

Emergency Care Data Set (ECDS) v4.0

Requirements Specification

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Data Alliance Partnership Board (DAPB)

This information standard (DAPB0092-2026) has been approved for publication by the Department of Health and Social Care 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 Alliance Partnership Board (DAPB), a sub-group of the Digital Delivery Board.

This information standard comprises the following documents:

- Change Specification
- Implementation Guidance
- Requirements Specification
- Technical Output Specification.

An Information Standards Notice (DAPB0092-2026 Amd 17/2022) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

The controlled versions of these documents can be found on the [NHS Digital 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.

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Glossary of Terms

Term	Abbreviation	Description
Commissioning Data Sets	CDS	<p>The Commissioning Data Set is the basic structure used for the submission of commissioning data to the Secondary Uses Service and is currently designed to be capable of individually conveying many different Commissioning Data Set structures encompassing Accident and Emergency Attendances, Outpatient Attendances, Future Attendances, Admitted Patient Care and Elective Admission List data etc.</p> <p>CDS v6.2.1, version 1.0, introduced CDS Type 011 - ECDS, which from 1st April 2019 replaced CDS Type 010 - Accident and Emergency CDS.</p>
Clinical Frailty Scale	CFS	CFS is a globally used clinical measure of a person's level of vulnerability to poor outcomes and is a reliable predictor of outcomes in the urgent care context that can help to improve both long and short-term health management. It has been validated and widely adopted within the NHS and internationally.
Data Alliance Partnership Board	DAPB	Empowered by the Health and Social Care Act 2012, the DAPB has delegated responsibility for approving information standards for the health and social care system in England. The DAPB membership is drawn from a range of organisations operating within health and social care.
Urgent & Emergency Care	UEC	Also referred to as Urgent & Emergency Care Departments. These may be either major units, providing a 24-hour service seven days a week to which the great majority of emergency ambulance cases are taken, or small units commonly called casualty departments, in which services are often only available for limited hours and which may not deal with emergency ambulance cases.
Urgent & Emergency Care Activity Type	UEC Activity Type	<p>UEC Type 1: Emergency Care Attendance at an EMERGENCY CARE DEPARTMENT TYPE 'Major Emergency Care Department'.</p> <p>UEC Type 2: Emergency Care Attendance at an EMERGENCY CARE DEPARTMENT TYPE 'Mono-specialty Emergency Care Department'.</p> <p>UEC Type 3: Emergency Care Attendance at an EMERGENCY CARE DEPARTMENT TYPE 'Urgent Treatment Centre'.</p>

		<p>UEC Type 4: NHS walk in centres. (Deprecated from 1st July 2023)</p> <p>UEC Type 5: Same Day Emergency Care.</p> <p>UEC Type 6: Urgent and Emergency Care Extended Care Episode.</p> <p>UEC Type 7: Hot Clinic Attendance. Note this is only valid for piloting purposes.</p>
Emergency Department Information System	EDIS	An electronic health record system used to manage data in support of Emergency Care Department patient care and operations.
Emergency Department Syndromic Surveillance System	EDSSS	The Emergency Department Syndromic Surveillance System monitors the daily visits in a network of emergency care departments across England and produces reports based on ECDS data.
General Data Protection Regulation	GDPR	The GDPR forms part of the data protection regime in the UK, together with the Data Protection Act 2018 (DPA 2018). The main provisions of this apply, like the GDPR, since 25 May 2018.
Hospital Episode Statistics	HES	National statistical data warehouse for England of the care provided by NHS hospitals and for NHS hospital patients treated elsewhere. HES is the data source for a wide range of healthcare analysis for the NHS, Government and many other organisations and individuals.
Message Exchange for Social Care and Health	MESH	MESH is used to transfer electronic messages, directly and securely from one application to another. MESH is used for submission of CDS Type 011 to Secondary Uses Service (SUS) and has been used for submission of all CDS types since June 2019.
National Tariff		The National Tariff is a set of prices and rules to help providers of NHS care and commissioners provide best value to their patients.
National Early Warning Score	NEWS2	A tool developed by the Royal College of Physicians to improve the detection of and response to clinical deterioration in adult patients and is a key element of patient safety and improving patient safety.

		NEWS2 is the latest version of the National Early Warning Score, first produced in 2012 and updated in December 2017.
Organisation Data Service	ODS	The Organisation Data Service (ODS) responsibilities include publishing organisation and practitioner codes, along with related national policies and standards.
Office for Health Improvement and Disparities	OHID	Part of the Department of Health and Social Care , focused on improving the nation's health and on levelling up health disparities to break the link between background and prospects for a healthy life.
Role Based Access Control	RBAC	RBAC is the process through which a national set of job roles, activities and workgroups can be applied to grant users' access to functionality and indirectly to data within NHS national (Spine) services.
Secondary Uses Service	SUS	The Secondary Uses Service (SUS) is the single, comprehensive repository for healthcare data in England which enables a range of reporting and analyses to support the NHS in the delivery of healthcare services.
	SUS+	SUS+ is a secure data warehouse that stores this patient-level information in line with national standards and applies complex derivations which support national tariff policy and secondary analysis. An upgrade to SUS data warehouse was made in July 2017, after which it was renamed SUS+.
Technical Output Specification	TOS	The Technical Output Specification fully defines each data item within the data set. This document splits the data set into a number of groups, each containing data items and values. Note: SNOMED CT terminology and other items such as validations and sort orders are not included in the TOS but are instead included in the Enhanced TOS (ETOS). This is to allow required terminology updates without the need to update this standard.
Enhanced Technical Output Specification	E TOS	The Enhanced Technical Output Specification fully defines each data item within the data set. This document splits the data set into a number of groups, each containing data items and values. SNOMED CT terminology and other items such as validations and sort orders are also included. The 'Change Control' tab within this document defines the individual changes made between releases.
Treatment Function Code	TFC	A division of clinical work based on Main Specialty but incorporating approved sub-specialties and treatment

