

Secondary Care ePMA Data Collection

Implementation Guidance



Data Alliance Partnership Board

The Data Alliance Partnership Board (DAPB), which holds delegated authority from the Secretary of State for Health and Social Care, has approved a new information standard for publication under [section 250 of the Health and Social Care Act 2012](#).

Assurance that this information standard meets the requirements of the Act and is appropriate for the use specified in the specification document has been provided by the Data Standards Assurance Service (DSAS) and endorsed by the Data Alliance Partnership Sub Board (DAPSB).

This information standard comprises the following documents:

- Implementation Guidance (this document)
- Requirements Specification
- Technical Specification (referred to in documentation as “Data Collection Extraction Contents”)

An Information Standards Notice (DAPB4005 Amd 14/2021) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

The controlled copies of these documents can be found on the [NHS England website](#). Any copies held outside of that area, in whatever format (e.g. paper, email attachment), are considered to have passed out of control and should be checked for currency and validity.

Date of publication: 22 May 2024



This information is licensed under the Open Government Licence v3.0. To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence/> or write to the Information Policy Team, The National Archives, Kew, Richmond, Surrey, TW9 4DU.

Document filename:	DAPB4005 Amd 14/2021 Implementation Guidance		
Project / Programme	Secondary Care ePMA Data Collection		
Document Reference	DAPB4005 Amd 14/2021		
Project Manager	Andrew Walsham	Status	Final
Owner	Fintan Grant	Version	1.0
Author	Andrew Walsham	Version issue date	22/05/2024

Document management

Revision History

Version	Date	Summary of Changes
0.1	24/03/2022	Initial draft
0.2	11/04/2022	Incorporated comments from DSAS
0.3	01/06/2022	Content finalised for DAPB review
0.4	21/12/2023	Minor corrections and links added
0.5	01/12/2023	Updated templates, revised timelines
0.6	12/12/2023	Uplifted to publishable version
0.7	06/03/2024	New start date as Directions returned from Government Legal Department
1.0	22/05/2024	Final checks, editorial corrections and publication

Reviewers

This document must be reviewed by the following people:

Reviewer name	Title / Responsibility	Date	Version
Steven Marks	Senior Programme Manager, Digital Medicines, Data	06/03/2024	0.7
Stephen Goodall	Data Standards and Assurance Service		0.5
Sarah Furnell	Data Standards and Assurance Service	22/05/2024	1.0

Approved by

This document must be approved by the following people:

Name	Signature	Title	Date	Version
Steve Marks		Senior Delivery Manager	06/03/2024	0.7

Glossary of Terms

A full glossary of terms is available in the [Requirements Specification](#) that accompanies this Standard.

Contents

1.	Definition	7
2.	Supporting information	8
2.1.	Related documents	8
2.2.	Strategy Implications	9
3.	Data flow diagram	10
4.	Scope	11
4.1.	Episodes of care	12
4.1.1.	Inpatient	12
4.1.2.	Discharge	12
4.1.3.	Outpatient, day case, emergency department, home care	12
4.2.	Out of scope for collection	12
5.	Specific guidance	12
5.1.	Restricted and sensitive medicines	12
5.2.	The National Data Opt-Out	13
5.3.	MESH account	14
5.4.	Organisation Site Identifier (system location)	14
5.5.	Weekly submission start date	15
5.6.	Historical data submission	15
5.7.	Data transfer assurance	17
5.8.	Confirmation of receipt	17
5.9.	Checking if a resend is needed	17
6.	Requirements and conformance criteria	18
7.	Timescales	20
8.	Helpdesk/contacts	21
	Appendix A: Useful web links	22

1. Definition

Standard Number	DAPB4005
Standard Title	Secondary Care ePMA Data Collection

This collection is being established because although there are several NHS patient-level (identifiable) medicine data collections already running in England, none of them provide a large-scale collection of medicine data from secondary care providers.

This collection will comprise information on medicines prescribed and administered to patients and recorded on secondary care provider's (hospital trust) ePMA systems. To explain the relationship between prescribing and administration; if an item is prescribed to be administered to a patient in the morning and evening, the ePMA data will show 1 prescription, and 2 administrations for that patient for a single day, if the patient stayed in the hospital for 5 days the data would show 1 prescription and 10 administrations.

