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dm+d Frequently Asked Questions (FAQ)

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Reviewers

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Glossary of Terms

Term / Abbreviation	What it stands for
Advisory Committee on Borderline Substances/ACBS	<p>A board known as the Advisory Committee on Borderline Substances (ACBS) advises on the circumstances in which these products may be regarded as drugs. Part XV of the Drug Tariff sets out the approved Borderline Substances.</p> <p>List A is an alphabetical index of the approved borderline products and the conditions they may be prescribed for.</p> <p>List B is an alphabetical index of medical conditions and the approved products for managing those conditions.</p> <p>Prescribers should endorse prescriptions with the endorsement 'ACBS' if they are issuing the prescription in accordance with the Committee's advice.</p>
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. It describes an actual product which is known to have been available linked to the name of a particular supplier, for example 'Aspirin 300mg caplets (The Boots Company Plc)'.
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. The AMPP describes an actual product which is known to have been available linked to both the name of a particular supplier and information on the pack size of the product, for example 'Aspirin 300mg caplets (The Boots Company Plc) 32 tablet'. It may contain multiple components each of which may or may not be an AMPP in their own right.
Anatomical Therapeutic Chemical/ATC	A classification system, maintained by the World Health Organisation (WHO), in which active substances are grouped depending on its chemical, pharmacological and therapeutic attributes.
British National Formulary/BNF	A pharmaceutical reference book containing information and advice on prescribing and pharmacology; including specific facts and details about medicines available on the UK National Health Service.
Defined Daily Dose /DDD	DDD is defined by the World Health Organisation (WHO) as the assumed average maintenance dose per day for a drug used for its main indication in adults.
NHS dictionary of medicines and devices/dm+d	A terminological resource containing unique identifiers and associated textual descriptions for representing medicines and medical devices used within the UK.
NHS England and Wales (Department of Health and Social Care and Welsh Government) Electronic Drug Tariff	The Drug Tariff provides information on what will be paid to contractors for NHS Services including both reimbursement (e.g. the cost of drugs and appliances supplied against an NHS Prescription form) and remuneration (e.g. professional fees/allowances which are paid as part of the NHS pharmacy contract). It is produced monthly by NHS Prescription Services, part of the NHS Business Services Authority on behalf of the Department of Health and Social Care. Paperback copies are supplied primarily to pharmacists and doctors' surgeries. It is also available in electronic format.
European Directorate for the Quality of Medicines and Healthcare/EDQM	Organisation responsible for maintaining the EDQM Standard Terms. The Standard Terms database contains terms and definitions to describe pharmaceutical dose forms, routes and methods of administration, containers, closures, administration devices and units of presentation.
European Medicines Agency/EMA	The European Medicines Agency (EMA) is a European Union agency for the evaluation of medicinal products.
Global Trade Item Number/GTIN	GTIN is a globally unique number used to identify trade items, products, or services.
Medicines and Healthcare products Regulatory Agency/MHRA	An executive agency of the Department of Health and Social Care responsible for regulating medicines, medical devices and blood components for transfusion in the UK.
NHS Business Services Authority/NHSBSA	NHSBSA is the organisation responsible for populating and maintaining dm+d. It is also the organisation responsible for the reimbursement of medicines prescribed in primary care.
NHS Pro-File Information Resource	Pro-File is the database of products manufactured by NHS Specials manufacturing units. http://www.pro-file.nhs.uk
Summary of Product Characteristics/SmPC	Part of the regulatory documentation for licensed medicines.
Systematized Nomenclature of Medicine	SNOMED CT® is a comprehensive international healthcare terminology. SNOMED CT® has been adopted as the standard clinical terminology for the NHS in England and consists of descriptions and unique identifiers.

