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Requirements Specification for Electronic Prescription Service

Document management

Revision History

Version	Date	Summary of Changes
1.1	23/05/2024	Updated to reflect implementation of the national patient prescription tracking service.
2.0	24/09/2024	Uplifted to version 2.0 for publication

Approved by

This document must be approved by the following people:

Name	Title	Date	Version
[redacted]	Information Asset Owner	17/09/2024	2.0
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Purpose of document

This document sets out the requirements for the Electronic Prescription Service for England and should be read alongside the [Spine Services \(no. 2\) Directions 2014](#) given by the Secretary of State for Health and Social Care.

The Electronic Prescription Service is also provided as a service in Wales by virtue of the [Electronic Prescription Service for NHS Wales Request 2022](#) given by Digital Health and Care Wales.

Introduction / Purpose of data collection

The Electronic Prescription Service (**EPS**) is a delivery mechanism enabling the transmission of a prescription electronically from a prescribing system through to a dispensing system for NHS and private prescription types.

The EPS makes the prescribing and dispensing process more efficient and convenient for patients and staff. The EPS allows prescribers to send prescriptions electronically to a dispenser of the patient's choice (a nominated pharmacy).

Currently, the EPS service is used across various health & social care settings:

- Prescribers:
 - Primary Care
 - Urgent Care
 - Secondary Care
- Dispensers
 - Community pharmacies
 - Dispensing doctor
 - Dispensing appliance contractors

As part of the Mobile First initiative to put healthcare information into the hands of patients to help reduce queries to front line care services and to give patients a better experience in their healthcare journeys, EPS prescription data will be made available to patients via the following digital channels:

- The NHS App, including the native app and the NHS website version (NHS Account)
- The NHS Wales App operated by Digital Health and Care Wales (DHCW)
- Accredited third-party app and web applications that provide prescriptions services to patients

This initiative is known as the National Patient Prescription Tracking Service (NPPTS). Its purpose is to give patients earlier visibility of their prescription information via digital channels (a 'digital prescription') including where the prescription is on its journey, and to generate a digital prescription barcode, which can be presented to the dispenser by the patient on their smartphone / device so that their prescription can be dispensed.

Data collection

Scope

Under the [Spine Services \(No.2\) Directions 2014](#), NHS England is directed to operate the EPS and to establish and operate information systems for the collection and analysis of information as is necessary to deliver the EPS in England.

The EPS is also provided as a service in Wales by virtue of the [Electronic Prescription Service for NHS Wales Request 2022](#).

Source

Prescribing systems

Prescribing systems in care settings including but not limited to: primary care, secondary care, urgent care, homecare, dental care, [health and justice](#) settings and independent sector settings.

These securely connect to the [NHS Spine](#) through the [Health and Social Care Network \(HSCN\)](#) or via [API Management's Internet-facing Apigee platform](#) to submit prescribing data to NHS England.

Dispensing systems

Dispensing systems in community pharmacies and distance selling pharmacies securely connect to the NHS Spine via the EPS FHIR API and Prescription Status Update API (PSU API) to send dispensing data, including prescription tracking status information, to NHS England.

Only authorised and authenticated users of systems with the correct authentication credentials and directory entries can connect to send or retrieve EPS data to/from the Spine.

Category

The EPS processes personal data and special categories of personal data relating to patients.

It also processes personal data relating to prescribing and dispensing staff.

When a prescription is issued, the prescribing system sends the following information to the [NHS Spine](#):

- Patient's demographic data (e.g. NHS number, name, date of birth, address)
- Patient's nominated pharmacy
- The GP practice the patient is registered at

- The medication or appliance prescribed
- Instructions given to the patient and dispenser by the prescriber
- Details of the prescriber issuing the prescription
- The system and user generating the prescription
- The advanced electronic signature attached to the prescription

When a prescription is dispensed, a message is sent to the NHS Spine containing the:

- Details of the original prescription
- Medication or appliance dispensed.
- Instructions given to the patient
- Pricing information
- Details of the items paid for by the patient
- Details of the exemption from prescription payment claimed by the patient
- The system and user generating the claim message

For a full list of the data items processed by EPS, see the [EPS FHIR API Specification](#), the [Prescriptions for Patients API Specification](#) and the [Prescription Status Update API](#).