It is necessary for NHS England to collect patient-level (identifiable) data so that all prescribing and administration episodes relating to a single patient can be joined, and the collected data can be linked to data held for that patient in other datasets held by NHS England. This will allow data users to answer complex use cases as well as following the patient as they move across care locations.

Data collection will be by a weekly extract, preferably automated to reduce burden on a provider's personnel. NHS England will make the data comparable, then make it available for analysis and research to organisations that have a lawful basis.

2. Supporting information

2.1. Related documents

This Implementation Guidance should be read in conjunction with the other documents that describe this Standard, all of which can be found on this [Standard's web page](#).

Document title	Purpose
DAPB4005 Requirements Specification	Explains this Information Standard in detail. It is the starting point and should be read first by providers implementing the Standard.
DAPB4005 Implementation Guidance (<i>This document</i>)	Provides a step-by-step guide to; assigning organisation codes, configuring MESH, data collection and transfer, scheduling submissions, problem resolution.
Secondary Care ePMA Data Collection Extraction Contents v1.1	Outlines the specification of all input data feeds to NHS England.
Secondary Care ePMA Data Collection Requirements v1.2	Defines how the data is to be sent from the secondary care providers to NHS England (including MESH details).
ePMA_Prescribing v1.1	Defines the physical format of the file for prescription data.
ePMA_MedicinesAdmin v1.1	Defines the physical format of the file for medicine administration data.
Secondary Care ePMA Privacy Notice guidance for providers	Includes text about this collection which can be used on provider's web pages.

Table 1: Documents supporting this Standard

2.2. Strategy Implications

NHS England's Digital Medicines Data workstream was established to improve the understanding of the use, spend, safety and effectiveness of medicines by providing high quality data. It is not NHS England's primary role to undertake analysis and reporting of the data, rather NHS England's aim is to provide access to those who can use it to identify problem areas and make recommendations for change. Nevertheless, there are several strategic drivers that help to define our aims and ambitions, and these are summarised in figure 1.