- Clinical Terms/SNOMED CT®	SNOMED CT® is managed and maintained internationally by SNOMED International and in the UK by NHS Digital.
Technology Reference-data Update Distribution Service/TRUD	<p>The Technology Reference-data Update Distribution Service provides a mechanism to distribute reference-data including dm+d to interested parties. This is the preferred distribution method and is hosted by NHS Digital.</p> <p>All registration requests for the TRUD Service should be done through https://isd.digital.nhs.uk/trud3/user/guest/group/0/home.</p>
Units of Measure/UoM	UoM can be used to express the value of the strength of an active ingredient or excipient contained within a product. It is also used to quantify the amount of the product, for example its mass, volume, number of entities or otherwise in a container, intermediate container or package as supplied.
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. The Virtual Medicinal Product describes the generic title for a product including the form and strength, for example 'Aspirin 300mg tablets'.
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. It describes the generic title for a generic or proprietary product pack which is known to have been available. The description includes the pack size, for example 'Aspirin 300mg tablets 32 tablet'.
Virtual Therapeutic Moiety/VTM	<p>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.</p> <p>Examples of Virtual Therapeutic Moieties:</p> <ul style="list-style-type: none"> Aspirin Atenolol Co-amoxiclav Doxorubicin Fluoruracil Paracetamol + Metoclopramide <p>Moiety is often used synonymously with the chemical term 'functional group' but there are subtle differences in meaning which are explained here.</p>
World Health Organisation/WHO	A specialised agency of the United Nations responsible for international public health.

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1. Introduction

1.1. Purpose

This document has been written to address common queries clinicians and implementers may have when exploring the use of the Dictionary of Medicines and Devices (dm+d)¹ within an electronic patient medication record.

1.2. Outline

The document has been divided into sections A and B which are broadly more relevant to clinicians and implementers respectively. These sections are then further subdivided into different topics of interest to assist the user in locating the answers required.

2. Section A: Clinicians

2.0 Dose Forms

2.1 Why are some dose forms missing (for example, caplets and pomade)?

The Dictionary of Medicines and Devices (dm+d) dose forms for licensed medicines are based upon the European Directorate for the Quality of Medicines & HealthCare (EDQM)^{2, 3} dose forms that are used by the medicines regulatory bodies and recorded on the Summary of Product Characteristics (SmPC).

Caplets are tablets of a particular shape and so there is no official dose form to identify them. If there is a need to prescribe caplets for a patient it would be necessary to select an Actual Medicinal Product (AMP) where either the word “caplets” is in the AMP name or where the prescriber is aware that the tablets are of the required shape.

Pomade is not listed as an EDQM standard term. The dm+d policy uses the term ‘scalp application’ as the dose form for pomades; in line with how the licensed products are expressed and the list of preferred dermatological preparations produced by the British Association of Dermatologists.⁴

2.2 How is the preservative free flag assigned in dm+d?

The preservative free flag is used to denote the absence of preservative in preservative free eye products.³ Please note: the setting of this flag only confirms that preservative is absent from the Virtual Medicinal Product (VMP) and associated AMP concepts; a null value does not necessarily indicate that it is present. The flag is not applied to any other dose form; for example, intraspinal injections.

2.3 Do VMPs differentiate between cutaneous products with an alcoholic and aqueous base (for example, Benzoyl peroxide 5% gel)?

The base used in cutaneous products is not always identified at VMP level in dm+d. This may mean that in order to specify a patient's requirements more specifically, prescribing at AMP level may be more appropriate.

2.4 Are injections for intraspinal use differentiated at VMP level in dm+d?

Injections licensed for intraspinal administration are not differentiated at VMP level in dm+d. In addition, several products that may be given by this route are unlicensed specials. For prescriptions requiring a product to be given by these high-risk routes it is necessary that the suitability of the product to be administered is confirmed at the point of dispensing and/or administration.

3.0 dm+d data model and Editorial policy

3.1 Why are there inconsistencies in the way VMP and AMP strengths are expressed?

At VMP level, the strength may represent the total amount of active ingredient in each unit dose form (such as per tablet) or may be expressed per volume or per weight (such as for liquids and semi-solids). Strength in the VMP name will be the clinically intuitive strength, for example, Amoxicillin 250mg/5ml oral suspension.

At AMP level, the representation of strength is based upon how the supplier or manufacturer states the strength in the product labelling. Representation of the strength of a product can vary depending on several factors including:

- whether the product is a drug, medical device/appliance, cosmetic, food, or toiletry
- if the product is a licensed medicinal product or not
- if the product contains two or more active ingredients
- the ingredient naming style used by manufacturers
- the pharmaceutical form of the product
- the unit of measure associated with the strength
- whether the strength is expressed by total amount, or amount of drug present in a unit dose volume

Appendix XX of the NHS dm+d Editorial policy³ lists examples of VMP and AMP strength mismatches and the reasons for the discrepancies.

