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Emergency Care Data Set: CDS Version 6.2.3 Type 011 (Version 3)

Requirements Specification

Data Coordination Board

This information standard (DCB0092-2062) 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 Coordination Board (DCB), 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 (DCB0092-2062 Amd 19/2020) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

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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> <p>For this release, the standard is renamed Emergency Care Data Set: CDS Version 6.2.3 Type 011.</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 Coordination Board	DCB	Empowered by the Health and Social Care Act 2012, the DCB has delegated responsibility for approving information standards for the health and social care system in England. The DCB membership is drawn from a range of organisations operating within health and social care.
Emergency Care Department	ECD	An ECD may be either a major unit, providing 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.
Emergency Care Department Type	ECD Type	<p>Type 01: Emergency departments are a consultant led 24-hour service with full resuscitation facilities and designated accommodation for the reception of accident and emergency patients.</p> <p>Type 02: Consultant led mono specialty accident and emergency service (e.g. ophthalmology, dental) with designated accommodation for the reception of patients.</p> <p>Type 03: Other type of A&E/minor injury ACTIVITY with designated accommodation for the reception of emergency care patients. The department may be doctor led, general practitioner led or nurse led and treats at least minor injuries and illnesses and can be routinely accessed without appointment. A service mainly or entirely appointment based (for example a GP Practice or Out-Patient Clinic) is excluded even though it may treat a number of patients with minor illness or injury.</p>

		Includes Urgent Treatment Centres. Excludes NHS walk-in centres.
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 th 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). MESH is used for submission of all CDS types since June 2019.
National Tariff		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.
Public Health England	PHE	An executive agency, sponsored by the Department of Health and Social Care to protect and improve the nation's health and wellbeing, and reduce health inequalities.
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+	<p>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.</p> <p>An upgrade to SUS data warehouse was made in July 2017, after which it was renamed SUS+.</p>
Technical Output Specification	TOS	<p>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.</p> <p>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 (E TOS). This is to allow required terminology updates on a bi-annual basis (April and October) without the need to update this standard.</p>
Enhanced Technical Output Specification	E TOS	<p>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.</p> <p>The 'Change Control' tab within this document defines the individual changes made between releases.</p>
Public Health Observatories	PHOs	<p>On 1st April 2013, the regional Public Health Observatories transferred along with specialist observatories and the National Cancer Intelligence Network into PHE as a single Knowledge and Intelligence service for England.</p>
Treatment Function Code	TFC	<p>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.</p>
Technology Reference data Update Distribution	TRUD	<p>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.</p>
Urgent Treatment Centre	UTC	<p>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.</p>
Extensible Mark-up Language	XML	<p>XML is a mark-up language designed to carry data, not to display data. It is the CDS XML schemas which carry data in the Commissioning Data Set format between health care providers and the Secondary Uses Services data warehouse (SUS+).</p>

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1. Purpose

The Commissioning Data Set (CDS) is an existing, approved information standard with version CDS 6.2 currently operational across the health service. This specification only concerns CDS Type 011, within the existing CDS 6.2.

This document precisely defines the CDS Type 011 – Emergency Care Data Set (ECDS), which from 31st March 2019, replaced CDS Type 010 A&E within CDS v6.2.

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 CDS Type 011.

For this release the standard name is incremented to Emergency Care Data Set: CDS Version 6.2.3 Type 011.

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.

Notes:

- SNOMED CT concepts are no longer included in the TOS.
- A full list of SNOMED CT concepts is however included in the separately published Enhanced Technical Output Specification (E TOS), as are other value-added items such as sort orders and validation rules.
- TRUD concept references are included in the TOS.
- The E TOS is updated with required terminology following SNOMED CT releases (this can be either or both of April and October). Further details on this distinction is included in the Implementation Guidance, including a diagram to explain the difference between the TOS and E TOS.

1.1 Background

Information Standards Notices (ISNs) were issued in 2017 and 2018 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 the 2019 Clinical Review of Standards (CRS), the changes and additions for which are documented in the TOS, E TOS and Implementation Guide.

CDS v6.2 is the primary mechanism for the national reporting of secondary care activity which is either NHS funded, and/or provided by NHS Organisations.

The CDS Type 011 – 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 A&E 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. Public Health England (PHE) 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, 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 Dictionary¹.

