariff Short Stay Emergency Non Mandatory    | Spare 3                              |
| Organisation Code Type GP Practice          | Tariff Spec Serv Adjustment Non Mandatory    | Spare 4                              |
| Referrer Code                               | Tariff Long Stay Rate Non Mandatory          | Spare 5                              |
| Referring Organisation Code                 | Tariff Long Stay Payment Non Mandatory       | Spell NPOC                           |
| Duration of Elective Wait                   | Aggregate UnBundled Adjustment Non Mandatory | Spell Service Line                   |
| Intended Management                         | Tariff Financial Adjustment Non Mandatory    | Commissioning Region                 |
| Decided To Admit Date                       | Tariff Adjustment Future Use_1 Non Mandatory | CDS Schema Version                   |
| Length of Stay (Hospital Provider Spell)    | Tariff Adjustment Future Use_2 Non Mandatory | Query Date                           |
| PbR NCC PCC Adjusted Length of Stay         | Applied MFF Elective Non Mandatory           | Unique Query Id                      |
| PbR Final Adjusted Length of Stay           | Applied MFF Non Elective Non Mandatory       | Prime Recipient                      |
| Number of Commissioners in PbR Spell        | Tariff Pre MFF Adjusted Non Mandatory        | Copy Recipients                      |
| Number Diagnosis                            | Tariff Total Payment Non Mandatory           | Derived Commissioner                 |
| Number Hospital Provider Spell ID           |  | Derived Commissioner Type            |
|   |  | Open Spell Indicator                 |



## Out Patient Appointment Fields

|   |  |   |  |                                 |
|---|--|---|--|---------------------------------|
| SUS Version                                 | Provider Reference No                    | Procedure                               | MFF Adjustment                               | Spell Service Line              |
| NHS RID (From Provider)                     | Commissioner Reference No                | Unbundled HRG 1                         | Tariff Total Payment National                | Commissioning Region            |
| CDS Record Type                             | SHA Commissioner                         | Unbundled HRG 2                         | Outpatient Tariff                            | Unbundled exclusion reason      |
| Reason Access Provided                      | SHA Provider                             | Unbundled HRG 3                         | Market Forces Factor ID                      | Grouping Algorithm Version      |
| CDS Group Derived                           | Organisation Code (Code of Provider)     | Unbundled HRG 4                         | Tariff Initial Amount Non Mandatory          | Grouping Reference Data Version |
| CDS Group Indicator                         | Provider Site Code                       | Unbundled HRG 5                         | Aggregate UnBundled Adjustment Non Mandatory | Grouping HRG Version            |
| Bulk Replacement CDS Group                  | Organisation Code (Code of Commissioner) | Unbundled HRG 6                         | Tariff Financial Adjustment Non Mandatory    | CDS Schema Version              |
| Exclusion Reason                            | Commissioner Code (Original Data)        | Unbundled HRG 7                         | Tariff Adjustment Future Use_1 Non Mandatory | Query Date                      |
| Pseudonymised Status                        | Commissioner Site Code                   | Unbundled HRG 8                         | Tariff Adjustment Future Use_2 Non Mandatory | Unique Query Id                 |
| Confidentiality Category                    | PCT Derived from GP                      | Unbundled HRG 9                         | Tariff Pre MFF Adjusted Non Mandatory        | Copy Recipients                 |
| Configurable Indicator                      | PCT Derived from GP Practice             | Unbundled HRG 10                        | Applied MFF Non Mandatory                    | Derived Commissioner            |
| Code Cleaning                               | GP Practice Derived from PDS             | Unbundled HRG 11                        | MFF Adjustment Non Mandatory                 | Derived Commissioner Type       |
| NHS Number                                  | Location Class                           | Unbundled HRG 12                        | Tariff Total Payment Non Mandatory           | Is Valid UBRN                   |
| Lead Care Activity Indicator                | Site code of Treatment                   | HRG Dominant Grouping Variable          | Non Mandatory Core Tariff (with UB)          | UBRN Occurrence Count           |
| RTT Period End Date                         | Organisation Code Type Provider          | HRG Procedure Scheme                    | Tariff Initial Amount Local                  |                                 |
| RTT Period Start Date                       | Organisation Code Type Commissioner      | Diagnosis Scheme In Use                 | Aggregate UnBundled Adjustment Local         |                                 |
| RTT Status                                  | GP PCT Type (Derived)                    | Primary Diagnosis Code                  | Tariff Total Payment Local                   |                                 |
| Unique Booking Reference Number (Converted) | PCT of Residence (Original)              | Secondary Diagnosis Code 1              | Local Core Tariff (with UB)                  |                                 |
| RTT Length (Derived)                        | PCT Responsible                          | Secondary Diagnosis Code 2              | PbR Final Tariff                             |                                 |
| Age   | Location Type Code                       | Secondary Diagnosis Code 3              | Final Tariff Applied                         |                                 |
| Derived Age                                 | Attendance Organisation Code Type        | Secondary Diagnosis Code 4              | Number Diagnosis                             |                                 |
| Patient Type                                | Provider Location                        | Secondary Diagnosis Code 5              | Number Procedures                            |                                 |
| Year of Birth                               | Consultant Code                          | Secondary Diagnosis Code 6              | Number Unbundled HRGs                        |                                 |
| Month of Birth                              | Main Specialty Code                      | Secondary Diagnosis Code 7              | Number Unbundled Non Priced HRGs             |                                 |
| Age at Record End                           | Treatment Function Code                  | Secondary Diagnosis Code 8              | Number Unbundled Priced HRGs                 |                                 |
| Age at Record Start                         | Consultant Code Type                     | Secondary Diagnosis Code 9              | Number BPT Indicators                        |                                 |
| Age Range Derived                           | Consultant Organisation Code             | Secondary Diagnosis Code 10             | Organisation Code (Sender)                   |                                 |
| Carer Support Indicator                     | Organisation Code Type Consultant        | Secondary Diagnosis Code 11             | Staging Loaded Date                          |                                 |
| Ethnic Category Code                        | Registered GMP Code                      | Secondary Diagnosis Code 12             | Protocol Identifier                          |                                 |
| Marital Status                              | GP Code                                  | Procedure Scheme In Use                 | Unique CDS Identifier                        |                                 |
| NHS Number Status Indicator                 | GP Practice Code                         | Primary Procedure Code                  | Applicable Date                              |                                 |
| Gender Code                                 | GP Consortium Code                       | Secondary Procedure Code 1              | Extract Date                                 |                                 |
| Postcode Sector of Usual Address            | GP Practice Code (Original Data)         | Secondary Procedure Code 2              | Report Period Start Date                     |                                 |
| Organisation Code (PCT of Residence)        | GP Practice Code (Derived)               | Secondary Procedure Code 3              | Report Period End Date                       |                                 |
| Patient Postcode Electoral Ward             | Referrer Code                            | Secondary Procedure Code 4              | Organisation Code Type Sender                |                                 |
| Area Code Derived                           | Referring Organisation Code              | Secondary Procedure Code 5              | Match Criterion Indicator                    |                                 |
| Organisation Code Type PCT of Residence     | GP Code Type                             | Secondary Procedure Code 6              | Costing Batch Sequence                       |                                 |
| SHA Type from Patient Postcode              | Organisation Code Type GP                | Secondary Procedure Code 7              | Current Period Number                        |                                 |
| Census Output Area 2001                     | First GP Organisation Code               | Secondary Procedure Code 8              | Finished Indicator                           |                                 |
| Country                                     | Organisation Code of GP                  | Secondary Procedure Code 9              | HES Identifier                               |                                 |
| County Code                                 | SHA from GP (Derived)                    | Secondary Procedure Code 10             | Intended Procedure Status                    |                                 |
| ED County Code                              | SHA Type from GP (Derived)               | Secondary Procedure Code 11             | Interchange ID                               |                                 |
| ED District Code                            | Referrer Code Type                       | Secondary Procedure Code 12             | Prime Recipient                              |                                 |
| Electoral Ward Division                     | Organisation Code Type Referrer          | Primary Procedure Date                  | Organisation Code Type Prime Recipient       |                                 |
| Government Office Region Code               | Priority Type                            | HRG Used for Tariff                     | Other Indicator                              |                                 |
| Local Authority Code                        | Service Type Requested                   | Tariff Initial Amount National          | PbR Generated Interchange ID                 |                                 |
| SHA Old Org Code                            | Referral Request Received Date           | Aggregate UnBundled Adjustment National | Record Extraction Indicator                  |                                 |
| Electoral Ward 1998                         | Last DNA or Patient Cancelled Date       | Tariff Financial Adjustment National    | Re-costing Requested Flag                    |                                 |
| Attendance Identifier                       | Request Received Date Status             | Tariff Adjustment Future Use_1 National | Temporary Cost Period Status                 |                                 |
| Administrative Category                     | Last Did Not Arrive Date                 | Tariff Adjustment Future Use_2 National | Test Indicator                               |                                 |
| Attended Or Did Not Attend                  | Spell Version As At Date And Time        | Tariff Pre MFF Adjusted National        | Update Type                                  |                                 |
| First Attendance                            | Applicable Costing Period                | Applied MFF National                    | Version Sequence Number                      |                                 |
| Outcome Of Attendance                       | PbR Spell Status Indicator               |   | Hierarchy                                    |                                 |
| Medical Staff Type Seeing Patient           | PbR Spell Frozen Indicator               |   | Costed Indicator                             |                                 |
| Source of Referral for Outpatients          | PbR Spell Cost ID                        |   | Spare 1                                      |                                 |
| Appointment Date                            | Spell Cost Version Date                  |   | Spare 2                                      |                                 |
| Operation Status                            | Spell Error Status                       |   | Spare 3                                      |                                 |
| OP Episode Type                             | Spell Const Version No                   |   | Spare 4                                      |                                 |
| CDS Activity Date                           | HRG (Submitted)                          |   | Spare 5                                      |                                 |
| Attendance Date                             | Core HRG Version (Calculated)            |   | Direct access tariff flag                    |                                 |
| Attender Type Derived                       | Core HRG                                 |   | Spell NPOC                                   |                                 |
| Commissioning Serial No (Agreement No)      | SUS HRG                                  |   |  |                                 |
| NHS Service Agreement Line No               | HRG Version (Submitted)                  |   |  |                                 |
|   | HRG Dominant Grouping Variable           |   |  |                                 |