3.2 Why are there inconsistencies in the word order of VMP and AMP names for combination products?

Prior to 2016, the dm+d word order for VMP combination names (products containing two or more active substances) were authored in-line with the British National Formulary (BNF). Since 2016, the source manufacturer SmPC documentation has tended to be used to guide the dm+d editorial style in an attempt to join up the word sequence used in the company literature and packaging with the dm+d terms.³

In the event of more than one AMP being attached to a VMP and the AMPs having different word orders in their SmPCs, dm+d will follow the word order of the first product to market for the VMP.

3.3 Why are some VMPs prefixed with 'Generic'?

A VMP will always be issued with a VMP name. VMPs with more than two active substances will be populated with the prefix 'Generic' followed by the AMP name of the product.³ VMPs using this naming style will have a prescribing status of "Never valid to prescribe as a VMP". If two or more proprietary products exist, a VMP name of Generic XXXX is assigned; where XXXX is the name of the first product to be marketed. (Note: There are exceptions to this for parenteral products that are vaccines or large volume parenteral fluids containing three or more active ingredients – please refer to the NHS dm+d Editorial policy³ for full details.)

3.4 Why are Special Order products assigned with a pack size of 1ml?

Special Order products are unlicensed medicinal products manufactured in the UK for human use which have been specially prepared to meet a prescription ordered for individual patients without the need for the manufacturer to hold a marketing authorisation for the medicinal product concerned.³

As Special Order products are often manufactured on request to cater for the specific needs of individual patients, the quantities prescribed for patients can vary significantly. To accommodate for this, entries have been created in dm+d based on the smallest unit of measure, for example 1ml.

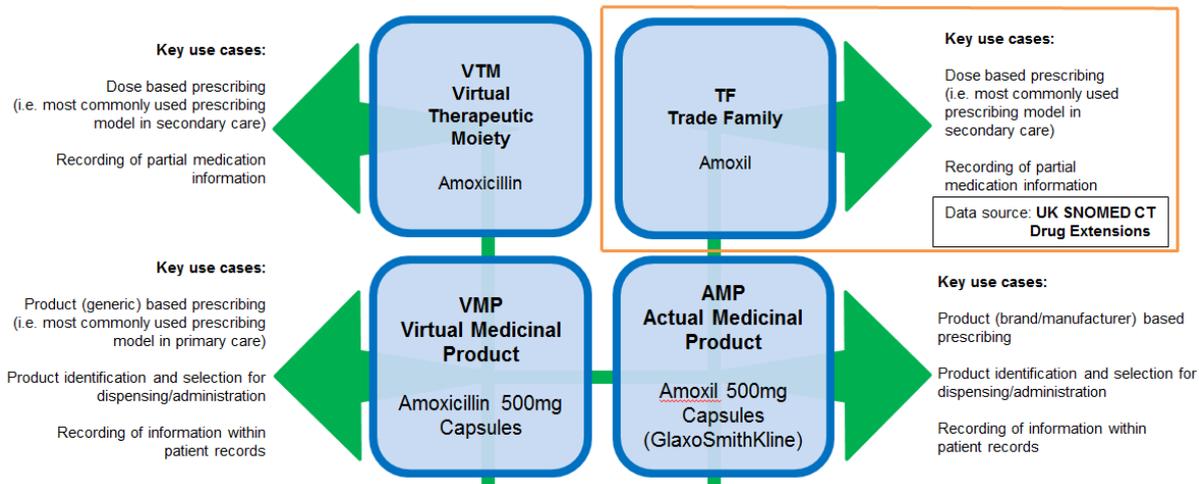
Where the Special Order product is listed in the NHS England and Wales Drug Tariff⁵ or the Pro-File database, Virtual Medicinal Product Pack (VMPP) and Actual Medicinal Product Pack (AMPP) are also created to represent the listed packs.