Frequency

The EPS has been in operation since 2012 and the frequency of collection is continuous.

Analysis

Internal processing

NHS England processes EPS data for the following purposes:

- Secure transmission of prescription data between prescribing and dispensing systems
- Enable authorised staff at prescribing and dispensing sites to check the status and location of prescriptions via the [EPS Prescription Tracker](#)
- Make prescription data and digital prescription barcodes available to patients via approved digital channels
- Enable patients to track readiness of prescriptions via approved digital channels
- Maintain a record of the patient's choice of nominated pharmacy in the [Personal Demographic Service \(PDS\)](#)
- Verify the digital signature attached to the prescription
- Send reimbursement electronic claim messages to the [NHS Business Services Authority](#) (NHSBSA) so that NHSBSA can reimburse the dispenser and charge the prescriber for the items dispensed.
- Answer enquiries from prescribers and dispensers to the service desk function
- Investigate and resolve issues with the service which may include use of NHS numbers, prescription ID and API request identifiers to assist in fault resolution
- Investigate complaints about nominated pharmacies from patients, prescribers and dispensers
- Clinical assurance processes for new EPS features
- User research to support the continued improvement of the service by inviting users to take part in interviews/usability tests and surveys

- Provide event logs and audit events into the Corporate Protective Monitoring service managed and delivered by NHS England's Cyber Security Operations Centre
- Monitor the delivery status of event messages via the iTOC service e.g. successful / failed and real-time read receipts
- For the prevention and investigation of fraud
- Publish anonymous statistical [reports and dashboards](#) on the number of prescriptions created, dispensed and claimed.

Data linkage

The Prescription ID and NHS number will be used as unique identifiers within EPS. This will allow the service to resolve issues raised by the users of the service and by patients.

The NHS number is used to update the relevant record in the [Personal Demographic Service \(PDS\)](#) with the patient's choice of nominated pharmacy.

Data may be linked to other datasets for the purposes of publications (anonymous reports and statistical dashboards), management information reporting and internal analysis. This will be done for the purposes of monitoring EPS usage and understanding user behaviour to improve the service. This linkage will only occur where approved by information governance team and in accordance with information governance procedures and controls, including where required, advice from the Advisory Group for Data.

Where there is a proposal to link data obtained under the Directions with other data that NHS England has obtained, this Specification will be reviewed in line with the change control process to ensure the linkage is aligned with the Directions. Any proposed linkage will also be subject to the Data Protection Impact Assessment being updated to provide details on the linkage and assess any associated risks.

Consultation

There has been a continuous consultation process for the development of the EPS service, this has included stakeholders from:

- The Department of Health and Social Care
- NHS England
- NHS Business Services Authority (NHSBSA)
- Prescribing System Providers working in both primary and secondary care settings
- Dispensing System Providers
- Caldicott Guardians
- External legal advisors
- Data Subjects:
 - Representative members of the public target user groups who were consulted during user research interviews and have been continually engaged along the life cycle of the Mobile First project to make prescription data available to patients via the NHS App.

- GPs and GP practice groups consulted throughout the discovery and alpha stages of the mobile first initiative to understand their perspective of the solution, and previously to support the development of the EPS HL7v3 and EPS FHIR APIs.
- Pharmacists and dispenser groups consulted throughout the discovery and alpha stages of the mobile first initiative to understand their perspective of the solution, and previously to support the development of the EPS HL7v3 and EPS FHIR APIs.

Dissemination/Sharing

Regular Dissemination/Sharing

Electronic claim messages are shared with the NHS Business Services Authority (NHSBSA) (England only) and NHS Wales Shared Services Partnership (NWSSP) (Wales only) and so that they can reimburse the dispenser and charge the prescriber for the items dispensed.

Ad-hoc Dissemination/Sharing

EPS data may also be shared to support the resolution of complaints, for the investigation of fraud or where required by law.

