

Secondary Care ePMA Data Collection Requirements



Document Management

Revision History

Version	Date	Summary of Changes
0.1	28/05/2021	Initial draft
0.2	07/06/2021	Updated based on feedback
0.3	17/06/2021	Updated references
0.4	06/08/2021	Update schema requirements
0.5	26/10/2021	Update requirements based on feedback
0.6	03/12/2021	Updated reference to Contents and XML schema files
0.7	17/12/2021	Updated based on review feedback
0.8	27/01/2022	Updated to finalised version of extraction contents
0.9	11/02/2022	Updated xml references and added 4.3
0.10	04/03/2022	Added overview and rejection messages
0.11	11/03/2022	Incorporated feedback, renamed document.
1.0	08/04/2022	Update MESH details and finalise.
1.0	14/04/2022	Add content from response files
1.1	22/06/2022	Revised historical data start date (from 1/4/2015 to 1/6/2018)
1.2	27/07/2023	Updates to remove birthdate

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1. Introduction

The purpose of this document is to define the extraction requirements for the Secondary Care ePMA Data Collection. It covers the extraction of prescription and administration data from Secondary Care Providers' electronic Prescribing and Medicines Administration (ePMA) systems.

These extractions are required to support the Information Standards Notice (ISN):

- DAPB4005 ISN
- DAPB4005 ISN Requirements Specification

2. Overview

Secondary Care Providers are required to provide data of all Medicine Reconciliation, Prescribing and Medication Administration records held in their electronic Prescribing and Medicines Administration (ePMA) systems.

Only data available on the ePMA is required. Data held on other systems and formats (such as paper) are out of scope of this extract.

The data will be provided in XML files sent to NHS Digital using MESH (Message Exchange for Social Care and Health). The extracts will be run on a weekly basis providing all data from the previous week. In addition, a set of historic extracts will be run covering all data from 1 June 2018 to the start of the regular extracts.

Secondary Care Providers may be asked to resend data where issues are identified with the data they have sent (either through automatic validation or manual review).

The data will be pseudonymised and securely stored by NHS Digital. It will be made available through NHS Digital's Data Access Request Service (DARS) to organisations who are able to demonstrate a suitable reason and legal basis to access the data.

3. Requirements

3.1 ePMA Prescription Extraction Requirements

Ref	Level	Requirements
1.1	Must	<p>The supplier must provide a "Prescription Extract" that contains the following records where they exist in the ePMA system:</p> <ul style="list-style-type: none"> • All records of the medications a patient* was taking when they were admitted (the output from the medications reconciliation on admission process) • All prescriptions/authorisations for medications to be administered to a patient* on site (this includes when an authorisation is created based on a Patient Group Direction) • All prescriptions/authorisations for medications to be dispensed to a patient* to take away. This includes, but is not limited to: <ul style="list-style-type: none"> ○ Medications for discharge ○ Outpatient prescriptions <p>* Patient here refers to any patient receiving medication from the secondary care provider as part of their treatment. Including, but not limited to:</p> <ul style="list-style-type: none"> • Inpatients • Outpatients • Day Cases • Emergency Care
1.2	Must	<p>The Prescription Extract must have two input parameters:</p> <ul style="list-style-type: none"> • Start date • End date
1.3	Must	<p>The Prescription Extract must retrieve all records that were last updated on or between the Start and End date parameters</p>
1.4	Must	<p>The Prescription Extract must contain all the data fields defined in:</p> <ul style="list-style-type: none"> • Secondary Care ePMA Data Collection Extraction Contents v1.1.xlsx (prescription tab)
1.5	Must	<p>The Prescription Extract must populate all mandatory fields</p>
1.6	Must	<p>The Prescription Extract must populate all fields where they:</p> <ul style="list-style-type: none"> • exist in the ePMA; or • can be derived from data in the ePMA
1.7	Must	<p>The Prescription Extract must be output in an XML file as defined by the schema:</p> <ul style="list-style-type: none"> • ePMA_Prescribing_v1.1.xsd <p>The file must pass schema validation before being sent to NHS Digital.</p>