3.5 What is Trade Family (TF)?

A Trade Family is a class of concepts created in the SNOMED CT UK Drug Extension and represents the branded product name without the strength or form, and most closely resembles the Virtual Therapeutic Moiety (VTM) in the dm+d data file model. Actual products with generic drug names are not included in Trade Family data. For further details on the Trade Family concepts see the SNOMED CT UK Drug Extension Editorial policy.¹¹

Example:

In dm+d the VTM “Amoxicillin” has links with the VMP “Amoxicillin 500mg capsules”, which in turn has links with the AMP “Amoxil 500mg Capsules (GlaxoSmithKline)”. In the SNOMED CT UK Drug Extension there is a link from the AMP concept to a Trade Family (TF) concept of “Amoxil” as shown below.



The generically named AMPs such as “Amoxicillin 500mg capsules (Almus Pharmaceuticals Ltd)” (which links to the same VMP) do not have a trade family concept associated with them.

Note that Trade Family is not part of the dm+d data and therefore will only be available to clinicians if the SNOMED CT UK Drug Extension data is loaded.

3.6 I can't find the product name or ingredient required listed on dm+d. How can I get it added?

Please note that dm+d only includes a single version or spelling of a product name and ingredient; alternative names, previous names, synonyms or spellings will not be added. For example, as per the manufacturer's data sheet, the product range for 'Fortijuce' is available on dm+d with the aforementioned spelling and not 'Fortijuce' as it is commonly misspelled.

If you are still unable to find the product or ingredient required listed on dm+d, please email the dm+d team on nhsbsa.dmdenquiries@nhs.net with full details of the product or ingredient.

4.0 Prescribing

4.1 Why are the units of measure of inhalers at VMPP and AMPP level expressed as doses and not puffs?

Traditionally aerosol devices, particularly metered dose inhalers (mdi) dosing instructions were prescribed in terms of “puffs”. With the increasing number of dry powder inhalers being prescribed, which contain doses and do not “puff”, the reference to puffs for all inhalers is not recommended. The current advice from respiratory physicians is that inhaled medicines should be prescribed according to the number of **doses** to inhale irrespective of the type of inhaler device.

Standardisation of dosing instructions in prescribing and labelling of inhalers in line with national and local guidelines is important to support promotion of inhalers to patients as a medicine. This will enable the safe and reliable transfer of medicines information between different clinical systems using a common language.

Some system suppliers may have additional functionality (non-divisible units of measure) within their applications to reconcile the number of doses contained in a product to assist the clinician in prescribing by whole packs; for example, 200 doses = 1 inhaler.

Section B: Implementers

5.0 Pick list

5.1 The dm+d name is very long. Can we truncate it on the user interface on-screen display?

The dm+d names have been constructed to accurately represent each unique product and is based on evidence and interaction with safety experts. It is recommended that the on-screen display of dm+d concepts use the term from dm+d exactly as provided by dm+d without truncation or changes to the capitalisation.^{6,7} String wrapping onto an additional line is permitted.⁷ Modern monitor screens should be able to handle the display of the full dm+d concept. However, system suppliers may wish to review the layout and functionality of the on-screen displays of their applications to assist its users.

It is worth noting that whilst VMP and AMP Names have a maximum of 255 characters, AMPP descriptions have a limit of 774 characters. Full details of the character limitation of individual dm+d entries are listed in the document 'Technical Specification of data files R2 v3.1 May 2015'.⁸

Note: The dm+d Abbreviated name is intended solely for the purpose of creating dispensing labels. The abbreviated name for VMP and AMP concepts is to satisfy the requirement from Pharmacy system suppliers for a label name of no more than 60 characters. It is not intended for, and cannot be recommended for, use in on-screen display because it is not unique, unlike the full descriptions.⁶

5.2 How can the dm+d content be filtered to create a pick list?

dm+d does not directly support the production of picking lists – there is no one table that can be used as a browsable list from which to make a selection. However, dm+d does provide the basic information to facilitate the construction of picking lists (see sub-sections below). The precise content for inclusion will depend upon the use case and care setting. Further guidance on the production of picking lists can be found in the 'dm+d Implementation Guide (Primary Care)' document.⁹

5.2.1 How can the dm+d content be filtered to create a pick list of medicines?

The Licensing authority value held at AMP can be used as a filter to create a list of licensed medicines in dm+d. It should be noted that selecting 'Medicines – MHRA/EMA' as the required value will exclude unlicensed medicines, Special Order products and also devices such as emollients, eye drops, ear drops and synovial fluid injections.