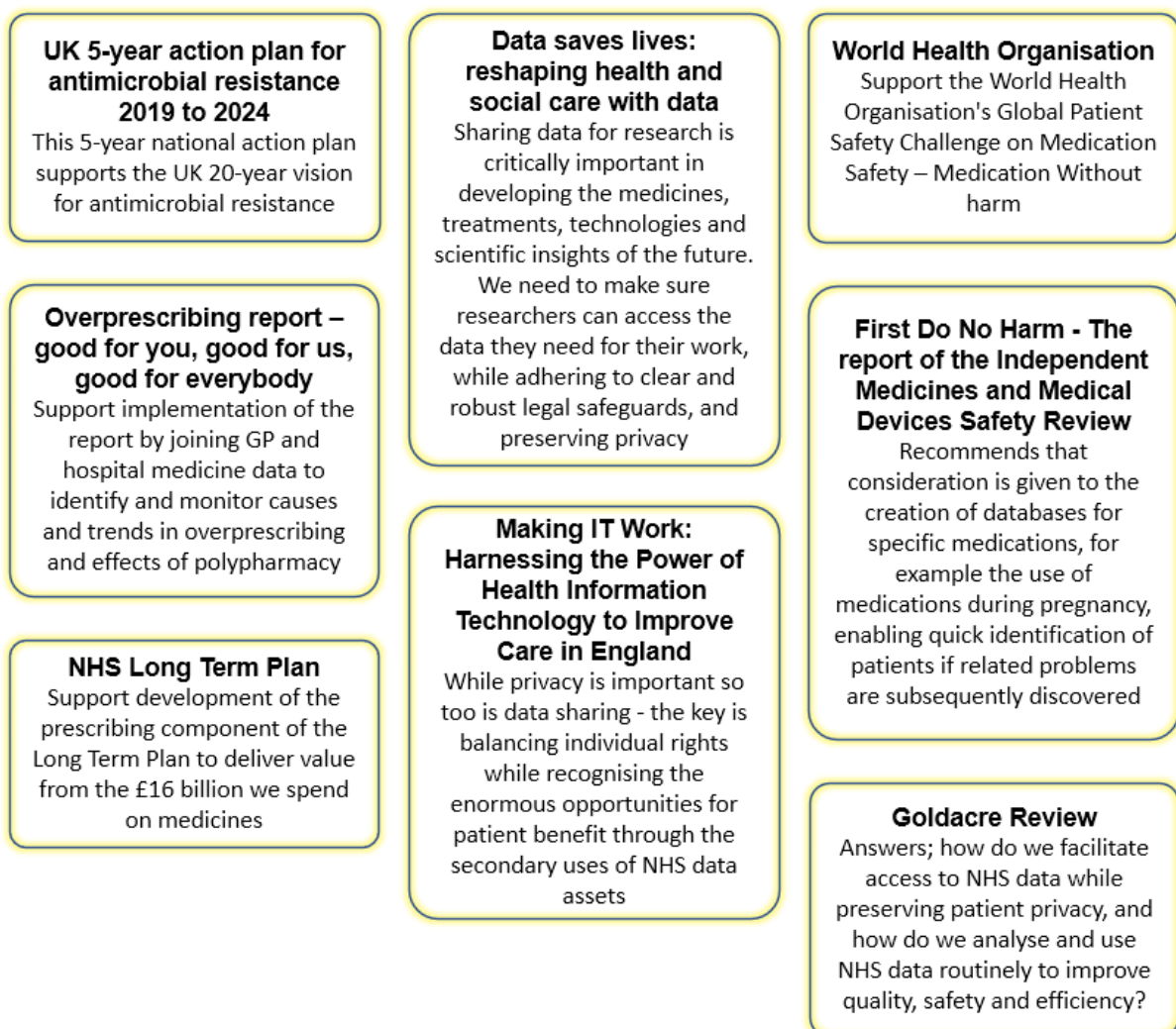


Figure 1: Strategy and policy drivers

3. Data flow diagram

Figure 2 summarises the overall flow of data and the stakeholders.

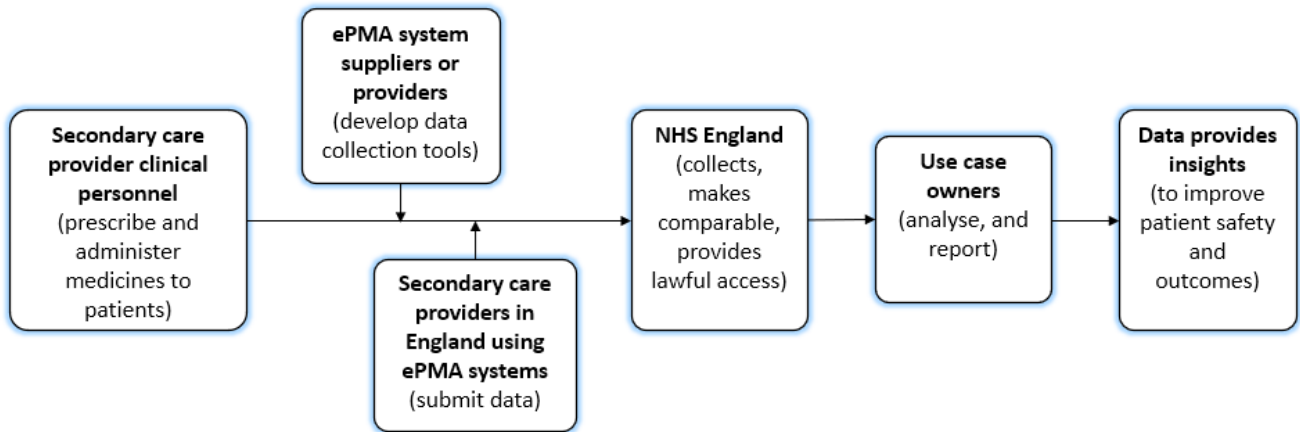


Figure 2: Stakeholders in the medicine data collection and usage

Figure 3 describes the processes we will apply to all the ePMA data received from secondary care providers.