Publication

Data to be published

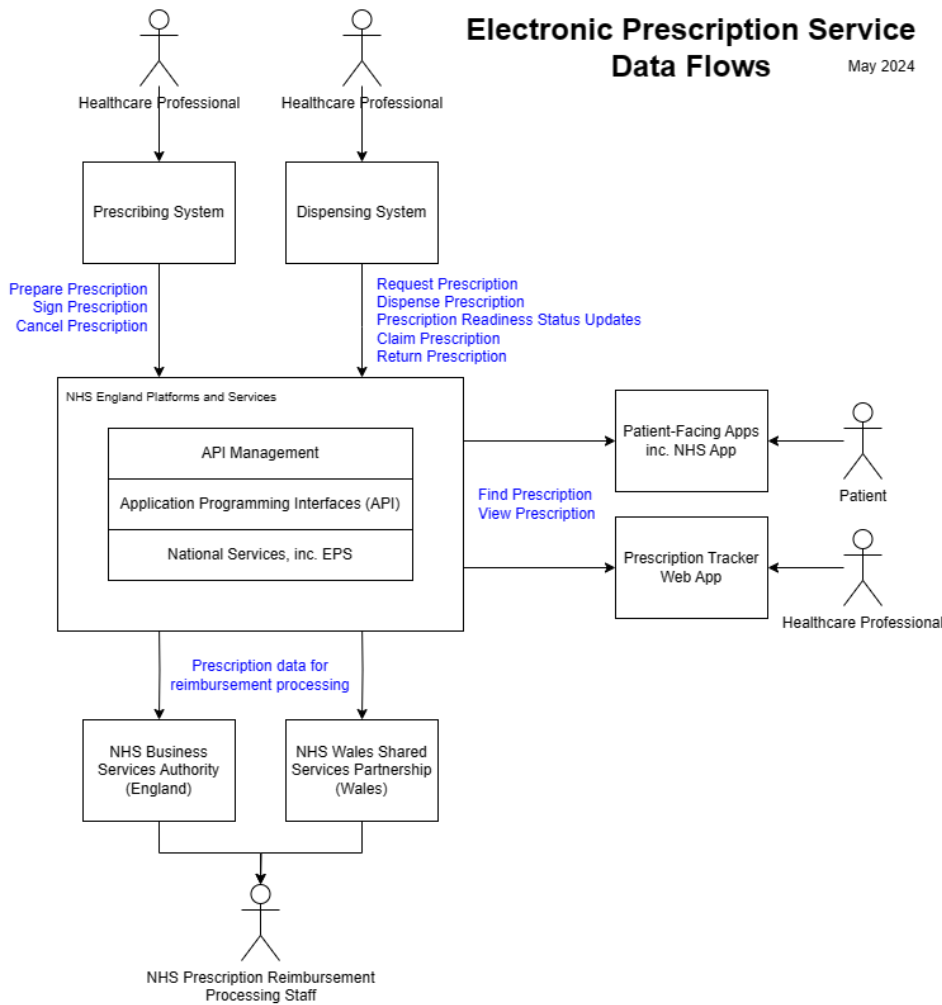
Data collected as a result of EPS will be used to compile anonymous statistical charts and dashboard information.

Data prohibited from being published

Information will be published in line with NHS England's duty to publish under section 260(1) of the 2012 Act, unless it falls within section 260(2) of that Act. For the avoidance of doubt, identifying or identifiable information from the EPS is specifically excluded from publication.

System Delivery Function

The diagram below provides an illustration of the service. Key components of the service are described below:



- EPS is a Spine based service. This is a UK hosted service. The service has a High Availability design and uses a Health and Social Care Network (HSCN) connection to maintain this and provide resilience to the service. The system is also protected by a Web Application Firewall (WAF) which checks each transaction for malicious content. All data in transit and at rest is encrypted, with the overarching system subject to security controls which have been assessed independently via a Penetration Test.
- Performance monitoring. EPS uses Splunk iTOC performance monitoring software to manage and monitor the platform.

Change control process

Changes to this Specification will be managed by NHS England in conjunction with the Department of Health and Social Care to ensure such changes are aligned with the [Spine Services \(No.2\) Directions 2014](#).