

NHS dictionary of medicines and devices (dm+d)

Data model

Release 2.0 Version 3.1

May 2015

Purpose of this document

To provide a specification which describes the structure and content of the NHS dictionary of medicines and devices (dm+d) covering primary care and secondary care elements. This combined specification is limited to drugs that are prescribed, dispensed or administered within the healthcare environment in the NHS, medical appliances which are listed in the Drug Tariff (England and Wales) and data associated with medicinal products that are pertinent to reimbursement by the NHS Business Services Authority.

For more information on the status of this document, please contact the dm+d help desk:

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Contents

Purpose of this document	2
Foreword	6
Release 2.0 NHS dictionary of medicines and devices.....	6
1. Introduction.....	8
2. General outline of requirements.....	13
2.1 The NHS dictionary of medicines and devices	13
3.2 Ancillary support files	14
3. Model and description of the NHS dictionary of medicines and devices.....	16
4.1 Introduction	16
Virtual Medicinal Product (VMP).....	16
4.2 Model of the dictionary	18
4.3 Virtual Therapeutic Moiety (VTM).....	18
4.4 Virtual Medicinal Product (VMP).....	19
An instance of Virtual Medicinal Product may be associated with zero to many instances of Virtual Product Ingredient.....	20
4.4.1 Form information.....	26
4.4.2 Route information	26
4.4.3 Virtual product ingredient.....	27
4.4.4 Controlled drug prescribing information	29
4.4.5 Ontology form & route information.....	31
4.5 Actual medicinal product	32
4.5.1 Licensed route	36
4.5.2 Appliance product information	36
4.5.3 Actual product excipient.....	37
4.6 Virtual medicinal product pack	39
4.6.1 Combination pack content	40
4.6.2 Drug Tariff category information	41
4.7 Actual medicinal product pack.....	42
4.7.1 Product prescribing information	44
4.7.2 Appliance pack information.....	46
4.7.3 Reimbursement information.....	47
4.7.4 Medicinal product price.....	48
4.7.5 Combination pack content	49
4.8 Ancillary dictionary file structures	50
4.8.1 Ingredient substance file.....	50
4.8.2 Form	51
4.8.3 Route	52

4.8.4 Supplier	52
4.8.5 Unit of measure	53
Annex I.....	54

Document control since 2012

Version	Date issued	Brief summary of change	Amended / Approved by
08 March 2012	Release 2.0 Version 3.0	Updating of product examples throughout e.g. where pharmaceutical manufacturers no longer exist, descriptions have been updated accordingly. Current Licensing authority, minor change to text describing the values.	NHSBSA
09 August 2013	Release 2.0 Version 3.0	CHM Monitoring indicator changed to EMA Additional Monitoring indicator. Inclusion of relevant GTIN information to reflect Editorial Policy. Limited stability indicator field will remain but no longer populated in dm+d.	NHSBSA
May 2015	Release 2.0 Version 3.1	dm+d help desk e-mail updated dm+d – the NHS Medicines Standard section updated with reference to the Standardisation Committee for Care Information Attribute VMP prescribing status, additional value 8 added for VMP not recommended to prescribe –no published specification Attribute VMPP Drug Tariff Payment Category, additional value 12 added for Part VIIIB and Part VIII category A, C and M descriptions updated to state Part VIIIA Annex I - Partition of document control with information prior to 2012 now located in Annex I towards the end of the document.	NHSBSA

This is a controlled document. On receipt of a new version, please destroy all previous versions (unless a specified earlier version is in use throughout the project).

Foreword

This specification of the NHS dictionary of medicines and devices (dm+d) has been prepared jointly by the Health and Social Care Information Centre (HSCIC) and the NHS Business Services Authority (NHSBSA). This is the specification that underpins the second release of the dm+d. This release incorporates products used within the secondary care sector (previously known as the Secondary Care Drug Dictionary) into the first release (previously known as the Primary Care Drug Dictionary). The intellectual property rights of the NHS dm+d rest within the National Health Service.

If, for any reasons, there is found to be the need for further modifications to the design, these will be subject to the existing change control mechanism.

Release 1.0 Primary Care Drug Dictionary		
Version	Date issued	Change controlled modification to model
1.0	31 December 2002	n/a
2.0	14 March 2003	<ul style="list-style-type: none"> • Inclusion of non-availability indicator and non-availability status date at VMP level • Inclusion of invalidity flag at VMP, AMP, VMPP, AMPP, supplier and ingredient level • Addition of value 'not discontinued' at discontinued flag AMPP level

Release 2.0 NHS dictionary of medicines and devices		
Version	Date issued	Change Controlled Modification to Model
1.0	November 2004	<ul style="list-style-type: none"> • Inclusion of Virtual Therapeutic Moiety (VTM) • Cardinality – VMP to AMP, VMP to VMPP and VMPP to AMPP to have cardinality of 1 to 1 to many • Prescribing status – replacement of not prescribable as a VMP but AMP prescribable with 2 new values never valid and not recommended to prescribe as a VMP • Ingredient strength – to break strength of ingredients down to most elemental structure • CSM Monitoring – moving of CSM monitoring flag from AMPP level to AMP level • Product availability – removal of availability status and change reason (AMP) and 3 values of dispensing status (AMPP). Inclusion of previous licensing authority, date and reason plus restrictions on availability at AMP. Renaming of dispensing status as legal status plus inclusion of not applicable value. • Parallel Import flag – inclusion of a flag identifying AMP is a parallel imported drug • Appliance information – moving size and colour from AMPP to AMP level. Creating a new attribute Product order number at AMP level • Price basis flag – identifies NHS indicative price or the reason for no value • Unit Dose Form – providing unit dose form information at VMP

		<p>level</p> <ul style="list-style-type: none"> • Combination pack information to be provided at AMP and AMPP level • Description – this will be provided for each AMP, VMPP and AMPP
2.0	December 2004	<ul style="list-style-type: none"> • Change of Tag name for schedule 10 & 11 attributes to schedule 1 & 2
3.0	20 January 2006	<ul style="list-style-type: none"> • Inclusion of previous VTM identifier and date
3.0	20 November 2007	<ul style="list-style-type: none"> • Reference to CSM amended to CHM • Licensing authority values amended to reflect Editorial Policy
3.0	13 October 2008	<ul style="list-style-type: none"> • Prescribing status – replacement of ‘Not Recommended To Prescribe As A VMP’ with 2 new values.
3.0	17 August 2010	<ul style="list-style-type: none"> • Prescribing status – replacement of ‘Invalid as a prescribable product’ with ‘Invalid to prescribe in NHS primary care’
3.0	08 March 2012	<ul style="list-style-type: none"> • Current Licensing authority – Firstly, Medicines – MHRA changed to Medicines – MHRA/EMA and secondly, Devices – MHRA changed to Devices.
3.0	08 August 2013	<ul style="list-style-type: none"> • Actual Medicinal Product level CHM Monitoring indicator updated to EMA Additional Monitoring indicator • AMPP Product Prescribing Information, update of GTIN Indicator field and attribute values • Reimbursement information, limited stability indicator field will remain but is no longer populated in line with the Drug Tariff no longer identifying these products

1. Introduction

Aim

The aim of this document is to provide a detailed background and outline specification for the NHS dictionary of medicines and devices (dm+d) that is being developed for use in the NHS.

Policy Context for UKCPRS Programme /dm+d

The Information Strategy for the NHS, set out in Information for Health (IfH) recognised the lack of a common/standardised vocabulary of clinical products, which would provide interoperability between diverse clinical systems and the potential knowledge sources required for decision support. It stated (3.21)

“There is a lack of standardisation in the UK in describing medicines, appliances and medical devices, in how such descriptions are organised, and in linking knowledge required for decision support to these descriptions.”

And continued (3.22)

“Work will begin on a national project to develop the UK Standard Clinical Products Reference Source (UKCPRS), bringing together all existing initiatives associated with the coding of drugs etc.”

There was a clear recognition in Information for Health (3.6) that this work

“is most sensibly done on a national basis, but must engage the relevant stakeholders.....”.

and it also emphasised the need to consolidate the development of all health information content standards within a single work programme, and to institute an approval mechanism through the establishment of the Information Standards Board.

The requirement for a national identifier for drug products in particular was recently reinforced by the Audit Commission report into medicines management in secondary care, A Spoonful of Sugar, which made the following recommendation

“A standard national system for coding medicines across the NHS is required.”

The UK Clinical Products Reference Source (UKCPRS) programme aims to deliver a standard electronic vocabulary (terminology) and identifiers for clinical products (medicines, appliances and personal medical devices). This dictionary of medicines and devices (dm+d) will facilitate electronic transfer of data on clinical products between systems and provide a route by which knowledge to assist decision making can be accessed for the relevant product.

The successful implementation of the dm+d underpins a number of the key objectives outlined in the drive to deliver an ‘information aware’ National Health Service focused on the patient at its centre. These include:

Providing an integral component of electronic health records

Inter-sector clinical messaging

Electronic transfer of Electronic Patient Records (EPRs) by GP’s

Electronic transfer of prescriptions (ETP) between GP, Community Pharmacy and NHS Business Services Authority (NHSBSA)

Data aggregation for performance assessment, Clinical Governance and management from clinical systems

National Care Record Service (NCRS)

Interoperability between decision support systems

The UKCPRS Development Process for dm+d

Phase 1 of the project identified the benefits of adopting a 'federal' approach to this initiative, an approach which is diagrammatically represented in Figure 1. This approach aims to deliver the dm+d through a collaborative approach between those organisations producing its individual elements: the Primary Care Drug Dictionary, the Secondary Care Drug Dictionary and the Medical Devices Dictionary. Within Phase 2, the aim has been to extend the design of the Primary Care Dictionary to cover Secondary Care.

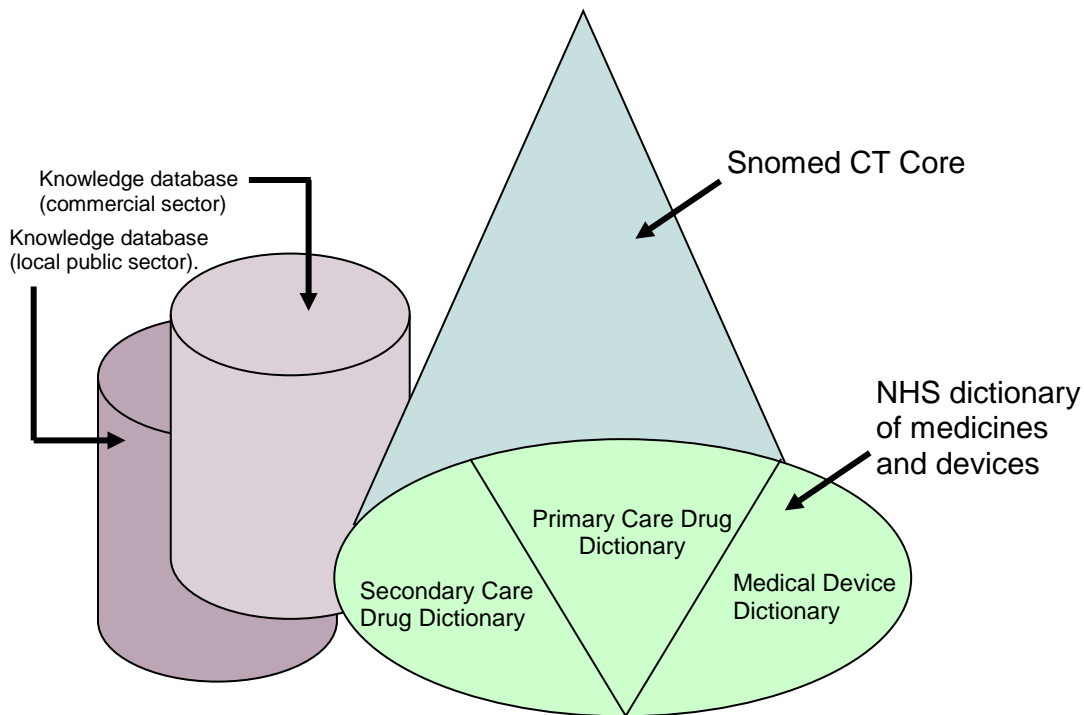


Figure 1: The UKCPRS Federal Model for dm+d

dm+d — the NHS Medicines Standard

In July 2012 the NHS dm+d was approved as an 'Interoperability' Standard (ISB 0052) by the Information Standards Board for Health and Social Care (ISB HaSC). The purpose of the Standard is to facilitate the transfer of medicines information between diverse clinical systems using a common coded language by the provision of its unique identifiers (codes) and associated textual descriptions. The scope of the Standard in terms of content is for licensed medicines only at this stage. Other content contained within dm+d such as medical devices are excluded in terms of complying with the Standard although users can use all the content within dm+d should it support their needs.