## Accident and Emergency (A&E) Admission Fields

|  |  |   |  |  |
|--|--|---|--|--|
| SUS Version                                  | EM Attendance Conclusion Time            | Secondary Diagnosis Code 8                  | PROCEDURE DATE (of Subsequent Treatments) 10 | Number EM Treatments                   |
| NHS RID (From Provider)                      | EM Departure Time                        | Secondary Diagnosis Code 9                  | EM Treatment Second 11                       | Organisation Code (Sender)             |
| CDS Record Type                              | EM Initial Assessment Time               | Secondary Diagnosis Code 10                 | PROCEDURE DATE (of Subsequent Treatments) 11 | Staging Loaded Date                    |
| Reason Access Provided                       | EM Time Seen for Treatment               | Secondary Diagnosis Code 11                 | EM Treatment Second 12                       | Protocol Identifier                    |
| CDS Group Derived                            | Arrival Time                             | Secondary Diagnosis Code 12                 | PROCEDURE DATE (of Subsequent Treatments) 12 | Unique CDS Identifier                  |
| CDS Group Indicator                          | CDS Activity Date                        | EM Diagnosis First                          | PRIMARY PROCEDURE                            | Applicable Date and Time               |
| Bulk Replacement CDS Group                   | EM Attendance Category ID                | EM Diagnosis Second 1                       | Primary Procedure Date                       | Extract Date                           |
| Spell In Pbr/Not In Pbr                      | Consultant Code Type                     | EM Diagnosis Second 2                       | Secondary Procedure Code 1                   | Report Period Start Date               |
| Exclusion Reason                             | Consultant Organisation Code             | EM Diagnosis Second 3                       | Secondary Procedure Date 1                   | Report Period End Date                 |
| Pseudonymised Status                         | Organisation Code Type Consultant        | EM Diagnosis Second 4                       | Secondary Procedure Code 2                   | Organisation Code Type Sender          |
| Confidentiality Category                     | EM Conclusion Waiting Time               | EM Diagnosis Second 5                       | Secondary Procedure Date 2                   | Match Criterion Indicator              |
| Configurable Indicator                       | EM Duration Time                         | EM Diagnosis Second 6                       | Secondary Procedure Code 3                   | Cost Period Spell Status Indicator     |
| Code Cleaning                                | EM Assessment Waiting Time               | EM Diagnosis Second 7                       | Secondary Procedure Date 3                   | Costed Indicator                       |
| NHS Number                                   | EM Treatment Wait Time                   | EM Diagnosis Second 8                       | Secondary Procedure Code 4                   | Costing Batch Sequence                 |
| Lead Care Activity Indicator                 | Commissioning Serial No (Agreement No)   | EM Diagnosis Second 9                       | Secondary Procedure Date 4                   | Current Period Number                  |
| Organisation Code Patient Pathway Identifier | NHS Service Agreement Line No            | EM Diagnosis Second 10                      | Secondary Procedure Code 5                   | Finished Indicator                     |
| RTT Patient Pathway Identifier               | Provider Reference No                    | EM Diagnosis Second 11                      | Secondary Procedure Date 5                   | HES Identifier                         |
| RTT Period End Date                          | Commissioner Reference No                | EM Diagnosis Second 12                      | Secondary Procedure Code 6                   | Intended Procedure Status              |
| RTT Period Start Date                        | SHA Commissioner                         | Diagnosis Type                              | Secondary Procedure Date 6                   | Interchange ID                         |
| RTT Status                                   | SHA Provider                             | Investigation Scheme In Use                 | Secondary Procedure Code 7                   | Attendance Location Class              |
| Unique Booking Reference Number (Converted)  | Organisation Code (Code of Provider)     | EM Investigation First                      | Secondary Procedure Date 7                   | Location Type Code                     |
| RTT Length (Derived)                         | Provider Site Code                       | EM Investigation Second 1                   | Secondary Procedure Code 8                   | Attendance Site Code                   |
| Age At CDS Activity Date                     | Organisation Code (Code of Commissioner) | EM Investigation Second 2                   | Secondary Procedure Date 8                   | Prime Recipient                        |
| Derived Age                                  | Commissioner Code (Original Data)        | EM Investigation Second 3                   | Secondary Procedure Code 9                   | Organisation Code Type Prime Recipient |
| Patient Type                                 | Commissioner Site Code                   | EM Investigation Second 4                   | Secondary Procedure Date 9                   | Organisation Code Type Location        |
| Age Range Derived                            | PCT Derived from GP                      | EM Investigation Second 5                   | Secondary Procedure Code 10                  | Other Indicator                        |
| Year of Birth                                | PCT Derived from GP Practice             | EM Investigation Second 6                   | Secondary Procedure Date 10                  | Pbr Generated Interchange ID           |
| Month of Birth                               | GP Practice Derived from PDS             | EM Investigation Second 7                   | Secondary Procedure Code 11                  | Spell Const Version No                 |
| Age at Record Start                          | Organisation Code Type Provider          | EM Investigation Second 8                   | Secondary Procedure Date 11                  | Pbr Spell Cost ID                      |
| Age at Record End                            | Provider Code (Original Data)            | EM Investigation Second 9                   | Secondary Procedure Code 12                  | Pbr Spell Cost Version Date            |
| Carer Support Indicator                      | Organisation Code Type Commissioner      | EM Investigation Second 10                  | Secondary Procedure Date 12                  | Provider Location                      |
| Ethnic Category Code                         | GP PCT Type (Derived)                    | EM Investigation Second 11                  | Derived EM Department Type                   | Record Extraction Indicator            |
| Marital Status                               | Registered GMP Code                      | EM Investigation Second 12                  | EM Department Type                           | Re-costing Requested Flag              |
| NHS Number Status Indicator                  | Registered GMP Code (Original Data)      | Procedure Scheme In Use                     | EM Department Type MIU Indicator Derived     | Referrer Code Type                     |
| Gender Code                                  | GP Practice Code (Original Data)         | EM Treatment First                          | Tariff Initial Amount National               | Organisation Code Type Referrer        |
| Postcode Sector of Usual Address             | GP Practice Code                         | PROCEDURE DATE (of First Treatment)         | Tariff Financial Adjustment National         | First Referrer Organisation Code       |
| Organisation Code (PCT of Residence)         | GP Consortium Code                       | EM Treatment Second 1                       | Tariff Adjustment Future Use_1 National      | Spell Complete Indicator               |
| Patient Postcode Electoral Ward              | GP Code Type                             | PROCEDURE DATE (of Subsequent Treatments) 1 | Tariff Adjustment Future Use_2 National      | Temporary Cost Period Status           |
| SHA Type from Patient Postcode               | Organisation Code GP                     | EM Treatment Second 2                       | Tariff Pre MFF Adjusted National             | Test Indicator                         |
| Area Code Derived                            | Organisation Code Type GP                | PROCEDURE DATE (of Subsequent Treatments) 2 | Applied MFF National                         | Update Type                            |
| Organisation Code Type PCT of Residence      | First GP Organisation Code               | EM Treatment Second 3                       | MFF Adjustment                               | Version Sequence Number                |
| PCT of Residence (Original)                  | SHA from GP (Derived)                    | PROCEDURE DATE (of Subsequent Treatments) 3 | Tariff Total Payment National                | Maximum Episode Date                   |
| PCT Responsible                              | SHA Type from GP (Derived)               | EM Treatment Second 4                       | EM Tariff ID                                 | Hierarchy                              |
| Census Output Area 2001                      | Spell Version As At Date And Time        | PROCEDURE DATE (of Subsequent Treatments) 4 | Market Forces Factor ID                      | Pbr Spell Service ID Version           |
| Country                                      | Applicable Costing Period                | EM Treatment Second 5                       | Tariff Initial Amount Non Mandatory          | Spell Error Status                     |
| County Code                                  | PbR Spell Status Indicator               | PROCEDURE DATE (of Subsequent Treatments) 5 | Tariff Financial Adjustment Non Mandatory    | Spare 1                                |
| ED County Code                               | PbR Spell Frozen Indicator               | EM Treatment Second 6                       | Tariff Adjustment Future Use_1 Non Mandatory | Spare 2                                |
| ED District Code                             | HRG Code - Submitted                     | PROCEDURE DATE (of Subsequent Treatments) 6 | Tariff Adjustment Future Use_2 Non Mandatory | Spare 3                                |
| Electoral Ward Division                      | HRG Code Version - Submitted             | EM Treatment Second 7                       | Applied MFF Non Mandatory                    | Spare 4                                |
| Government Office Region Code                | Core HRG                                 | PROCEDURE DATE (of Subsequent Treatments) 7 | MFF Adjustment Non Mandatory                 | Spare 5                                |
| Local Authority Code                         | HRG Code Version - Calculated            | EM Treatment Second 8                       | Tariff Total Payment Non Mandatory           | Grouping Algorithm Version             |
| SHA Old Org Code                             | HRG Dominant Grouping Variable           | PROCEDURE DATE (of Subsequent Treatments) 8 | Tariff Initial Amount Local                  | Grouping Reference Data Version        |
| Electoral Ward 1998                          | HRG Dominant Grouping Variable Procedure | EM Treatment Second 9                       | Tariff Total Payment Local                   | Grouping HRG Version                   |
| EM Attendance Number                         | Diagnosis Scheme In Use                  | PROCEDURE DATE (of Subsequent Treatments) 9 | Pbr Final Tariff                             | CDS Schema Version                     |
| EM Mode of Arrival                           | ICD 10 Primary Diagnosis                 | EM Treatment Second 10                      | Final Tariff Applied                         | Query Date                             |
| EM Attendance Category                       | Secondary Diagnosis Code 1               | EM Treatment Second 10                      | Number Diagnosis                             | Unique Query Id                        |
| EM Attendance Disposal                       | Secondary Diagnosis Code 2               | EM Treatment Second 10                      | Number Procedures                            | Copy Recipients                        |
| EM Incident Location Type                    | Secondary Diagnosis Code 3               | EM Treatment Second 10                      | Number EM Investigations                     | Derived Commissioner                   |
| EM Staff Member Code                         | Secondary Diagnosis Code 4               | EM Treatment Second 10                      |  | Derived Commissioner Type              |
| EM Referral Source                           | Secondary Diagnosis Code 5               | EM Treatment Second 10                      |  |  |
| Arrival Date                                 | Secondary Diagnosis Code 6               | EM Treatment Second 10                      |  |  |
| EM Patient Group                             | Secondary Diagnosis Code 7               | EM Treatment Second 10                      |  |  |