The relevant CDS types for this document are listed below:

1.3 Emergency Care

CDS Type	CDS Title	CDS Description	Status	Submission Frequency
Emergency Care Data Set: Commissioning Data Set version 6.2.3 Type 011 – from 1st April 2021				
011	Emergency Care Data Set	Contains details of all Emergency Care Department Attendances	Mandatory	Daily

1.4 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

¹ http://www.datadictionary.nhs.uk/web_site_content/navigation/commissioning_data_sets_menu.asp

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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CDS v6.2 uses MESH to transport and submit XML files to the Secondary Uses Service (SUS+). CDS v6.2.3 Type 011 – ECDS uses MESH to transport and submit files to the Secondary Uses Service.

Further information about MESH, in addition to what is presented in this document, is available from NHS Digital².

2. Overview

2.1 Summary

Standard	
Standard Number	DCB0092-2062
Standard Title	Emergency Care Data Set: CDS Version 6.2.3
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 attendances and outcomes • Outpatient Appointments (including 'Did Not Attends') • Admitted Patient Care (Hospital Admissions) • Elective Admission Lists

² <https://digital.nhs.uk/messaging-exchange-social-care-health>

	<p>The Commissioning Data Sets 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 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 v6.2.3 Type 011 ECDS 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	
Release Number	Amd 19/2020
Release Title	Emergency Care Data Set: CDS Version 6.2.3 Type 011
Release Description	<p>This change is in response to requirements outlined in the 2018 Clinically led Review of NHS Access Standards: Interim Report and to which the ECDS specification is accordingly amended to:</p> <ol style="list-style-type: none"> 1. Enable the collection of the date and time when a patient is clinically ready to proceed from an Emergency Care Department to another care setting, or to be discharged. 2. Remove the EMERGENCY CARE ATTENDANCE CONCLUSION DATE and EMERGENCY CARE ATTENDANCE CONCLUSION TIME data fields. 3. Enable the collection of NEWS2 and Clinical Frailty Scale coded assessments, and for NEWS2, the associated coded clinical observations and findings, and a timestamp for when each clinician assumes responsibility for the patient. 4. Enable the calculation of Urgent Treatment Centre performance metrics relating to a patient's scheduled arrival time for an appointment made through NHS 111. 5. Add a pilot field, (Assault Location Description), to enable ECDS to potentially replace the ISTV (Information Sharing to Tackle Violence, ISB1594) standard at a future date. This field MUST NOT be submitted by Providers, except those engaged in the pilot relating to this field. 6. The removal of one field and the addition of two fields to the AMBULANCE DETAILS data group to enable proposed linkage with the Ambulance Data Set. 7. The removal of one field and the addition of two fields to the RESEARCH AND DISEASE OUTBREAK NOTIFICATION data group to enable differentiation between disease

	<p>outbreaks that can be coded using SNOMED CT and those that cannot and must be submitted using freetext.</p> <ol style="list-style-type: none"> 8. Changes to the CDS Transaction Headers for BULK and NET submission, to align ECDS with future planned changes that are part of CDS 6.3. 9. To replace schema enumeration of various Data Dictionary values with data quality checks. 10. To include the field “Ethnic Category 2021” as a pilot data item. 11. Some corrections to definitions in the TOS and some changes to align with updated definitions that have resulted from a review caused by the replacement of the term ‘Accident and Emergency’ with ‘Emergency Care’. <p>Please see the Technical Output Specification (TOS) Change Log for a detailed list of changes.</p> <p>For this release, the standard is named Emergency Care Data Set Version 3.</p> <p>Providers must continue to submit all other CDS Types within the current CDS v6.2, using the existing mechanisms to do so. The full submission timetable is available within Payment by Results guidance³.</p> <p>When submitting CDS v6.2.3 Type 011 – ECDS daily, this should be automated from the Emergency Department Information System. The mechanism to flow the data for CDS v6.2.3 Type 011 – ECDS is via the Message Exchange for Social Care and Health (MESH).</p> <p>CDS v6.2.3 Type 011 – ECDS data set includes code sets represented as NHS Data Dictionary-defined National Codes or SNOMED CT concepts. SNOMED CT concepts are no longer included in the TOS, which instead includes references to the appropriate concepts held on Technology Reference data Update Distribution (TRUD). A full list of SNOMED CT concepts is included in the separately published Enhanced Technical Output Specification (E TOS)⁴.</p> <p>This standard supports the following areas:</p> <ol style="list-style-type: none"> 1. National Tariff 2. Accident and Emergency Clinical Quality Indicators (CQIs) 3. Mental Health 4. Improving Quality and Value of Hospital Data 5. Injury Surveillance 6. Local analysis by providers and commissioners.
In Scope	<p>The standard defines a TOS which describes the data submission required for CDS v6.2.3 Type 011 ECDS, to be sourced from clinical systems. All services funded, and/or provided, by the NHS providing Emergency Care Departments Type 01, 02, and 03 are in scope.</p>

