dm+d description guidance
v1.0
Document management

Revision History

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<tr>
<th>Version</th>
<th>Date</th>
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<th>Reviewer name</th>
<th>Title / Responsibility</th>
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<td>Emma Melhuish</td>
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<td>13/06/18</td>
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This document must be approved by the following people:

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**Glossary of Terms**

<table>
<thead>
<tr>
<th>Term / Abbreviation</th>
<th>What it stands for</th>
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<tbody>
<tr>
<td>ACBS</td>
<td>Advisory Committee on Borderline Substances</td>
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<td>BNF</td>
<td>British National Formulary</td>
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<tr>
<td>dm+d</td>
<td>NHS Dictionary of medicines and devices</td>
</tr>
<tr>
<td>ePMA</td>
<td>Electronic Prescribing and Medicines Administration</td>
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<td>EPS</td>
<td>Electronic Prescription Service</td>
</tr>
<tr>
<td>GPsOC</td>
<td>GP Systems of Choice</td>
</tr>
<tr>
<td>GTINs</td>
<td>Global Trade Item Numbers</td>
</tr>
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<td>Health Care Practitioners</td>
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<td>NHS Connecting for Health</td>
<td>One of the predecessor organisations of NHS Digital</td>
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<td>National Reporting and Learning Service</td>
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<td>Standardisation Committee for Care Information</td>
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<td>Summary Care Record</td>
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<tr>
<td>SmPC</td>
<td>Summary of Product Characteristics</td>
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<td>UKCPRS</td>
<td>The UK Clinical Products Reference Source</td>
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**Document Control:**

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1. Introduction

1.1. Purpose of Document

1.1.1. Background context

This document provides guidance to system suppliers and programmes on a consistent approach on how to use and display terms from the NHS dictionary of medicines and devices (dm+d) whilst accepting that individual programme requirements may provide more detailed information.

1.2. This document is used to provide information on:

This document will provide information on:

- how dm+d terms are constructed
- why dm+d terms are constructed this way
- and to give recommendations on how these terms should be used and displayed.

Note: If a programme has specific requirements, then these requirements should be used over the recommendations in this document.

2. Background

dm+d is a dictionary of descriptions and codes which represent medicines and devices in use across the NHS. dm+d is delivered through a partnership between NHS Digital and the NHS Business Services Authority.

dm+d provides consistency in how medicines are expressed through a robust published Editorial Policy and Governance structure.

A need to standardise how medicines and medical devices are described in the United Kingdom was first identified in the 1998 Government White Paper ‘Information for Health’. This paper noted:

“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”

This paper led to the setup of the UK Clinical Products Reference Source (UKCPRS) programme and the subsequent delivery of the dm+d product.

‘The Power of Information’ (a ten-year strategy for transforming the way patients get and use information about their health) (May 2012) also noted:

“At the moment different areas of the health and care system use different coding terminologies – this means that information cannot flow around the system well……all relevant systems should use the same terminology to exchange coded information; SNOMED CT, adapted to fit all necessary uses, is the appropriate terminology to base this on. Similarly, to allow drugs to be consistently referenced, systems will consistently use the electronic drugs dictionary (dm+d)”
2.1. What is dm+d?

The dm+d product provides:

- a unique stable identifier (code) for all medication items
- a standard term (description) for all medication items
- a link to the supply chain by the inclusion of GS1 Global Trade Item Numbers (GTINs) wherever possible
- a structure in which the above information is held
- ongoing maintenance of the content with a published weekly data update
- an online publication mechanism via the Technology Reference data Update Distribution (TRUD) site
- a formal governance structure
- a publicly available editorial policy, data model, and technical specification.

dm+d does NOT provide:

- application functionality
- decision support functionality; dm+d is not a decision support system although it does provide information that these systems will utilise

2.1.1. Key documentation

The following key documents are available from the dm+d website:

- dm+d Editorial Policy
- dm+d Data Model
- dm+d Technical Specification of Data Files
- dm+d Implementation Guidance (Primary Care)
- dm+d Implementation Guidance (Secondary Care)

2.2. Fundamental Standard

In April 2017, the Standardisation Committee for Care Information (SCCI) approved dm+d as Fundamental Standard SCCI0052 (NHS information standard to support interoperability).