Ref	Level	Requirements
1.8	Must	<p>The output file from the Prescription Extract file must be named: AAAAA_YYYYMMDD_YYYYMMDD_YYYYMMDDTHHMMSS_BBBB_Prescription_data.xml</p> <ul style="list-style-type: none">AAAAA equals the Organisation Site Identifier (System Location)YYYYMMDD_YYYYMMDD equals the parameter date rangeYYYYMMDDHHMMSS equals the date and time the extraction was createdBBBB equals the make of the source EPMA system <p>For example: AB123_20200301_20200428_20200429T040812_SYSA_Prescription_data.xml</p>

3.2 ePMA Administration Extraction Requirements

Ref	Level	Requirements
2.1	Must	The supplier must provide an "Administration Extract" that contains the following records where they exist in the ePMA system: <ul style="list-style-type: none"> All records of medications administered to a patient on site
2.2	Must	The Administration Extract will have two input parameters: <ul style="list-style-type: none"> Start date End date
2.3	Must	The Administration Extract must retrieve all Administration records that: <ul style="list-style-type: none"> are scheduled on or between the Start and End date parameters; or were scheduled before the Start date parameter (i.e. are in the past) and were last updated on or between the Start and End date parameters
2.4	Must	The Administration Extract must contain all the data fields defined in: <ul style="list-style-type: none"> Secondary Care ePMA Data Collection Extraction Contents v1.1.xlsx (administration tab)
2.5	Must	The Administration Extract must populate all mandatory fields
2.6	Must	The Administration Extract must populate all fields where they: <ul style="list-style-type: none"> exist in the ePMA; or can be derived from data in the ePMA
2.7	Must	The Administration Extract must be output in an XML file as defined by the schema: <ul style="list-style-type: none"> ePMA_MedicinesAdmin_v1.1.xsd The file must pass schema validation before being sent to NHS Digital.
2.8	Must	The output file from the Administration Extraction file must be named: AAAAA_YYYYMMDD_YYYYMMDD_YYYYMMDDTHHMMSS_BBBB_Admin_data.xml AAAAA equals the Organisation Site Identifier (System Location) YYYYMMDD_YYYYMMDD equals the parameter date range YYYYMMDDHHMMSS equals the date and time the extraction was created BBBB equals the make of the source EPMA system For example: AB123_20200301_20200428_20200429T040812_SYSA_Admin_data.xml

3.3 ePMA Extraction Process Requirements

Ref	Level	Non-Functional Requirements
3.1	Must	There must be an automated extraction process that can be setup to run on a regular schedule
3.2	Must	The automated schedule must be configurable
3.3	Must	There must be a manual extraction process that can be setup to run a single extraction with date parameters provided by the local user.
3.4	Must	All files must pass schema validation before being sent to NHS Digital
3.5	Must	<p>Once produced all files must be sent to NHS Digital using MESH</p> <p>Technical details on MESH can be found at:</p> <ul style="list-style-type: none"> • https://digital.nhs.uk/services/message-exchange-for-social-care-and-health-mesh • https://digital.nhs.uk/developer/api-catalogue/message-exchange-for-social-care-and-health-api
3.6	Must	<p>The MESH destination is:</p> <p>DPS Mailbox X26HC046</p> <p>WorkflowId DSP_EPMA_SUBMISSION</p> <p>Subject</p> <p>Should be semi-colon separated with the following key information supplied:</p> <ul style="list-style-type: none"> • dataset_id: either epmanationalpres or epmanationaladm • file_type: xml • sender_id: The ODS code of the submitter • submitted_datetime: The datetime the mesh message was sent <p>Example:</p> <pre><Subject>dataset_id=epmanationalpres;file_type=xml;sender_id=AAAAA;submitted_datetime=2022-01-01T12:34:56</Subject></pre>