## **Risk Assessment**

### **SOURCES**

[Data Protection Act 2018 \(DPA\)](#)

[General Data Protection Regulations \(EU\) 2016/679 \(GDPR\)](#)

[Information Commissioner – Guide to the General Data Protection Regulations \(ICO Guide\)](#)

[Information Commissioner - Data Protection Impact Assessments](#)

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## 1. INTRODUCTION

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The UK Information Commissioner and the European Data Protection Board provide that Data Protection Impact Assessments are necessary, in certain circumstances, to assess the level of risk to the rights and freedoms of individuals.

Controllers must consider both the likelihood and the severity of any impact on individuals. High risk could result from either a high probability of some harm, or a lower possibility of serious harm.

The risk assessment serves to support Controller customers to identify the level of inherent risk so that the measures being put in place to mitigate the risk are proportionate to the impact that projects or initiatives might have on data subjects.

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## 2. ACCOUNTABILITY

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Prescribing Services Ltd (PSL) are a Processor and are therefore required to provide assurance that their technical and organisational measures that are comparable to those implemented by the Controller and proportionate to the risk.

Unlike the Controller, they are not in a position to assess the risk to the rights and freedoms of particular data subjects since they are not in control of establishing the lawful basis or a direct route for giving effect to data subject rights. However, due to the nature and scope of processing, it seems reasonable to assume that implementing the described project represents at least a moderate to high degree of risk to the rights and freedoms of data subjects in the event that appropriate technical and organisational measures are not put in place at all. This assessment will therefore explore each of the elements drawn out within data protection legislation for mitigation of those risks.

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### 3. ASSET CRITICALITY SCORING GRID

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|  |   |
|--|---|
| Typically, critical national services. Absence of system leads to complete failure of dependent systems and services with a high possibility of personal safety issues. Service interruption results in severe reputational damage             | 5 |
| Predominantly transactional services. Absence leads to operational difficulties that can be coped with for a limited period. May lead to increased risk to stakeholders or organisation.   | 4 |
| Predominantly data capture, batch processing. Absence leads to operational difficulties, but these are manageable for an extended 2period. Eg. 1 day. Absence of system may lead to a slight increase in risk to stakeholders or organisation. | 3 |
| Business Hours Support (8am-6pm) Mon-Fri (not BH). Service Availability 98%. DR optional - dependant on outcome of BIA.  | 2 |

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### 4. DATA RISK SCORING GRID

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|  |   |
|--|---|
| Data is aggregated and anonymised.   | 2 |
| Low volume of personal data involved or high volumes of anonymised data.                             | 3 |
| High-volume personal data or low volume special category data.                                       | 4 |
| High volume and special category data or includes stigmatised information (i.e. mental health data). | 5 |

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### 5. RISK SCORING MATRIX

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|                       | Asset Criticality |        |        |      |          |
|-----------------------|-------------------|--------|--------|------|----------|
|                       |                   | 2      | 3      | 4    | 5        |
| Impact of data breach | 2                 | Bronze |        |      |          |
|                       | 3                 |        | Silver |      |          |
|                       | 4                 |        |        | Gold |          |
|                       | 5                 |        |        |      | Platinum |
|                       |                   |        |        |      |          |

## 6. ASSESSMENT AND RATIONALE

|  |   |
|--|---|
| What score has the project been given in terms of criticality of resulting asset or service? | <p>Predominantly transactional services. Absence leads to operational difficulties that can be coped with for a limited period. May lead to increased risk to clinical care.</p>  |
| Rationale  | <p>Whilst the systems and services provided by PSL are ordinarily supplementary to core clinical services, they are increasingly being used to identify cohorts of patients who require specific interventions in relation to cancer pathways, for example, or as a result of the pandemic. To reflect that, this assessment has heightened the potential critically based on the fact that some customers may rely more on the services that others. By assessing the service in this way, it allows the design and underlying</p> |

|  |  |
|--|--|
|  | compliance to reflect a potential future state whereby PSL services are fundamental to supporting core health and care services.   |
| What score has the project been given in terms of the nature and volume of data being processed? | High volume and special category data and includes stigmatised information.  |
| Rationale  | PSL are supporting many GPs and CCG across the country which results in thousands of patients' data being extracted on a daily basis. This includes read coded, de-identified data that this includes health information - including stigmatised information. Whilst the data is de-identified, this assessment takes the approach of assuming highest risk such that customers are assured with regards to measures adopted to reduce risk. |
| Overall risk score given to the processing activity / project in question.                       | <b>GOLD</b>  |
| Does the project involve introduction of a cloud service to be assessed?                         | Introduces cloud services that will need to be assessed  |

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## 6. RISK ASSESSMENT CONCLUSION

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The project has been assessed to have an overall risk score of **GOLD** and so the measures to be applied will be proportionate to reduce the inherent risk levels to a suitable level such that they can be accepted by the Controller.



## Controllers and Processors

### SOURCES

[Data Protection Act 2018 \(DPA\)](#)

[General Data Protection Regulations \(EU\) 2016/679 \(GDPR\)](#)

[Information Commissioner – Guide to the General Data Protection Regulations \(ICO Guide\)](#)

[ICO Guidance - Data Controllers](#)

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## 1. DEFINITIONS / CONTEXT

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“It is essential for organisations involved in the processing of personal data to be able to determine whether they are acting as a data controller or as a data processor in respect of the processing. This is particularly important in situations such as a data breach where it will be necessary to determine which organisation has data protection responsibility.

The data controller must exercise overall control over the purpose for which, and the manner in which, personal data are processed. However, in reality a data processor can itself exercise some control over the manner of processing – e.g. over the technical aspects of how a particular service is delivered.

The fact that one organisation provides a service to another organisation does not necessarily mean that it is acting as a data processor. It could be a data controller in its own right, depending on the degree of control it exercises over the processing operation.”<sup>1</sup>

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## 2. DATA CONTROLLERS

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**GP Practices** has been assessed to be a Data Controller.

This is because;

- They decided to collect or process the personal data.
- They decided what the purpose or outcome of the processing was to be.
- They decided what personal data should be collected.
- They decided which individuals to collect personal data about.

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<sup>1</sup> <https://ico.org.uk/media/for-organisations/documents/1546/data-controllers-and-data-processors-dp-guidance.pdf>

- They make decisions about the individuals concerned as part of or as a result of the processing.
- They exercise professional judgement in the processing of the personal data.
- They have a direct relationship with the data subjects.
- They have complete autonomy as to how the personal data is processed.
- They have appointed the processors to process the personal data on their behalf

**Clinical Commissioning Groups** have also been assessed to be a Data Controller.

This is because;

- They decided to collect or process the personal data.
- They decided what the purpose or outcome of the processing was to be.
- They decided what personal data should be collected.
- They decided which individuals to collect personal data about.
- They make decisions about the individuals concerned as part of or as a result of the processing.
- They exercise professional judgement in the processing of the personal data.
- They have appointed the processors to process the personal data on their behalf

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## 2. DATA PROCESSORS

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**Prescribing Services Limited** has been assessed to be a Data Processor.