The primary purpose of the SCCI standard is to support interoperability between electronic systems that exchange or share information about medicines directly relating to patient care. When systems exchange or share information about licensed medicines in England the following requirements apply as a minimum in any communication:

- **must** include the dm+d SNOMED CT identifier

  1
- **should** include the name or description for the medication item

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1 When deriving this from SNOMED CT, the SNOMED CT identifier must be the SNOMED CT concept ID and not the description ID.
The SCCI standard does not cover the use or display of dm+d descriptions within a system.

3. **dm+d descriptions**

Descriptions in dm+d normally use ‘sentence case’ where the first letter in the dm+d description is capitalised but not the rest of the description.

Please note however that the Actual Medicinal Product (AMP) name reflects the naming in the Summary of Product Characteristics (SmPC); which ideally should reflect the product packaging too.

3.1. **Standard format**

Descriptions in dm+d are constructed using a standardised format.

dm+d only has one description for every product, there are no synonyms in dm+d.

3.1.1. **Virtual Therapeutic Moiety (VTM)**

Medicine VTM s usually follow the format of

Name or Name + Name

The first letter of each drug must be capitalised.

3.1.2. **Virtual Medicinal Product (VMP)**

Medicine VMPs usually follow the format of

Name + Strength + Modification(s) + Form + Unit dose + xxx-free(s)

Bold denotes information that will always be provided.

Strength may not always be present, exceptions include Aqueous cream and Simple linctus as examples.

Modification(s), unit dose and ‘freeness’ information will be provided where applicable.

Appliance / medical device VMPs are assigned VMP names consistent with Drug Tariff headings where possible. Incontinence and stoma type appliances will not usually have size at VMP level, other appliances such as bandages, dressings and catheters will have size at VMP level

3.1.3. **Actual Medicinal Product (AMP)**

The AMP description consists of the following:

Name + Strength + Modification(s) + Form + Unit dose + xxx-free(s) + product order number + size + colour + (Supplier)

Note: product order number, size and colour are applicable for appliances only.

Shade is included for certain Advisory Committee on Borderline Substances (ACBS) products such as camouflage preparations

3.1.4. **Virtual Medicinal Product Pack (VMPP)**

The VMPP description consists of the following:

VMP name + VMPP Quantity and VMPP Quantity unit of measure
3.1.5. Actual Medicinal Product Pack (AMPP)

The AMPP description consists of the following:

**AMP name + Product order number + size + colour/shade + (supplier) + VMPP Quantity and VMPP Quantity unit of measure + Subpack information + Pack order number.**

Note: product order number, size, colour and pack order number are applicable for appliances only.

3.2. Nomenclature

For VTMs and VMPs dm+d uses, wherever possible, international or national standards for descriptions in dm+d.

Names are taken from the following approved sources in order:

- rINN – recommended international non-proprietary name
- INNM – modified recommended international non-proprietary name
- pINN – proposed international non-proprietary name
- BAN – British approved name
- BANM – modified British approved name
- USAN – United States adopted name
- Other – must be clinically intuitive

For AMPs where the manufacturer has created an Invented Name (also known as a brand name) this is used as part of the AMP name.

3.3. Order

Where a dm+d description at VTM or VMP is for a compound product (a product with more than one active ingredient) there is a need to decide the order in which the names appear (Note: an approved name in the British Pharmacopeia for compound products will always be used e.g. co-codamol).

Normal semantic form for compound products is **Name strength / Name strength form**

The order of appearance for both VMPs and VTMs is detailed below:

- Populate with generic name of active substances in-line with the British National Formulary (BNF) word order for the active substances.
- Where a product is not in the BNF, populate with generic name of active substances in greatest quantity/strength order followed by alphabetical order, except in the instance of a range of products where it would not be clinically intuitive to reverse the order part way through the product range.
- Where the quantity/strength for the active ingredients cannot easily be compared, for example where one active ingredient is expressed in units and the other active ingredient is expressed as milligrams. For licensed compound products the SmPC can also be used as a reference as to the word order of the active substances.

All components of combination packs must begin with a capital letter

For multi-component VTMs the word order is:
• the same as the order used in the VMP

VMP examples:
• Hydrocortisone acetate 1% / Fusidic acid 2% cream
• Hydrocortisone 1% / Clotrimazole 1% cream

For potassium containing infusions the decision made by the dm+d Editorial Group at the request of the former National Patient Safety Agency (NPSA) is that the potassium content must always come first in any description as a patient safety feature. For example:
• Potassium chloride 0.3% (potassium 20mmol/500ml) / Glucose 5% / Sodium chloride 0.45% Infusion 500ml bags

3.4. Abbreviated name

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. Abbreviated names are created by using a standard method detailed in the dm+d Editorial Policy.