Responsibility for the recommendation for approval of information standards has now transferred to the Standardisation Committee for Care Information (SCCI) from ISB. However, ISB approved standards have continued influence through contractual obligations.

In August 2013, the Standard was amended to include the Global Trade Item Numbers (GTIN) file as part of the main data pack, prior to this the GTINs data had been published only as a bonus file.

The scope of dm+d

In terms of product coverage, the scope of dm+d is to include individual medicinal products that are available within the NHS for the treatment or alleviation of discomfort in human patients in both primary and secondary care and personal medical devices as described below.

The personal medical devices coverage is as defined by the UKCPRS Programme executive, and initially includes those devices prescribable in the primary care domain, with the systematic incorporation of other groups of devices over time (see separate UKCPRS Phase 3 documentation).

A second scoping aspect of the dictionary relates to the range/type of information that is associated with each entry within the dictionary. Discussions with stakeholders from within various user domains across the healthcare spectrum identified a number of requirements which overlap or which at least are contiguous. The roles of the various stakeholders (actors) are listed in the table below. The requirements themselves were captured by the process of documenting storyboards, then deriving use cases and requirements from these.

Table 1: UKCPRS/ dm+d Actors (non-exhaustive)

Patient	Referrer
Prescriber	Dispenser
Specialist/Consultant	Medication Record
Supplier	NHS Business Services Authority
Protocol writer	Administrator
Commissioner/Purchaser	Validator
Buyer	Manufacturer
Waste Disposer	Recycler
Dictionary Support Group	Clinical Decision support
Other Carer (PAMs, clinical support services etc.)	Researchers

This specification avoids an All-Function Drug Dictionary which would aim to satisfy all of the various needs relating to medicinal products within the NHS. The construction of a comprehensive dictionary would be a major undertaking and there would be a considerable ongoing maintenance responsibility. Limiting the specification to a minimalist representation which would only specify those features of medicinal products that are commonly required by all users is also avoided since it would not be sufficient in itself to support any particular activity such as prescribing or dispensing.

For these reasons it has been decided at the Programme Board that neither the minimalist nor the maximalist approach is acceptable and that the optimal product is a dictionary whose entries are described in Table 2. This approach has been endorsed the NHS Information Standards Board in granting NHS 'Fundamental' standard status to the dictionary.

Table 2: Information elements within the scope of the NHS dictionary of medicines and devices

Product Identification	Medicinal Product Names
Route of Administration	Strength
Price	Pack Information
Legal Status	Ingredient substances
Units of weight, volume and strength	Form
Supplier identity	Certain specified additive substances (excipients)
	Reimbursement information

In addition the dictionary will provide the following code lists for:

- forms & routes of administration
- medicinal product suppliers
- substances encountered in medicinal products
- units of weight, volume and strength

Examples of the knowledge based information that is not to be considered are represented in Table 3.

Table 3: Knowledge-based information elements outside the dictionary scope

Dose checking	Normal dose range
Indications	Contra-indications
Adverse effects	Cautions in use
Counselling instructions	Drug : drug interactions
Drug : food interactions	Cautionary label recommendations

2. General outline of requirements

2.1 The NHS dictionary of medicines and devices

Section 4 of this document provides the specification for the NHS dictionary of medicines and devices. The dictionary has five components: Virtual Therapeutic Moiety (VTM), Virtual Medicinal Product (VMP), Actual Medicinal Product (AMP), Virtual Medicinal Product Pack (VMPP) and Actual Medicinal Product Pack (AMPP). For each entry within these five dictionary components there will be associated sets of information.

In addition to the five dictionary components described above there is an accompanying dictionary of ingredients and also a lookup file containing reference data, examples of which are forms, routes, units of measure, suppliers.

The scope of the dictionary was presented in the previous section. However, since the dictionary is not expected to be exhaustive, the decision as to which products are to be included or excluded from the dictionary will be taken by the Content Committee (previously known as the Editorial Board).

The dictionary shall allocate unique SNOMED CT identifiers for each entry of VTM, VMP, AMP, VMPP, AMPP and Ingredient Substances. These shall either be derived from the SNOMED CT drug core where appropriate, or from the NHS namespace identifier for the SNOMED CT UK drugs extension. The master-file of NHS namespace concept identifiers is held by the Health and Social Care Information Centre on behalf of the service, and will be issued to dm+d authoring bodies (this includes the NHS Business Services Authority and is likely to include other parties for Medical Devices).

To avoid ambiguity the identifiers used for each category of medicinal product and packs shall be unique and non-overlapping, e.g. an identifier for a VTM should not also be an identifier for a VMP, AMP, VMPP, AMPP, or Ingredient Substance. Each SNOMED CT identifier is represented by a 64-bit integer and therefore may be up to a maximum of 18 characters.

The dictionary shall not provide a mapping between its entries and other medicinal product coding schemes such as READ, or PIP etc. However where it is deemed appropriate the programme will assist in facilitating mapping if possible.

This specification notes that there is a need to track changes in dictionary entries over time. Several attributes that are subject to change are specified with having 'previous' and 'current' values together with the date of change. The previous values and dates of change are to facilitate end user systems providing access to, and tracking of, previous values of attributes over time - for audit purposes.

Periodically, entries in the dictionary will be found to be no longer relevant or valid. These entries will then be marked as invalid but will remain in place within the dictionary. Whether eventually new versions of the dictionary are allowed to omit these invalid entries is left to Editorial Policy.

3.2 Ancillary support files

In addition to the main dictionary entries there is a requirement to supply and support a number of additional 'look-up' files whose coded entries are used by the dictionary. In particular files are required for the concepts described below (non-exhaustive).

Note that for all lookup tables described below:

- The unique codes attached to the concepts shall not be tied to hierarchic position or other contexts; they shall not carry meaning.
- The unique codes shall not be reused after a term becomes obsolete or is superseded.
- Updates and modifications to these tables shall be subject to rigorous version control.
- SNOMED CT identifiers are 64-bit integers and therefore may be up to a maximum of 18 characters.

Form	<p>Each entry in this code list will contain a unique code taken from the set of SNOMED CT core codes and a textual description representing a form. This list shall contain entries that relate to forms as they are usually encountered in dispensing rather than in administration.</p> <p>Examples: capsule, drops, tablet, lotion</p> <p>NOTE: Occasionally, a form may be encountered which does not have an entry within the SNOMED CT core terms. When this occurs a code originating as a SNOMED CT UK extension entry will be used. If at a future date a SNOMED CT core term is created, the identifier will replace the UK extension code which will then be placed into a separate field holding the previous form identifier</p>
route of administration	<p>Each entry in this code list will contain a unique code taken from the set of SNOMED CT core codes and a textual description representing a route of administration.</p> <p>Examples: intramuscular use, oral, nasal</p> <p>NOTE: Occasionally, a route of administration may be encountered which does not have an entry within the SNOMED CT core terms. When this occurs a code originating as a SNOMED CT UK extension entry will be used. If at a future date a SNOMED CT core term is created, the identifier will replace the UK extension code which will then be placed into a field holding the previous route identifier</p>
ingredient substance	<p>Each entry in the code list/ingredient file will contain a unique code taken from the set of SNOMED CT core codes and a textual description representing any of the following:</p> <ul style="list-style-type: none"> - a substance which acts as an actual ingredient substance within medicinal products (e.g. nebivolol hydrochloride, erythromycin stearate) - a basis of strength substance which is only available as a salt or other derivative but whose name may be used in generic prescribing. (e.g. nebivolol, erythromycin, heparin) - an excipient from the Editorial Board defined list of interesting excipients <p>NOTE: As new products become available, ingredient substances may be encountered which do not have an entry within the SNOMED CT core terms. When this occurs a code originating as a SNOMED CT UK extension entry will be used. If at a future date a SNOMED CT core term is created, the identifier will replace the UK extension code which will then be placed into a separate field holding the previous ingredient identifier</p>

medicinal product suppliers	<p>Each entry in this code list will contain a unique SNOMED CT code and a textual description of a supplier of one or more medicinal products. This code will originate from the UK extension. The supplier may or may not be the manufacturer of a medicinal product.</p> <p>NOTE: A supplier may have an invalidity flag indicating that this entry was invalid. The entry needs to be retained in case it was used prior to the detection of the error(s) which caused its invalidation.</p>
units of measurement	<p>Each entry in this code list will contain a unique SNOMED CT core code and a description or other generally recognisable representation of a unit of measurement with use within the drug dictionary.</p> <p>NOTE: Occasionally, a new unit of measurement may arise which does not have an entry within the SNOMED CT core terms. When this occurs a code originating as a SNOMED CT UK extension entry will be used. If at a future date a SNOMED CT core term is created, the identifier will replace the UK extension code which will then be placed into a separate field holding the previous unit of measure identifier</p>
ontology form & route	<p>Each entry in this code list will contain a unique code generated by the dictionary maintainer and a textual description representing a form and route.</p> <p>For example: capsule.oral suspension.oral capsulemodified-release.oral solutioninjection.intravenous solutioninjection.intramuscular</p> <p>The form described here will represent the administration form rather than the dispensed form where these are different. The textual descriptions of form and route will be crucial to the drug ontology product that is related to the dictionary.</p>

3. Model and description of the NHS dictionary of medicines and devices

4.1 Introduction

In this design, the dictionary consists of five distinct sub-sections each section containing a set of entries. These sub-sections are:

- Virtual Therapeutic Moiety (VTM)
- Virtual Medicinal Product (VMP)
- Actual Medicinal Product (AMP)
- Virtual Medicinal Product Pack (VMPP)
- Actual Medicinal Product Pack (AMPP)

These core concepts are defined below. Definitions of attributes are given in the text of the document. Further expansion of these definitions and examples of how these apply to different product types is provided in the Editorial Policy.

Virtual Therapeutic Moiety (VTM)

A Virtual Therapeutic Moiety (VTM) is the abstract representation of the substance(s), formulated as a medicinal product, intended by an authorising health care professional for use in the treatment of the patient.

Examples of Virtual Therapeutic Moieties:

- Atenolol
- Co-amoxiclav
- Doxorubicin
- Fluoruracil
- Paracetamol + Metoclopramide

Virtual Medicinal Product (VMP)

A Virtual Medicinal Product (VMP) is an abstract concept representing the properties of one or more clinically equivalent Actual Medicinal Products, where clinical is defined as relating to the course of a disease.

