



Medicines & Healthcare products
Regulatory Agency



CPRD GOLD Data Specification

Version 2.2

Date: 1 January 2021



Documentation Control Sheet

During the course of the project it may be necessary to issue amendments or clarifications to parts of this document. This form must be updated whenever changes are made and should be filed inside the front cover of the new or amended document.

Version	Summary of Change	Prepared By	Date	Reviewed By	Date
1.0	Initial Draft				
1.1	Modified	Shivani Padmanabhan	01/06/2009	Nick Wilson	22/07/2009
1.2	Modified	Shivani Padmanabhan	28/07/2009	Arlene Gallagher	30/07/2009
1.3	Modified	Shivani Padmanabhan	06/01/2011	Nick Wilson	07/01/2011
1.4	Modified	Shivani Padmanabhan	11/01/2013	Nick Wilson	11/01/2013
1.5	Modified	Shivani Padmanabhan	31/07/2013	Nick Wilson	03/08/2013
1.6	Formatted	Arlene Gallagher	11/12/2013	Shivani Padmanabhan	30/12/2013
1.7	Modified	Jennifer Chapman	19/11/2014	Darren Lunn	20/11/2014
1.8	Modified	Mark Hobbs	06/05/2015	Jennifer Chapman	12/06/2015
1.9	Formatted	Grant Lee	02/07/2015	Jennifer Chapman	03/07/2015
2.0	Modified	Shivani Padmanabhan	01/09/2017	Darren Lunn	01/09/2017
2.1	Modified	Hilary Shepherd	09/09/2020	Rachael Williams	09/09/2020
2.2	Modified	Kirsty Syder	17/11/2020	Eleanor Yelland	20/11/2020

Summary of Changes

Version 1.1

- Refined wordings

Version 1.2

- Acceptable field in Patient file equals 1 if patient is acceptable, else 0 (Lookup reference incorrectly labelled as Y_N in previous versions)
- UTS field in Practice file has been derived using a CPRD algorithm that looks at death recording at the practice, and gaps in the data (prior to August 2009, this field was populated with the practice UTS date as was generated in the old FF-CPRD system)
- The ndd field in the Therapy file has been populated for the most common occurring dosage strings in the data (field was set to '0' prior to August 2009)
- Descriptions of all fields have been revised for clarity

Version 1.3

- Field name 'attendtype' in Referral table modified to 'attendance'

Version 1.4

- Reference to Multilex product code system has been changed to Gemscript

Version 1.5

- Added batch number as a field in immunisation
- Description and Mapping for 'data8' in Test file has been amended



Version 1.6

- New CPRD branding and formatting

Version 1.7

- Mapping of 'data8' field in Test file has been amended to remove reference to GEN_SDC
- Description of date formatting has been updated to reflect new format
- Description of entity types has been updated to include date values

Version 1.8

- Merged information from Spec 1.5 and Spec 1.7
- All description tables now list Column Name, Field Name, Description, Mapping, Type, Format

Version 1.9

- Minor formatting of document

Version 2.0

- Removed textid fields from the clinical, immunisation, test and referral tables
- Removed textid and ndd fields, and added dosageid as a field in the therapy table
- Removed ses field from the patient table

Version 2.1

- Added medical and product dictionary tables and information on data dictionaries
- Birth year description updated to reflect change in mapping
- Changed "CHAR" data type to "TEXT" to align with the CPRD Aurum specification document