This is because;

- They are following instructions from someone else regarding the processing of personal data.

- They were given the personal data by a customer or similar third party or told what data to collect.
- They do not decide to collect personal data from individuals.
- They do not decide what personal data should be collected from individuals.
- They do not decide the lawful basis for the use of that data.
- They do not decide what purpose or purposes the data will be used for.
- They do not decide whether to disclose the data, or to whom.
- They do not decide how long to retain the data.
- They may make some decisions on how data is processed but implement these decisions under a contract with someone else.
- They are not interested in the end result of the processing.

**Wellbeing Software (Apollo)** has been assessed to be a Sub Processor.

This is because;

- They are following instructions from someone else regarding the processing of personal data.
- They were given the personal data by a customer or similar third party or told what data to collect.
- They do not decide to collect personal data from individuals.
- They do not decide what personal data should be collected from individuals.
- They do not decide the lawful basis for the use of that data.
- They do not decide what purpose or purposes the data will be used for.
- They do not decide whether to disclose the data, or to whom.
- They do not decide how long to retain the data.
- They may make some decisions on how data is processed, but implement these decisions under a contract with someone else.
- They are not interested in the end result of the processing.

**The Bunker** has also been assessed to be a Sub Processor.

This is because;

- They are following instructions from someone else regarding the processing of personal data.
- They were given the personal data by a customer or similar third party, or told what data to collect.
- They do not decide to collect personal data from individuals.
- They do not decide what personal data should be collected from individuals.
- They do not decide the lawful basis for the use of that data.
- They do not decide what purpose or purposes the data will be used for.
- They do not decide whether to disclose the data, or to whom.
- They do not decide how long to retain the data.
- They may make some decisions on how data is processed but implement these decisions under a contract with someone else.
- They are not interested in the end result of the processing.

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### 3. APPROPRIATE SHARING DOCUMENTS

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“It is good practice for you to have written data sharing agreements when controllers share personal data. This helps everyone to understand the purpose for the sharing, what will happen at each stage and what responsibilities they have. It also helps you to demonstrate compliance in a clear and formal way. Similarly, written contracts help controllers and processors to demonstrate compliance and understand their obligations, responsibilities and liabilities.”<sup>2</sup>

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<sup>2</sup> <https://ico.org.uk/for-organisations/accountability-framework/contracts-and-data-sharing/>

The stakeholders have the following in place;

- A Processing Contract between GP Practices and PSL
- A Processing Contract between PSL and CCG
- A Processing Contract between PSL and Apollo
- A Processing Contract between PSL and The Bunker

The GP and the CCG will also have between them;

- A Data Sharing Agreement approved by NHS Digital that supports the provision of SUS data to the GP for direct care purposes.

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## ● PROCESSING CONTRACT REVIEWS

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In accordance with s 56 of the Data Protection Act 2018, there is a need to ensure that the legally required processing clauses are included in any contract between a Controller and Processor or Processor and Sub Processors.

**Name of Supplier:** PSL

**Contract reviewed:** [PSL GP Processing Contract](#)

| Clause  | Status | Comments      |
|---|--------|---------------|
| Is the processor required to provide, on request evidence that they have implemented appropriate technical and organisational measures to protect Personal Data including storage and transmission of data, business continuity, staff training, auditing, access control and Cyber security? | Yes    | Section 2.9.5 |
| Does the contract state that the processor shall not engage another processor without prior specific or general written authorisation of the controller?  | Yes    | 2.5           |
| Does the contract set out the subject-matter and duration of the processing, the nature and purpose of  | Yes    | Schedule 1    |

|   |     |            |
|---|-----|------------|
| the processing, the type of personal data and categories of data subjects and the obligations and rights of the controller?   |     |            |
| Does the contract stipulate that the Processor processes the personal data only on documented instructions from the controller, including with regard to transfers of personal data to a third country or an international organisation, unless required to do so by law and in those cases will notify the Controller? | Yes | 2.9.4      |
| Does the contract state that all staff employed by the processor have contracts that include confidentiality clauses and that Personal Data will not be shared with third party unless required to do so by law?  | Yes | Yes        |
| Does the contract require the Processor to assist the Controller to respond to requests for exercising the data subject's rights i.e. access to information, correction of errors?  | Yes | 2.9.7      |
| Does the contract require the Processor to assist the Controller in reporting information incidents promptly including where it might be required to contact the data subject?  | Yes | 2.9.7      |
| Does the contract state what should happen to the data at the end of the contract or in the event of termination such as return of the data or secure destruction?  | Yes | Schedule 2 |
| Does the contract require the Processor to allow for a comply with audits including inspections conducted by the Controller or a third party engaged by the Controller?   | Yes | 2.10       |

**Name of Supplier:** Wellbeing Software

**Contract reviewed:** Apollo Services Agreement

| Clause  | Status | Comments   |
|---|--------|--|
| Is the processor required to provide, on request evidence that they have implemented appropriate technical and organisational measures to protect Personal Data including storage and transmission of data, business continuity, staff training, auditing, access control and Cyber security?                           | Yes    | s 4.10.2 (c)                                       |
| Does the contract state that the processor shall not engage another processor without prior specific or general written authorisation of the controller?  | Yes    | 4.2.10 (e)   |
| Does the contract set out the subject-matter and duration of the processing, the nature and purpose of the processing, the type of personal data and categories of data subjects and the obligations and rights of the controller?  | Yes    | Specified in the customer Project Order (separate) |
| Does the contract stipulate that the Processor processes the personal data only on documented instructions from the controller, including with regard to transfers of personal data to a third country or an international organisation, unless required to do so by law and in those cases will notify the Controller? | Yes    | s 5.8.2  |
| Does the contract state that all staff employed by the processor have contracts that include confidentiality clauses and that Personal Data will not be shared with third party unless required to do so by law?  | Yes    | Yes  |
| Does the contract require the Processor to assist the Controller to respond to requests for exercising the data subject's rights i.e. access to information, correction of errors?  | Yes    | 4.2.10 (i)   |
| Does the contract require the Processor to assist the Controller in reporting information incidents promptly including where it might be required to contact the data subject?  | Yes    | 4.2.10 (m)   |

|   |     |            |
|---|-----|------------|
| Does the contract state what should happen to the data at the end of the contract or in the event of termination such as return of the data or secure destruction?      | Yes | 6.3        |
| Does the contract require the Processor to allow for a comply with audits including inspections conducted by the Controller or a third party engaged by the Controller? | Yes | 4.2.10 (j) |

**Name of Supplier:** The Bunker

**Contract reviewed:** The Bunker GDPR Addendum

| Clause  | Status | Comments                |
|---|--------|-------------------------|
| Is the processor required to provide, on request evidence that they have implemented appropriate technical and organisational measures to protect Personal Data including storage and transmission of data, business continuity, staff training, auditing, access control and Cyber security? | Yes    | s 2.5.2                 |
| Does the contract state that the processor shall not engage another processor without prior specific or general written authorisation of the controller?  | Yes    | s 2.6                   |
| Does the contract set out the subject-matter and duration of the processing, the nature and purpose of the processing, the type of personal data and categories of data subjects and the obligations and rights of the controller?  | Yes    | Data Processor Addendum |
| Does the contract stipulate that the Processor processes the personal data only on documented instructions from the controller, including with regard to transfers of personal data to a third country or an  | Yes    | s 2.5.1                 |



|  |     |         |
|--|-----|---------|
| international organisation, unless required to do so by law and in those cases will notify the Controller?   |     |         |
| Does the contract state that all staff employed by the processor have contracts that include confidentiality clauses and that Personal Data will not be shared with third party unless required to do so by law? | Yes | Yes     |
| Does the contract require the Processor to assist the Controller to respond to requests for exercising the data subject's rights i.e. access to information, correction of errors?                               | Yes | 2.5.5   |
| Does the contract require the Processor to assist the Controller in reporting information incidents promptly including where it might be required to contact the data subject?                                   | Yes | s 2.5.5 |
| Does the contract state what should happen to the data at the end of the contract or in the event of termination such as return of the data or secure destruction?   | Yes | s 2.5.7 |
| Does the contract require the Processor to allow for a comply with audits including inspections conducted by the Controller or a third party engaged by the Controller?  | Yes | s 2.5.8 |



## Lawful Processing

### SOURCES

[Data Protection Act 2018 \(DPA\)](#)

[General Data Protection Regulations \(EU\) 2016/679 \(GDPR\)](#)

[Information Commissioner – Guide to the General Data Protection Regulations \(ICO Guide\)](#)

[The Health and Social Care \(Safety and Quality\) Act 2015: Duty to share information \(HSCA\)](#)

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## 1. DEFINITIONS / CONTEXT

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Controllers must have a valid lawful basis in order to process personal data.

There are six available lawful bases for processing. No single basis is 'better' or more important than the others – which basis is most appropriate to use will depend on your purpose and relationship with the individual.

Most lawful bases require that processing is 'necessary'. If Controllers can reasonably achieve the same purpose without the processing, they won't have a lawful basis.

Controllers must determine the lawful basis before they begin processing, and should document it.