Although Virtual Medicinal Product entries within the dictionary are expected to equate to prescribable products there will be a number of entries which are related to entities which cannot normally be prescribed or which cannot be represented in a way suitable for use in prescribing. For example, Norgestrel 150 microgram tablets are only encountered as a part of a combination pack and are not prescribable in any pack size in their own right. Another example is the generic representation of products containing more than two active ingredients, which do not have names based on international non-proprietary names, such as “Generic Kaltén capsules”, which is not a suitable term for use in prescribing. Each Virtual Medicinal Product is therefore accompanied by a status flag which indicates its prescribing status. *In most cases the Virtual Medicinal Product will equate to a generic prescribable product and the dictionary entry relating to the Virtual Medicinal Product will provide sufficient information to allow such generic prescribing.*

The information relating to Virtual Medicinal Products (dose form, active ingredient(s) and strength(s), route of administration information and controlled drug information) is also intended to support aspects of decision support¹ and general prescribing scenarios².

Examples of Virtual Medicinal Products:

- Atenolol 100 mg tablets
- Generic Estracombi TTS transdermal patches

¹ See Decision Support Use Cases – published separately

² See GP Prescribing and Dispensing – published separately

Co-amoxiclav 250mg/125mg tablets
Doxorubicin 10mg/5ml solution for injection vials
Fluorouracil 5% cream
Incontinence sheaths

Actual Medicinal Product (AMP)

An Actual Medicinal Product (AMP) is a single dose unit of a finished dose form (unless the product is presented as a continuous dosage form), attributable to an identified supplier that contains a specified amount of an ingredient substance.

Examples of Actual Medicinal Products:

Atenolol 100mg tablets (Almus Pharmaceuticals Ltd)
Tenormin 100mg tablets (AstraZeneca UK Ltd)
Estracombi TTS patches (Novartis Pharmaceuticals UK Ltd)
Augmentin 375mg tablets (GlaxoSmithKline UK Ltd)
Doxorubicin 10mg/5ml solution for injection vials (Pfizer Ltd)
Efudix 5% cream (Meda Pharmaceuticals Ltd)

Virtual Medicinal Product Pack (VMPP)

A Virtual Medicinal Product Pack (VMPP) is an abstract concept representing the properties of one or more quantitatively equivalent AMPPs.

For every Actual Medicinal Product Pack (AMPP) there will exist a corresponding VMPP. A VMPP will have at least one AMPP and may have many AMPPs linked to it.

Examples of Virtual Medicinal Product Packs:

Atenolol 100mg tablets x 28 tablet
Generic Estracombi TTS transdermal patches x 8 patches
Co-amoxiclav 250mg/125mg tablets x 21 tablet
Doxorubicin 10mg/5ml solution for injection vials x 1 vial
Doxorubicin 10mg/5ml solution for injection vials x 5 vial
Fluorouracil 5% cream x 20g
Incontinence sheaths x 30 device

Actual Medicinal Product Pack (AMPP)

An Actual Medicinal Product Pack (AMPP) is the packaged product that is supplied for direct patient use or from which AMPs are supplied for direct patient use. It may contain multiple components each of which may or may not be an AMP in their own right.

At this actual pack level, the dictionary includes information that is required for prescribing, dispensing and for reimbursement, e.g. legal status, Schedule 1 information, price etc.

Examples of Actual Medicinal Product Packs:

Atenolol 100 mg tablets (Sandoz Ltd) x 28 tablet
Tenormin 100 mg tablets (AstraZeneca UK Ltd) x 28 tablet
Estracombi TTS patches (Novartis Pharmaceuticals UK Ltd) x 8 patches
Augmentin 375 mg tablets (GlaxoSmithKline UK Ltd) x 21 tablet
Doxorubicin 10mg/5ml solution for injection vials x 1 vial (Pfizer Ltd)
Efudix 5% cream (Meda Pharmaceuticals Ltd) x 20g

4.2 Model of the dictionary

Figure 2.0 below provides an overview of the information classes that constitute the dictionary and the relationships between these classes. This is followed by a textual description of each of the classes.

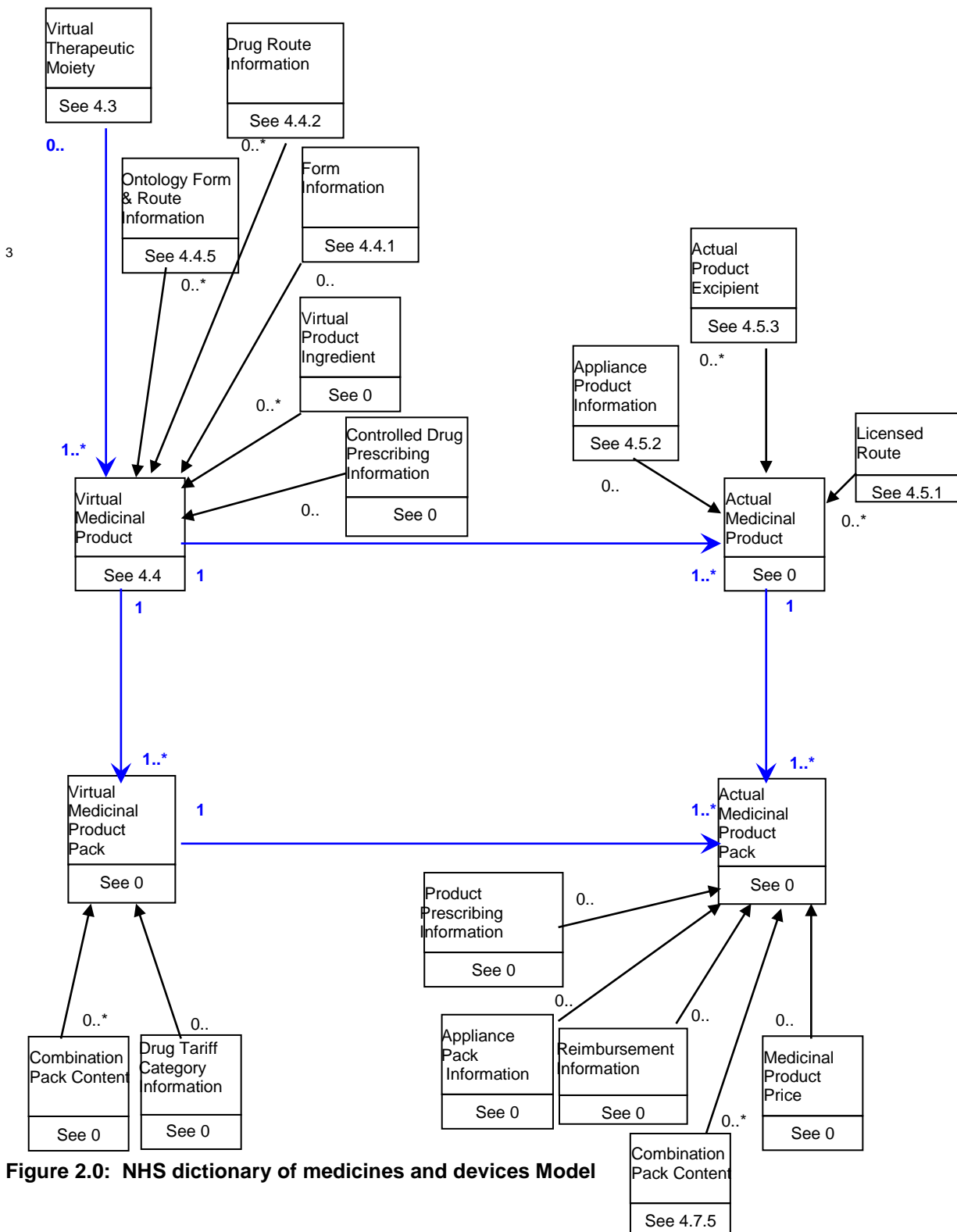


Figure 2.0: NHS dictionary of medicines and devices Model

4.3 Virtual Therapeutic Moiety (VTM)

³ The cardinality for Form is 0-1 which is a generalisation of the rule that when the VMP is a Drug it is 1-1 and when it is a non-drug it will usually be empty.

Definition: A Virtual Therapeutic Moiety (VTM) is the abstract representation of the substance(s), formulated as a medicinal product, intended by an authorising health care professional for use in the treatment of the patient.		
Description: The abstract conceptual representation of the material defining a prescriber's therapeutic intent, divorced from formulation, route, dose or strength.		
Association		
Virtual Medicinal Product (4.4) An instance of Virtual Therapeutic Moiety may be associated with one to many instances of Virtual Medicinal Product		
<hr/>		
Attribute	Type	Occurrence
virtual therapeutic moiety identifier	SNOMED CT identifier	1
Unique identifier for the Virtual Therapeutic Moiety A VTM may be linked to one or many VMPs NOTES: 1. An identifier, once used to identify a Virtual Therapeutic Moiety and formally released, shall not at any time be: - deleted, although it is permissible to mark it as no longer valid, - re-used and given to any other concept 2. All VTMs will be derived from SNOMED CT drug core entries.		
virtual therapeutic moiety identifier date	date	0 to 1
date from which the virtual therapeutic moiety identifier is applicable from		
previous VTM identifier	SNOMED CT Identifier	0 to 1
Previously allocated identifier for the Virtual Therapeutic Moiety		
validity flag	integer	0 to 1
Flag indicating that this dictionary entry was invalid. VALUE: 1 = Invalid NOTE: The entry needs to be retained in case it was used prior to detection of the error(s) which caused its invalidation.		
virtual therapeutic moiety name	string	1
A name that is used to identify the Virtual Therapeutic Moiety NOTE: A Virtual Therapeutic Moiety shall always be issued with a name		
virtual therapeutic moiety abbreviated name	string	0 to 1
An abbreviated version of the name described above		

4.4 Virtual Medicinal Product (VMP)

Definition: A Virtual Medicinal Product (VMP) is an abstract concept representing the properties of one or more clinically equivalent Actual Medicinal Products, where clinical is defined as relating to the course of a disease.

Description:

A Virtual Medicinal Product is an abstract concept representing a template of the properties which constitute one or more actual medicinal products.

NOTES:

1. Unless the attribute **virtual product prescribing status** is set to the contrary, Virtual Medicinal Products are prescribable.
2. The Virtual Medicinal Product describes a generic product without supplier or trade name information, with the exception of food supplements (see Editorial policy)
3. This is a core object.
4. To facilitate use of the dictionary, it has been decided that a Virtual Medicinal Product may consist of more than one item. E.g.: econazole 150mg pessaries and econazole 1% cream which are provided together as a combination in a pack are represented as a single VMP entry. The corresponding individual virtual products will also appear as entries within the dictionary in their own right though they may not be prescribable.

Associations**Virtual Therapeutic Moiety (4.3)**

An instance of Virtual Medicinal Product may be associated with zero or one instance of Virtual Therapeutic Moiety.

Form Information (4.4.1)

An instance of Virtual Medicinal Product may be associated with zero or one instance of Form Information.

Drug Route Information (4.4.2)

An instance of Virtual Medicinal Product may be associated with zero to many instances of Drug Route Information.

NOTE: A Virtual Medicinal Product that is a drug will usually be associated with form and drug route information. Exceptions include ACBS items (The Advisory Committee advises that in certain conditions borderline substances may be regarded as drugs), e.g. gluten free bread will not be associated with a form or route. Also combination packs where there is a mixture of forms (cream + pessary).

Virtual Product Ingredient (0)

An instance of Virtual Medicinal Product may be associated with zero to many instances of Virtual Product Ingredient.

Controlled Drug Prescribing Information (0)

An instance of Virtual Medicinal Product may be associated with zero to one instance of Controlled Drug Prescribing Information.

Ontology Form & Route Information (4.4.5)

An instance of Virtual Medicinal Product may be associated with zero to many instances of Ontology Form & Route Information.

Actual Medicinal Product (0)

An instance of a Virtual Medicinal Product may be associated with one or many AMPs.

NOTES:

1. An Actual Medicinal Product inherits all of the properties described within the associated Virtual Medicinal Product.
2. It is possible for a Virtual Medicinal Product not to be manifested as any "available" product i.e. that at the present time no manufacturer or supplier is making available products with the properties described in the Virtual Medicinal Product.