		interests used by lead care professionals including but not limited to consultants.
Technology Reference data Update Distribution	TRUD	Technology Reference data Update Distribution (TRUD) is a website hosted by NHS Digital. TRUD provides a mechanism for NHS Digital to license and distribute reference data to interested parties.
UK Health Security Agency	UKHSA	An executive agency, sponsored by the Department of Health and Social Care, responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats.
Urgent Treatment Centre	UTC	Urgent Treatment Centres (UTCs) are community and primary care facilities providing access to urgent care for a local population. All UTCs are classed as Type 03 Emergency Care Departments.
Extensible Mark-up Language	XML	XML is a mark-up language designed to carry data, not to display data. It is the ECDS XML schemas which carry data in the Emergency Care Data Set format between health care providers and the Secondary Uses Services (SUS+) data warehouse.

1. Purpose

The Emergency Care Data Set (ECDS) is an existing, approved information standard with ECDS v3.0 currently operational across the health service.

This document precisely defines the ECDS v4.0 which, from 1 July 2023, replaces ECDS v3.0.

This document describes the standard, where and why it applies and what is required of stakeholders to comply. This document should be read in conjunction with the accompanying change specification, implementation guide and Technical Output Specification (TOS). The guidance provided only relates to the submission of ECDS data.

For this release the standard name is incremented to Emergency Care Data Set v4.0.

Section 1 of the supporting Implementation Guidance includes a description of the documentation available and how it may be used by both existing and new users.

1.1 Background

Information Standards Notices (ISNs) were issued in 2017, 2018 and 2020 which mandated ECDS for the submission of data from Type 01, 02 and 03 Emergency Care Department settings.

This version of the Requirements Specification is in response to recommendations following from a Clinical Review of Standards (CRS), the changes and additions for which are documented in the [TOS](#), [E TOS](#), [Implementation Guidance and Change Specification](#).

Commissioning Data Sets (CDS) are the primary mechanism for the national reporting of secondary care activity which is either NHS funded, and/or provided by NHS Organisations.

The ECDS is closely aligned with the care and management of the patient, and the information collected is dual-purpose, meeting an existing range of secondary uses and, in some instances, for the direct care of the individual (primary uses).

ECDS is structured such that data collection for primary and secondary uses wherever possible are aligned to maximise data quality that benefits patients, staff, commissioners, researchers, and the wider NHS.

The ECDS does not intend to alter clinical practice, but rather to streamline already existing practices and to help ensure consistency.

The relative costs and complexity of delivering emergency care have changed over recent years, due to:

- external factors including increasing demand; access to alternative sources of care; patient preferences; perceived value and consistency of service.
- internal factors including pressure to avoid admitting patients unnecessarily; the front-loading of testing and decision making, which is now performed in Emergency Care Departments; increased subspecialisation of hospital practice with a reduced number of 'generalist' hospital doctors.

The Emergency Care Data Set provides the following in response to that changing environment:

- accurate recording of the source of the patient's referral to the Emergency Care Department.
- the patient's chief complaint (the primary clinical reason for the attendance) captured consistently and submitted centrally.
- detailed information capturing what happens to patients during their emergency attendance, e.g. when patients are referred to inpatient services for assessment or admission.
- where patients go after their treatment in the Emergency Care Department is complete.
- the complexity and acuity of Emergency Care Department patients, and the value added by the Emergency Care Departments, are consistently described and able to be understood through the detailed data collected.
- better diagnostic data which gives an enhanced understanding of patient need, activity, and outcomes (and so value to attendance).
- consistent data on how patients use Emergency Care Departments, other urgent care services, and overall patient flow in the urgent care system. This allows understanding of patient access patterns, which allows appropriate planning.
- understanding of who is doing what and when within Emergency Care Departments. This helps ensure that patients receive safe and effective care when they need it.
- bring together disparate local and national initiatives aimed at improving urgent care services to encourage consistency, and also to describe the work done across a range of providers in a common language.

- understand Emergency Care Department attendances relating to injury and other modifiable factors to identify patterns that may be amenable to targeted interventions that will improve public health.
- facilitates targeted prevention strategies that could reduce the number of Emergency Care Department attendances.
- consistently monitor illness data arising from patients presenting to Emergency Care Departments, provides public health awareness of the current situation, as well as early warning of emerging population health threats. The UK Health Security Agency (UK HSA) has an Emergency Department Syndromic Surveillance System (EDSSS) which seeks to utilise national data.