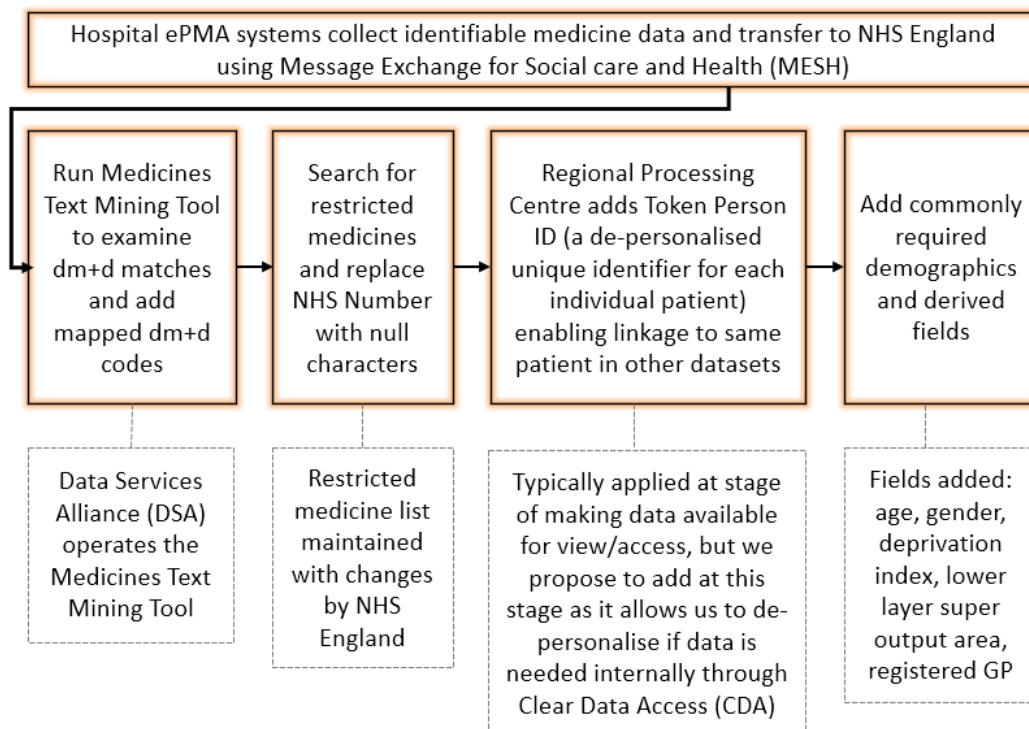


Figure 3: Data flow from providers through NHS England processing, to availability for view/access

Note: The [Medicines Text Mining Tool](#) maps a hospital medicine description to the closest match in the dm+d standard, where possible suggesting a dm+d code if it is absent on collection.

Note: Some medicines are considered restricted and sensitive, more detail about the processing for medicines in these categories is covered in [Section 5.1](#).

4. Scope

The data will be collected from secondary care providers in England who record this information electronically on ePMA systems. This may be from their ePMA system servers or their data warehouses or data cubes which they store this data, depending on the system each trust uses.

It is common for secondary care providers to have more than 1 ePMA system, perhaps using a ‘main’ system for most wards and specialties, and different systems for cancer treatments, maternity, and intensive care - our intention is to collect from the ‘main’ ePMA system(s), defined as the system used by the majority of wards and specialties. For secondary care providers that have merged and there is more than 1 ‘main’ system NHS England will try to collect data from all their ‘main’ systems.

The image below conveys which ‘main’ ePMA systems (identified in blue) we expect to collect data from in a secondary care provider which has multiple hospitals and multiple ePMA systems.



Figure 4: Identifying ‘main’ ePMA systems. (Note: hospital and ePMA system names are fictional)

In the future consideration may be given to extending the scope to include the other ePMA systems, which will improve the value of the data to analysts.

4.1. Episodes of care

Providing the 'main' ePMA system is used in these areas we intend to collect data for the totality of patients' journeys through the secondary care providers, which we expect will broadly be categorised as:

4.1.1. Inpatient

- Medications on admission (as identified during the medication reconciliation process).
- All prescriptions/authorisations for administration on site (including those created under Patient Group Directions (PGDs) which provide a legal framework that allows some registered health professionals to supply and/or administer specified medicines to a pre-defined group of patients, without them having to see a prescriber).
- All medication administrations.