Attributes	Type	Occurrence
virtual medicinal product identifier	SNOMED CT identifier	1
Unique identifier for the Virtual Medicinal Product. NOTES: <ol style="list-style-type: none"> An identifier, once used to identify a Virtual Medicinal Product and formally released, shall not at any time be: <ul style="list-style-type: none"> Deleted, although it is permissible to mark it as no longer valid.⁴ Re-used and given to any other concept All VMPs will have SNOMED CT core term entries except: <ul style="list-style-type: none"> Combination Products Products beginning 'Generic XXX' When a core SNOMED CT code is not available a UK extension code will be allocated to the entry. When the core code becomes available it will replace the UK extension code which will be moved to the Previous product identifier below 		
validity flag	teger	0 to 1
Flag indicating that this dictionary entry was invalid. VALUE: 1 = Invalid NOTE: The entry needs to be retained in case it was used prior to detection of the error(s) which caused its invalidation.		
VTM identifier	SNOMED CT identifier	0 to 1
Unique identifier for the associated Virtual Therapeutic Moiety		
virtual medicinal product identifier date	date	0 to 1
date from which the virtual medicinal product identifier is applicable from		

⁴ This is subject to Editorial Policy. For example, a policy may be adopted whereby after a certain period the entry is omitted from a new issue of the dictionary. However, for safety reasons the same code shall not be re-used to represent different products no matter how long its period of non-use.

previous product identifier	SNOMED CT Identifier	0 to 1
Previously allocated identifier for the Virtual Medicinal Product		
combination product indicator	integer (code value)	0 to 1
Flag denoting that the VMP is a combination product or is only available as a component of a combination product (i.e. not available in its own right. Examples: Combination product - Conjugated Oestrogens 1.25mg tablets and Norgestrel 150microgram tablets. Component only – Norgestrel 150microgram tablets. VALUES: 1 = combination product 2 = component only product (not available separately)		
virtual medicinal product name	string	1
A name that is used to identify the Virtual Medicinal Product. NOTES: 1. The 'long' version of the medicinal product name 2. The Virtual Medicinal Product name may change over time. 3. If a date is supplied, this name will be used to describe the medicinal product on and subsequent to that date.		
basis of preferred name	integer (code value)	1
Basis or source of VMP name expressed as a code value VALUES: 1 Recommended International Non-proprietary Name – rINN 2 British Approved Name - BAN 3 British Approved Name (Modified) – BANM 4 International Non-proprietary Name (Modified) – INN 5 Proposed International Non-proprietary Name – pINN 6 United States Adopted Name – USAN 7 Other		
date of name applicability	date	0 to 1
Date from which the name became the preferred name for the medicinal product.		
previous name	string	0 to 1
Long name used prior to the date provided.		
basis of previous name	integer (code value)	0 to 1
Basis or source of previous VMP name expressed as a code value VALUES: as in “basis of preferred name” section above		
reason for name change	integer (code value)	0 to 1
Reason for change of VMP text name, expressed as a code value VALUES: 1 = Replacement of temporary name 2 = New approved generic name available 3 = Basis of name changed 4 = Other		
virtual medicinal product abbreviated name	string	0 to 1

An abbreviated version of the name described above.		
NOTES		
<ol style="list-style-type: none"> 1. This 'short' version of the medicinal product name may be up to 60 characters 2. Where the VMP name is already 60 characters or less, there is no requirement to provide a shortened version. 3. The rules for how name shortening will occur will be subject to editorial policy 		
sugar free indicator	integer	0 to 1
A flag indicating whether the medicinal product is a sugar-free formulation (see Editorial Policy for definition)		
VALUE: 1 = sugar free		
gluten free indicator	integer	0 to 1
A flag indicating whether the medicinal product is a gluten-free formulation (see Editorial Policy for definition)		
VALUE: 1 = gluten free		
preservative free indicator	integer	0 to 1
A flag indicating whether the medicinal product is a preservative-free formulation (see Editorial Policy for definition)		
VALUE: 1 = preservative free		
CFC free indicator	integer	0 to 1
A flag indicating whether the medicinal product is CFC-free (see Editorial Policy for definition)		
VALUE: 1 = CFC free		
virtual medicinal product prescribing status	integer (code value)	1
<p>Prescribing status of the product expressed as a code value.</p> <p>VALUES:</p> <p>1 = valid as a prescribable product</p> <p>2 = Invalid to prescribe in NHS primary care</p> <p>4 = never valid to prescribe as a VMP</p> <p>6 = VMP not recommended to prescribe - brands not bioequivalent</p> <p>7 = VMP not recommended to prescribe - patient training required</p> <p>8 = VMP not recommended to prescribe -no published specification</p> <p>NOTE 1: value 3 (previously valid in PCDD release) = not prescribable as a VMP but AMP prescribable is no longer valid and has been replaced by values 4 and 5 above.</p> <p>NOTE 2: Value 5 (Not recommended to prescribe as a VMP) is no longer valid, and has been replaced by values 6 and 7</p>		

non-availability indicator	integer (code value)	0 to 1
<p>A flag indicating whether there are currently no available Actual Medicinal Products which correspond to this VMP.</p> <p>VALUES:</p> <p>0 = actual products are now available (though not necessarily prescribable in primary care) but have been unavailable in the past. 1 = actual products no longer available Null = AMPs are available now</p> <p>This attribute is optional.</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1. When absent, the VMP shall be considered to have corresponding actual product(s), although these products may not be generally prescribable in primary care (see previous attribute) 2. When present with a value of '1' shall indicate that the VMP has previously been available as one or more actual products but has now ceased to be. The date in the following attribute may be used to indicate when this status change occurred. 3. When present with value of '0' shall indicate that the VMP has previously not been available as an actual product but which now has at least one associated product. The date in the following attribute may be used to indicate when this status change occurred 		
non-availability status date	date	0 to 1
Date when the value of the preceding attribute changed.		
dose form indicator	integer (code value)	1
<p>This attribute identifies if the VMP has a unit dose form (a discrete unit dose is applicable e.g. tablet, ampoule), if it may be regarded as a continuous substance (that is a consistent physically measurable unit or sub-unit cannot be defined e.g. cream, eye drops) or if it belongs to a category of product for which unit dose form is not appropriate (catheters, colostomy bags, ACBS foods)</p> <p>VALUES:</p> <p>1 = Discrete 2 = Continuous 3 = Not applicable</p> <p>NOTE: where the dose form indicator has the value continuous or not applicable there is no requirement to populate information in unit dose form size, unit dose form unit or unit of measure.</p>		

unit dose form size	real	0 to 1		
A numerical value				
unit dose form units	SNOMED CT identifier	0 to 1		
The unit of measure relating to the size above				
Unit dose unit of measure	SNOMED CT identifier	0 to 1		
A description of the entity/'thing' that can be handled (List E Editorial Policy).				
Unit dose form information is composed of the four parts above: Dose Form Indicator (DFI), unit dose form size (UDFS), unit dose form units (UDFU) and unit dose unit of measure (UOM). EXAMPLES:				
VMP	DFI	UDFS	UDFU	UOM
Atenolol 50mg tablets	Discrete	1	tablet	tablet
Furosemide 80mg/8ml solution for injection pre-filled syringes	Discrete	8	ml	pre-filled disposable injection
Hydrocortisone 1% cream	Continuous			
Mesalazine 1g/application foam enema	Discrete	1	application	application
Digoxin 50micrograms/ml oral solution	Continuous			
Metronidazole 200mg/5ml oral suspension	Discrete	5	ml	spoonful
Amoxicillin 500mg powder for solution for injection vials	Discrete	1	vial	Vial
Chloramphenicol 0.5% eye drops	Continuous			
Salbutamol 100microgram/dose inhaler	Discrete	1	dose	dose
Gluten Free Bread	Not applicable			
Crepe bandage 10cm	Not applicable			

4.4.1 Form information

Definition: The form of a concept in the NHS dm+d is the representation of the orderable physical form of the AMP from which the concept derives.		
Description: Information relating the Virtual Medicinal Product to its categorical form, which is defined as the form in which it is normally dispensed.		
Association <i>Virtual Medicinal Product</i> (4.4) Each instance of Form Information shall be associated with one instance of Virtual Medicinal Product.		
Attributes	Type	Occurrence
virtual medicinal product identifier	SNOMED CT identifier	1
Identification of the Virtual Medicinal Product to which this set of information relates.		
form identifier	SNOMED CT Identifier	1
<p>The form information shall be represented as a code taken from the associated dm+d list of medicinal product forms (List C in Editorial Policy). Examples: effervescent tablet, sachet, injection</p> <p>NOTE: The identifier will be taken from the SNOMED CT core term entry. However, it is possible that a new form term be created which has no corresponding entry within the set of SNOMED CT core terms. In these cases an entry from the UK extension to the SNOMED CT codes will be used and this may then be changed to a core term identifier at a later date</p>		

4.4.2 Route information

Definition: The Route(s) of Administration of a concept in the NHS dm+d is the representation of the place in or on the body where the product is introduced in order to achieve the desired therapeutic effect.		
Description: Information relating the Virtual Medicinal Product to its route(s) of administration.		
Association <i>Virtual Medicinal Product</i> (4.4) Each instance of Route Information shall be associated with one instance of Virtual Medicinal Product.		
Attributes	Type	Occurrence
virtual medicinal product identifier	SNOMED CT identifier	1
Identification of the Virtual Medicinal Product to which this set of information relates.		
route identifier	SNOMED CT Identifier	1
<p>Routes of administration are held at VMP level. For licensed products these will be licensed routes. For unlicensed preparations they may or may not be populated depending on editorial policy. The route information shall be represented as a code taken from the associated dm+d list of medicinal product routes (List D in Editorial Policy).</p> <p>NOTE: The identifier will be taken from the set of SNOMED CT core term entries. However, it is possible that a new 'route' term be created which has no corresponding entry within the set of SNOMED CT core terms. In these cases an entry from the UK extension to the SNOMED CT codes will be used and this may then be changed to a core term identifier at a later date</p>		