1.2 CDS Data Flow Definitions

The Commissioning Data Set is the basic structure used for the submission of commissioning data to the SUS+ and is designed to be capable of individually conveying many different Commissioning Data Set structures encompassing Emergency Care Activity, Outpatient Attendances, Future Attendances, Admitted Patient Care and Elective Admission List data.

Commissioning Data Set Messages have been defined in specific components known as a CDS type. Each Commissioning Data Set Type as configured into the Commissioning Data Set Message carries only one specific Commissioning Data Set Type, an example being the Finished Consultant Episode Commissioning Data Set Type.

Full details of the current baseline Commissioning Data Sets (CDS) including the specification for the CDS types outlined above, definitions and supporting guidance, XML schemas and submission rules are available from the [NHS Data Model and Dictionary](#).

The relevant CDS types for this document are listed below:

Emergency Care

CDS Type	CDS Title	CDS Description	Status	Submission Frequency
CDS v6.2.3 Type 011 – from 1 November 2020				
011	Emergency Care Data Set	Contains details of all Emergency Care Department Attendances	Mandatory	Daily
Emergency Care Data Set v4.0 – from 1 July 2023				
011	Emergency Care Data Set	Contains details of all Urgent and Emergency Care Activity	Mandatory	Daily

1.3 Supporting CDS Types

The table below lists the Commissioning Data Set Interchange and Message Controls to support the national flow of CDS information. These headers and trailers help to specify the data items used for data handling and management within the Secondary Uses Service.

CDS Type	CDS Title	CDS Description	Status	Notes
Commissioning Data Set Interchange and Message Controls				
001	CDS Interchange Header	Contains the metadata that describes the identity and addressing information for the Commissioning Data Set submission and signals the start of a CDS submission.	Mandatory	Must be submitted for every CDS Interchange
002	CDS Interchange Trailer	Contains the metadata that describes the identity and addressing information for the Commissioning Data Set submission and signals the end of a CDS submission.	Mandatory	Must be submitted for every CDS Interchange
003	CDS Message Header	Contains the metadata that describes the content of the message and signals the start of CDS message.	Mandatory	Must be submitted for every CDS Message
004	CDS Message Trailer	Contains the metadata that describes the content of the message and signals the end of CDS message.	Mandatory	Must be submitted for every CDS Message
Commissioning Data Set Transaction Header Group				
005B	CDS Transaction Header Group - Bulk Update Protocol	Contains the metadata that describe the controls for a bulk submission.	Mandatory	Must be submitted for every bulk CDS submission

Or

005N	CDS Transaction Header Group - Net Change Protocol	Contains the metadata that describe the controls for a net submission.	Mandatory	Must be submitted for every net CDS submission
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ECDS v4.0 uses MESH to transport and submit files to the SUS+.

Further information about MESH, in addition to what is presented in this document, is available from [the NHS Digital website](#).

2. Overview

2.1 Summary

Standard	
Standard Number	DAPB0092-2062
Standard Title	Emergency Care Data Set (ECDS) v4.0
Standard Description	<p>Commissioning Data Sets are the primary mechanism for the national reporting of secondary care activity which is either NHS funded, and/or provided by NHS Organisations.</p> <p>The Department of Health and Social Care requires accurate data for the following types of patient activity:</p> <ul style="list-style-type: none"> Emergency Care Department activity (attendances and urgent and emergency care extended care episodes) and outcomes <p>The Commissioning Data Sets, including CDS Type 011 Emergency Care Data Set, are patient-level data sets intended to deliver robust, comprehensive, nationally consistent, and comparable person-based information on secondary care activity.</p> <p>These activities include:</p> <ul style="list-style-type: none"> monitoring and management of NHS service agreements development of commissioning plans supporting the Payment by Results (PbR) processes supporting NHS Comparators monitoring Health Improvement Programmes underpinning clinical governance understanding the health needs of the population. <p>Commissioning Data Sets are securely submitted daily to the Secondary Uses Service (SUS+) in XML format and form the basis of the Hospital Episode Statistics (HES) data set.</p> <p>The Emergency Care Data Set v4.0 is closely aligned with the care and management of the patient, and the information collected relates to the existing range of secondary uses.</p>
Release Number	Amd 17/2022

Release Title	Emergency Care Data Set (ECDS) v4.0
Release Description	<p>The key changes in this release include:</p> <ul style="list-style-type: none"> - Recording of Virtual Care (including virtual consultations) - Recording Same Day Emergency Care (SDEC) activity - Recording of Hot Clinics - Deprecation of EC Service Type 04 – ‘NHS walk in centres’ - Recording activity relating to prevention of violence and injury / Injury Sharing to Tackle Violence (ISTV) - Introduction of new Assessment Scales - Expansion of clinical data terms (ECDS Max) - Other minor changes (see TOS Change Control for more details)
In Scope	<p>The standard defines a Technical Output Specification (TOS) which describes the data submission required for ECDS v4.0, to be sourced from clinical systems. All services funded, and/or provided, by the NHS Emergency Care Departments providing Type 01, 02, 03, 05 and 06 Urgent and Emergency Care Activity Types are in scope.</p> <p>This includes all emergency care activity undertaken by NHS Hospital Providers, including patients receiving private treatment, and NHS patients treated electively in the independent sector (including ‘Any Qualified Provider’) and overseas, to support a variety of secondary use purposes (i.e. not for the direct care of the patient).</p>
Implementation Completion Date	<p>All providers of Type 01, 02, 03, 05 and 06 Urgent and Emergency Care Activity Types MUST submit ECDS v4.0 to SUS+ on a daily basis using MESH. Changes contained within this release MUST be implemented, such as to allow collection and extraction in the required manner, from 1 July 2023.</p> <p>Emergency Care Departments (or their nominated middleware supplier) SHOULD start flowing ECDS v4.0 data from 1 July 2023 and all Emergency Care Departments MUST submit ECDS v4.0 by 1 July 2024.</p>