³ <https://digital.nhs.uk/services/secondary-uses-service-sus/payment-by-results-guidance>

⁴ <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/emergency-care-data-set-ecds>

	This includes all secondary 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).
Implementation Completion Date	All providers of Type 01, 02 and 03 Emergency Care Departments MUST submit ECDS v6.2.3 Type 011 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 st April 2021. Providers MAY wish to implement the changes from 1 st November 2020.

2.2 Supporting Products

Reference	Title
DCB0092-2062	Emergency Care Data Set: CDS v6.2.3 Type 011 - Requirements Specification
DCB0092-2062	Emergency Care Data Set: CDS v6.2.3 Type 011 - Implementation Guide
DCB0092-2062	Emergency Care Data Set: CDS v6.2.3 Type 011 - Technical Output Specification

2.3 Related Standards

Ref #	Reference	Title
1	ISB 0092	CDS Type 6.2
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	
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Developer	

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Maintenance Manager	
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3. Requirements

3.1 Overview

The associated ECDS Change Specification outlines the changes made in this release.

Emergency Care Departments that currently do not submit any CDS Types within CDS 6.2 must submit CDS 6.2.3 Type 011 via MESH.

Providers that deliver urgent and emergency care services, submit CDS v6.2.3 Type 011 – ECDS, as defined in the table at 2.1 above.

The table below outlines the changes and requirements for providers, based on their current CDS 6.2 submission status:

Providers current CDS 6.2 Submission Status	Expected Change for Providers
Providers submitting CDS 6.2.1 or 6.2.2 Type 011 – ECDS	<ul style="list-style-type: none"> implement CDS 6.2.3 Type 011 by the Implementation Completion Date (1st April 2021) of this Standard
Emergency Care Departments that currently do not submit any CDS Types within CDS 6.2	<ul style="list-style-type: none"> submit CDS 6.2.3 Type 011 via MESH

3.2 Information Specification

The CDS Type 011 ECDS submission requirements are shown below.

#	Requirement ⁵
	Healthcare Providers
1	<p>All providers of Type 01, 02 and 03 Emergency Care Departments MUST submit CDS v6.2.3 Type 011 – ECDS to the Secondary Uses Service (SUS+) daily.</p> <p>This requires Providers to ensure their suppliers of relevant clinical systems, patient administration systems and / or XML Middleware 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 Criteria document⁶.</p>
2	<p>All providers of CDS v6.2.3 Type 011 – ECDS 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 can incorporate the required changes to meet this capability.</p>
3	<p>All providers of CDS v6.2.3 Type 011 – ECDS 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>

⁵ <https://www.ietf.org/rfc/rfc2119.txt>

⁶ <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/emergency-care-data-set-ecds>

3.3 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 1st April 2021 ALL Emergency Care Department Types 01, 02 and 03 MUST:</p> <ul style="list-style-type: none"> • Make submissions using CDS 6.2.3 Type 011 • 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 Criteria document⁷.</p>

Conformance with the CDS Type 011 XML schema is enforced through the CDS v6.2.3 schema and validation following submission to the Secondary Uses Service (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 comply with the required mandate of the fields (Mandatory, Required or Optional). Additional guidance on SNOMED CT is available⁸.

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 CDS v6.2.3 Type 011 – ECDS E TOS or that arrangements are put in place to map what they collect to the required CDS v6.2.3 Type 011 – ECDS SNOMED CT subsets.

⁷ <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/emergency-care-data-set-ecds>

⁸ <https://isd.hscic.gov.uk/trud3/user/guest/group/0/home>.

- **XML / Middleware suppliers:** develop tools and / or services to process submissions in conformant XML for submission to SUS+, specifically for CDS v6.2.3 Type 011 – ECDS 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 CDS v6.2.3 Type 011 ECDS 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 CDS v6.2 data.

The data collected via CDS Type 011 – ECDS 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

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

4.3.2 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 within ECDS. [Further details in relation to the SNOMED CT Standard are available from NHS Digital](#).

This move 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 Practices

Full guidance, including changes to working practices, is available in the ECDS Implementation Guidance⁹.