3.4 ePMA Extraction Secondary Care Provider Requirements

Ref	Level	Non-Functional Requirements
4.1	Must	A regular data extract must be run once a week providing all the required prescription and administration data for the preceding seven days
4.2	Must	A set of historic data extracts must be run producing all the required prescription and administration data from the 1 June 2018 (or if later, from the date the ePMA started) until the regular data extract starts.
4.3	Must	Historic extracts are to be supplied across multiple files. Each file will contain six months of data OR a smaller quantity agreed with NHS Digital.
4.4	Must	<p>If a file sent to NHS Digital fails any of the following validation a rejection message will be sent to the MESH mailbox that sent the rejected file.</p> <ul style="list-style-type: none"> • The file fails XML schema validation • ORGANISATION SITE IDENTIFIER (SYSTEM LOCATION) is not an NHS Trust site ODS code • The REPORTING PERIOD END DATE is less than the REPORTING PERIOD START DATE • The REPORTING PERIOD END DATE is greater than or equal to the current date • Any records within the file do not fall within the REPORTING PERIOD END DATE and REPORTING PERIOD START DATE <p>On receipt of the rejection message the secondary care provider must address the issues identified in the message and resend the data.</p> <p>The format of the rejection message is defined in Appendix A.</p>

Appendix A - Rejection Message Format

If a secondary care provider submits a file that fails validation, then a message will be sent to the MESH mailbox used to transfer the submission. The response message will be a csv, with the following structure:

Response Structure

Field Name	Description
SUBMITTED_FILENAME	The filename of the file that failed validation
ROW_INDEX	If the file failed validation against the xsd, this will be the line number in the file that triggered the validation issue. Otherwise, it will relate to the row number of the stated normalised table during ingestion processing.
SUBMISSION_ID	The unique DPS submission id
DATASET	Either epmanationalpres or epmanationaladm
FIELDS	The field name that caused the validation issue. Where multiple fields are involved (for a single validation issue), this will be a pipe delimited string.
CODE	A unique DPS Error Code – all codes defined in the tables below
MESSAGE	A message to explain the validation issue identified
FIELD VALUES	The values that caused the validation issue. Where there are multiple fields (for a single validation check), these values will be presented as a pipe delimited string.
DQ_TS	A timestamp indicating when the validation issue was identified.

Error Codes

EPMANATIONALPRES

ERROR CODE	MEANING
EPMAPRESCDQ000	The submitted xml file couldn't be parsed.
EPMAPRESCDQ001	The submitted xml failed validation against the schema definition file. Use additional messages within the response csv to explore further.

EPMAPRESCHEAD000	The supplied ODS Site of System Location Identifier isn't valid according to our reference data.
EPMAPRESCHEAD001	The supplied ReportingPeriodEndDate is before the supplied ReportingPeriodStartDate.
EPMAPRESCHEAD002	The supplied ReportingPeriodEndDate shouldn't exceed the current date.
EPMAPRESCPRESC000	All supplied PrescribedMedicationRecordLastUpdatedTimestamp fields should be dated on or prior to the supplied ReportingPeriodEndDate
EPMAPRESCPRESC001	All supplied PrescribedMedicationRecordLastUpdatedTimestamp fields should be dated on or after the supplied ReportingPeriodStartDate
EPMAPRESCPRESC002	The supplied ODS Site of Treatment Identifier isn't valid according to our reference data.