2.2 Supporting Products

This document should be read in conjunction with the following

Reference	Title
DAPB0092-2062	ECDS v4.0 Change Specification
DAPB0092-2062	ECDS v4.0 Implementation Guidance

DAPB0092-2062	ECDS v4.0 Technical Output Specification
DAPB0092-2062	ECDS v4.0 User Guidance
DAPB0092-2062	ECDS v4.0 NHS Data Model and Dictionary Change Request
DAPB0092-2062	ECDS v4.0 XML Schema (hosted on TRUD – login required)

2.3 Related Standards

Ref #	Reference	Title
1	DAPB0092	Commissioning Data Sets (CDS)
2	SCCI0034	SNOMED CT
3	DCB1605	Accessible Information
4	ISB 0149	NHS Number
5	ISB 0149-02	NHS Number for Secondary Care
6	ISB 1594	Information Sharing to Tackle Violence (ISTV)
7	ISB 1606	Trauma Audit and Research Network (TARN)

2.4 Contacts

Sponsor	
Name	Julian Redhead
Organisation	NHS England
Email Address	julian.redhead1@nhs.net
Senior Responsible Owner	
Name	Marc Thomas
Organisation	NHS England
Email Address	Marc.thomas1@nhs.net
Development Support	
Name	ECDS Team
Organisation	NHS Digital

Email Address	dataset.development@nhs.net
Maintenance Manager	
Name	Chris Turner
Organisation	NHS Digital
Email Address	dataset.development@nhs.net

3. Requirements

3.1 Information Specification

The CDS Type 011 ECDS submission requirements are shown below.

#	Requirement
Healthcare Providers	
1	<p>All providers of Type 01, 02, 03, 05 and 06 Urgent and Emergency Care Activity Types MUST submit ECDS v4.0 to SUS+ daily.</p> <p>This requires Providers to ensure their suppliers of relevant clinical systems, patient administration systems and / or XML Middleware suppliers can incorporate the required changes to meet this capability by the dates shown in conformance criteria below.</p> <p>The definition of daily submission is described in an NHS Digital-issued ECDS Conformance Indicators document.</p>
2	<p>All providers who are submitters of ECDS v4.0 SHOULD automate their data submission processes to provide daily data. This requires that all Providers ensure their suppliers of relevant clinical systems, patient administration systems and / or XML Middleware suppliers can incorporate the required changes to meet this capability.</p>
3	<p>All providers who are submitters of ECDS v4.0 SHOULD submit changes using the Data Set Net Change Protocol. This requires that all Providers ensure their suppliers of relevant clinical systems, patient administration systems and / or XML Middleware can incorporate the required changes to meet this capability.</p>

3.2 Conformance Criteria

This section describes the actions that must be satisfied to ensure that the information standard is being used correctly by an organisation and that the conformance criteria have been met.

#	Conformance Criteria
1	<p>From 1 July 2023 and by 1 July 2024 ALL providers of Urgent and Emergency Care Activity Types 01, 02, 03, 05 and 06 MUST:</p> <ul style="list-style-type: none"> • Make submissions using ECDS v4.0 • Return data on a daily* basis <p>AND (where applicable*) 100% of patient records MUST have a valid record for:</p> <ul style="list-style-type: none"> • Chief Complaint • Diagnosis • Measure of acuity • Discharging clinician (using the GMC/NMC/HPC number) • Referral source • Discharge status. <p>* Detailed definitions of 'daily' and the applicability of each data item are specified in the NHS Digital issued ECDS Conformance Indicators document.</p>

Conformance with the ECDS v4.0 XML schema is enforced through the ECDS v4.0 schema and validation following submission to SUS+. Validation checks occur regarding correct use of SNOMED CT code sets and various other validation rules, including correct format / length, enumerated national codes where applicable, and compliance with the required mandate of the fields (Mandatory, Required or Optional). Additional guidance on SNOMED CT is available [here](#).

Following submission, any interchanges containing records that do not conform to the XML schema requirements or other necessary validation rules, i.e. field length and format, will be rejected. In these cases, a validation report is provided to assist the sender in the identification and resolution of issues.