4.5 Information Governance

4.5.1 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 Caldicott2, 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

⁹ <https://digital.nhs.uk/isce/publication/dcb0092-2062>

(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.

4.5.2 Overview

The legal flow of CDS v6.2.3 Type 011 (ECDS) 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 at NHS Digital’s, [“How we look after information”](#).

A [Data Provision Notice \(DPN\)](#), produced by NHS Digital will be issued before the commencement of version 6.2.3 data submissions. This will confirm the structure and content of the collection and will be used to confirm NHS Digital’s legal requirement to collect the data.

4.5.3 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 confirms required compliance to GDPR](#). During the development of this release of the standard, Data Protection Impact Assessments (DPIAs) were completed.

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

4.5.4 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.

4.5.5 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 hyperlink](#).

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.

See section 4.4.2 where a patient raises an objection.

4.5.6 Patient Identifiable Data Items

Commissioning Data Sets (CDS) 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

CDS 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.

4.5.7 Secondary Care Use

Any secondary care uses of data is 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 were not considered to be any ethical issues associated with CDS Type 011 – ECDS. Version 6.2.3 is an update to version 6.2.2, as described, with no known ethical implications.

4.7 Clinical Safety

Commissioning Data Sets (CDS) utilise 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 v6.2.3 the safety case report was updated and approved by the NHS Digital Clinical Safety Group.

4.8 Clinical Governance

Commissioning Data Sets support 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.

4.9.1 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.

4.9.2 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)?

4.9.3 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 Digital¹⁰.

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 Information Standard DCB0092-2062 (Amd 19/2020) 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.

4.9.4 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](#)).

4.9.5 National Data Quality

CDS Type 011 – ECDS mandates automated daily submission. In all cases a submission will be expected to meet the necessary CDS v6.2.3 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 CDS Type 011 – ECDS, 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 CDS.

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

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.

¹⁰ <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/emergency-care-data-set-ecds>

5. Implementation and Use

5.1 Implementation and user guidance

Implementation guidance (and other guidance) is available to support this release.¹¹ Additional user guidance is available from NHS Digital¹².

5.2 Governance

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

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 / Improvement. Users and stakeholders can submit requests for change [using the process](#) here.

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 as CDS Expert Working Group.

5.3 Technical Architecture

5.3.1 Providers that also submit CDS 6.2

Providers currently submitting CDS 6.2 must continue to do so for all CDS Types.

A [schema](#) is available for CDS v6.2.3 Type 011 – ECDS (schema version 6.2.3), which must be used to submit the Emergency Care Data Set.

CDS Type 011 is submitted via the Message Exchange for Social Care and Health (MESH) service. 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.

5.3.2 Data Validation CDS v6.2.3 Type 011 – 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.

5.3.3 Providers that currently do not submit CDS 6.2

Providers who do not currently flow CDS 6.2 will need to ensure they can submit the CDS Type 011 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:

¹¹ <https://digital.nhs.uk/isce/publication/dcb0092-2062>

¹² <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/emergency-care-data-set-ecds>

1. Setting up a MESH account by completing the MESH application form:
<https://digital.nhs.uk/services/message-exchange-for-social-care-and-health-mesh/mesh-guidance-hub/client-user-guide#apply-for-a-mesh-mailbox>
2. Setting up a MESH end point certificate
3. Installing MESH as a service.

Installation guidance for MESH is available from NHS Digital¹³.

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 CDS to SUS+ is available from NHS Digital¹⁴.

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 (UUID) 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.