Controller's privacy notices should include your lawful basis for processing as well as the purposes of the processing.

If the purposes change, Controllers may be able to continue processing under the original lawful basis if the new purpose is compatible with the initial purpose (unless the original lawful basis was consent).

If Controllers are processing special category data they will need to identify both a lawful basis for general processing and an additional condition for processing this type of data.

The conditions for CCGs undertaking automated processing such as risk stratification may also be "public task" and "medical purposes"

Where such processing could result in a decision that affects an individual, must offer a right to object before such decisions are taken, in accordance with Article 22.

Where CCGs are collecting data as part of a legal requirement, for example where NHS Digital is directed to collect specified data via CCG, lawful basis is "compliance with a legal obligation"

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## 2. DATA CATEGORIES

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The UK GDPR / DPA 18 and EU GDPR governs the processing of data that identifies living individuals and provides that Special Categories of Data is personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, data concerning health or data concerning a natural person's sex life or sexual orientation.

The initiative involves processing of Personal Data and Special Category Data and therefore requires both a lawful basis under Art 6 UK GDPR and an condition for processing of Special Category Data

Data Processors are not in a position to determine the purpose and means of processing. However, for the purposes of supporting customers with their assessments, the following assumptions have been made.

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## 3. LAWFUL BASIS FOR PROCESSING PERSONAL DATA

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UK GDPR Article 6 (e) Public task: the processing is necessary for you to perform a task in the public interest or for your official functions, and the task or function has a clear basis in law.

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## 4. CONDITION FOR PROCESSING SPECIAL CATEGORY DATA

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Article 9 2 (h) Health or social care (with a basis in law)

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## 5. OBLIGATIONS OF SECRECY

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Both Data Protection Act 2018 and GDPR indicate that healthcare data may be processed by healthcare providers - where the law makes provision for such services (i.e. registered healthcare professionals) or by a third party “pursuant to a contract” that creates an obligation of secrecy or “a person who in the circumstances owes a duty of confidentiality”.

Controllers are permitted to delegate their processing functions to another organisation, who collect, store, retain, display, link and destroy the data on their behalf as Processors.

There is a Processing Contract in place with the Processor to ensure that they are bound to secrecy.

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## 6. NECESSITY

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As previously identified, the Controller has responsibility to ascertaining lawful basis however, the following presumptions are made.

The processing is **necessary** for healthcare purposes because there is a statutory duty under HSCA for healthcare providers to;

***Share information between health or adult social care commissioners or providers***

This project will involve sharing information between health and social care commissioners and providers

***Where lawful and the individual has not objected***

Any existing objections to data being processed will be observed by virtue of excluding patients that have “opted out” from the extracted data set.

***For the purposes likely to facilitate the provision of health services or adults social care***

The sharing will provide information that supports consultations, emergency care, diagnosis directly to the individual patient and broader healthcare management.

***Where it is in the individual's best interest.***

Improved and informed patient care is at the heart of the project.

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## 7. EXPECTATIONS / COMMON LAW CONFIDENTIALITY

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Whilst consent is not the identified lawful basis for processing, there is still a legal requirement to ensure that data subjects are informed about the processing and have the opportunity to ask questions or to object to processing. Additionally, there is a need to ensure that the common law duty of confidentiality is also satisfied.

The test for a breach of confidence has developed (in correlation with the application of the Human Rights Act 1998 and Article 8 (1) of ECHR) and now concerns whether individuals have a ***reasonable expectation*** of privacy such that sharing information may constitute misuse of private information.

The duty towards confidentiality can therefore be overridden where it is deemed that the individual reasonably expects such a disclosure.

The importance of managing patient / service user expectation is further demonstrated by the introduction of the 8th Caldicott Principle which aims to ensure 'no surprises' for patients and service users by making sure providers are fully transparent.

It is asserted that, for Advice and Guidance, there is no third party disclosure such that a breach of the duty of confidentiality might occur. Processors such as PSL are not considered to be a 'third party' but rather acting as a proxy for the Controller who is lawfully able to delegate their Controller activities.

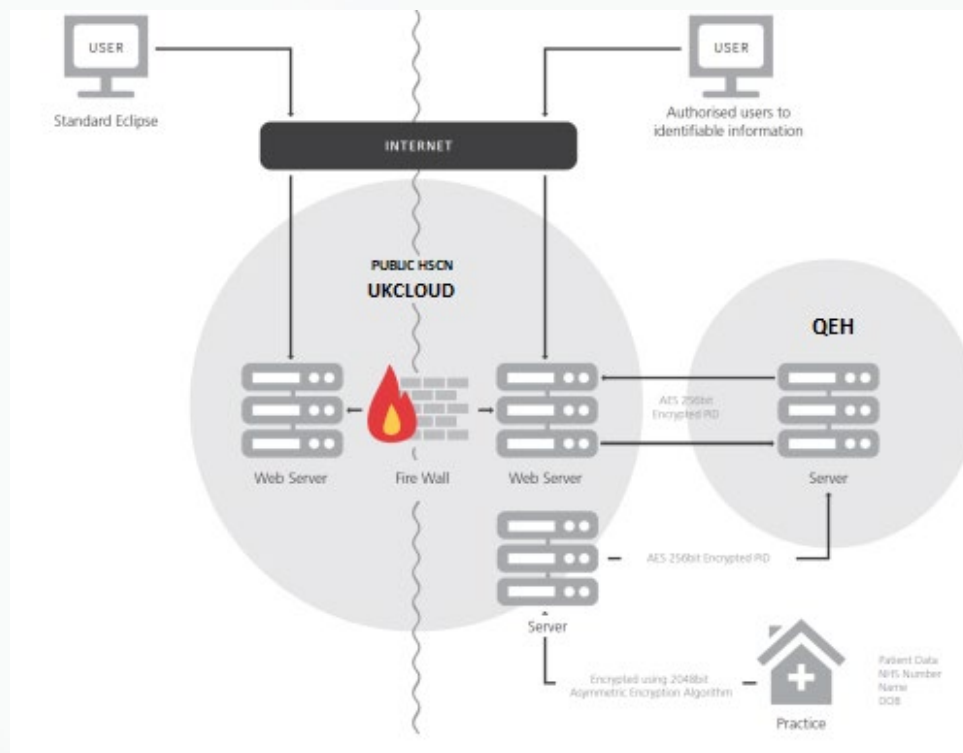
It is, however, assumed that the Controller customers will undertake transparency campaigns such that patient expectations are effectively managed.

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## 8. DE-IDENTIFICATION / PSEUDONYMISATION

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Advice and Guidance (Eclipse Live) employs pseudonymisation to protect data both in transit and at rest. This is demonstrated below;



Recital 26, the GDPR limits the ability of a data handler to benefit from pseudonymized data if re-identification techniques are “reasonably likely to be used, such as singling out, either by the controller or by another person to identify the natural person directly or indirectly.”

To determine how effectively the linked data has been pseudonymised (and therefore further minimised where a large and somewhat speculative data set exists), it is necessary to consider how “reasonably likely” it is that the Controller (or Processor) or another person could directly or indirectly identify a person.

This should consider the time, cost and effort necessary to do so.

The data being held at the QEHL Server is;

- Eclipse No (clear)
- Name (encrypted)
- Address (encrypted)
- NHS No (encrypted)

- DOB (encrypted)

All the other data is 256-bit encrypted and the key for which is only available on another server which is hosted by PSL at their own location.

The data held at PSL servers is the linked, pooled data set **without**,

- Name (encrypted)
- Address (encrypted)
- NHS No (encrypted)
- DOB (encrypted)

And **with** the Eclipse Identifier.

This information is also 256-bit encrypted but the decryption key for this information is within the same location and available to a limited number of individuals.

Practice data set extracted manually or by Wellbeing Software (Apollo);

- Demographics
- age (years)
- gender
- clinical system no
- Coded event data
- Clinical sys no
- Read Code (Value 1 value 2)
- Medication data
- medication name
- medication read codes
- Date issued
- status (repeat etc)
- Instructions - free text)



The data is 256-bit encrypted which is regarded as requiring significant cost, time and effort in order to decrypt without the necessary key.

It is also worth noting that the data is read coded which provides another layer of protection should the information be inappropriately disclosed.

It is therefore determined that, due to the de-identification, creation of a unique integer, encryption and location of the data across multiple locations, the risk of reidentification of the data sets by a motivated intruder is low.



## Information Rights

### SOURCES

[Data Protection Act 2018 \(DPA\)](#)

[General Data Protection Regulations \(EU\) 2016/679 \(GDPR\)](#)

[Information Commissioner – Guide to the General Data Protection Regulations \(ICO Guide\)](#)

[Information Commissioner - Information Rights](#)

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## 1. DEFINITIONS / CONTEXT

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The UK and EU GDPR provides the following rights for individuals: The right to be informed, the right of access, the right to rectification, the right to erasure, the right to restrict processing, the right to data portability, the right to object, rights in relation to automated decision making and profiling.

Processors are contractually bound to supporting Customer Controllers with their information rights requests by virtue of Data Processing Contract. This means that they will work to support the Controller towards a timely and complete response to any request made by data subjects.