4. Concept of Operation

4.1 Data Collectors and Providers

- **Healthcare professionals:** are responsible for capturing information as part of the ongoing care of the patient, i.e. for primary use purposes as they do currently
- **Administrative staff:** are responsible for capturing clerical information such as demographics
- **Clinical coders:** If the Provider uses clinical coders to support the recording of clinical information from Emergency Care Departments, coders must ensure that they collect information which is either specified in the ECDS v4.0 [E TOS](#) or that arrangements are put in place to map what they collect to the required ECDS v4.0 SNOMED CT subsets

- **XML middleware suppliers:** develop tools and / or services to process submissions in conformant XML for submission to SUS+, specifically for ECDS v4.0 via MESH
- **Suppliers of Patient Administration (PAS) and Emergency Department Information Systems:** at the request of providers, will develop systems ensuring that ECDS data items can be captured electronically and output or derived to nationally agreed standards and change existing extraction routines to produce ECDS v4.0 submissions
- **Trust informatics staff:** are responsible for the collation of ECDS information and the submission of Type 011 data to SUS+ using MESH via XML middleware suppliers or in-house products. This includes ensuring completeness and addressing any data quality issues identified in the National Data Quality Reports with the information within the data set.

4.2 Secondary Users

Information generated through implementation of this standard is analysed and used by users of ECDS/CDS data.

The data collected via ECDS v4.0 enables users to analyse and compare granular, high-quality data for reporting, audit, research and for service delivery. It provides information in support of the following:

- the provision of an accurate and relevant record of why patients attend Emergency Care Departments in England, the quality of care that they receive and what happens to them after the attendance. This in turn enables a greater understanding of patient outcomes and the value added by emergency care services
- a greater understanding of the complexity of patients who attend emergency care departments and the services required to treat them appropriately
- a better understanding of how people access urgent and emergency care services particularly in relation to overall patient flow in the urgent care system
- more information to help understand who is doing what and where, with the aim of achieving more effective and efficient resource deployment across Emergency Care Departments
- a national picture of the number of patients attending Emergency Care Departments as a result of injury which supports the development of targeted prevention strategies which would in turn reduce the number of Emergency Care Department attendances and improve the lives of patients
- Public Health syndromic surveillance via the Emergency Department Syndromic Surveillance System (EDSSS) which collects information on patient illnesses presenting to Emergency Care Departments and is consistently monitored to provide public health situational awareness, as well as early warning of emerging population health threats.

4.3 Use of SNOMED CT

What is SNOMED CT?

SNOMED CT is an international clinical terminology that provides the vocabulary for systems to support the direct management of the health and care of an individual. The vocabulary

consists of machine-readable codes for clinical concepts along with human readable descriptions. It is provided via a set of data files that need to be incorporated in electronic applications.

SNOMED CT provides the content for health and care related data items in software applications to enable representation of clinically relevant information consistently and reliably in a way that is processable by the computer system. This enables applications to exchange processable data across the health and care environment, provide clinical decision support tools and undertake enhanced analytics to support effective delivery of high-quality healthcare to individual people and populations. SNOMED CT is managed and maintained internationally by [SNOMED International](#) and in the UK by [NHS Digital](#).

SNOMED CT was originally specified as the single terminology to be used across the health system in [Personalised Health and Care 2020: A Framework for Action](#).

SNOMED CT and Personalised Health and Care 2020

In accordance with the NHS's implementation of Personalised Health and Care 2020, SNOMED CT is the clinical terminology used within ECDS. Further details in relation to the SNOMED CT Standard [are available from NHS Digital](#).

The inclusion of SNOMED CT helps to properly capture and represent the full extent and granularity of Emergency Care Department activity, and therefore:

- helps support the quality of patient care in England's Emergency Care Departments
- helps enable an accurate understanding of the cost and value of emergency care
- helps to facilitate improved healthcare commissioning
- helps provide more effective delivery of healthcare strategy and policy.

Further details of how SNOMED CT should be implemented to support ECDS are available from [the ECDS User Guidance](#), available from NHS Digital.

Note: SNOMED CT concepts are no longer included in the TOS, which instead includes references to the appropriate concepts held on [TRUD](#). A full list of SNOMED concepts is included in [the separately published E TOS](#).

4.4 Working Practises

Full guidance, including changes to working practices, is available in [the ECDS Implementation Guidance](#).

4.5 Information Governance

Background

The Chief Medical Officer of England commissioned the '[Department of Health - The Caldicott Committee Report on the Review of Patient-Identifiable Information](#)' (Dec 1997) report, to review the transfer of patient-identifiable information from NHS organisations to other NHS and non-NHS organisations. The report included 16 recommendations and suggested six principles be applied to current flows and any flows proposed in the future. '[Information: To share or not to share? The Information Governance Review](#)' (March 2013) followed. Known as Caldicott, it was an independent review of information sharing by Dame Fiona Caldicott at the request of the Secretary of State for Health (March 2013). This review was to ensure an appropriate balance between protection of patient information, and its use and sharing. The Government subsequently accepted the recommendations from this report

(September 2013), and the '[National Data Guardian for Health and Care Review of Data Security, Consent and Opt-Outs](#)' (June 2016) outlines the recommendations of the new data security standards.

Overview

The legal flow of ECDS v4.0 data to NHS Digital is supported by a [Direction](#) issued by NHS England. NHS Digital (the operating name for the Health and Social Care Information Centre) is exempt from having to apply for section 251 support from the Confidentiality Advisory Group (CAG) when mandated to collect data via Directions from NHS England or the Department of Health and when acting as data controller. This is set out in [sections 254 and 255 of the Health and Social Care Act 2012](#).