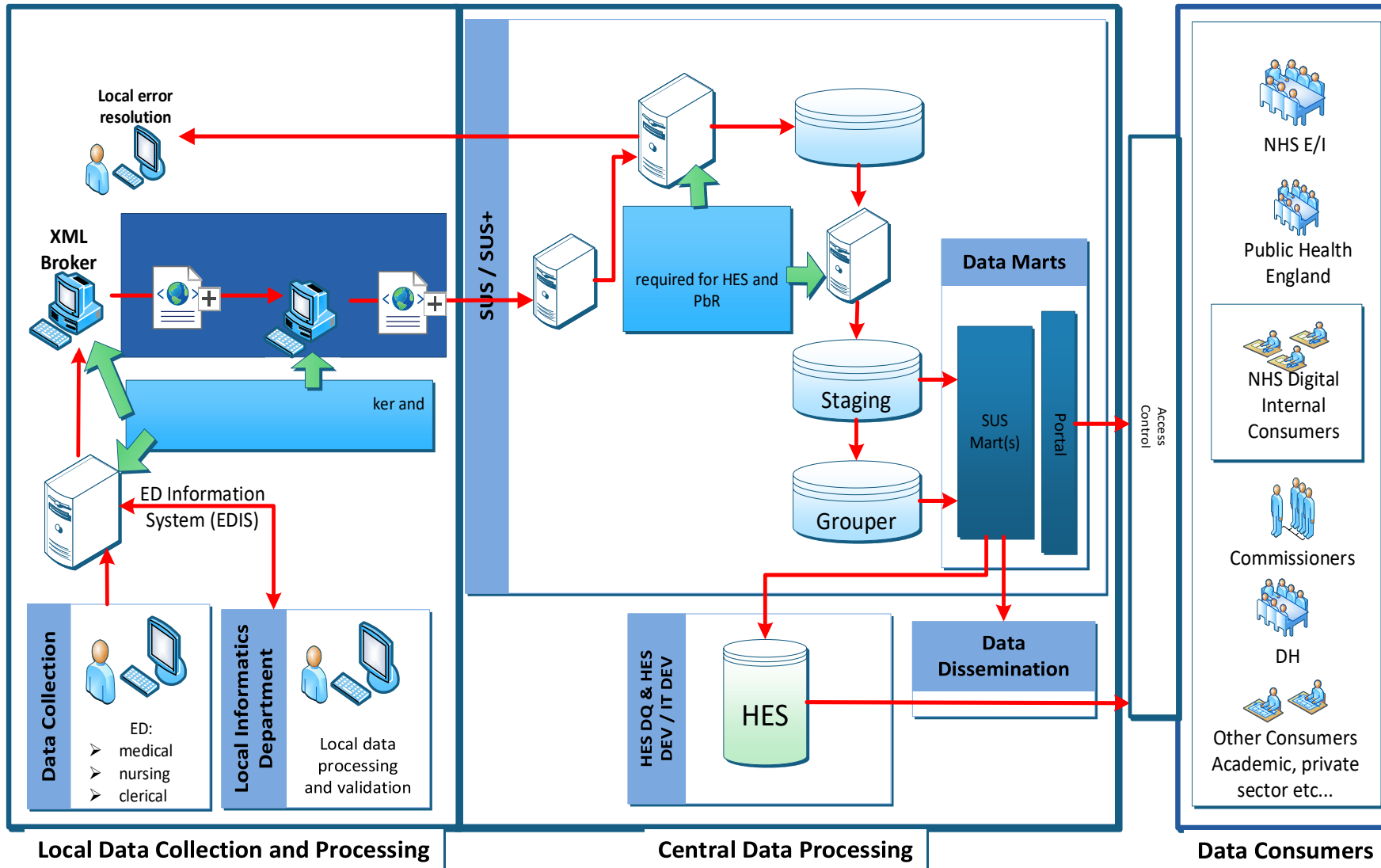
Access to the Spine and SUS+ is via a connection to Health and Social Care Network (HSCN), the secure private national network for the NHS.

¹³ <https://digital.nhs.uk/services/message-exchange-for-social-care-and-health-mesh>

¹⁴ <https://digital.nhs.uk/services/secondary-uses-service-sus>

5.5.1 CDS 6.2 and CDS v6.2.3 XML schema flow

Figure 1: The data flow for submitting the CDS v6.2.3 Type 011 – ECDS flow



5.5.2 CDS v6.2.3 XML Schema

The CDS v6.2.3 XML schema (version number 6.2.3) was published to coincide with the publication of the standard via the Terminology Reference data Update Distribution (TRUD) Service¹⁵. TRUD provides a mechanism for the distribution of reference data to interested parties.

5.5.3 CDS 6.2 and CDS v6.2.3 XML Schema support

CDS v6.2.3 support will continue to be provided by the SUS support teams via dataset.development@nhs.net

5.5.4 XML / Middleware Suppliers

All XML / Middleware suppliers are required to complete appropriate assurance for submission of CDS v6.2.3 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 XML schema including the ECDS data to the MESH service (which transmits the ECDS data to SUS+). General guidance about MESH is available from NHS Digital¹⁶.

¹⁵ <https://isd.hscic.gov.uk/trud3/user/guest/group/0/home>

¹⁶ <https://digital.nhs.uk/services/message-exchange-for-social-care-and-health-mesh>