Version 2.2

- Updated data type for patient and practice IDs



Dataset Format

1. The **Patient** file (Patient/NNN.txt) contains basic patient demographics and patient registration details for the patients.
2. The **Practice** file (Practice001.txt) contains details of each practice, including region and collection information.
3. The **Staff** file (Staff/NNN.txt) contains practice staff details, with one record per member of staff.
4. The **Consultation** file (Consultation/NNN.txt) contains information relating to the type of consultation as entered by the GP from a pre-determined list. Consultations can be linked to the events that occur as part of the consultation via the consultation identifier (consid).
5. The **Clinical** file (Clinical/NNN.txt) contains medical history events. This file contains all the medical history data entered on the GP system, including symptoms, signs and diagnoses. This can be used to identify any clinical diagnoses, and deaths. Patients may have more than one row of data. The data is coded using Read codes, which allow linkage of codes to the medical terms provided.
6. The **Additional Clinical Details** file (Additional/NNN.txt) contains information entered in the structured data areas in the GP's software. Patients may have more than one row of data. Data in this file is linked to events in the clinical file through the additional details identifier (adid).
7. The **Referral** file (Referral/NNN.txt) contains referral details recorded on the GP system. These files contain information involving patient referrals to external care centres (normally to secondary care locations such as hospitals for inpatient or outpatient care), and include speciality and referral type.
8. The **Immunisation** file (Immunisation/NNN.txt) contains details of immunisation records on the GP system.
9. The **Test** file (Test/NNN.txt) contains records of test data on the GP system. The data is coded using a Read code, chosen by the GP, which will generally identify the type of test used. The test name is identified via the *Entity Type*, a numerical code, which is determined by the test result item chosen by the GP at source. There are three types of test records, involving 4, 7 or 8 data fields (data1 - data8). The data must be managed according to which sort of test record it is. Data can denote either qualitative entries (for example 'Normal' or Abnormal') or quantitative entries involving a numeric value.
10. The **Therapy** file (Therapy/NNN.txt) contains details of all prescriptions on the GP system. This file contains data relating to all prescriptions (for drugs and appliances) issued by the GP. Patients may have more than one row of data. Drug products and appliances are recorded by the GP using the Gemscript product code system.



Data dictionaries

CPRD GOLD dictionaries are provided as text files that can be imported into standard statistical software to enable code searching. The dictionaries are also available through the CPRD code browser. The CPRD code browser and a user guide can be requested by contacting enquiries@cprd.com. If you are already using the code browser to search the CPRD Aurum dictionaries you will still need to contact us to download the latest browser containing the CPRD GOLD dictionaries.

- I. The **Medical** Dictionary contains information on all medical history observations recorded by the GP using Read version (v) 2 codes and the descriptions of all medical codes referenced in the data files as 'medcode'. The medical dictionary file is provided in tab-delimited text format
- II. The **Product** Dictionary contains information on drug and appliance prescriptions recorded by the GP using the Gemscript product code system (brand and generic name) and descriptions of all product codes referenced in the data files as 'prodcode'. The product dictionary file is provided in tab-delimited text format.



Field descriptions

Full descriptions of fields in each file are provided in the tables below. All files can be linked using the encrypted patient identifier (patid). The last three digits of the patient identifier (patid) and staff identifier (staffid) denote the identifier of the practice (pracid) that the patient or staff belongs to. The mapping column references information relating to the use of data in the field. It specifies lookup references, linkages to other tables, and information on decoding numerical values. A mapping of 'None' indicates the existence of raw data in the field.

1. Patient

Column name	Field name	Description	Mapping	Type	Format
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
VAMP Identifier	vmid	Old VM id for the patient when the practice was using the VAMP system	None	INTEGER	20
Patient Gender	gender	Patient's gender	Lookup SEX	INTEGER	1
Birth Year	yob	Patient's year of birth. This is actual year of birth e.g. 1984	None	INTEGER	4
Birth Month	mob	Patient's month of birth (for those aged under 16). 0 indicates no month set	None	INTEGER	2
Marital Status	marital	Patient's current marital status	Lookup MAR	INTEGER	3
Family Number	famnum	Family ID number	None	INTEGER	20
CHS Registered	chsreg	Value to indicate whether the patient is registered with Child Health Surveillance	Lookup Y_N	INTEGER	1
CHS Registration Date	chsdate	Date of registration with Child Health Surveillance	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Prescription Exemption	prescr	Type of prescribing exemption the patient has currently (e.g. medical / maternity)	Lookup PEX	INTEGER	3
Capitation Supplement	capsup	Level of capitation supplement the patient has currently (e.g. low, medium, high)	Lookup CAP	INTEGER	3
First Registration Date	frd	Date the patient first registered with the practice. If patient only has 'temporary' records, the date is the first encounter with the practice; if patient has	dd/mm/yyyy ¹	DATE	dd/mm/yyyy