4.1.2. Discharge

- All prescriptions for discharge/short term leave.

4.1.3. Outpatient, day case, emergency department, home care

- All prescriptions/authorisations for administration on site (including those created under PGDs).
- All medication administrations.
- All prescriptions for dispensing.

4.2. Out of scope for collection

- Medicines prescribed and administered but not recorded on the 'main' ePMA system.
- ePMA systems not defined as the 'main ePMA system' – see [section 6](#).

5. Specific guidance

5.1. Restricted and sensitive medicines

Certain medicines are classified as legally restricted or sensitive, defined as medicines administered in relation to a characteristic, treatment or condition for which there is a restriction on the disclosure of identifiable information by virtue of:

- The Human Fertilisation and Embryology Act 1990 (as amended by the Human Fertilisation and Embryology Act 2008); or
- The NHS Trusts and Primary Care Trusts (Sexually Transmitted Diseases) Directions 2000,

referred to in this Data Provision Notice as “legally restricted and sensitive data”.

Under this Data Provision Notice secondary care providers should remove the NHS Number associated with prescribing and administration of legally restricted and sensitive data before they transfer it to NHS England. (To assist with this, providers can email medsdata@nhs.net to request a copy of NHS England’s current list of legally restricted and sensitive medicines).

NHS England recognises that:

- not all provider’s ePMA systems are using dm+d and will therefore not be able to search by reference code
- ePMA system suppliers might not create functionality in provider’s systems to search for the medicines and remove the NHS Number
- if a provider’s ePMA supplier has not built provision to search for the medicines and remove the NHS Number the providers might not have the resources to do this themselves

so, in the event data NHS England receives data that contains an NHS Number alongside a legally restricted or sensitive medicine at the landing stage in NHS England’s Data Processing Service, we will replace the NHS Number with null characters before the data is used by NHS England or made available for research and analysis.

Note: Based on data collected from hospital ePMA systems in 2020 to support NHS Digital’s COVID-19 response we saw that 0.01% of the patients had the NHS Number removed due to restricted medicines.

5.2. The National Data Opt-Out

The National Data Opt-Out was brought into use on 28 May 2018 and enables patients to remove consent for their personalised (identifiable) NHS data to be used for research or planning purposes. However, as NHS England is issuing each secondary care provider with a Data Provision Notice (which is a legal obligation which the providers must comply with - under s259 of the Health and Social Care Act 2012) the National Data Opt-Out does not apply to this ePMA data at the stage of it being collected by NHS England.

If NHS England provides access to confidential patient information for purposes other than the individual care of a patient, National Data Opt-Outs will be respected and applied in line with National Data Opt-Out policy before access is provided.

5.3. MESH account

To send data to NHS England providers will need a MESH (Message Exchange for Social care and Health) account. There are three different types of MESH; MESH Client, MESH User Interface and MESH API. Most providers will already have at least one MESH account which they use to transfer data but note that MESH User Interface is not suitable for this collection due to the large file sizes.

- Consult your IT team to determine whether there is an existing MESH account you can use, and which type of MESH is most suitable. NHS Digital will require the historical submissions to be compressed to reduce the risk to the network and other shared aspects of the infrastructure - MESH Client can automatically compress/decompress content as it is being sent/received. Your ePMA system supplier may also advise which type of MESH best suits their product.
- If you need a new MESH account, contact NHS Digital's National Service Desk: ssd.nationalservicedesk@nhs.net. NHS Digital's [MESH web page](#) contains helpful information about configuring and using MESH.
- Providers must give NHS Digital their MESH mailbox ID so we can configure our system to accept your data. Notify us using the Digital Medicine's Data project team's email: medsdata@nhs.net
- When configuring data transfer to NHS Digital you will need our MESH Workflow ID which is: DSP_SUBMISSION.

Automation of data extraction and transfer

You may find it helpful to work with your local IT team and ePMA system supplier(s) to ensure your reporting and transfer is configured to be as automated as possible and meets the Standard's criteria. To ensure a consistent approach and reduce burden we recommend that if your supplier has created a reporting and submission package for this Standard you use it rather than developing your own bespoke reports.