As a result, explicit consent is not required; however, providers are required to inform patients that their information will be used to support secondary uses, and to act on any objections raised in line with their local policy. If consent is sought and not given, then this information must not be shared and other legal routes for sharing are not available.

Where a patient explicitly objects to their data being used for secondary purposes, the provider has the option of not flowing the records for this patient, as directed by their local Caldicott Guardian.

Further information on a patient's personal information choices can be found on the NHS Digital website: "[How we look after your health and care information](#)".

A [Data Provision Notice \(DPN\)](#), produced by NHS Digital, will be issued before the commencement of ECDS v4.0 data submissions. This will reference the structure and content of the collection and will be used to confirm NHS Digital's legal requirement to collect the data.

General Data Protection Regulation (GDPR)

Providers (including the Caldicott Guardian) should ensure they are aware of requirements in respect of the [General Data Protection Regulation \(GDPR\)](#). Additional guidance is available on the [NHS Digital website](#).

[NHS Digital assessment and an entry on the GDPR register](#) confirms required compliance to GDPR. During the development of this release of the standard, a Data Protection Impact Assessments (DPIA) was completed.

Any concerns regarding information governance should be addressed to dataset.development@nhs.net.

Type 1 Opt-out – Do not apply to ECDS

If a patient does not want information that identifies them to be shared outside their GP practice for purposes beyond their direct care, then the patient can register a Type 1 opt-out with their GP practice. This prevents their personal confidential information from being used other than in specific circumstances required by law, such as a public health emergency like an outbreak of a pandemic disease.

Note: Type 1 Opt-outs do not apply to ECDS.

National Data Opt-Out

NHS Digital collects information from a range of places where people receive care, such as hospitals and community services. If a patient does not want their personal confidential

information to be shared outside of NHS Digital for purposes other than direct care then the patient can register an opt-out via [this webpage](#).

A [Direction](#) from the Secretary of State sets out the Department of Health and Social Care policy as to how the national data opt-out, which replaces Type 2 objections, should be applied.

Existing Type 2 objections were converted to national opt-outs. NHS Digital informed those who previously expressed a Type 2 objection of this change and informed them of the new national data opt-out mechanism.

The deadline for health and care organisations to comply with national data opt-out policy was 31 July 2022.

Further information about the national data opt-out is available from [the NHS Digital website](#).

Patient Identifiable Data Items

Emergency Care Data Set (ECDS) include several patient identifiable items, e.g.

- NHS Number
- Local Patient Identifier
- Name
- Address
- Date of Birth
- Postcode of Usual Address
- Free text fields – in which patient identifiable data could incorrectly be entered. Responsibility rests with the provider to ensure that no inappropriate data is submitted to NHS Digital. Safeguards exist within NHS Digital to minimise the impact of inappropriate data being erroneously shared.

ECDS necessarily includes patient identifiers to support the linkage of activity to create a complete picture of the patient pathway across Emergency Care Departments and to support commissioning of health services and remuneration for activity undertaken by providers.

Secondary Care Use

Any secondary care uses of data are subject to compliance with the appropriate legal basis, and service providers should review their own information governance standards to ensure they are complying accordingly.

4.6 Ethics

There are not considered to be any ethical issues associated with ECDS v4.0, which is an update to version CDS 6.2.3, as described, which had no known ethical implications.

4.7 Clinical Safety

ECDS utilises information already routinely collected in a variety of Provider systems and collated in a non-clinical setting for secondary uses. There are minimal patient safety or clinical risk implications or potential adverse effects for patients in complying with the requirements of the data set. Any risks identified have been mitigated.

A clinical safety report was produced for the first release of ECDS following a hazard assessment workshop. Consensus was that there were minimal clinical safety risks associated with the implementation of the ECDS as the data set is not primarily used as a tool to support clinical decision making but rather to record information about specific episodes of care. In support of ECDS v4.0 the safety case report was updated and approved by the NHS Digital Clinical Safety Group.

4.8 Clinical Governance

ECDS supports clinical governance by maintaining and improving the quality of patient care within the health system through the national reporting of comparable primary use data for secondary use purposes to standardised definitions to support transparency. This supports (a) the audit of providers by organisations such as [Care Quality Commission](#) and other research and commercial organisations and (b) the identification of outliers to indicate areas to focus limited resources for investigation purposes.

4.9 Data Quality

The ECDS does not mandate design of local systems or specific local data quality measures. However, highlighted below are areas the data set developers recommend should be considered by data providers within their local governance arrangements to ensure good data quality in respect of the extracted submission.

Corporate Data Quality Framework

Each organisation has its own corporate framework for managing data quality in respect to data collection, submission, and publication. Such a framework is likely to involve a number of components such as leadership and direction from a senior officer, organisational and departmental data quality objectives, data quality audits and a performance management framework. It is recommended that appropriate components of the corporate data quality framework include the ECDS, so that data quality relating to the data set is at the heart of the organisation's data quality framework.

Data Quality Risks

At organisational, departmental, and individual levels, risks related to data quality should be identified and mitigated. Examples of risks which could be considered, are:

- organisational - does the organisation have corporate policy and objectives for managing data? Is there a senior officer with overall responsibility for data quality?
- team - are all relevant staff aware of the purpose and importance of collecting data for the national data set? Are there sufficient resources available to continue data collection during staff absences?
- individuals - do staff have sufficient time within their work routine to collect the data? Is there a need for additional training so staff can possess appropriate skills to collect the data (especially where systems are upgraded)?