¹ dd/mm/yyyy: Valid dates are in this format. Missing dates are NULL



		'permanent' records it is the date of the first 'permanent' record (excluding preceding temporary records)			
Current Registration Date	crd	Date the patient's current period of registration with the practice began (date of the first 'permanent' record after the latest transferred out period). If there are no 'transferred out periods', the date is equal to 'frd'	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Registration Status	regstat	Status of registration detailing gaps and temporary patients	PAT_STAT ²	INTEGER	2
Registration Gaps	reggap	Number of days missing in the patient's registration details	PAT_GAP ³	INTEGER	5
Internal Transfer	internal	Number of internal transfer out periods, in the patient's registration details	None	INTEGER	2
Transfer Out Date	tod	Date the patient transferred out of the practice, if relevant. Empty for patients who have not transferred out	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Transfer Out Reason	toreason	Reason the patient transferred out of the practice. Includes 'Death' as an option	Lookup TRA	INTEGER	3
Death Date	deathdate	Date of death of patient – derived using a CPRD algorithm	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Acceptable Patient Flag	accept	Flag to indicate whether the patient has met certain quality standards: 1 = acceptable, 0 = unacceptable	Boolean	INTEGER	1

² **PAT_STAT:** Transferred out period is the time between a patient transferring out and re-registering at the same practice. If the patient has transferred out for a period of more than 1 day, and the transfer is not internal, this value is incremented. 0 means continuous registration, 1 means one 'transferred out period', 2 means two periods, etc. If the patient only has 'temporary' records, then this value is set to 99.

³ **PAT_GAP:** Number of days between patient's transferred out date and re-registration date for the patient's 'transferred out periods', regardless of whether the transfer was internal or not.



2. Practice

<i>Column name</i>	<i>Field name</i>	<i>Description</i>	<i>Mapping</i>	<i>Type</i>	<i>Format</i>
Practice identifier	pracid	Encrypted unique identifier given to a specific practice in CPRD GOLD	None	INTEGER	5
Region	region	Value to indicate where in the UK the practice is based. The region denotes the Strategic Health Authority for practices within England, and the country i.e. Wales, Scotland, or Northern Ireland for the rest	Lookup PRG	INTEGER	3
Last Collection Date	lcd	Date of the last collection for the practice	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Up To Standard Date	uts	Date at which the practice data is deemed to be of research quality. Derived using a CPRD algorithm that primarily looks at practice death recording and gaps in the data	dd/mm/yyyy ¹	DATE	dd/mm/yyyy

3. Staff

<i>Column name</i>	<i>Field name</i>	<i>Description</i>	<i>Mapping</i>	<i>Type</i>	<i>Format</i>
Staff Identifier	staffid	Encrypted unique identifier given to the practice staff member entering the data	None	INTEGER	20
Staff Gender	gender	Staff member's gender	Lookup SEX	INTEGER	1
Staff Role	role	Role of the member of staff who created the event	Lookup ROL	INTEGER	3



4. Consultation

<i>Column name</i>	<i>Field name</i>	<i>Description</i>	<i>Mapping</i>	<i>Type</i>	<i>Format</i>
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
Event Date	eventdate	Date associated with the event, as entered by the GP	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
System Date	sysdate	Date the event was entered into Vision	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Consultation Type	constype	Type of consultation (e.g. Surgery Consultation, Night Visit, Emergency etc.)	Lookup COT	INTEGER	3
Consultation Identifier	consid	The consultation identifier linking events at the same consultation, when used in combination with pracid	Link Event tables	INTEGER	20
Staff Identifier	staffid	The identifier of the practice staff member entering the data. A value of 0 indicates that the staffid is unknown	Link Staff table	INTEGER	20
Duration	duration	The length of time (minutes) between the opening, and closing of the consultation record	None	INTEGER	10