Depending on the use case, if required, it is possible to re-introduce the excluded entries by further manipulation of the dm+d data. For example, eye drops are often perceived by prescribers as medicines even though in some cases it may be licensed as devices. To identify a list of eye drops which are licensed as devices for inclusion in the pick list, a draft AMP list for further manual refinement can be created by filtering on the licensed authority (devices) and route (ocular and/or intraocular).

5.2.2 What do I need to consider when building a pick list that includes VMP and AMP concepts?

When building a pick list that includes both VMP and AMP concepts it may be desirable to exclude generic AMPs. dm+d does not include a flag to identify these specifically however excluding all AMPs where the AMP name is a match for the name of the associated VMP excludes most – but not all - of these.

If the use case requires the inclusion of generic AMPs and AMPPs, it should be noted that there are generic products listed as AMPs and AMPPs in dm+d where the supplier (appearing as part of the description) is a wholesaler and not a true manufacturer (E.g. Kent Pharmaceuticals Ltd). However, such wholesalers may also have products that they market within their own livery. These are present only to facilitate the ordering and reimbursement of products against a wholesaler price point. They should not be available in prescribing pick lists. Please refer to Appendix 1 of the 'dm+d Implementation Guide (Primary Care)'⁹ document for further guidance on how to identify these entries for exclusion from the prescribing pick list.

5.2.3 How can I exclude food products from my pick list?

When building a pick list, it may be desirable to exclude food products. dm+d does not include a flag to specifically identify these food products. However, an implementer can filter the dm+d data to obtain a smaller list for manual review for exclusion to meet individual use cases.

For example, VMPs (and associated AMPs) of food products can be identified by filtering on the ontology form-route of `grocerysolid.oral`, `grocerysemisolid.oral`, `liquidfood.gastroenteral`, `liquidfood.oral`, `powderfoodmix.oral` or `granulesfoodmix.oral`.

5.2.4 Can the pick list be restricted based on availability and the local formulary?

For prescribing purposes, it is likely that implementers may wish to provide a limited pick list based upon product availability and local formulary decisions. However, it should be noted that in order to be able to record medication on admission or previous medication it may be necessary create a pick list with a wider scope.

6.0 Routes of Administration

6.1 Does the dm+d data contain information regarding routes of administration?

Within the dm+d data, licensed routes are populated at AMP level. The routes of administration populated at VMP are an aggregation of those allocated to the associated AMPs. Unlicensed routes are outside of the scope of dm+d. It is a system design decision on how unlicensed routes should be implemented.

6.2 Why has dm+d assigned a solution for injection an oral route of administration?

It is worth noting that in some exceptional cases, products may have a valid but unexpected route of administration assigned in dm+d. For example, the dm+d entry for the AMP Konakion MM Paediatric 2mg/0.2ml solution for injection ampoules (Cheplapharm Arzneimittel GmbH) is listed in the dm+d with the licensed route of oral, intravenous and intramuscular. This is in line with the Summary of Product Characteristics (SmPC) and the British National Formulary (BNF) which publishes licensed dosages for the administration of this product orally in neonates. Clinicians are advised to always refer to the SmPC and BNF for the latest prescribing and administration advice.

7.0 Units of Administration and Units of Measure (UoM)

7.1 What's the difference between units of administration and units of measure?

Units of administration is used to quantify the amount of medication to be administered to a patient. For example, the units of administration for an eye drop is often expressed as the number of drops to be administered to the eye.

Units of measure (UoM) are used in several places within the dm+d. The dm+d Editorial policy³ and Technical Specification document⁸ provide the full details on this. UoM can be used to express the value of the strength of an active ingredient or excipient contained within a product. It is also used to quantify the amount of the product, for example its mass, volume, number of entities or otherwise in a container, intermediate container or package as supplied.³ For example, the UoM for a bottle of eye drops may be expressed as millilitres (ml).

In some cases, the units of administration and UoM may be the same. For example, a tablet formulation may have a unit of administration and UoM of tablet. However, certain formulations of medicines such as eye drops may have different units of administration and UoM; for example, drop and ml respectively.