Organisational and Departmental Objectives

In any organisation, resources will be deployed towards organisational and departmental objectives.

The organisation's performance management framework will identify the extent to which objectives are met, and, where necessary, revised.

Where the data set is used to monitor progress towards objectives, there will be greater emphasis on collecting good quality data. It may be necessary to embed the data set subject area into the organisation's performance management framework (and therefore set local objectives) to ensure data is collected in a reliable and timely manner. Additional support is available via [NHS Digital](#).

The structure and internal processes of each data provider will vary and, to a certain extent, depend on the priority given to IT and informatics. Some organisations will have well developed processes and systems that, with minimum effort, will accommodate ECDS. Other organisations, for whom processes, and systems are underdeveloped, or who will be new to the submission of ECDS may require significant changes. In such instances, organisations may choose to plan the implementation of the [ECDS v4.0 Information Standard](#) as a priority to ensure enough resources are deployed for conformance.

The implementation of a new or re-engineered process may be more successful where organisations use peer organisations to identify and replicate areas of good practice.

Timeliness

Data is entered in local systems and submitted daily, so that the data set can deliver meaningful, relevant and timely reports for stakeholders. Trusts should review data quality to implement improvement actions ([Data Quality Dashboards are available](#)).

National Data Quality

ECDS v4.0 mandates automated daily submission. In all cases a submission will be expected to meet the necessary ECDS v4.0 XML schema validation, which will go some way to ensure that only valid formats and codes are submitted. The validations, which are [described in the ECDS E TOS](#), only relate to the structure and format of the submitted data. Further validation will involve the continued analysis of submitted ECDS v4.0, to identify potential data quality issues for an individual provider or at a national level. This will result in NHS Digital working with the provider to ensure that they are aware of potential data quality issues and identifying appropriate resolutions. It will also result in the publication of improved guidance or consideration of future changes to ECDS.

[Data quality analysis](#) is routinely published which should be regularly reviewed to understand the quality of data submitted in support of national analysis.

Data Liaison

NHSE also use the Data Liaison service to liaise directly with suppliers and providers to improve the data quality.

4.10 Data Availability

Requests for access to ECDS data should be made to [NHS Digital Independent Group Advising on the Release of Data \(IGARD\)](#). IGARD considers all requests for dissemination of confidential information, as defined in [Section 263 of the Health & Social Care Act](#), through the [Data Access Request Service \(DARS\)](#). It aims to improve transparency, accountability, and consistency through robust, independent scrutiny of NHS Digital data distributions.

5. Implementation and Use

5.1 Implementation and User Guidance

[Implementation guidance](#) (and other guidance) is available to support this release. Additional [user guidance](#) is available from NHS Digital.

5.2 Governance

NHS Digital has overall executive responsibility for implementation of changes to ECDS.

Implementation of changes to SUS+ are managed through the [SUS](#) Programme. This is overseen by the SUS Programme Board.

Ongoing maintenance of ECDS is undertaken by NHS Digital under the change management governance structures administered by NHS England. Users and stakeholders can submit requests for change [using the ECDS feedback process](#).

Change requests will be prioritised by the sponsor, in conjunction with the SUS User Group (SUG), and will only be progressed where a sponsor and funding can be identified and where a suitable implementation mechanism is available e.g. a SUS+ release.

The SUG, comprising key stakeholders representing providers, system suppliers and commissioners, fulfils the role of a CDS and ECDS Expert Working Group.

5.3 Technical Architecture

Providers that already submit CDS Type 011

Providers currently submitting CDS 6.2.2 and / or CDS 6.2.3 Type 011 must implement ECDS v4.0.

A [schema](#) is available for ECDS v4.0 (schema version 4.0), which must be used to submit the updated version of the data set.

ECDS is submitted via the [Message Exchange for Social Care and Health \(MESH\)](#) service (see section 5.4). This became the primary messaging service used across the NHS on 01 June 2019. MESH is used to transfer electronic messages directly and securely from one application to another.

Data Validation for ECDS

The MESH service does not have a sophisticated range of data validation processes, but a validation client that can be used locally, before submission to MESH, may be used.

Full data validation is carried out on receipt of the XML file at NHS Digital. Automated feedback is generated and made available to the user.

Providers that currently do not submit CDS Type 011

Providers who are in scope of this standard but do not currently flow CDS 6.2.2 and/or CDS 6.2.3 Type 011 will need to ensure they can submit the ECDS v4.0 XML schema to the Messaging Exchange for Social Care and Health (MESH) service – see below.

5.4 Using the MESH Service

There are three main steps required by providers to install the MESH client:

1. Setting up a MESH mailbox by completing the [MESH mailbox application form](#)
2. Setting up a MESH end point certificate

3. Installing MESH as a service.

Installation guidance for MESH is available from NHS Digital.

5.5 SUS+

SUS+ has significantly improved the security and confidentiality of data managed through a combination of:

- comprehensive and rigorous access controls (Role Based Access Control)
- anonymisation of data and the use of encrypted pseudonyms to replace information that could be used to identify individuals, which is accessed or transferred from the SUS+ environment
- enabling the linkage of data from different sources relating to the same care pathway.