5. Clinical

<i>Column name</i>	<i>Field name</i>	<i>Description</i>	<i>Mapping</i>	<i>Type</i>	<i>Format</i>
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
Event Date	eventdate	Date associated with the event, as entered by the GP	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
System Date	sysdate	Date the event was entered into Vision	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Consultation Type	constype	Code for the category of event recorded within the GP system (e.g. diagnosis or symptom)	Lookup SED	INTEGER	3
Consultation Identifier	consid	Identifier that allows information about the consultation to be retrieved, when used in combination with pracid	Link Consultation table	INTEGER	20
Medical Code	medcode	CPRD unique code for the medical term selected by the GP	Lookup Medical Dictionary	INTEGER	20
Staff Identifier	staffid	Identifier of the practice staff member entering the data. A value of 0 indicates that the staffid is unknown	Link Staff table	INTEGER	20
Episode	episode	Episode type for a specific clinical event	Lookup EPI	INTEGER	3
Entity Type	enttype	Identifier that represents the structured data area in Vision where the data was entered	Lookup Entity	INTEGER	5
Additional Details Identifier	adid	Identifier that allows additional information to be retrieved for this event, when used in combination with pracid. A value of 0 signifies that there is no additional information associated with the event.	Link Additional Clinical Details table	INTEGER	20



6. Additional Clinical Details

<i>Column name</i>	<i>Field name</i>	<i>Description</i>	<i>Mapping</i>	<i>Type</i>	<i>Format</i>
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
Entity Type	enttype	Identifier that represents the structured data area in Vision where the data was entered	Lookup Entity	INTEGER	5
Additional Details Identifier	adid	Identifier that allows information about the original clinical event to be retrieved, when used in combination with pracid	Link Clinical table	INTEGER	20
Data 1	data1	Depends on Entity Type ♦	Lookup Entity	NUMERIC DATE	15.3 dd/mm/yyyy
Data 2	data2	Depends on Entity Type ♦	Lookup Entity	NUMERIC DATE	15.3 dd/mm/yyyy
Data 3	data3	Depends on Entity Type ♦	Lookup Entity	NUMERIC DATE	15.3 dd/mm/yyyy
Data 4	data4	Depends on Entity Type ♦	Lookup Entity	INTEGER DATE	12 dd/mm/yyyy
Data 5	data5	Depends on Entity Type ♦	Lookup Entity	INTEGER DATE	12 dd/mm/yyyy
Data 6	data6	Depends on Entity Type ♦	Lookup Entity	INTEGER DATE	12 dd/mm/yyyy
Data 7	data7	Depends on Entity Type ♦	Lookup Entity	INTEGER DATE	4 dd/mm/yyyy

♦ Each entity type may be associated with up to seven data fields. Content of each data field is dependent on the entity type – the fields may contain raw data values, dates in the form dd/mm/yyyy, or may be encoded values that represent read codes, text etc. The file Entity.xls contains information on all entity types and provides the number of data fields associated with the entity, description of the data in each field, and details of the lookups needed to decode the data.



7. Referral

Column name	Field name	Description	Mapping	Type	Format
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
Event Date	eventdate	Date associated with the event, as entered by the GP	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
System Date	sysdate	Date the event was entered into Vision	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Consultation Type	constype	Code for the category of event recorded within the GP system (e.g. management or administration)	Lookup SED	INTEGER	3
Consultation Identifier	consid	Identifier that allows information about the consultation to be retrieved, when used in combination with pracid	Link Consultation table	INTEGER	20
Medical Code	medcode	CPRD unique code for the medical term selected by the GP	Lookup Medical Dictionary	INTEGER	20
Staff Identifier	staffid	Identifier of the practice staff member entering the data. A value of 0 indicates that the staffid is unknown	Link Staff table	INTEGER	20
Source	source	Classification of the source of the referral e.g. GP, Self	Lookup SOU	INTEGER	2
NHS Speciality	nhsspec	Referral speciality according to the National Health Service (NHS) classification	Lookup DEP	INTEGER	3
FHSA Speciality	fhsaspec	Referral speciality according to the Family Health Services Authority (FHSA) classification	Lookup SPE	INTEGER	3
In Patient	inpatient	Classification of the type of referral, e.g. Day case, In patient	Lookup RFT	INTEGER	2
Attendance Type	attendance	Category describing whether the referral event is the first visit, a follow-up etc.	Lookup ATT	INTEGER	2
Urgency	urgency	Classification of the urgency of the referral e.g. Routine, Urgent	Lookup URG	INTEGER	2