7.2 Does the dm+d data contain information regarding units of administration?

When entering the dose detail for prescribing, applications may require a list of possible units of administration for the current drug selection to be presented to the user. dm+d does not provide units of administration for specific products, as this is considered clinical decision support and therefore outside of the remit of dm+d.

dm+d does provide a list of units of measure against the VMP concepts which may be used to assist in populating a 'units of administration' picking list when prescribing and clinically appropriate. It is however a system design decision as to how units of measure are used or configured appropriately for the system. This section gives further information to assist in that decision.

The unit of measure codes are SNOMED CT concept identifiers and the unit of measure detail is stored in the dm+d Lookup XML data file under UNIT_OF_MEASURE.

The following is a list of units of measure (UoM) recorded against the VMP concepts. Please refer to the dm+d Editorial policy³ and Technical Specification document⁸ for full details. A summary of the detail is given below:

1. Unit Dose Form Size UoM (VMP.UDFS_UOMCD)
2. Unit Dose UoM (VMP.UNIT_DOSE_UOMCD)
3. Virtual Product Ingredient Strength
 1. Numerator UoM
 2. Denominator UoM
4. Defined Daily Dose (DDD) UoM
5. SNOMED CT UK Drug Extensions Units of administration (available for a small set of VMPs)

7.2.1 Unit Dose Form Size UoM

VMP.UDFS_UOMCD is defined in the Technical Specification document⁸ as “the unit of measure relating to the size”, where the value of the size is supplied in the VMP.UDFS field. The 'Unit Dose Form Size Unit of Measure' is stored against the VMP and the field is called UDFS_UOMCD. This field is only populated when the VMPs Dose Form Indicator (VMP.DF_INDCD) is set to 'Discrete', which has the code of 1 (VMP.DF_INDCD = 1).

7.2.2 Unit Dose UoM

VMP.UNIT_DOSE_UOMCD is defined in the Technical Specification document⁸ as “a description of the entity that can be handled”. This is stored against the VMP and the field is called UNIT_DOSE_UOMCD. This field is only populated when the VMPs Dose Form Indicator (VMP.DF_INDCD) is set to 'Discrete', which has the code of 1 (VMP.DF_INDCD = 1).

7.2.3 Virtual Product Ingredient Strength

Describes the pharmaceutical strength of a drug by indicating the quantity of the substance(s) per defined unit of measure. The data is in dm+d VMP XML files and can be found in the XML elements of VIRTUAL_PRODUCT_INGREDIENT \ VPI and links the VMP identifier (VPID) to

ingredient substance identifier(s) (ISID). Also included in this data is the strength of each ingredient:

1. Numerator value (STRNT_NMRTR_VAL) – number which can be a decimal e.g. 2.5
2. Numerator Unit of Measure (STRNT_NMRTR_UOMCD) – unit of measure identifier
3. Denominator value (STRNT_DNMTR_VAL) - number which can be a decimal e.g. 2.5
4. Denominator Unit of Measure (STRNT_DNMTR_UOMCD) – unit of measure identifier

The numerator and denominator unit of measure codes can be used to refine the list of units of administration for a specific drug.

The ingredient strength detail is not always populated, so all of ingredient strength unit of measure fields may be empty.

7.2.4 Defined Daily Dose (DDD)

DDD is defined by the World Health Organisation (WHO) and the DDD is taken from WHO data along with the Anatomical Therapeutic Chemical (ATC) Classification code. The WHO data is found in the dm+d supplementary file, which will require an additional file to be downloaded from Technology Reference data Update Distribution (TRUD)¹⁰ website. This file is also known as BNF data as it also links VMPs to the 'old' BNF chapter codes as well as ATC and DDD data. The file links VMP (by BNF_DETAILS.VPID) to a defined daily dose (BNF_DETAILS.DDD) which is a value and the defined daily dose unit of measure code (BNF_DETAILS.DDD_UOMCD).

Only the code is stored against the VMP. The associated description can be retrieved from the UNIT_OF_MEASURE data.

7.2.5 SNOMED CT UK Drug Extensions Units of Administration

It has been identified that producing a list of units of measure recorded against dm+d's VMP and ingredients does not always provide the units of measure that may be required for prescribing. To address this deficiency an additional field has been created for a small subset of VMPs and AMPs in the SNOMED CT UK Drug Extension data. The VMP's and AMPs have a relationship attribute of 'Has unit of administration', which has a concept identifier of 13085501000001109 which will be referenced in the Relationship data file under the **typedId** field. The **sourceId** field will be the VMP or AMP identifier and the **destinationId** field will be the unit of measure identifier.