Full details and guidance relating to [submission of ECDS to SUS+](#) is available from NHS Digital.

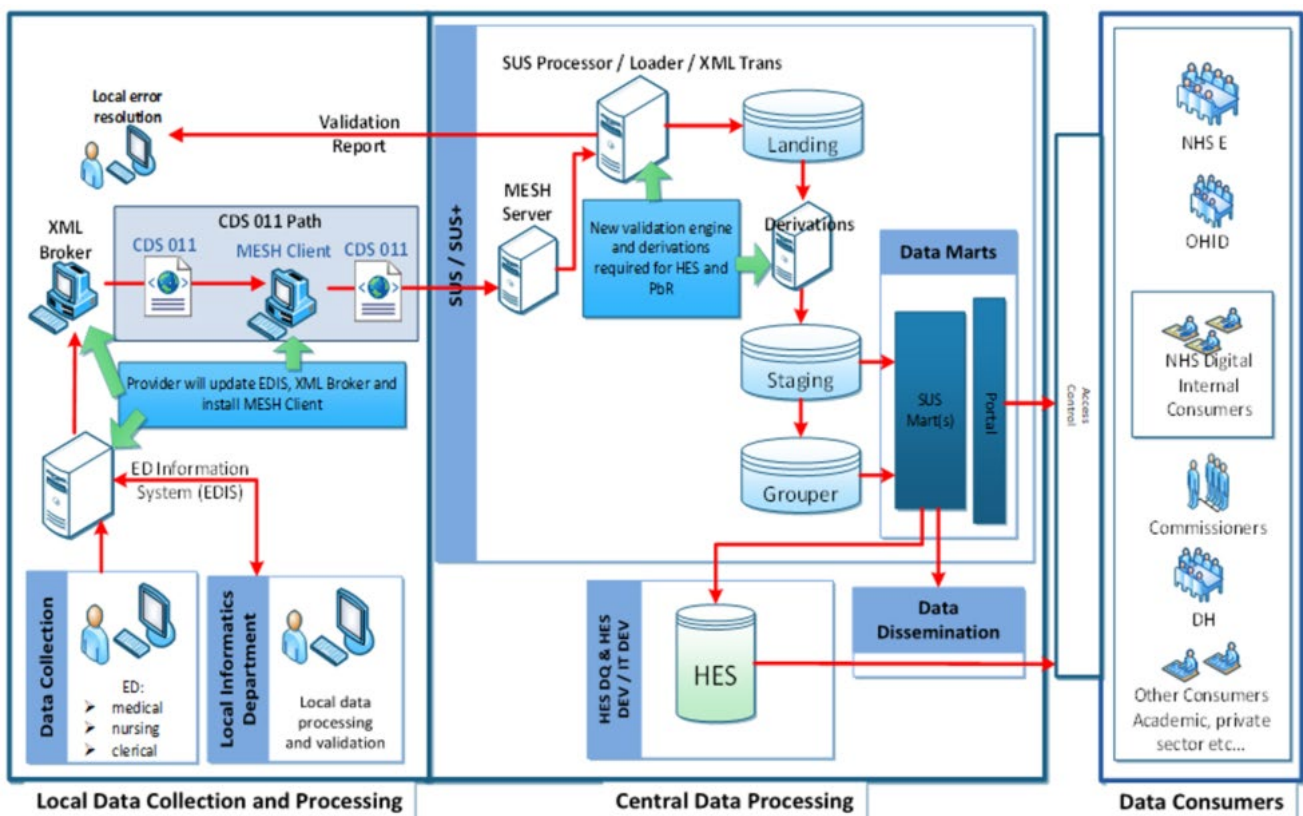
SUS+ has a robust Information Governance process to ensure that the data is protected from unauthorised access.

Users of SUS+ are issued with an NHS Care Records Service Smartcard, a pass code, and Unique User Identification (UID) to ensure data is kept secure. SUS+ will provide access and outputs in clear or pseudonymised form dependent upon each user’s access rights. Where access to pseudonymised data is appropriate, elements which could identify a patient are encoded in order to provide greater protection of privacy.

Access to the Spine and SUS+ is via a connection to [Health and Social Care Network \(HSCN\)](#), the secure private national network for the NHS.

ECDS v4.0 XML schema flow

Figure below: The data flow for submitting the ECDS v4.0.



ECDS v4.0 XML Schema

The ECDS v4.0 schema was published to coincide with the publication of the standard via the [Terminology Reference data Update Distribution \(TRUD\) Service](#). TRUD provides a mechanism for the distribution of reference data to interested parties.

ECDS v4.0 XML Schema support

ECDS v4.0 support will continue to be provided by the SUS support teams via ssd.nationalservicedesk@nhs.net

XML Middleware Suppliers

All XML middleware suppliers are required to complete appropriate assurance for submission of ECDS v4.0 XML schema. Information on this assurance approach can be obtained from NHS Digital (functional.assurance@nhs.net). All XML middleware suppliers are required to submit the CDS Type 011 ECDS v4.0 XML schema including the ECDS data to the MESH service (which transmits the ECDS data to SUS+).