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## 2. FACILITATION OF INFORMATION RIGHTS

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| Information Right             | Applies?   | How Supported  |
|-------------------------------|--|--|
| Right to Access               | Yes, data subjects do have a right to request access to their information under this lawful basis. | <p>The PSL systems and architecture allows personal data to be extracted / printed and provided to data subject on request.</p> <p>End users can view, add notes to an alert, or an action plan connected to a priority patient. All this activity is retained within the system and can be retrieved for the purposes of providing copies to data subjects.</p> <p>The system provides an audit trail of extractions and reports such that these can also form part of a subject access request response as well.</p> |
| Rectification and Restriction | Yes, data subjects do have a right to request the rectification                                    | <p>The PSL systems and architecture allows personal data to be amended / access restricted and provides an audit trail of such amendments.</p>   |

|             |   |   |
|-------------|---|---|
|             | and restriction of their personal data under this lawful basis.   | <p>Since patients largely do not have a direct relationship with PSL and PSL would be unable to identify a particular individual, it is anticipated that these rights would be actioned by the healthcare provider at source.</p> <p>Where an Eclipse user identifies an inaccuracy at source and adds a read code or alters basic demographics, this will automatically be included in the Eclipse data extraction. For example, the GP adds a new allergy to the record because the patient has flagged it. The next extraction performed by Eclipse will include that information and this will be available to other users.</p> |
| Portability | The right to data portability only applies when your lawful basis for processing this information is consent or for the performance of a contract and so would not apply to processing under this DPIA. | Not Applicable  |
| Erasure     | The right to Erasure does not apply when processing is for Public Task and Medical Purposes and so would not apply to processing under this DPIA.   | Not Applicable  |
| Object      | Yes, the data subject does have a right to object to processing of their personal data under this lawful basis.   | The data subjects' ability to raise objections via the Controller is unaffected by this project. The extractions already exclude patients that have exercised objections via the NHS National Data Opt Out programme.   |

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## 3. PROFILING AND AUTOMATED DECISION MAKING

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Data Protection Law has provisions on:

- automated individual decision-making (making decisions solely by automated means without any human involvement) and;
- profiling (automated processing of personal data to evaluate certain things about an individual). Profiling can be part of an automated decision-making process.

Article 22 protects individuals if you are carrying out solely automated decision-making that has legal or similarly significant effects on them;

Where automated decisions are made, the Controller must give individuals information about the processing; introduce simple ways for them to request human intervention or challenge a decision; carry out regular checks to make sure that your systems are working as intended.

Profiling is: Any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects about the person including concerning health.

Patients have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning them or similarly significantly affects them.

A legal effect is something that adversely affects someone's legal rights. Similarly, significant effects are more difficult to define but would include, for example, automatic refusal of an online credit application, and e-recruiting practices without human intervention.

Article 22 applies to solely automated individual decision-making, including profiling, with legal or similarly significant effects.

If your processing does not match this definition, then you can continue to carry out profiling and automated decision-making.

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## DETERMINATION

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PSL products and services create an aggregated version of data, pulled from the Controller systems and stored by Prescribing Services and then presented to the Controller customer for use. This effectively sorts patients into particular categories for risk or health management purposes to allow the Controller customer to make decisions about suitable interventions or healthcare management decisions. There is clearly profiling taking place that results in a decision that will affect the care options available to the individual.

The patient, in this case, is subject to care decisions made as a result automated profiling into specific patient groups or the automated identification of risk factors.

In this case, there does not appear to be an impact on the legal rights of the individual nor any significant negative effect for those having decisions made about them. Where a clinician has identified risk and feel an intervention or care option is appropriate, the individual being profiled is likely to benefit from any decisions made. Additionally, the data subject retains choice and control about whether to take options provided to them such as referral to a third-party healthcare provider.

Since the processing does not fully match the definition, it is asserted that the Controller may proceed with processing without the additional restrictions under Article 22 and ensuring that information rights and transparency requirements are observed.

---

## 1. ACCURACY / INTEGRITY

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There is a requirement for Controllers to ensure that suitable data quality measures are in place including how users will be trained or instructed to use systems appropriately, how records or electronic transactions will be validated against their source when added to another system, or as a result of direct data entry and how systems will react if transactions or transfers of data are not received properly.

The following is a description of the measures in place to ensure data quality and integrity, broadly, across PSL products and services.

## **Data Extraction**

PSL have devised an algorithm that identifies when the extracted data set falls outside of expected parameters. Irregularities are highlighted through the presence of unexpected elements i.e. the size of the data set, number of data lines, number of drugs, blood pressure readings. Where the data has characteristics which could be deemed as outliers, the extraction would not be accepted by the system and this would trigger manually scrutiny.

## **Data Transfer**

The extracted data is encrypted for transit, in order for the data set to effectively 'land', it must decrypt which means that it must be complete. It will only allow decryption and therefore accept the file if the file is complete. The systems have interoperability so rather than show corrupt data, the system will reject it.

## **Algorithm Application**

The algorithm is programmed to create alerts when a combination of particular data points is in existence. For example, a patient who is on combination of certain medicines known to react with one another might trigger an alert for a medication review.

The algorithm is programmed using NHS England guidance and is subject to a quarterly clinical review within PSL to ensure that the data upon which the alerts are based remains accurate and best practice. The clinical team within PSL will also undertake periodic audits of alert numbers and other outliers to identify anomalies – for example, a sudden spike in the number of alerts being issued would trigger a closer look at the data being produced.

Additionally, there is a feedback button available to all end users of the system. This allows users of the system to identify where there might be gaps in the information or perhaps an alert has been inappropriately generated. So, PSL are in receipt of around 10,000 reviews supporting the ongoing development of the service.

## **Re-identification**

The system involves a brand-new build of the integrated data sets each week. Each build requires the extraction of the data, the replacement of the identifier with the Eclipse integer.

This means that there is low risk of a mismatch between the identifying data (NHS No, Patient Name) and the other extracted items (read codes) when they are pulled back together to facilitate the identification of a particular patient.

There have been no mismatches of this data since the system inception in 2011. The only example where a mismatch between the extracted data and the patient identity would be possible is where the wrong NHS No has been attributed to the patient within the source data and this is outside the scope of control for PSL.





**TECHNICAL AND  
ORGANISATIONAL  
MEASURES**

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## 1. DEFINITIONS / CONTEXT

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- Personal data must be processed in a manner that ensures appropriate security of the personal data, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organisational measures
- While information security is sometimes considered as cybersecurity (the protection of your networks and information systems from attack), it also covers other things like physical and organisational security measures
- Measures taken should consider available technology, costs, nature, scope, context and purposes of processing as well as the risk of varying likelihood and severity for the rights and freedoms of natural persons
- The controller and the processor shall implement appropriate technical and organisational measures to ensure a level of security appropriate to the risk
- The impact of non-secure data processing can be as serious as becoming a victim or fraud or being put at risk of physical harm or intimidation
- Additionally, individuals are entitled to be protected from less serious kinds of harm like embarrassment or inconvenience
- The data should be accessed, altered, disclosed or deleted only by those authorised to do so (and that those people only act within the scope of the authority given to them);
- The data held must be accurate and complete in relation to why it is being processed; and
- The data should remain accessible and usable, i.e., if personal data is accidentally lost, altered or destroyed, Controllers should be able to recover it and therefore prevent any damage or distress to the individuals concerned.

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## 2. PROPORTIONALITY

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In accordance with the above risk assessment, the project has been defined as having a **GOLD** degree of risk to the rights and freedoms of data subjects in the event that appropriate technical and organisational measures are not put in place – based on the nature and volume of the data being processed.

This assessment will therefore explore each of the elements drawn out within data protection legislation for mitigation of those risks such that the residual risk is low enough to support implementation.

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## 3. SECURITY OF DATA IN TRANSIT AND AT REST

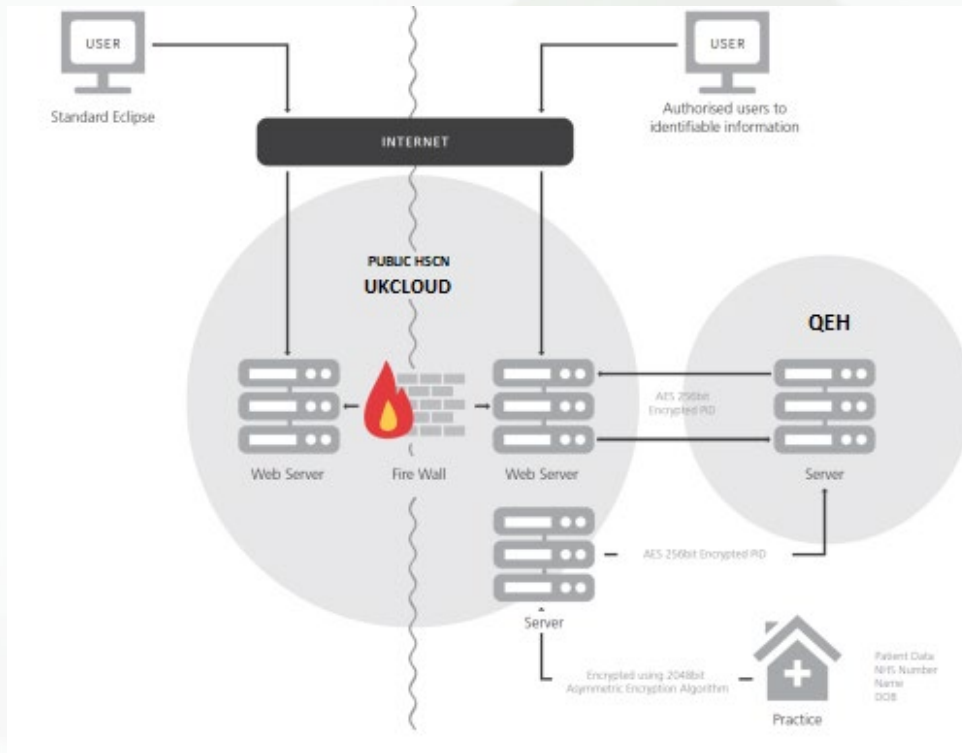
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Since the project involves the transfer of data through a network architecture, this assessment has obtained a number of assurances for data in transit in accordance with NHS Digital Cloud Best Practice Guidance.