4. On-screen display

4.1. General recommendation

It is recommended that the on-screen display of dm+d concepts uses the term from dm+d exactly as provided by dm+d. This includes the same capitalisation as in the dm+d term.

Whilst there are alternative methods to capitalise dm+d descriptions it is not appropriate for NHS Digital or the NHSBSA to approve or recommend these alternative methods.

4.1.1. Requirements for EPS

In NHS Primary Care in England all electronic prescriptions must be prescribed using the Electronic Prescription Service (EPS). Prescribing and Dispensing systems that wish to use EPS must comply with the relevant EPS Requirement Specifications.

These requirement documents override and supersede any other guidance (such as the National Reporting and Learning Service (NRLS) guidance or Tall Man (see section 5.1.2.)) as a system will not be accredited to use EPS if it does not meet the EPS requirements.

There are requirements in the dm+d compliance specification that necessitate the dm+d term to be used both within the system and on any printed tokens.

For example the EPS Prescribing Systems Compliance Specification has the following requirements:
Requirement 6.5.4
The System must record prescribed medication items using the dm+d "Virtual Medicinal Product Name" or "Actual Medicinal Product Description" and the associated SNOMED code. These data fields are described within the dm+d technical specification.

Note. The System must not prescribe at the dm+d pack level using the VMPP or AMPP concepts.

Note. dm+d descriptors must be used with the correct case (i.e. uppercase/lowercase characters) as defined within dm+d.

**Requirement 6.5.6**

The System must use the dm+d VMP name or AMP description, where these concepts exist or where a mapping from a proprietary terminology exists, within the application user interface (e.g. on-screen, picking lists etc.) and within patient medication records held locally.

**Requirement 6.5.7**

The System must use the dm+d VMP name or AMP description, where these concepts exist or where a mapping from a proprietary terminology exists, on printed output from the system (e.g. FP10 or prescription token).

Requirement 6.5.4 also applies to 6.5.6 and 6.5.7, meaning EPS Release 2 Prescribing Systems represent descriptions from dm+d exactly as dm+d does (i.e. sentence case).

### 4.2. Other specific requirements

#### 4.2.1. GPSoC (GP Systems of Choice)

GPSoC makes the following requirement with reference to dm+d:

- **7.1-022. Drug database - dm+d name.** The database MUST store, display and output the full dm+d name of the item.

#### 4.2.2. SCR (Summary Care Record)

SCR reflects the medication information that is already stored in the GP System – the majority of this will be dm+d but, not all medication information recorded in GP systems is dm+d. This means any capitalisation will be as stored in the original GP system.

#### 4.2.3. GP2GP

GP2GP behaves in a similar way to SCR. It transports messages about medication history in the coding system in which they were entered. However, it also carries a dm+d translation where one is available, this enables any receiving system to process either the dm+d code or the original code if both are present. If the codes are different then the receiving system is required to preserve the original term as it was entered by the initial clinician.

### 4.3. Storage and messaging

This document makes no specific recommendations about the storage and / or messaging of dm+d descriptions.

Please refer to other programmes implementation guidance and requirements of specific programmes and datasets.

EPS mandates that what a prescriber signs is what is transmitted and viewable to the user.
5. Other guidance

5.1. National Learning and Reporting System document

In 2010 the National Reporting and Learning System (NRLS) which is part of the former NPSA, published a document called Design for patient safety – Guidelines for safe on-screen display of medication information.

The document provides guidance on how to display dm+d on-screen in a hospital setting.

Whilst the NRLS documentation may provide some sensible guidance on display name in certain situations it should be noted that dm+d is intended to cover multiple use cases and therefore does not adhere to all the NRLS guidance.

The dm+d names have been constructed based on evidence and interaction with safety experts and continue to be evaluated and updated against current practice and research.

The NRLS document supplies guidelines only, not requirements and as such are not recommended to supersede data from dm+d.

5.1.1. Deviation from the dm+d standard naming

SCI0052 states when systems exchange or share information about licensed medicines in England, they should include the name or description for the medication item. However, certain implementations/use cases may be able to cite patient safety reasons for a warranted variation. For example:

1) Tall Man
2) Brand prescribing

5.1.2. Tall Man lettering

One source of potential error in prescribing is to mistake the required medicine name for another similar sounding or looking name. So called ‘look-alike, sound-alike’ medicine combinations are presented to Health Care Practitioners (HCPs) by computer-based prescribing and dispensing systems, and may predispose selection error.