5.4. Organisation Site Identifier (system location)

The Organisation Site Identifier (system location) is the ODS (Organisation Data Service) code that identifies the site your data has been collected from and is included in the transferred data.

- It is a critical identifier, so it is essential the correct code is used - it must be an NHS Trust Site Code held on the Organisation Data Service (ODS).
- Providers must use the same code for all data returned from the same instance of an ePMA even if it is used across multiple sites. Where multiple sites use the same ePMA system:

- Use the ODS code for the site with most data. As a rule, we expect one data flow per provider unless there are important reasons that prevent this.
- There is a separate Organisation Site Identifier (of Treatment) field that can be used to distinguish data representing multiple sites.
- Providers must notify the ODS code you will use by emailing the Digital Medicine’s Data project team: medsdata@nhs.net

If there is any doubt about which ODS code you should use please discuss this with us. This is especially relevant where there are multiple ‘main’ ePMA systems, for example where multiple reports will be generated using one ODS code, or where there has recently been a merger, or a merger is planned.

5.5. Weekly submission start date

This Standard requires providers to start submitting weekly reports from 13 January 2025. Providers must agree a start date for these weekly submissions by emailing the Digital Medicine’s Data project team: medsdata@nhs.net

5.6. Historical data submission

This Standard requires providers to send historical data back to 1 June 2018 (or from the date your ‘main’ ePMA system went live if after 1 June 2018).

We prefer that historical data is sent in batches of 3 months maximum, 2 historical batches per week (comprising 2 prescription extracts and 2 administration extracts), with historical data submission completed within 4 calendar months of starting the weekly submissions. For example:

Batches	Sent during week commencing	Separate batches covering
1 and 2	13 January 2025	1 June 2018 to 31 August 2018 1 September 2018 to 30 November 2018
3 and 4	20 January 2025	1 December 2018 to 28 February 2019 1 March 2019 to 31 May 2019
5 and 6	27 January 2025	1 June 2019 to 31 August 2019 1 September 2019 to 30 November 2019

Batches	Sent during week commencing	Separate batches covering
7 and 8	3 February 2025	1 December 2019 to 29 February 2020 1 March 2020 to 31 May 2020
9 and 10	10 February 2025	1 June 2020 to 31 August 2020 1 September 2020 to 30 November 2020
11 and 12	17 February 2025	1 December 2020 to 28 February 2021 1 March 2021 to 31 May 2021
13 and 14	24 February 2025	1 June 2021 to 31 August 2021 1 September 2021 to 30 November 2021
15 and 16	3 March 2025	1 December 2021 to 28 February 2022 1 March 2022 to 31 May 2022
17 and 18	10 March 2025	1 June 2022 to 31 August 2022 1 September 2022 to 30 November 2022
19 and 20	17 March 2025	1 December 2022 to 28 February 2023 1 March 2023 to 31 May 2023
21 and 22	24 March 2025	1 June 2023 to 31 August 2023 1 September 2023 to 30 September 2023
23 and 24	31 March 2025	1 October 2023 to 31 December 2023 1 January 2024 to 31 January 2024
25 and 26	7 April 2025	1 February 2024 to 2 May 2024 3 May 2024 to 2 June 2024
27 and 28	14 April 2025	3 June 2024 to 2 September 2024 3 September 2024 to 3 October 2024
29 and 30	21 April 2025	4 October 2024 to 3 January 2025 4 January 2025 to 12 January 2025

Table 1: Suggested historical data submission schedule

Providers must contact the Digital Medicine's Data project team by email to medsdata@nhs.net to agree a start date for your historical submissions. Although we have suggested the schedule above, we can be flexible if this will be difficult for your organisation.

Note: we will require historical submissions to be compressed to reduce the risk to the network and other shared aspects of the infrastructure. MESH Client can automatically compress/decompress content as it is being sent.

5.7. Data transfer assurance

We recommend providers (or ePMA system suppliers for the first provider they pilot with), test the data transfer by sending synthetic data to our MESH INT mailbox, which has been configured to receive test data. This will allow us to check the MESH configuration is correct and that the synthetic data is as expected, for example field types are correctly allocated and defined. For configuration of MESH INT, email the Digital Medicine's Data project team medsdata@nhs.net and we will arrange a discussion to provide you with the details you need and collect the information we need to open the MESH INT mailbox for testing.