- Primary care data extracts including some basic demographics (practice code, Patient system reference, gender and age) are fully encrypted to allow secure transmission of data to the PSL high security data centres (UK Cloud) using AES 256bit encryption via TLS V1.2 secure socket connections.
- Identifiable demographic data (patient file, practice code, patient system reference and NHS Number) separately extracted from the practice are also transmitted via TLS V1.2 secure socket connections but these also transferred within the HSCN environment only to the QEHKL Server.
- SUS data transferred from the CSU to secure SFTP site hosted by Prescribing Services Ltd within the HSCN. Secure AES-256bit encryption is utilised for the transmission. Here the data is linked with the Primary Care Data by virtue of the NHS Number which is then replaced with Eclipse no, linked together and saved in QEHKL. The files in the SFTP are then permanently deleted.

- All web access is encrypted using SSL TLS V1.2.

Advice and Guidance (Eclipse Live) employs pseudonymisation and encryption to protect data both in transit and at rest. This is demonstrated below;



Recital 26, the GDPR limits the ability of a data handler to benefit from pseudonymized data if re-identification techniques are “reasonably likely to be used, such as singling out, either by the controller or by another person to identify the natural person directly or indirectly.”

To determine how effectively the linked data has been pseudonymised (and therefore further minimised where a large and somewhat speculative data set exists), it is necessary to consider how “reasonably likely” it is that the Controller (or Processor) or another person could directly or indirectly identify a person.

This should consider the time, cost and effort necessary to do so.

The data being held at the QEH Server is;

- Eclipse No (clear)
- Name (encrypted)
- Address (encrypted)

- NHS No (encrypted)
- DOB (encrypted)

All the other data is 256-bit encrypted and the key for which is only available on another server which is hosted at UKCloud

The data held at UKCloud is the linked, pooled data set **without**,

- Name (encrypted)
- Address (encrypted)
- NHS No (encrypted)
- DOB (encrypted)

And **with** the Eclipse Identifier.

This information is also 256-bit encrypted but the decryption key for this information is within the same location and available to a limited number of individuals.

Practice data set extracted manually or by Wellbeing Software (Apollo);

- Demographics
- age (years)
- gender
- clinical system no
- Coded event data
- Clinical sys no
- Read Code (Value 1 value 2)
- Medication data
- medication name
- medication read codes
- Date issued
- status (repeat etc)
- Instructions - free text)

The data is 256-bit encrypted which is regarded as requiring significant cost, time and effort in order to decrypt without the necessary key.

Prescribing Services Ltd services use (where necessary) primary care data extracts imported for the provision of Clinical Decision Support, Risk Stratification and other associated purposes.

This data is imported securely and held in a de-identified form. Safety algorithms are performed on the data and presented to the user. Since the system requires recent primary care data a snapshot of the full primary record set is taken on initiation and frequently updated using delta data uploads prior to risk stratification.

The transfer of data into the into the Prescribing Services architecture uses a defined Data Migration process to safely and efficiently import all primary care data.

It is also worth noting that the data is read coded which provides another layer of protection should the information be inappropriately disclosed.

It is therefore suggested that, due to the de-identification of personal data, creation of a unique integer, encryption and location of the data across multiple locations, the risk of reidentification of the data sets by a motivated intruder is low but a determination and risk assessment will likely be conducted by the Controller(s).

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## 4. PHYSICAL SECURITY

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The following security measures have been confirmed as in place for the physical locations of project data;

- Data processed by The Bunker and UKCloud are hosted within industry standard data centres that conform to industry best practices (ISO27001 & G-Cloud IL3) and standards for security as defined in the relevant contract terms and conditions.
- Entry to the PSL premises is via a shared door access through which is controlled by a keypad and code.
- The door is also locked outside of normal working hours and entry to the building is not possible via the keypad alone.

- The company's office is then accessed by another door which is also controlled by a keypad and code and locked outside of working hours.
- The office servers and communications hardware are located in a server room which is kept locked.
- All visitors are required to sign in and out and be accompanied at all times whilst within the office premises.
- The offices include all fire fighting equipment required under current regulations. These are provided and maintained under the terms of the office occupancy contract.
- Smoke detectors are present throughout the building.
- There is CCTV in place at the PSL premises
- UKCloud has CCTV and Infrared CCTV operating 24 hours a day and covering all operational areas.
- UKCloud has 24/7 security guards on site
- UKCloud has smoke and heat detection and extinguishing systems.
- UK Cloud has backup generators, various uninterrupted power supply feeds and other redundancy such as water and air filtration systems.
- UKCloud has a security card access system
- The Bunker facilities are housed in de-commissioned cold-war era military establishments.
- The Bunker has CCTV and Infrared CCTV operating 24 hours a day and covering all operational areas.
- The Bunker has full EMP shielding to all data floors
- The Bunker has a Borer security card access system
- The Bunker has 24/7 security guards and dogs permanently on site.
- The Bunker has 3m thick walls and 3m high heavy duty security fence topped with barbed wire and is buried 0.5m underground.
- The Bunker has smoke and heat detection and extinguishing systems.
- There are backup generators, various uninterrupted power supply feeds and other redundancy such as water and air filtration systems.

- PSL have confirmed that the QEH Server is within the QEH Hospital and is protected by the hospital's physical and procedural security controls.
- PSL have confirmed that the QEH server's access is protected by locked doors and in a server room
- PSL have confirmed that the QEH server is covered by 24/7 CCTV
- PSL have confirmed that the QEH server access is controlled by ID badges and key cards
- PSL have confirmed that the QEH hospital has security guard presence and is protected by fire and smoke detection systems.



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## 5. CLOUD HOSTING – UKCloud

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These assurance items are based on the [NHS Digital Health and Social Care Cloud Security – Good Practice Guide](#).

This assurance relates to the following PSL services;

- ✓ Advice and Guidance
  - ✓ Eclipse Vista
  - ✓ Eclipse Prime
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- PSL confirms that they use the VMWare product supplied by UKCloud
  - PSL has confirmed that they have taken the steps necessary to ensure that the cryptography offered by UKCloud (VPN AES256 and HTTPS TLS Version 1.2) is in place and active for this project - such that communications between cloud components are encrypted to recognised best practice standards.
  - PSL has taken steps to ensure that the max encryption levels offered by UKCloud are active for this project. Such that communications between cloud data centres are encrypted to TLS Version 1.2 or above OR IPsec or TLS VPN gateway as defined by NIST SP800-57.
  - PSL has taken steps to ensure that the max encryption levels offered by UKCloud are active for this project. Such that communications between cloud admin portal and the cloud are encrypted to TLS Version 1.2 or above OR IPsec or TLS VPN gateway as defined by NIST SP800-57.
  - UKCloud undertakes annual assessments against recognised standards such as ISO to test the security of the cloud communications.
  - UKCloud architecture utilises strong cryptography as defined by NIST SP800-57 to encrypt communications between the Cloud and the End-user (TLS Version 1.2)

- PSL undertakes regular (minimum yearly) penetration testing of the communication between the Cloud and the End-user, ensuring that the Penetration test is well scoped such that 'Data in transit protection' is fully tested.
- The UKCloud Region is set to Farnborough, with backups being stored in the AWS London EU-WEST-2 data centre.
- UKCloud provides the ability to apply encryption facilities to ensure that no data is written to storage in an unencrypted form. The provider has ensured that this facility is active for this project.
- The provider confirms that the project utilises strong cryptography for data at rest as defined by the current version of NIST SP800-57
- PSL confirms that the data at rest encryption is tested annually against a recognised standard such as ISO or FIPS 140-2 to test the encryption strength.
- PSL has its servers on "warm standby" which are servers which could be initiated within 2 hours for any server failure. This configuration is set up in the same data centre. Should the data centre location suffer a total outage, PSL have the resources in place to set up the servers in another zone, and expect it would take about 4 hours.
- UKCloud has firewall protection which has been configured and enabled.
- UKCloud has given assertions regarding their data sanitisation approach for cloud storage. If the customer needs a specific standard/method of sanitisation such as DoD 5220.22-M ("National Industrial Security Program Operating Manual ") or NIST 800-88 ("Guidelines for Media Sanitization") the PSL will use a secure delete tool which behaves on the UKCloud storage in the same way it would on a local physical disk.. PSL has confirmed they will delete data on request of the controller and that the appropriate deletion tool will be used in accordance with the risk posed by the data therein. PSL has a destruction policy as part of their ISO27001 certification.
- Regarding equipment disposal, UKCloud is certified with ISO/IEC 27001:2013, and CSA STAR Level 1
- UKCloud security protections and control processes (including sanitisation) are independently validated by multiple third-party independent assessments:  
<https://ukcloud.com/governance/>

- UKCloud operates data centers in alignment with the Tier III+ guidelines, and guarantee an up time of 99.9999%> (excluding planned maintenance).