4.4.3 Virtual product ingredient

<p>Definition: The Ingredient Substance of a concept in the NHS dm+d is the representation of any component that is intended to furnish a direct effect, pharmacological or other, in the diagnosis, cure, mitigation, treatment or prevention of disease or to affect the structure or any function of the body of the patient</p>																							
<p>Description: Information about an ingredient substance that is contained within a Virtual Medicinal Product.</p> <p>This will include substances which are deemed to be 'active' ingredients. Excipient information is associated with Actual Medicinal Products.</p> <p>An example of a multiple virtual product ingredient substances entry: co-amoxiclav 250mg/125mg would have two entries, one for amoxicillin 250mg, the other for clavulanic acid 125mg.</p>																							
<p>Association</p> <p><i>Virtual Medicinal Product</i> (4.4)</p> <p>Each instance of Virtual Medicinal Product Ingredient shall be associated with one instance of Virtual Medicinal Product.</p>																							
<table border="1"> <thead> <tr> <th>Attributes</th> <th>Type</th> <th>Occurrence</th> </tr> </thead> <tbody> <tr> <td>virtual medicinal product identifier</td> <td>SNOMED CT Identifier</td> <td>1</td> </tr> <tr> <td colspan="3">Identification of the Virtual Medicinal Product to which this set of information relates.</td> </tr> <tr> <td>ingredient substance identifier</td> <td>SNOMED CT Identifier</td> <td>1</td> </tr> <tr> <td colspan="3"> <p>A unique identifier for the ingredient substance. Identification of the ingredient substance within an Ingredient Substance file shall be an identifier taken from the set of SNOMED core terms. However, it is possible that a new ingredient term be created which has no corresponding entry within the set of SNOMED CT core terms. In these cases an entry from the UK extension to the SNOMED CT codes will be used and this may then be changed to a core term identifier at a later date.</p> <p>NOTE:</p> <ol style="list-style-type: none"> 1 Identifier will not be deleted, although it may be marked as no longer valid. 2 This identifier shall be used to identify a substance that acts as an ingredient of a Virtual Medicinal Product. For example quinine sulphate, amitriptyline hydrochloride, amoxicillin sodium. 3 Ingredients may be fully specified including salts, or may be more loosely described without the salt if that is appropriate, or the only information available. </td> </tr> <tr> <th>Attributes</th> <th>Type</th> <th>Occurrence</th> </tr> <tr> <td>basis of strength substance identifier</td> <td>SNOMED CT Identifier</td> <td>0 to 1</td> </tr> </tbody> </table>			Attributes	Type	Occurrence	virtual medicinal product identifier	SNOMED CT Identifier	1	Identification of the Virtual Medicinal Product to which this set of information relates.			ingredient substance identifier	SNOMED CT Identifier	1	<p>A unique identifier for the ingredient substance. Identification of the ingredient substance within an Ingredient Substance file shall be an identifier taken from the set of SNOMED core terms. However, it is possible that a new ingredient term be created which has no corresponding entry within the set of SNOMED CT core terms. In these cases an entry from the UK extension to the SNOMED CT codes will be used and this may then be changed to a core term identifier at a later date.</p> <p>NOTE:</p> <ol style="list-style-type: none"> 1 Identifier will not be deleted, although it may be marked as no longer valid. 2 This identifier shall be used to identify a substance that acts as an ingredient of a Virtual Medicinal Product. For example quinine sulphate, amitriptyline hydrochloride, amoxicillin sodium. 3 Ingredients may be fully specified including salts, or may be more loosely described without the salt if that is appropriate, or the only information available. 			Attributes	Type	Occurrence	basis of strength substance identifier	SNOMED CT Identifier	0 to 1
Attributes	Type	Occurrence																					
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Attributes	Type	Occurrence																					
basis of strength substance identifier	SNOMED CT Identifier	0 to 1																					

A unique identifier for the basis of strength substance. Identification of an ingredient substance within an Ingredient Substance file where this is different to the ingredient substance identified above and where this 'basis of strength substance (BoSS)' is that substance upon which the pharmaceutical strength is based.

EXAMPLE:

Amoxicillin 250mg injection vials contain amoxicillin sodium but the strength is expressed as the quantity of amoxicillin. Amoxicillin is the 'base' or basis of strength substance (BoSS) and therefore the identifier for "amoxicillin" (substance, not VTM) would be put in this field.

NOTE:

1. Identifier will not be deleted, although it may be marked as no longer valid.
2. This attribute is populated only if the basis of pharmaceutical strength value is set to '2'

Attributes	Type	Occurrence
basis of pharmaceutical strength	integer (code value)	0 to 1
<p>Indicates whether the pharmaceutical strength (next attribute) is based upon the ingredient substance or 'basis of strength substance'.</p> <p>VALUES</p> <p>1 = Based on ingredient substance strength value is based on ingredient substance identified in the attribute ingredient substance identifier</p> <p>2 = Based on base substance strength value is based on ingredient substance identified in the attribute basis of strength substance identifier</p> <p>NOTE: This attribute is mandatory when a value is present in the attribute 'pharmaceutical strength'</p>		

<p>pharmaceutical strength</p> <p>The amount of ingredient substance (as identified by the attribute ingredient substance identifier or basis of strength substance identifier as indicated above).</p> <p>This attribute indicates the quantity of the substance per defined unit of measure in the Virtual Medicinal Product (e.g. one tablet, one ml) measured by weight or volume per unit or concentration. An ingredient may be present without a strength.</p> <p>Pharmaceutical strength has 4 components, where a strength is provided the strength value numerator (SVN) and strength value numerator unit (SVNU) are mandatory. Strength value denominator (SVD) and strength value denominator unit (SVDU) are used to fully express 'per' strengths.</p> <p>EXAMPLES:</p> <p>Paracetamol 500mg tablets</p> <table border="0"> <tr> <td><i>Ingredient</i></td> <td><i>SVN</i></td> <td><i>SVNU</i></td> <td><i>SVD</i></td> <td><i>SVDU</i></td> </tr> <tr> <td>Paracetamol</td> <td>500</td> <td>mg</td> <td></td> <td></td> </tr> </table> <p>Paracetamol 250mg/5ml oral suspension</p> <table border="0"> <tr> <td><i>Ingredient</i></td> <td><i>SVN</i></td> <td><i>SVNU</i></td> <td><i>SVD</i></td> <td><i>SVDU</i></td> </tr> <tr> <td>Paracetamol</td> <td>50</td> <td>mg</td> <td>1</td> <td>ml</td> </tr> </table> <p>Hydrocortisone 1% cream</p> <table border="0"> <tr> <td><i>Ingredient</i></td> <td><i>SVN</i></td> <td><i>SVNU</i></td> <td><i>SVD</i></td> <td><i>SVDU</i></td> </tr> <tr> <td>Hydrocortisone</td> <td>10</td> <td>mg</td> <td>1</td> <td>g</td> </tr> </table>	<i>Ingredient</i>	<i>SVN</i>	<i>SVNU</i>	<i>SVD</i>	<i>SVDU</i>	Paracetamol	500	mg			<i>Ingredient</i>	<i>SVN</i>	<i>SVNU</i>	<i>SVD</i>	<i>SVDU</i>	Paracetamol	50	mg	1	ml	<i>Ingredient</i>	<i>SVN</i>	<i>SVNU</i>	<i>SVD</i>	<i>SVDU</i>	Hydrocortisone	10	mg	1	g	<p>0 or 1</p>
<i>Ingredient</i>	<i>SVN</i>	<i>SVNU</i>	<i>SVD</i>	<i>SVDU</i>																											
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Hydrocortisone	10	mg	1	g																											
	<p>strength value numerator</p>	<p>real</p>	<p>1⁵</p>																												
<p>The numerator of the amount of ingredient substance, e.g. 25 where the strength conforms to the expression '25mg per 1 ml'.</p>																															
	<p>strength value numerator unit</p>	<p>SNOMED CT identifier</p>	<p>1⁶</p>																												
<p>The unit of measure associated with the previous numerator value, e.g. mg. where the strength conforms to the expression '25mg per 1 ml'.</p>																															
	<p>strength value denominator</p>	<p>real</p>	<p>0 or 1</p>																												
<p>The denominator of the amount of ingredient substance, e.g. 1 where the strength conforms to the expression '25mg per 1 ml'.</p>																															
	<p>strength value denominator unit</p>	<p>SNOMED CT identifier</p>	<p>0 or 1</p>																												
<p>The unit of measure associated with the previous numerator value, e.g. mL where the strength conforms to the expression '25mg per 1 ml'.</p>																															

4.4.4 Controlled drug prescribing information

⁵ Mandatory if pharmaceutical strength provided.

⁶ Mandatory if pharmaceutical strength provided.

Definition: The controlled drug category will be allocated according to the Misuse of Drugs Act 1971 and the restrictions of the Misuse of Drugs Regulations.

Description: Information relating to Virtual Medicinal Products where these are **drugs** and in particular where the drug is controlled under the Misuse of Drugs Act.

Association

Virtual Medicinal Product (4.4)

Each instance of Controlled Drug Prescribing Information shall be associated with one instance of Virtual Medicinal Product.

Attributes	Type	Occurrence
virtual medicinal product identifier	SNOMED CT identifier	1
Identification of the Virtual Medicinal Product to which this set of information relates.		
controlled drug category	integer (code value)	1
If a controlled drug category change date is included in the record, this attribute shall be used to convey the category on and subsequent to that date, otherwise the category is to be interpreted as the category at the release of the current version of the dictionary.		
<p>Values</p> <p>0 = No controlled drug status 1 = Schedule 1 (CD Lic) 2 = Schedule 2 (CD) 3 = Schedule 2 (CD Exempt Safe Custody) 4 = Schedule 3 (CD No Register) 5 = Schedule 3 (CD No Register Exempt Safe Custody) 6 = Schedule 3 (CD No Register Phenobarbital) 7 = Schedule 3 (CD No Register Temazepam) 8 = Schedule 4 (CD Anab) 9 = Schedule 4 (CD Benz) 10 = Schedule 5 (CD Inv)</p>		
controlled drug category change date	date	0 to 1
date at which the category of the controlled drug changed		
controlled drug category prior to change date	integer (code value)	0 to 1
<p>The prescribing/dispensing classification of a medicinal product in terms of its controlled drug status prior to this category changing. This attribute shall only be included if there is a controlled drug category change date.</p> <p>VALUES As in <i>controlled drug category</i> above.</p>		

4.4.5 Ontology form & route information

<p>Description: Information relating the VMP to its combined form and route of administration. The form is the form of the product at administration to the patient e.g. a soluble tablet will be a solution.</p>														
<p>Association</p> <p>Virtual Medicinal Product (4.4) Each instance of Ontology Form & Route Information shall be associated with one instance of Virtual Medicinal Product.</p>														
<table border="1"> <thead> <tr> <th>Attributes</th> <th>Type</th> <th>Occurrence</th> </tr> </thead> <tbody> <tr> <td>virtual medicinal product identifier</td> <td>SNOMED CT identifier</td> <td>1</td> </tr> <tr> <td colspan="3"> Identification of the Virtual Medicinal Product to which this set of information relates. </td> </tr> <tr> <td>virtual medicinal product form & route</td> <td>integer (code value)</td> <td>1</td> </tr> </tbody> </table>			Attributes	Type	Occurrence	virtual medicinal product identifier	SNOMED CT identifier	1	Identification of the Virtual Medicinal Product to which this set of information relates.			virtual medicinal product form & route	integer (code value)	1
Attributes	Type	Occurrence												
virtual medicinal product identifier	SNOMED CT identifier	1												
Identification of the Virtual Medicinal Product to which this set of information relates.														
virtual medicinal product form & route	integer (code value)	1												
<p>The physical conformation of the drug and its mode(s) of administration. The form-route information shall be represented as a code taken from the associated dm+d approved list of medicinal product forms and routes. This represents the ontological form and route i.e. that given at administration.</p> <p>EXAMPLES: tablet.oral suspension.oral solutioninjection.intravenous solutioninjection.intramuscular capsulemodified-release.oral</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1. The form aspect shall be specifically the form at administration which may be different from the form at dispensing 2. The form-route string is a text string. It will comprise of one form with zero to many descriptors and one route. 3. If a VMP has 2 routes (intravenous and intramuscular) then this VMP will have 2 virtual product form + routes: solutioninjection.intravenous and solutioninjection.intramuscular. 4. The automatic construction of the form+route description from the entries for virtual product form and virtual product route would not be reliable. 														

4.5 Actual medicinal product

Definition: An Actual Medicinal Product (AMP) is a single dose unit of a finished form (unless the product is presented as a continuous dosage form), attributable to an identified supplier that contains a specified amount of an ingredient substance.

Description: An Actual Medicinal Product is a medicinal product that has been made available by a supplier.

NOTES

1. An instance of the Actual Medicinal Product shall provide sufficient information to uniquely identify the product but not the size of pack that the supplier makes available for dispensing.

Examples:

Efcortelan 2.5% ointment (Chemidex Pharma Ltd)
 Methadone 20mg/2ml solution for injection ampoules (The Boots Company Ltd)
 Sofra-tulle gauze dressing 10cm x10 cm (Aventis)

2. Each Actual Medicinal Product is associated with an identifiable supplier.
3. The dictionary may include AMP entries for products which are not available separately, for example Estragest TTS 50 patches which are only available as part of an Estracombi combination pack.