8. Immunisation

<i>Column name</i>	<i>Field name</i>	<i>Description</i>	<i>Mapping</i>	<i>Type</i>	<i>Format</i>
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
Event Date	eventdate	Date associated with the event, as entered by the GP	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
System Date	sysdate	Date the event was entered into Vision	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Consultation Type	constype	Code for the category of event recorded within the GP system (e.g. intervention)	Lookup SED	INTEGER	3
Consultation Identifier	consid	Identifier that allows information about the consultation to be retrieved, when used in combination with pracid	Link Consultation table	INTEGER	20
Medical Code	medcode	CPRD unique code for the medical term selected by the GP	Lookup Medical Dictionary	INTEGER	20
Staff Identifier	staffid	Identifier of the practice staff member entering the data. A value of 0 indicates that the staffid is unknown	Link Staff table	INTEGER	20
Type	immstype	Individual components of an immunisation, e.g. Mumps, Rubella, Measles	Lookup IMT	INTEGER	4
Stage	stage	Stage of the immunisation given, e.g. 1, 2, B2	Lookup IST	INTEGER	2
Status	status	Status of the immunisation e.g. Advised, Given, Refusal	Lookup IMM	INTEGER	3
Compound	compound	Immunisation compound administered – may be a single or multi-component preparation, e.g. MMR	Lookup IMC	INTEGER	4
Source	source	Location where the immunisation was administered, e.g. In this practice	Lookup INP	INTEGER	3
Reason	reason	Reason for administering the immunisation, e.g. Routine measure	Lookup RIN	INTEGER	3
Method	method	Route of administration for the immunisation, e.g. Oral, Intramuscular	Lookup IME	INTEGER	3
Batch Number	batch	Immunisation batch number	Lookup BatchNumber	INTEGER	20



9. Test

Column name	Field name	Description	Mapping	Type	Format
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
Event Date	eventdate	Date associated with the event, as entered by the GP	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
System Date	sysdate	Date the event was entered into Vision	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Consultation Type	constype	Code for the category of event recorded within the GP system (e.g. examination)	Lookup SED	INTEGER	3
Consultation Identifier	consid	Identifier that allows information about the consultation to be retrieved, when used in combination with pracid	Link Consultation table	INTEGER	20
Medical Code	medcode	CPRD unique code for the medical term selected by the GP	Lookup Medical Dictionary	INTEGER	20
Staff Identifier	staffid	Identifier of the practice staff member entering the data. A value of 0 indicates that the staffid is unknown	Link Staff table	INTEGER	20
Entity Type	enttype	Identifier that represents the structured data area in Vision where the data was entered	Lookup Entity	INTEGER	5

Depending on the Test Entity Type, tests have 4, 7, or 8 data fields:

4 fields:

Data 1	data1	Qualifier	Lookup TQU	INTEGER	3
Data 2	data2	Normal range from	None	NUMERIC	16.3
Data 3	data3	Normal range to	None	NUMERIC	16.3
Data 4	data4	Normal range basis	None	NUMERIC	16.3



7 fields:

Data 1	data1	Operator	Lookup OPR	INTEGER	3
Data 2	data2	Value	None	NUMERIC	16.3
Data 3	data3	Unit of measure	Lookup SUM	INTEGER	4
Data 4	data4	Qualifier	Lookup TQU	INTEGER	3
Data 5	data5	Normal range from	None	NUMERIC	16.3
Data 6	data6	Normal range to	None	NUMERIC	16.3
Data 7	data7	Normal range basis (or peak flow device for entity type 311)	Lookup POP (or PFD)	INTEGER	2

8 fields:

Data 1	data1	Operator	Lookup OPR	INTEGER	3
Data 2	data2	Value	None	NUMERIC	16.3
Data 3	data3	Unit of measure	Lookup SUM	INTEGER	4
Data 4	data4	Qualifier	Lookup TQU	INTEGER	3
Data 5	data5	Normal range from	None	NUMERIC	16.3
Data 6	data6	Normal range to	None	NUMERIC	16.3
Data 7	data7	Normal range basis	Lookup POP	INTEGER	2
Data 8	data8	Expected delivery date (entity type 284) / Weeks (entity type 154)	dd/mm/yyyy None	DATE INTEGER	dd/mm/yyyy 10



10. Therapy

Column name	Field name	Description	Mapping	Type	Format
Patient Identifier	patid	Encrypted unique identifier given to a patient in CPRD GOLD	None	TEXT	20
Event Date	eventdate	Date associated with the event, as entered by the GP	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
System Date	sysdate	Date the event was entered into Vision	dd/mm/yyyy ¹	DATE	dd/mm/yyyy
Consultation Identifier	consid	Identifier that allows information about the consultation to be retrieved, when used in combination with pracid	Link Consultation table	INTEGER	20
Product Code	prodcode	CPRD unique code for the treatment selected by the GP	Lookup Product Dictionary	INTEGER	20
Staff Identifier	staffid	Identifier of the practice staff member entering the data. A value of 0 indicates that the staffid is unknown	Link Staff table	INTEGER	20
Dosage Identifier	dosageid	Identifier that allows dosage information on the event to be retrieved. Use the Common Dosages Lookup to obtain the anonymised dosage text and extracted numerical information such as daily dose.	Lookup Common Dosages	TEXT	64
BNF Code	bnfcode	Code representing the chapter & section from the British National Formulary for the product selected by GP	Lookup BNF Codes	INTEGER	5
Total Quantity	qty	Total quantity entered by the GP for the prescribed product	None	INTEGER	20
Number of Days	numdays	Number of treatment days prescribed for a specific therapy event	None	INTEGER	20
Number of Packs	numpacks	Number of individual product packs prescribed for a specific therapy event	None	INTEGER	8
Pack Type	packtype	Pack size or type of the prescribed product	Lookup PackType	INTEGER	10
Issue Sequence Number	issueseq	Number to indicate whether the event is associated with a repeat schedule. Value of 0 implies the event is not part of a repeat prescription. A value ≥ 1 denotes the issue number for the prescription within a repeat schedule	None	INTEGER	20



I. Medical dictionary

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
medcode	CPRD unique code for the medical term selected by the GP	INTEGER	20
readcode	Read Code	TEXT	7
desc	Description of the medical term	TEXT	100

II. Product dictionary

<i>Column name</i>	<i>Description</i>	<i>Type</i>	<i>Format</i>
prodcode	CPRD unique code for the treatment selected by the GP	INTEGER	20
dmdcode	Unique product identifier from the NHS Dictionary of Medicines and Devices (dm+d) – the NHS standard dictionary for products licensed in the UK	TEXT	100
gemsriptcode	Gemsript product code for the corresponding product name - should be treated as a string field as it contains leading '0's	TEXT	8
productname	Product name as entered at the practice	TEXT	500
drugsubstance	Drug substance	TEXT	1500
strength	Strength of the product	TEXT	500
formulation	Form of the product e.g. tablets, capsules etc	TEXT	100
route	Route of administration of the product	TEXT	100
bnfcode	British National Formulary (BNF) code	TEXT	100
bnfchapter	British National Formulary (BNF) chapter	TEXT	500