The subset of VMPs and AMPs are:

- insulins

For insulins the unit of administration should always be "unit" and the destinationId will be 767525000 | Unit (qualifier value).

- drops that are used in the eye, nose or ear

These will have the unit of administration of "drop" and the destinationId will be 10693611000001100 | drop (qualifier value).

7.3 Is it acceptable to have multiple units of measure (UoM) against a single medication?

Units of measure (UoM) are used in several places within the dm+d. The dm+d Editorial policy³ and Technical Specification document⁸ provide the full details on this.

In some cases, VMP and AMP concepts may be associated with multiple UoMs. For example, the VMP White soft paraffin 15% / Liquid paraffin light 6% cream and its AMP Oilatum Junior Cream (Thornton & Ross Ltd) are associated with packs expressed in millilitres (ml) and gram. This seeming anomaly is in line with the way the manufacturer has licensed the product.

8.0 Global Trade Item Number (GTIN)

8.1 Why do the GTIN numbers we have against our local product file not match those provided in dm+d?

The brand owner, the organisation that owns the specifications of the trade item regardless of where or by whom it is manufactured, is responsible for the allocation of the GTIN. The accuracy of the dm+d data is reliant on the brand owner notifying the NHS Business Services Authority (NHSBSA) of any new allocations and changes to existing GTIN allocations.

Note that an AMPP may have a 1 to many GTIN relationship (for example, NHS England and Wales Drug Tariff Special Order product packs) but a GTIN will have a single relationship to one AMPP at any point in time (that is, a GTIN cannot have 1 to many valid AMPP relationships).

There is more information about GTINs in the NHS dm+d Editorial policy Appendix XVIII.³

If you notice any discrepancies in the population of GTINs in the dm+d data, please report this to nhsbsa.dmdenquiries@nhs.net so that it can be investigated.

8.2 Why do some AMPPs not have GTINs populated in dm+d?

A GTIN will be populated where provided by a supplier with the following exceptions³:

- GTINs which are provided for 'outer' packaging (as 'outers' are not authored in dm+d)
- Special Order products populated with a single VMPP and AMPP that have been created based on the unit of measure e.g. 1ml
- Unflavoured AMPPs that have been authored for some food substances with a supplier of 'Flavour Not Specified'
- Where a GTIN has been re-used (intentionally or inadvertently) the maintainers of dm+d may decide to end date the GTIN on the original product and not allocate the GTIN to the new product to avoid systems incorrectly identifying a product

9.0 References

1. [‘NHS dictionary of medicines and devices \(dm+d\) Data Model’](#): Release 2.0 Version 3.1, May 2015 (viewed online 7 April 2020)
2. [‘European Directorate for the Quality of Medicines & HealthCare’ \(EDQM\)](#) (viewed online 7 April 2020)
3. [‘NHS dictionary of medicines and devices \(dm+d\) Editorial Policy’](#): Release 2.0 Version 3.5, July 2020 (viewed online 28 October 2020)
4. [‘Specials Recommended by the British Association of Dermatologists for Skin Disease’](#): 2018 (viewed online 7 September 2020)
5. [‘NHS England and Wales \(Department of Health and Social Care and Welsh Government\) Electronic Drug Tariff’](#) (viewed online 7 April 2020)
6. [‘dm+d description guidance’](#): Version 1.0, August 2018 (viewed online 7 April 2020)
7. [‘EPS Dispensing Systems Compliance Specification’](#): Version 5.4, August 2015 (viewed online 7 April 2020)
8. [‘Technical Specification of data files’](#): Release 2.0 Version 3.1, May 2015 (viewed online 26 March 2020)
9. [‘dm+d Implementation Guide \(Primary Care\)’](#): Version 2.0, November 2020 (viewed November 2020)
10. [‘Technology Reference data Update Distribution’](#) (viewed online 7 April 2020)
11. [‘The SNOMED CT UK Drug Extension Editorial policy’](#): Version 8.1, December 2017 (viewed online 27 October 2020)