5.8. Confirmation of receipt

On receipt of every weekly and historical submission MESH automatically sends an email (with a submission ID) to the provider's MESH inbox to confirm receipt. The Digital Medicine's Data project team will also check each provider's first weekly and first historical submission has been received and will confirm by email.

5.9. Checking if a resend is needed

For the weekly and historic data transfers, basic validation will be performed on receipt by NHS England's Data Processing Service, this includes checking the file is not empty, has the correct structure, the dates supplied are consistent, and the file hasn't already been received (is a duplicate). If the received file fails any of the validations a csv file will be emailed to the provider's MESH mailbox to inform why it has been rejected. For rejects a re-send will be required, accordingly providers are advised to check their MESH mailbox regularly for messages which notify a failed send. A re-send means running the report anew and sending it, rather than simply re-sending the original file.

If you have any problems sending the data, please contact the project team by email to medsdata@nhs.net

6. Requirements and conformance criteria

This Information Standard applies to secondary care providers and defines the actions they need to take to ensure compliance by 13 January 2025. It is the responsibility of providers to develop the extract reports themselves, or to use local contracts to instruct how their 'main' ePMA system suppliers comply with the Standard. The following table identifies the requirements and whether they are MUST (mandatory) or SHOULD (there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course). RFC-2119 provides additional information about these categorisations.

For each requirement there is a corresponding conformance criterion which defines the measures used to assess success.

Note: some of the requirements are already identified in Section 6 of the DAPB4005 ISN Requirements Specification, accordingly they are not repeated in the table below.

Reference	Requirement	Conformance criteria	Refer to which document
ePMA_REQ1	Providers MUST identify a MESH account that will be used to transfer the data	An existing MESH account has been identified, or a new MESH account created	DAPB4005 ISN Implementation Guidance – Section 5.3
ePMA_REQ2	Providers MUST give NHS England their MESH mailbox ID so we can configure our system to accept your data	Providers have emailed their MESH mailbox ID to medsdata@nhs.net	DAPB4005 ISN Implementation Guidance – Section 5.3
ePMA_REQ3	Providers MUST identify the ODS code they will use to identify their data, and SHOULD determine if 'Organisation Site Identifier (of Treatment)' fields will be used to distinguish data for multiple site	Providers have identified an ODS code and decided whether 'Organisation Site Identifier (of Treatment)' fields are used	DAPB4005 ISN Implementation Guidance – Section 5.4

Reference	Requirement	Conformance criteria	Refer to which document
ePMA_REQ4	Providers MUST give NHS England their ODS code	Providers have emailed their ODS code to medsdata@nhs.net	DAPB4005 ISN Implementation Guidance – Section 5.4
ePMA_REQ5	Providers MUST agree with NHS England a start date for your historical submissions	Providers have emailed medsdata@nhs.net to agree a start date for the historical submissions	DAPB4005 ISN Implementation Guidance – Section 5.6
ePMA_REQ6	Providers or ePMA system suppliers SHOULD test the data transfer by sending synthetic data to NHS England's MESH INT mailbox	Confirmation from NHS England after successful receipt of synthetic data	DAPB4005 ISN Implementation Guidance – Section 5.7
ePMA_REQ7	Providers SHOULD ensure a system is in place to check their MESH mailbox for messages about files that require a re-send	Providers have set up a regular check of the MESH mailbox	DAPB4005 ISN Implementation Guidance – Section 5.8
ePMA_REQ1	Providers MUST identify a MESH account that will be used to transfer the data	An existing MESH account has been identified, or a new MESH account created	DAPB4005 ISN Implementation Guidance – Section 5.3
ePMA_REQ2	Providers MUST give NHS Digital their MESH mailbox ID so we can configure our system to accept your data	Providers have emailed their MESH mailbox ID to medsdata@nhs.net	DAPB4005 ISN Implementation Guidance – Section 5.3