Tall Man lettering is the practice of writing part of a medicine’s name in upper case letters to help distinguish look-alike, sound-alike drugs from one another in order to avoid medication errors.

For example, in Tall Man lettering, the medicines “prednisone” and “prednisolone” would be written "predniSONE" and "predniSOLONE"

In 2009 NHS Connecting for Health commissioned an academic report of to investigate the potential use of Tall Man lettering in e-prescribing or medication-ordering-systems software. This report² found:

No statistically significant differences in error rates or response times for selection were found for; purely look-alike error when dose and formulation were constant, or for an aggregate metric of dose plus dose and formulation plus look-alike dose and/or formulation error.

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Based upon this report a decision was made by NHS Connecting for Health and the dm+d Content Committee:

- to not incorporate Tall Man into dm+d
- and to not recommend the use of Tall Man in dm+d implementations (EPS and ePMA)

This guidance superseded the NRLS guidance on display of medicines.

However, the NRLS guidance can be used in non-EPS systems. EPS took the decision not to recommend Tall Man. For example, in ePMA systems in secondary care dependent on the specific use cases of the system implementation.

### 5.1.3. Brand prescribing

For instances where prescribing by brand is warranted (e.g. modified release preparations) but the implementation/process flow doesn’t lend to brand prescribing (e.g. secondary care Electronic Prescribing and Medicines Administration (ePMA)) the dm+d name can be added to by inserting the brand name into the generic text. To do this, parsed files are provided in the SNOMED CT UK Drug Extension release.

As an example, please see page 15 of the Design for patient safety – Guidelines for safe on-screen display of medication information document.

### 6. Technical appendix

For full technical details of the dm+d release files please see the ‘NHS dictionary of medicines and devices (dm+d): Technical specification of data files for release 2 of the Dictionary of Medicines and Devices (dm+d)’, available from the dm+d website.

The following provides specific recommendations on which term field to use for each of the five main concept classes in dm+d: VTM, VMP, AMP, VMPP and AMPP for on screen display.

Text descriptions for dm+d concepts are found the dm+d XML release files.

#### 6.1. VTM

**Recommendation: use the VTM Name field for on-screen display of VTM**

VTMs have both a Name field and an Abbreviated Name field.

The Abbreviated Name is optional and to date no VTM abbreviated name has been created.

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<th>TAG Name</th>
<th>Optional</th>
<th>Description</th>
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<td>Virtual Therapeutic Moiety Name Up to a maximum of 255 characters</td>
</tr>
<tr>
<td>&lt;ABBREVVM&gt;</td>
<td>Y</td>
<td>Virtual Therapeutic Moiety Abbreviated name Up to a maximum of 60 characters</td>
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</table>
6.2. VMP

Recommendation: use the VMP Name field for on-screen display of VMPs

VMPs have a Name field, an Abbreviated Name field and a Previous Name field.

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<td>Virtual Medicinal Product Abbreviated name Up to a maximum of 60 characters</td>
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<tr>
<td>&lt;NMPREV&gt;</td>
<td>Y</td>
<td>Previous Name Up to a maximum of 255 characters</td>
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6.3. AMP

Recommendation: use the AMP Description field for on-screen display of AMPs

Requirement: for EPS the AMP Description field MUST be used for on-screen display of AMPs and NOT the AMP Name field

AMPs have a Name field, an Abbreviated Name field, a Description field and a Previous Name field.

The AMP Description is constructed from the AMP Name plus the Supplier name and for medical devices (where applicable) the Product Order Number, Size/Weight and Colour.

The AMP Description therefore provides a more specific description for on-screen display (the AMP Name may not be unique).

Please note – the AMP Description is up to a maximum of 700 characters. A system must be designed to hold a description of this length without truncation.

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<th>TAG Name</th>
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<th>Description</th>
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<td>&lt;NM_PREV&gt;</td>
<td>Y</td>
<td>Previous Name Up to a maximum of 255 characters</td>
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6.4. VMPP

Recommendation: use the VMPP Name field for on-screen display of VMPPs

VMPPs have a Name field only.
VMPPs do not have an Abbreviated Name field.

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### 6.5. AMPP

Recommendation: use the AMPP Name field for on-screen display of AMPPs

AMPPs have both a Name field and an Abbreviated Name field.

The Abbreviated Name is optional and to date no AMPP abbreviated name has been created.

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