Associations

Virtual Medicinal Product (4.4)

Each instance of Actual Medicinal Product shall always be associated with one instance of Virtual Medicinal Product and shall 'inherit' from this instance of Virtual Medicinal Product all of its properties

Licensed Route (4.5.1)

Each instance of Actual Medicinal Product may be associated with zero to many instances of licensed route

Appliance Product Information (4.5.2)

Each instance of Actual Medicinal Product may be associated with zero to one instance of Appliance Product Information.

Actual Product Excipient (4.5.3)

Each instance of Actual Medicinal Product may be associated with zero to many instances of Actual Product Excipients.

Actual Medicinal Product Pack. (0)

Each instance of Actual Medicinal Product shall be associated with one to many instances of Actual Medicinal Product Pack.

Attributes	Type	Occurrence
Actual medicinal product identifier	SNOMED CT Identifier	1
Unique identifier for the Actual Medicinal Product. This code will be taken from the UK extension namespace section of SNOMED CT. NOTE: An identifier, once used to identify an Actual Medicinal Product and formally released, shall not at any time be: <ul style="list-style-type: none"> - Deleted, although it is permissible to mark it as no longer valid.⁷ - re-used and given to any other concept 		

⁷ This is subject to Editorial Policy. See footnote 5 (earlier in the document).

Invalidity flag	integer	0 to 1
<p>Flag indicating that this dictionary entry was invalid.</p> <p>VALUE: 1 = Invalid</p> <p>NOTE: The entry needs to be retained in case it was used prior to detection of the error(s) which caused its invalidation.</p>		
Virtual medicinal product identifier	SNOMED CT Identifier	1
<p>Unique identifier for the associated Virtual Medicinal Product.</p>		
Combination product indicator	integer (code value)	0 to 1
<p>Flag denoting that the AMP is a combination product or is only available as a component of a combination product (i.e. not available in its own right).</p> <p>VALUES:</p> <p>1 = combination product</p> <p>2 = component only product</p>		
Actual medicinal product name	string	1
<p>The name that is used to identify the Actual Medicinal Product.</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1. The 'long' version of the medicinal product name 2. The Actual Medicinal Product name may change over time. 3. If a date is supplied, this name will be used to describe the medicinal product on and subsequent to that date. 		
date of name applicability	date	0 to 1
<p>date from which the name became the preferred name for the Actual Medicinal Product as specified by the supplier</p>		
Previous name	string	0 to 1
<p>Name used prior to the date provided. This shall be the 'long' name as used in the attribute 'actual medicinal product name'</p>		
Actual medicinal product abbreviated name	string	0 to 1
<p>An abbreviation of the AMP name (required to meet the label name use case for medicines).</p> <p>NOTE:</p> <ol style="list-style-type: none"> 1. This 'short' version of the medicinal product name may be up to 60 characters. 2. Where the AMP text name is already 60 characters or less, there is no requirement to provide a shortened version. 		
Actual medicinal product description	string	1

<p>A unique description of the AMP that is used to identify the actual medicinal product. This will consist of the following:</p> <p>AMP name + product order number + size + colour + (Supplier)</p> <p>Note: product order number, size and colour are applicable for appliances only</p> <p>Examples: Paracetamol 500mg tablets + (Almus Pharmaceuticals Ltd) Mandanol 500mg tablets + (M & A Pharmachem Ltd) Biotrol Elite colostomy bag with filter – 36-835 – 35mm Beige + (B Braun Medical)</p>		
Supplier	SNOMED CT Identifier	1
Identifies the supplier using a list of suppliers held within an associated reference file		
Flavour	integer (code value)	0 to 1
The flavour of an AMP will only be included when this is a definitional attribute of the AMP i.e. where a supplier provides 2 or more AMPs that are clinically equivalent and differentiated only by flavour		
EMA Additional Monitoring indicator	integer	0 to 1
Indication as to whether the product is on the list of medicinal products under additional monitoring issued by the European Medicines Agency (EMA) VALUE: 1 = EMA monitoring		
Parallel Import indicator	integer	0 to 1
Flag indicating whether the AMP has been procured and imported from within the European Union. These AMPs will have a parallel import product licence - PL(PI) VALUE: 1 = Parallel Import		
Current Licensing authority	integer (code value)	1
VALUES 0 = None 1 = Medicines - MHRA / EMA 2 = Devices 3 = Unknown 4 = Traditional Herbal Medicines		
Previous Licensing authority	integer (code value)	0 to 1
Licensing authority prior to the date below (values as above).		
date of change of licensing authority	date	0 to 1
date at which the licensing authority changed		
Licensing Authority change reason	integer (code value)	0 to 1

A code list shall be provided which is capable of maintaining a list of reasons for change.

VALUES:

- 1 = Licence granted
- 2 = Licence transferred
- 3 = Withdrawn manufacturer
- 4 = Withdrawn CHM
- 5 = Suspended CHM
- 6 = Discontinued/expired/lapsed
- 7 = Reintroduced
- 8 = No reason available

Restrictions on availability

integer (code value)

1

Used to identify any restrictions on the availability of the AMP.

VALUES:

- 1 = None
- 2 = Restricted availability
- 3 = Individual patient supply
- 4 = Imported
- 5 = Clinical trial
- 6 = Special
- 7 = Extemporaneous
- 8 = Hospital only
- 9 = Not available

4.5.1 Licensed route

Description: Information relating the AMP to associated licensed route(s) of administration.		
Association		
Actual Medicinal Product (4.5)		
Each instance of Licensed Route Information shall be associated with one instance of Actual Medicinal Product.		
<hr/>		
Attributes	Type	Occurrence
actual medicinal product identifier	SNOMED CT identifier	1
Identification of the Actual Medicinal Product to which this set of information relates.		
Licensed route	SNOMED CT Identifier	1
Identifies one or more routes for which the Actual Medicinal Product has been licensed.		
NOTE: The route or routes must correspond to, or be a subset of, the routes associated with the related Virtual Medicinal Product.		

4.5.2 Appliance product information

Description: Information relating to Actual Medicinal Products where these are appliances		
Association		
Actual Medicinal Product (0)		
Each instance of Appliance Product Information shall be associated with one instance of Actual Medicinal Product.		
<hr/>		
Attributes	Type	Occurrence
actual medicinal product identifier	SNOMED CT identifier	1
Identification of the Actual Medicinal Product to which this set of information relates.		

size/weight	string	0 to 1								
<p>Information relating to the size of an appliance where this information is not captured within the AMP name e.g. incontinence sheaths where the size may be expressed in mm, by description (small) or both. Where size is not captured in AMP name, size/wt will capture information. EXAMPLES:</p> <table> <tr> <td>Jade Naturalflex sheath</td> <td>25mm small</td> </tr> <tr> <td>Uro sheath</td> <td>28.5mm small</td> </tr> <tr> <td>Biotrol Elite colostomy bag</td> <td>Starter hole</td> </tr> <tr> <td>Biotrol Elite colostomy bag</td> <td>25mm</td> </tr> </table> <p>NOTE: the length of this field may be up to 100 characters</p>			Jade Naturalflex sheath	25mm small	Uro sheath	28.5mm small	Biotrol Elite colostomy bag	Starter hole	Biotrol Elite colostomy bag	25mm
Jade Naturalflex sheath	25mm small									
Uro sheath	28.5mm small									
Biotrol Elite colostomy bag	Starter hole									
Biotrol Elite colostomy bag	25mm									
colour	integer (code value)	0 to 1								
Occasionally colour is useful in determining which of a number of optional devices is appropriate.										
product order number	string	0 to 1								
NOTE: The length of this field may be up to 20 characters										

4.5.3 Actual product excipient

<p>Definition: The excipient of a concept in the NHS dm+d is the representation of any substance other than an 'ingredient substance' that furnishes an effect deemed significant by the current Editorial Policy definition even though that effect may not be an event intended as a result of its inclusion in the formulated product.</p>		
<p>Description: Used to provide information about specific excipients contained in the Actual Medicinal Product.</p> <p>NOTE: The excipient information is not guaranteed to be complete. The absence of excipient information does not imply the absence of all or any excipient.</p>		
<p>Association</p> <p>Actual Medicinal Product (0) Each instance of Actual Medicinal Product Excipients shall be associated with one instance of Actual Medicinal Product.</p>		
Attributes	Type	Occurrence
Actual product identifier	SNOMED CT Identifier	1
Identification of the actual medicinal product to which this set of information relates.		
Ingredient substance identifier	SNOMED CT Identifier	1
Identification of an excipient within the Ingredient Substance file.		
<p>Pharmaceutical strength</p> <p>The amount of ingredient substance (excipient) in one unit of the Actual Medicinal Product measured in weight or volume per unit or concentration – expressed as a numerical value plus unit of measure as indicated below</p> <p>NOTE: Only used where the strength has been specified by supplier.</p>		0 or 1
numerical value	real	1⁸

⁸ Mandatory if pharmaceutical strength provided.

	The numerator of the amount of ingredient substance.		
	unit of measurement	SNOMED CT identifier	1⁹
	The unit of measure associated with the previous numerator value.		

⁹ Mandatory if pharmaceutical strength provided.

4.6 Virtual medicinal product pack

<p>Definition: A Virtual Medicinal Product Pack (VMPP) is an abstract concept representing the properties of one or more quantitatively equivalent AMPPs.</p>		
<p>Description: The delivery unit for a Virtual Medicinal Product.</p>		
<p>Associations</p> <p>Virtual Medicinal Product (4.4) Each instance of Virtual Medicinal Product Pack is always associated with one instance of a Virtual Medicinal Product.</p> <p>NOTE: The instance of Virtual Medicinal Product Pack inherits all of the properties of the associated instance of Virtual Medicinal Product.</p> <p>Combination Pack Content (0) Each instance of Virtual Medicinal Product Pack can be associated with zero to many instances of Combination Pack Content</p> <p>Drug Tariff Category Information (0) Each instance of Virtual Medicinal Product Pack may be associated with zero or one instance of Drug Tariff Category Information.</p> <p>Actual Medicinal Product Pack (0) Each instance of Virtual Medicinal Product Pack may be associated with one to many instances of Actual Medicinal Product Pack.</p>		
Attributes	Type	Occurrence
Virtual medicinal product pack identifier	SNOMED CT Identifier	1
Unique Identifier of the Virtual Medicinal Product Pack. This code will be taken from the NHS namespace section of SNOMED CT.		
Invalidity flag	integer	0 to 1
Flag indicating that this dictionary entry was invalid. VALUE: 1 = Invalid NOTE: The entry needs to be retained in case it was used prior to detection of the error(s) which caused its invalidation.		
Virtual medicinal product identifier	SNOMED CT Identifier	1
Identifier used to uniquely identify the parent Virtual Medicinal Product within the dictionary.		
Virtual Medicinal Product Pack description	string	1
The description that is used to identify the Virtual Medicinal Product Pack. This will consist of the following: VMP name + Quantity & Quantity UOM		

Combination pack indicator	integer (code value)	0 to 1														
<p>Flag denoting that the virtual medicinal product pack is a combination product pack or is a only available as a component of a combination product (i.e. not available in its own right)</p> <p>VALUES</p> <p>1 = combination pack.</p> <p>2 = component only pack (not available separately)</p>																
<p>Virtual medicinal product pack quantity has two components - a quantity and unit of measure.</p> <p>It represents the amount of the Virtual Medicinal Product expressed by mass, volume, number of entities or otherwise in a container, intermediate container or package as supplied.</p> <p>EXAMPLES:</p> <table> <tr> <td>Qty</td> <td>Units of measure</td> </tr> <tr> <td>28</td> <td>tablets</td> </tr> <tr> <td>10</td> <td>ml</td> </tr> <tr> <td>3</td> <td>vials</td> </tr> <tr> <td>60</td> <td>gram</td> </tr> <tr> <td>200</td> <td>dose</td> </tr> <tr> <td>5</td> <td>cartridges</td> </tr> </table>		Qty	Units of measure	28	tablets	10	ml	3	vials	60	gram	200	dose	5	cartridges	1
Qty	Units of measure															
28	tablets															
10	ml															
3	vials															
60	gram															
200	dose															
5	cartridges															
Quantity	real	1														
A numerical value.																
unit of measurement	SNOMED CT identifier	1														
The unit of measure associated with the previous number.																