Reference	Requirement	Conformance criteria	Refer to which document
ePMA_REQ3	Providers MUST identify the ODS code they will use to identify their data, and SHOULD determine if Organisation Site Identifier (of Treatment) fields will be used to distinguish data for multiple site	Providers have identified an ODS code and decided whether Organisation Site Identifier (of Treatment) fields are used	DAPB4005 ISN Implementation Guidance – Section 5.4
ePMA_REQ4	Providers MUST give NHS Digital their ODS code	Providers have emailed their ODS code to medsdata@nhs.net	DAPB4005 ISN Implementation Guidance – Section 5.4

Table 2: Provider requirements

7. Timescales

Reference	Requirement Conformance criteria Refer to which document
May 2024 Directions	Secondary Care ePMA Directions 2024 giving NHS England legal authority to collect the data approved.
May 2024 Publication	This Information Standards Notice was published on 22 May 2024. From May onwards NHS England will use its communication channels to inform secondary care providers and ePMA system suppliers about the Standard and publicise the implementation and conformance dates.

Reference	Requirement Conformance criteria Refer to which document
May 2024 Implementation	<p>The start date for this Information Standard is 13 January 2025.</p> <p>From this date secondary care providers have 9 months to assess the Standard, determine whether any changes are required, plan how to apply changes before 13 January 2025; which might be by producing extract reports themselves, or by checking if any modification is needed to contracts with their 'main' ePMA system suppliers and understanding their ePMA supplier(s) development plans to enable conformance. ePMA system suppliers may need to undertake activity to make their products compliant.</p>
May 2024	<p>NHS England has completed building the Data Processing Service platform to receive the data.</p> <p>If providers or ePMA system suppliers want to send test data to NHS England to test the data transfer process and MESH (Message Exchange for Social care and Health) configuration for one of their providers, they can do so. (This is intended to be a test of one provider location per ePMA supplier, not a test of every provider in the supplier's customer base).</p> <p>NHS England's Data Access Environment is built (which enables view/access of the data for use case owners). From a technical perspective we can accept incoming data from this date if any secondary care providers wish to start submitting before the conformance/compliance date of 13 January 2025.</p>
January 2025 Full conformance	<p>The conformance/compliance date for this Information Standard is 13 January 2025, after which all secondary care providers should be providing weekly data transfers from their 'main' ePMA system(s).</p> <p>Providers which install new 'main' ePMA systems from 13 January 2025 onwards must comply with this Standard.</p>

Table 3: Key dates for this Standard

8. Helpdesk/contacts

Any questions or enquiries regarding this document should be emailed to the Digital Medicine's Data project team: medsdata@nhs.net

We recommend providers subscribe to the Information Standards Notices (Data Coordination Board) Bulletin to ensure you are informed about any changes to this Standard. You can subscribe to this (and other bulletins) on our [programme bulletins web page](#).

ePMA system suppliers and developers may wish to sign up for the [Technology Suppliers' Bulletin](#).

Appendix A: Useful web links

Data Provision Notice page for Data Sharing Agreement	https://digital.nhs.uk/about-nhs-digital/corporate-information-and-documents/directions-and-data-provision-notice/data-provision-notice-dpns/secondary-care-electronic-prescribing-and-medicines-administration-data
Medicines Text Mining Tool	https://github.com/NHSDigital/medicines-text-mining-tool
Message Exchange for Social care and Health	https://digital.nhs.uk/services/message-exchange-for-social-care-and-health-mesh
NHS England programme bulletins -	https://crm.digital.nhs.uk/clickdimensions/?clickpage=/jxgkfjleeebfnaqb6vdwq
Request for Comments RFC-2119	https://www.ietf.org/rfc/rfc2119.txt
Secondary Care ePMA Directions 2024	https://digital.nhs.uk/about-nhs-digital/corporate-information-and-documents/directions-and-data-provision-notice/secretary-of-state-directions/secondary-care-epma-directions
Standard's web page	Short URL http://digital.nhs.uk/isce/publication/dapb4005 Full URL https://digital.nhs.uk/data-and-information/information-standards/information-standards-and-data-collections-including-extractions/publications-and-notifications/standards-and-collections/dapb4005-secondary-care-electronic-prescribing-and-medicines-administration-epma-data-collection
Technology Suppliers' Bulletin	https://content.govdelivery.com/landing_pages/22941/0caca0890f4cdcc520fc86b4393804ec