EPMANATIONALADM

ERROR CODE	MEANING
EPMAADMMDQ000	The submitted xml file couldn't be parsed.
EPMAADMMDQ001	The submitted xml failed validation against the schema definition file. Use additional messages within the response csv to explore further.
EPMAADMHEAD000	The supplied ODS Site of System Location Identifier isn't valid according to our reference data.
EPMAADMHEAD001	The supplied ReportingPeriodEndDate is before the supplied ReportingPeriodStartDate.
EPMAADMHEAD002	The supplied ReportingPeriodEndDate shouldn't exceed the current date.
EPMAADMEDADM000	The supplied ODS Site of Treatment Identifier isn't valid according to our reference data.
EPMAADMEDADM001	All supplied PrescribedMedicationRecordLastUpdatedTimestamp fields should be dated on or prior to the supplied ReportingPeriodEndDate
EPMAADMEDADM002	All supplied PrescribedMedicationRecordLastUpdatedTimestamp fields should be dated on or after the supplied ReportingPeriodStartDate

Response Control File Information

WorkflowId DSP_EPMA_DQ_FEEDBACK

Subject Data Quality Issues for submitted file: <submitted filename> - submission_id:
<submission_id>

LocalId <dataset_id>_dq_feedback_<submission_id>

Example Response

Outputs from 2 example response files are provided in table format on the following page.



further_validation_trust_dq_example								
SUBMITTED_FILENAME	ROW_INDEX	SUBMISSION_ID	DATASET	FIELDS	CODE	MESSAGE	FIELD_VALUES	DQ_TS
00004_validation_fail.xml	0	9999	epmanationalpres	Header.OrganisationSiteIdentifierSystemLocation	EPMAPRESCHEAD000	File rejected - Failed ODS Site Identifier check. The code must exist in the ODS Reference dataset	EPHEADER001 ORGANISATION SITE IDENTIFIER (SYSTEM LOCATION):ZZZZ	01/01/2022 00:00
00004_validation_fail.xml	0	9999	epmanationalpres	Header.ReportingPeriodEndDate Header.ReportingPeriodStartDate	EPMAPRESCHEAD001	File rejected - Failed Reporting Period End Date check. The Reporting Period End Date must be greater than the Reporting Period Start Date	EPHEADER005 REPORTING PERIOD END DATE:2022-01-01 EPHEADER004 REPORTING PERIOD START DATE:2022-04-30	01/01/2022 00:00
00004_validation_fail.xml	0	9999	epmanationalpres	PrescribedMedication.PrescribedMedicationRecordLastUpdatedTimestamp Header.ReportingPeriodEndDate	EPMAPRESCPRESC000	File rejected - Failed Last Updated Date time check. The date must be on or before the Reporting Period End Date.	EPHEADER005 REPORTING PERIOD END DATE:2022-01-01 EPPRESC011 PRESCRIBED MEDICATION RECORD LAST UPDATED TIMESTAMP:2022-04-25T12:00:00	01/01/2022 00:00
00004_validation_fail.xml	0	9999	epmanationalpres	PrescribedMedication.PrescribedMedicationRecordLastUpdatedTimestamp Header.ReportingPeriodStartDate	EPMAPRESCPRESC001	File rejected - Failed Last Updated Date time check. The date must be after or on the Reporting Period Start Date.	EPHEADER004 REPORTING PERIOD START DATE:2022-04-30 EPPRESC011 PRESCRIBED MEDICATION RECORD LAST UPDATED TIMESTAMP:2022-04-25T12:00:00	01/01/2022 00:00
00004_validation_fail.xml	0	9999	epmanationalpres	PrescribedMedication.OrganisationSiteIdentifierOfTreatment	EPMAPRESCPRESC002	File rejected - Failed ODS Site Identifier Treatment check. The code must exist in the ODS Reference dataset	EPPRESC003 ORGANISATION SITE IDENTIFIER (OF TREATMENT):ZZZZ	01/01/2022 00:00

xsd_fail_trust_dq_example								
SUBMITTED_FILENAME	ROW_INDEX	SUBMISSION_ID	DATASET	FIELDS	CODE	MESSAGE	FIELD_VALUES	DQ_TS
00003_xsd_fail.xml	8	9999	epmanationalpres	RepooooooooortingPeriodEndDate	EPMAPRESCDQ001	Failed XML Validation. The file has been rejected.	RepooooooooortingPeriodEndDate:This element is not expected. Expected is (ReportingPeriodEndDate)	01/01/2022 00:00:00