4.61 Combination pack content

Description: Used to identify the component packs within a combination pack		
Association		
Virtual Medicinal Product Pack (0)		
Each instance of Combination Pack Content shall be associated with one instance of Virtual Medicinal Product Pack.		
Attributes	Type	Occurrence
virtual medicinal product pack identifier	SNOMED CT Identifier	1
Unique identifier for the Virtual Medicinal Product Pack.		
constituent virtual product pack identifier	SNOMED CT Identifier	1
Identity of the component packs within a combination or multipack		

4.6.2 Drug Tariff category information

Description: Information relating to the categorisation of drugs, appliances, chemical reagents and oxygen as provided in the Drug Tariff (England & Wales).		
Association <i>Virtual Medicinal Product Pack (0)</i> Each instance of Drug Tariff Category Information shall be associated with one instance of Virtual Medicinal Product Pack		
Attributes	Type	Occurrence
virtual medicinal product pack identifier	SNOMED CT Identifier	1
Unique Identifier for the Virtual Medicinal Product Pack.		
DT payment category	integer (code value)	1
<p>VALUES</p> <ol style="list-style-type: none"> 1. Part VIIIA category A 2. Part VIII category B 3. Part VIIIA category C 4. Part VIII category E 5. Part IXa 6. Part IXb 7. Part IXc 8. Part IXr 9. Part X 10. Parts IXb & IXc 11. Part VIIIA category M 12. Part VIIIB <p>For information NOTE: Part VIII Category B – From 1 September 2004 the concept of Category B and all Category B products were deleted from the Drug Tariff Part VIII Category E – From 1 November 2011 the concept of Category E and all Category E Products were deleted from the Drug Tariff</p>		
DT price	integer	0 to 1
Drug Tariff price (England & Wales) for the medicinal product pack where this is independent of brand or supplier. Price expressed as pence (Sterling).		
DT price date	date	0 to 1
date from which price is applicable		
DT price previous	integer	0 to 1
Drug Tariff price prior to the above date.		

4.7 Actual medicinal product pack

Definition: An Actual Medicinal Product Pack is the packaged product that is supplied for direct patient use or from which AMPs are supplied for direct patient use. It may contain multiple components each of which may or may not be an AMPP in their own right.

Description: An Actual Medicinal Product Pack contains information concerning a medicinal product that has been made available by a manufacturer and/or supplier as a packaged entity.

Associations

Actual Medicinal Product (0)

Each instance of Actual Medicinal Product Pack shall be associated with one instance of Actual Medicinal Product and shall 'inherit' from this instance of Actual Medicinal Product all of its properties.

Virtual Medicinal Product Pack (0)

Each instance of Actual Medicinal Product Pack shall be associated with one instance of Virtual Medicinal Product Pack and shall 'inherit' from this instance of Virtual Medicinal Product Pack all of its properties.

Product Prescribing Information (0)

Each instance of Actual Medicinal Product Pack shall be associated with zero to one instance of Product Prescribing Information.

Appliance Pack Information (0)

Each instance of Actual Medicinal Product Pack shall be associated with zero to one instance of Appliance Pack Information.

Reimbursement Information (0)

Each instance of Actual Medicinal Product Pack shall be associated with zero to one instance of Reimbursement Information.

Medicinal Product Price (0)

Each instance of Actual Medicinal Product Pack shall be associated with one instance of Medicinal Product Price.

Combination Pack Content (4.7.5)

Each instance of Actual Medicinal Product Pack may be associated with zero to many instances of Combination Pack Content

Attributes	Type	Occurrence
Actual medicinal product pack identifier	SNOMED CT Identifier	1
Unique identifier for the Actual Medicinal Product Pack. This code will be taken from the NHS namespace section of SNOMED-CT		
Invalidity flag	integer	0 to 1
Flag indicating that this dictionary entry was invalid. VALUE: 1 = Invalid NOTE: The entry needs to be retained in case it was used prior to detection of the error(s) which caused its invalidation.		
Virtual medicinal product pack identifier	SNOMED CT Identifier	1
Unique identifier for the parent instance of Virtual Medicinal Product Pack.		
Actual medicinal product identifier	SNOMED CT identifier	1

Unique identifier for the parent instance of Actual Medicinal Product.		
<p>The description that is used to identify the Actual Medicinal Product Pack. This will consist of the following:</p> <p>AMP name + product order number + size + colour + (Supplier) + VMPP quantity + VMPP quantity unit of measure + subpack information + pack order number</p> <p>NOTE: product order number, size, colour and pack order number are applicable for appliances only. Examples: Paracetamol 500mg tablets + (Almus Pharmaceuticals Ltd) + 100 + tablet + 10 x 10 Paracetamol 500mg tablets + (Almus Pharmaceuticals Ltd) + 100 + tablet Mandanol 500mg tablets + (M & A Pharmachem Ltd) + 100 + tablet Biotrol Elite colostomy bag with filter – 36-835 – 35mm Beige + (B Braun Medical) + 30 + device CoaguChek PT testing strips + (Roche Diagnostics) + 12 + strip + 1937634 CoaguChek PT testing strips + (Roche Diagnostics) + 48 + strip + 1937642</p>		
sub-pack information	string	0 to 1
<p>Information about the composition of medicinal products that are composed of the same product packed in subpacks. NOTE: the length of this field may be up to 30 characters</p> <p>Examples: - a number of separate strips of tablets: 2 x 14 tablets - a number of tubes of tablets: 3 x 20 tablets - a number of gluten-free bread rolls</p>		
combination pack indicator	integer (code value)	0 to 1
<p>Flag denoting that the AMPP is a combination product pack or that the pack is only available as a component pack of a combination product pack (ie not available in its own right). VALUE: 1 = combination pack 2 = component only pack</p>		
Legal category	integer (code value)	1
<p>Status with regards to the legal category of the medicinal product pack VALUES 1 = general sales list (GSL) 2 = pharmacy medicine (P) 3 = prescription only medicine (POM) 4 = not applicable</p> <p>NOTE: the value not applicable is used for all non-medicine packs e.g. appliances , ACBS products</p>		

Discontinued flag	integer (code value)	0 to 1
<p>Flag used to indicate that the pack type has been discontinued by the supplier</p> <p>VALUE:</p> <p>0 = reinstated</p> <p>1 = discontinued</p> <p>null = never been discontinued</p> <p>NOTE: When the value is null this means that the pack is available and always has been available. When the value is 1 the pack has been discontinued. If a discontinued pack should be made available again (reinstated) then it would have a value = 0.</p>		
Discontinued flag change date	date	0 to 1
date when the discontinued flag above last changed its value		

4.7.1 Product prescribing information

Description: Information relating to the prescribing of Actual Medicinal Product Packs under NHS Primary Care Terms of Service. This information is required in the act of prescribing but is also important within dispensing, administration and the reimbursement of fee domains.		
Association		
Actual Medicinal Product Pack (0)		
Each instance of Product Prescribing Information shall be associated with one instance of Actual Medicinal Product Pack.		
Attributes	Type	Occurrence
actual medicinal product pack identifier	SNOMED CT Identifier	1
Identification of the Actual Medicinal Product Pack to which this set of information relates.		
schedule 2 indicator	integer	0 to 1
<p>Indication as to whether the actual product pack is included in Part XVIII B of the Drug Tariff (England & Wales) as being prescribable for specific classes of patient for a specific purpose.</p> <p>VALUE: 1 = schedule 2</p> <p>NOTE: Schedule 2 was previously known as Schedule 11</p>		
schedule 1 indicator	integer	0 to 1
<p>Indication as to whether the actual product pack is included in Part XVIII A of the Drug Tariff (England & Wales) i.e. Schedule 1.</p> <p>VALUE: 1 = schedule 1</p> <p>NOTE: Schedule 1 was previously known as Schedule 10</p>		
hospital indicator	integer	0 to 1
<p>Indication as to whether this item relates to a pack that is only to be made available through hospital prescribing.</p> <p>VALUE: 1 = hospital only pack</p>		
ACBS Indicator	integer	0 to 1

<p>Indication as to whether the item is included in Part XV (Borderline Substances) of the Drug Tariff (England & Wales).</p> <p>VALUE: 1 = ACBS product</p>		
personally administered indicator	integer	0 to 1
<p>Indication as to whether the item, when personally administered by the prescriber, attracts a fee in the Drug Tariff (England & Wales).</p> <p>VALUE: 1 = attracts an administration fee</p>		
FP10 MDA Prescription	integer	0 to 1
<p>Indication as to whether the drug can be prescribed, and consequently dispensed, in instalments on FP10MDA (Drug Tariff England & Wales)</p> <p>VALUE: 1 = FP10 MDA</p>		
nursing formulary indicator	integer	0 to 1
<p>Indication as to whether the actual product pack is included in Part XVIIIB(i) of the Drug Tariff (England & Wales) as being prescribable by nursing formulary nurses</p> <p>VALUE: 1 = nurse formulary</p>		
nurse extended formulary indicator	integer	0 to 1
<p>From 30 April 2006 the Nurse Prescribers' Extended Formulary was discontinued.</p> <p>This flag was previously used to Indicate as to whether the actual product pack was included in Part XVIIIB(ii) of the Drug Tariff (England & Wales) as being prescribable by extended nursing formulary nurses prior to 1 May 2006</p> <p>VALUE: 1 = nurse extended formulary</p>		
dental formulary indicator	integer	0 to 1
<p>Indication as to whether the actual product pack is included in Part XVIIIA of the Drug Tariff (England & Wales) as being prescribable by dentist</p> <p>VALUE: 1 = dental formulary</p>		
GTIN indicator	string	1 to many
<p>This field is either 13 or 14 digits in length.</p> <p>NOTE: some AMPPs will have more than one current valid associated GTIN.</p>		

4.7.2 Appliance pack information

Description: Information relating to Actual Medicinal Product Packs where these contain appliances		
Association <i>Actual Medicinal Product Pack</i> (0) Each instance of Appliance Pack Information shall be associated with one instance of Actual Medicinal Product Pack.		
<hr/>		
Attributes	Type	Occurrence
actual medicinal product pack identifier	SNOMED CT identifier	1
Identification of the Actual Medicinal Product Pack to which this set of information relates.		
appliance reimbursement status	integer (code value)	1
Indication as to whether the appliance is allowed for reimbursement purposes. VALUES 0 = Not allowed (not in Drug Tariff, England & Wales) 1 = Allowed (in Drug Tariff, England & Wales)		
appliance reimbursement status date	date	0 to 1
Date from which the appliance reimbursement status became effective. If absent the date shall be taken as from the issue of the current version of the dictionary.		
appliance reimbursement previous status	integer (code value)	0 to 1
Indication as to the reimbursement status for the appliance prior to the above date VALUES 0 = Not allowed (not in Drug Tariff, England & Wales) 1 = Allowed (in Drug Tariff, England & Wales)		
Pack order number	string	0 to 1
Certain appliances are associated with order numbers within the Drug Tariff, (England & Wales). NOTE: the length of this field may be up to 20 characters		