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## 6. CLOUD HOSTING – The Bunker

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These assurance items are based on the [NHS Digital Health and Social Care Cloud Security – Good Practice Guide](#).

This assurance relates to the following PSL services;

- ✓ Eclipse Development Analytics
- PSL confirms that they use the VMWare product supplied by UKCloud
- PSL has confirmed that they have taken the steps necessary to ensure that the cryptography offered by The Bunker (VPN AES256 and HTTPS TLS Version 1.2) is in place and active for this project - such that communications between cloud components are encrypted to recognised best practice standards.
- PSL has taken steps to ensure that the max encryption levels offered by The Bunker are active for this project. Such that communications between cloud data centres are encrypted to TLS Version 1.2 or above OR IPsec or TLS VPN gateway as defined by NIST SP800-57.
- PSL has taken steps to ensure that the max encryption levels offered by The Bunker are active for this project. Such that communications between cloud admin portal and the cloud are encrypted to TLS Version 1.2 or above OR IPsec or TLS VPN gateway as defined by NIST SP800-57.
- The Bunker undertakes annual assessments against recognised standards such as ISO to test the security of the cloud communications.
- The Bunker architecture utilises strong cryptography as defined by NIST SP800-57 to encrypt communications between the Cloud and the End-user (TLS Version 1.2)

- PSL undertakes regular (minimum yearly) penetration testing of the communication between the Cloud and the End-user, ensuring that the Penetration test is well scoped such that 'Data in transit protection' is fully tested.
- The Bunker Region is set to Berkshire with backups being stored in the AWS London EU-WEST-2 data centre.
- The Bunker provides the ability to apply encryption facilities to ensure that no data is written to storage in an unencrypted form. The provider has ensured that this facility is active for this project.
- PSL confirms that the project utilises The Bunker utilises strong cryptography for data at rest as defined by the current version of NIST SP800-57
- PSL confirms that the data at rest encryption is tested annually against a recognised standard such as ISO or FIPS 140-2 to test the encryption strength.
- PSL has servers on "warm standby" which are servers which could be initiated within 2 hours for any server failure. This configuration is set up in the same data centre. Should the data centre location suffer a total outage, PSL have the resources in place to set up the servers in another zone, and expect it would take about 4 hours.
- The Bunker has firewall protection which has been configured and enabled.
- The Bunker has given assertions regarding their data sanitisation approach for cloud storage. If the customer needs a specific standard/method of sanitisation such as DoD 5220.22-M ("National Industrial Security Program Operating Manual ") or NIST 800-88 ("Guidelines for Media Sanitization") the PSL will use a secure delete tool which behaves on the UKCloud storage in the same way it would on a local physical disk.. PSL has confirmed they will delete data on request of the controller and that the appropriate deletion tool will be used in accordance with the risk posed by the data therein. PSL has a destruction policy as part of their ISO27001 certification.
- Regarding equipment disposal, The Bunker is certified with ISO/IEC 27001:2013, and CSA STAR Level 1
- The Bunker security protections and control processes (including sanitisation) are independently validated by multiple third-party independent assessments:  
<https://www.thebunker.net/compliance/>

- The Bunker operates data centers in alignment with the Tier III+ guidelines, and guarantee an up time of 99.9999%> (excluding planned maintenance).

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## 7. DATA SUBJECT USER AUTHENTICATION

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There is no data subject access for Advice and Guidance.

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## 8. SYSTEM AUDIT

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The project introduces a system or software that professional users directly access and so there is a need to ensure that the audit functionality for the asset is appropriate such that transparency is supported and Administrators have the necessary oversight.

The following assurances have been sought and obtained;

- All systems / software enables and supports investigations for any reason (e.g. inappropriate access or cyber security incident)
- The system / software allows identification of any changes which have been made to clinical or administrative data, Patient/Service User data. This includes identifying what changes were made, by what user and at what time.
- The systems provide completed auditing:
  - Username (Where logged in)
  - Time of event
  - Activity undertaken
  - IP address of action
  - Duration of activity
- The systems allow monitoring of whether access controls are working as intended. Administrators may audit the movements of all staff, so it is possible to check that

they are not accessing areas which they shouldn't be or seeing things or doing things they shouldn't be.

- System audit trail includes updates, backups, any maintenance activities or reference data changes.
- For successful login audit data includes User ID, date and time (hh:mm:ss)
- For unsuccessful login audit data includes number of attempts, Date and time, Access point (if available), User ID (if available)
- The Password Change audit data includes User ID, User whose password was changed, Date and time, end-user device (or Solution) identification information

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## 9. PROFESSIONAL USERS - AUTHENTICATION

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To ensure that the authentication of professional users of the system is in line with Gov.UK and NIST standards, the following assurances have been sought and confirmed;

- Most users use NHS Pathways credentials logging into the system.
- Professional user log in is multi-factor. The user logs in using a username and password and then uses a code received from an SMS/Email.
- For professional users, the password at least 8 characters long but does NOT set a maximum length.
- For professional users, when password is changed, the user receives an alert making them aware that their password has recently been changed?
- For professional users, the system explains the password constraints to professional users
- For professional users, the system gives professional users 5 attempts to enter their password correctly before locking their account or do any further security checks.
- For professional users, the system hides professional user passwords by default
- For professional users, the system allows the professional user to paste their password

- For professional users the Passwords of professional users stored salted and hashed, using algorithms and strengths recommended in NIST Cryptography Standards
- For professional users, when a professional user enters their account details incorrectly, the system conceals whether they got the username or password wrong.
- For professional users, when locked out or changing password, the professional user is sent a time-limited password-reset code to the phone number or email that they registered with that does not use password reset questions and does not use password reminders.
- For professional users, when a password is changed, the professional user receives an alert making them aware that their password has recently been changed.
- The software allows different privileges for different job roles
- For professional users, when a professional user is logged in, the organisation that they are logged in under presents itself on screen throughout their use of the system.
- For professional users, professional users have cannot have more than one role per login.

It has been confirmed that Prescribing Services would only ever access personal data in the following scenarios;

When a clinical customer requires technical support, or if they have put the format of a date of birth in incorrectly for example. The users will call the CCG and then the CCG will come to PSL. PSL does not deal with patients/customers direct under normal protocol.

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## 10. INTERNATIONAL TRANSFERS

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All data sets have UK regions selected.

Customer / patient data does not leave the UK.

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## 11. DUE DILIGENCE

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The stakeholders have achieved the following accreditations that assist to reduce the risk to the rights and freedoms of data subjects;

- PSL has completed a compliant NHS Data Protection and Security Toolkit for the current year available at [PSL Toolkit](#)
- PSL has achieved ISO27001 accreditation – certificate number 1412892
- Wellbeing Software has completed a compliant NHS Data Protection and Security Toolkit for the current year available at [Wellbeing Toolkit](#)
- Wellbeing Software has achieved ISO27001 accreditation as confirmed via [Wellbeing ISO27001](#)
- The Bunker has submitted a compliant NHS Data Protection and Security Toolkit for the current year available at [The Bunker Toolkit](#)
- The Bunker has achieved ISO27001 accreditation as confirmed via [The Bunker ISO27001](#)
- UK Cloud has submitted a compliant NHS Data Protection and Security Toolkit for the current year available at [UKCloud Toolkit](#)
- UKCloud has achieved ISO27001 accreditation as confirmed via [UKCloud Governance](#)



As part of the impact assessment, a review of media coverage was undertaken to determine whether there have been reports of breaches or complaints relating to suppliers or partners involved in the service delivery.

At the time of writing no stakeholders had no media presence with regards to data breaches.

Checks have been undertaken with regards to the UK Information Commissioner and all parties, where relevant, are registered and their registrations are below

- PSL are registered with the ICO under the registration number Z2536678
- Wellbeing Software are registered with the ICO under the registration number ZA640896
- The Bunker are registered with the ICO under the registration number Z8856975
- UKCloud are registered with the ICO under the registration number Z2926991

The stakeholders have identified the following leads for data protection matters;

- Prescribing Services Ltd - Emma Cooper - [emma.cooper@kafico.co.uk](mailto:emma.cooper@kafico.co.uk)
- Wellbeing Software - [wellbeingservice@wellbeingsoftware.com](mailto:wellbeingservice@wellbeingsoftware.com)
- The Bunker - [Christopher.scott@thebunker.net](mailto:Christopher.scott@thebunker.net)
- UKCloud - [dpo@ukcloud.com](mailto:dpo@ukcloud.com)

PSL have policies that cover the following subjects;

- Information Governance
- Data Protection Impact Assessments
- Data Subject Rights
- Information Incidents
- Information Security
- Privacy / Confidentiality
- Risk and Audit

All employees of PSL have clauses within their contracts that include confidentiality and compliance with company Information Governance Policies.

All PSL employees that access personal data as part of their role have Data Protection and Security Training each year.