4.7.3 Reimbursement information

<p>Description: Information relating to financial reimbursement to dispensing contractors in England based on the Drug Tariff (England & Wales) and NHSBSA pricing rules.</p> <p>NOTE: The information within this file will relate particularly to drugs and reagents.</p>		
<p>Association</p> <p>Actual Medicinal Product Pack (0) Each instance of Drug Pack Reimbursement Information shall be associated with one instance of Actual Medicinal Product Pack.</p>		
<p>Attributes Type Occurrence</p>		
actual medicinal product pack identifier	SNOMED CT identifier	1
<p>Identifier used to uniquely identify the Actual Medicinal Product Pack within the dictionary.</p>		
prescription charges	integer	0 to 1
<p>The number of standard prescription charges attracted when this type of product pack is dispensed.</p>		
dispensing fees	integer	0 to 1
<p>Number of standard dispensing fees associated with the pack.</p>		
broken bulk indicator	integer	0 to 1
<p>Indication as to whether the pack is or is not eligible for broken bulk claims. VALUE: 1 = eligible for broken bulk claim</p>		
limited stability indicator	integer	
<p>The Drug Tariff no longer identifies products for this purpose. Therefore this indicator is no longer populated in dm+d. The data field will persist but remains blank.</p>		
calendar pack indicator	integer	0 to 1
<p>Indication as to whether the pack is a calendar pack as defined in the Drug Tariff - Part II clause 10C(i). VALUE 1 = calendar pack</p>		
special container indicator	integer (code value)	0 to 1
<p>Used to indicate a special container as defined in the Drug Tariff (England & Wales) Part II clause 10B. VALUES: 1 = special container 2 = sub-pack is a special container</p>		

Discount Not Deducted indicator	integer (code value)	0 to 1
<p>This indicates whether the product has been identified as a product that has not received discount and as such when reimbursed no discount deduction is applied automatically or where the contractor has to endorse the prescription if no discount has been received. Reference Drug Tariff (England and Wales) – Part II</p> <p>VALUES: 1 = discount not deducted - automatic 2 = discount not deducted – endorsement required</p>		
FP34 D prescription item	integer	0 to 1
<p>Indication as to whether the drug is allowed to be prescribed as a “Bulk vaccine” on personal administration claims under the Drug Tariff (England & Wales)</p> <p>VALUE: 1 = allowed as a bulk vaccine</p>		

4.7.4 Medicinal product price

Description: Information relating to the price (indicative only) charged for an Actual Medicinal Product Pack.		
Association		
Actual Medicinal Product Pack (0)		
Each instance of Actual Medicinal Product Price shall be associated with one instance of Actual Medicinal Product Pack.		
Attributes		
	Type	Occurrence
Actual medicinal product pack identifier	SNOMED CT identifier	1
Identification of the actual medicinal product pack to which this set of information relates.		
Price	integer	0 to 1
Cost in pence (sterling) (indicative only) for the medicinal product pack.		
date of price validity	date	0 to 1
date from which price is applicable		
Price prior to change date	integer	0 to 1
Cost in pence (indicative only) prior to the above date.		
Price basis flag	integer (code value)	1
<p>Identifies where there is an indicative NHS price or the reason why the price field above has no value</p> <p>VALUES: 1 = NHS indicative price 2 = No price available (used where no price information is currently available) 3 = No price – product centrally funded (examples like certain childhood vaccines) 4 = No price – priced when manufactured (specials and extemporaneous prepared items)</p>		

4.7.5 Combination pack content

Description: Used to identify the component packs within an actual combination pack		
Association <i>Actual Medicinal Product Pack</i> (4.7) Each instance of Combination Pack Content shall be associated with one instance of actual Medicinal Product Pack.		
Attributes	Type	Occurrence
actual medicinal product pack identifier	SNOMED CT Identifier	1
Unique identifier for the actual Medicinal Product Pack.		
constituent actual product pack identifier	SNOMED CT Identifier	1
Identity of the component packs within a combination or multipack		

4.8 Ancillary dictionary file structures

In addition to the main 'five box' dictionary, there are a number of other structures which hold information which can be referenced by the dictionary. The 'look-up' file structures presented in this section are a sub-set of those used by the dictionary and are chosen for particular attention since they do not have the simple structure shown below:

Property Value ID
Physical data type: DictionaryID
Allow NULLs: Not allowed

Property Name
Physical data type: Name100
Allow NULLs: Not allowed

4.8.1 Ingredient substance file

<p>Description: Used to describe the substances which may act as ingredients of medicinal products.</p> <p>NOTE: Within the file of ingredient substances will be entries relating to the following:</p> <ul style="list-style-type: none"> - Complete substances which act as actual ingredients of medicinal products. For example: heparin sodium, cyclizine lactate (as distinct from heparin and cyclizine), dexamethasone sodium phosphate. This class of substances may or may not be a salt or other type of derivative. - Basis of strength substances (BoSS) which may or may not be available as actual ingredients. For example, heparin, cyclizine, dexamethasone, dexamethasone sodium. - Excipients - A specified list of 'interesting' excipients (those that may have a biological action) providing the excipient is declared on the SPC. 		
Attributes	Type	Occurrence
ingredient substance identifier	SNOMED CT Identifier	1
<p>Identification of the ingredient substance within the Ingredient Substance file.</p> <p>NOTE: This identifier will be taken from the set of SNOMED CT core terms if such an entry is available. If a suitable entry is not available, an identifier from the UK extension set will be chosen. If at a later time a SNOMED CT core term is generated, it will replace the 'UK extension' identifier which will move to the attribute below.</p>		
ingredient substance identifier date	date	0 to 1
<p>Date from which the ingredient substance identifier is applicable from.</p>		
previous ingredient substance identifier	SNOMED CT Identifier	0 to 1
<p>Previous Identifier for the Ingredient Substance.</p>		

ingredient substance name	string	1
Pharmaceutical product designation in the form of a name. NOTES: 1. The name should be an official name. 2. The length of this field will be up to 255 characters		
invalidity flag	integer	0 to 1
Flag indicating that this dictionary entry was invalid. VALUE: 1 = Invalid NOTE: The entry needs to be retained in case it was used prior to detection of the error(s) which caused its invalidation.		

4.8.2 Form

Description: Used to describe the form associated with medicines.		
<hr/>		
Attributes	Type	Occurrence
form identifier	SNOMED CT identifier	1
Identification of the Form. NOTE: This identifier will be taken from the set of SNOMED CT core terms unless not yet approved.		
form identifier date	date	0 to 1
Date at which the identifier became valid.		
previous form identifier	SNOMED CT identifier	0 to 1
Previous Identifier for the formulation NOTE: This identifier will be generally be a local (NHS Namespace) identifier previously used and then superseded at a later time when an 'official' SNOMED CT term is allocated		
form name	string	1
Name used to describe the formulation.		

4.8.3 Route

Description: Used to describe the Routes of Administration of medicinal products in the drug dictionary		
Attributes	Type	Occurrence
drug route identifier	SNOMED CT identifier	1
Identification of the route. NOTE: This identifier will be taken from the set of SNOMED CT core terms unless not yet approved.		
route identifier change date	date	0 to 1
Date at which the identifier became valid.		
previous drug identifier	SNOMED CT identifier	0 to 1
Previous Identifier for the drug route NOTE: This identifier will be generally be a local (NHS Namespace) identifier previously used and then superseded at a later time when an 'official' SNOMED CT term is allocated		
route name	string	1
Name used to describe the route of administration.		

4.8.4 Supplier

Description: Used to identify suppliers of medicinal products		
Attributes	Type	Occurrence
supplier identifier	SNOMED CT identifier	1
Identification of the medicinal product supplier. NOTE: This identifier will be taken from the set of SNOMED CT (NHS Namespace) terms		
invalidity flag	integer	0 to 1
Flag indicating that this dictionary entry was invalid VALUE: 1 = Invalid Entry NOTE: The entry needs to be retained in case it was used prior to detection of the error(s) which caused its validation.		
supplier identifier change date	date	0 to 1
Date at which the identifier became valid.		

previous supplier identifier	SNOMED CT identifier	0 to 1
Previous Identifier for the supplier		
supplier name	string	1
Name used to describe the supplier		

4.8.5 Unit of measure

Description: Used to describe the unit of measure within the drug dictionary		
Attributes		
Occurrence		
Unit of measure identifier	SNOMED CT identifier	1
Identification of the unit of measure. NOTE: This identifier will be taken from the set of SNOMED CT core terms unless not yet approved.		
Unit of measure identifier change date	date	0 to 1
Date at which the identifier became valid.		
previous unit of measure identifier	SNOMED CT identifier	0 to 1
Previous identifier for the unit of measure NOTE: This identifier will be generally be a local (NHS Namespace) identifier previously used and then superseded at a later time when an 'official' SNOMED CT term is allocated		
Unit of measure name	string	1
Name used to describe the unit of measure.		

Annex I

Document control prior to 2012

Version	Date issued	Brief summary of change	Amended / Approved by
Release 1	September 2000	Final Draft Document of A Data Model for use in the specification of a UK Dictionary of Medicinal Products	T Marley
	2 August 2001	Interim development working document	T Marley
Development Version 1.0	14 November 2001	Development working document	T Marley
	November 2001	Amended to reflect PCDD Prototype	T Marley
Development Version 1.0	13 February 2002	A Data Model for use in the Development of a Primary care Drug Dictionary First draft following Primary Care Use Case testing	T Marley
Development Version 1.1	27 February 2002	amended following comments from project team	T Marley
Development Version 1.1	8 March 2002	further amendments	T Marley
Development Version 1.2	21 March 2002	'Frozen data model' for development of PCDD	T Marley / PPA
Release 1.0 Version 1.0	31 December 2002	Primary Care Drug Dictionary Data Model	T Marley / PPA
Release 1.0 Version 2.0	14 March 2003	Amended following change controlled modifications to model	T Marley / PPA
0.1	22 October 2003	First draft of harmonised PCDD/SCDD model for discussion by UKCPRS Harmonisation Team	T Marley
Release 2.0 Version 0.1	19 November 2003	Draft containing changes provided by Kerry Frenz and resulting from harmonisation meeting.	T Marley
Release 2.0 Version 0.2	28 November 2003	Released to Harmonisation Team for Q/A	D Tutcher

Version	Date issued	Brief summary of change	Amended / Approved by
Release 2.0 Version 0.3	January 2004	Amended in light of comments, d/w DT & PF and released for further QA by Harmonisation Team	Adel /Synapse
Release 2.0 Version 0.4	January 2004	Edited following QA by Harmonisation team	Adel /Synapse
Release 2.0 Version 0.4	4 th February 2004	Further editing in conjunction with KF/AM & PF then issued to Harmonisation Team	Adel / Synapse
Release 2.0 Version 0.5	9 th February 2004	Comments from Harmonisation team added	Adel / Synapse
Release 2.0 Version 0.6	9 th February 2004	Final Draft posted on web	Adel / Synapse
Release 2.0 Version 1.0	November 2004	Changes to bring draft into line with Editorial Policy July 2004	Adel / Synapse
Release 2.0 Version 2.0	December 2004	Version 2.0 to reflect change of extract (tag names of schedule 10 & 11 attributes changes to schedule 1 & 2)	PPA
Release 2.0 Version 3.0	20 January 2006	New extract version to include VTM previous identifier and date Inclusion of Drug Tariff Payment category M in list of values	PPA
Release 2.0 Version 3.0	1 April 2006	All references to Prescription Pricing Authority (PPA) amended to NHS Business Services Authority (NHSBSA) Restrictions on availability and licensing authority change reason at AMP level renumbered to match extract	NHSBSA
Release 2.0 Version 3.0	20 December 2006	Matched to Technical Specification of xml files Updating of field values to reflect Editorial Policy	NHSBSA
Release 2.0 Version 3.0	20 November 2007	Updating of field and attribute values to reflect Editorial Policy	NHSBSA
Release 2.0 Version 3.0	13 October 2008	Updating of field and attribute values to reflect Editorial Policy	NHSBSA
Release 2.0 Version 3.0	17 August 2010	Updating of field and attribute values to reflect Editorial Policy	NHSBSA