Hospital Medicines Management System (HMMS) National Drug File

Editorial Policy

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1. Introduction

The Hospital Medicines Management System (HMMS) project is a national digital health project to replace Hospital Pharmacy Departments current legacy pharmacy software systems with a national, single instance pharmacy stock control system. HMMS will also provide a platform for electronic prescribing and electronic medicines administration (EPMA).

Careflow Medicines Management is the medicines management software system provided by System C that is utilised in the HMMS project.

A National Drug File (referred to as HMMS NDF hereafter) has been developed as a data source for HMMS with the required data to support the software functionality. This document describes the high-level rules to be used when setting up a new drug entry, or amending an existing entry, in the HMMS NDF.

The HMMS NDF is at a national or 'common level' in the software system. The HMMS NDF is developed and will be maintained by the HMMS National Office. All pharmacy departments within the scope of the HMMS project identify their local drug file from the HMMS NDF.

Medication/drug product entries are described in a specific manner in the HMMS NDF to support the data fields required in the System C drug file programme. This includes a drug name, strength and the pharmaceutical dose form of the medicine.

The HMMS NDF is a single data source for the HMMS Pharmacy Stock Control system and the HMMS EPMA system. The HMMS NDF will be required to enable use cases for both systems, including; medicine ordering, supply, dispensing, prescribing and recording administration, among others. To ensure that all use cases are catered for, the HMMS NDF includes entries that describe medicines in a generic way to support prescribing, virtual medicinal products (VMP) e.g. ATENOLOL 50 mg Tablets and actual medicinal products (AMP) to support dispensing[1] e.g. ATENOLOL (ATECOR) 50 mg Tablets.

The examples above represent the combination of the drug name, strength (numeric), strength (unit) and form and is how a particular medicine will appear on orders, dispensing labels, reports etc.

The rules for the HMMS NDF have been developed by reviewing local and international policies on the naming of drugs and medicine products in clinical information systems. This policy will be reviewed and approved by the HMMS governance structure including the HMMS Implementation Board and the HMMS Steering Board for ratification.

[1] Labelling requirements as per all labelling requirements must be included as per Medicinal Products (Prescription and Control of Supply) Regulations 2003 (S.I. No. 540 of 2003) (as amended) include inter alia;- unless the prescriber directs otherwise, the proprietary name of the preparation or the generic name with the name of the manufacturer; https://www.irishstatutebook.ie/eli/2003/si/540/made/en/print#article9 [Accessed:21/08/2022]

In circumstances where a medicine or product to be added to the HMMS NDF does not meet scenarios or rules outlined in the editorial policy, it should be escalated to HMMS National Office management for a decision.

Subsequent changes to the editorial policy will need to be agreed by the HMMS User Group (when active) and the HMMS Implementation Board. Any such changes will include document control procedures.

2. General Rules for Drug File entries in HMMS

In order to create a new entry, it may be necessary to consult a number of reference sources including:

- Summary of Product Characteristics (SmPC)
- Manufacturers/Suppliers Information
- World Health Organisation WHO Anatomical Therapeutic Chemical (ATC) / Defined Daily Dose (DDD) Index
- British National Formulary (BNF) online
- NHS Dictionary of Medicines and Devices (dm+d browser)

This section covers the general rules for creating and editing **Drug names**, **Strengths**, **Form** and **Dose**

Descriptions.

The tables below outline the characteristics of fields used to describe these attributes.

The naming convention on dispensing labels and drug selection windows supported by System C is **Name**, **Strength** followed by **Form**. The dose description field does not appear on the dispensing label or drug selection windows in System C.

Drug Name	Mandatory (Y/N)	Data Type	Character Length
Field Population: Free text. Approved Name of the drug, used on orders, labels, reports etc.	Y	Varchar	60

Strength (numeric)	Mandatory (Y/N)	Data Type	Character Length
Field Population: Magnitude of the unit of strength	N	Numeric	9

Strength (unit)	Mandatory (Y/N)	Data Type	Character Length
Field Population: Controlled set of values	N	Varchar	30

Form	Mandatory (Y/N)	Data Type	Character Length
Field Population: Controlled set of values	N	Varchar	30

Dose Description	Mandatory (Y/N)	Data Type	Character Length
Field Population: Controlled set of values	Y	Varchar	30

2.1 Drug Name Description Field

- The drug name description field is limited to 60 characters and is used to describe the product name and any other unique drug attributes that are important in identifying the correct product- other than strength, form and dose unit, which are typically all described in different fields.
- Character spacing within the drug name field is considered, as demonstrated in *Section 3: Specific Naming Rules and Exceptions*. Where completion of all required information in the drug name field is restricted by character limitation, spacing is removed where appropriate, to ensure required information is clear and unambiguous.
- Where possible the "any other unique drug attributes" to be added to the drug name description field will be specifically described in this policy. This includes product codes, where necessary.
- Drug names should always be described in UPPER CASE except for any drugs where Tallman lettering is applied in the HMMS NDF (See *Section 3.34: Tallman Lettering* for more information on which drugs this relates to and how this is employed).
- Unlicensed medicines are identified by the use of ** at the end of the drug name. This enables easy identification of unlicensed medications and provides a clear distinction between a licensed and unlicensed variation of the same product (See *Section 3.27: Unlicensed Drugs* for more information)

2.1.1 VMPs / AMPs

- To ensure that all HMMS use cases are catered for, the HMMS NDF includes entries that describe a medicine in two formats, VMP and AMP.
  - The VMP or virtual medicinal product to support generic prescribing
    - A VMP is a representation of a virtual therapeutic moiety (VTM) associated with strength information and a route of administration. It represents a collection of clinically equivalent pharmaceutical products with the same strength, dose form and the same routes of administration

      E.g. SUBSTANCE NAMEspace(+/-any other attributes required to identify the product)

      E.g. ATENOLOL 50 mg Tablets

  - AMP or actual medicinal product to support dispensing
    - An AMP is a medicinal product that has been made available by a supplier.

      E.g. SUBSTANCE NAMEspace(Brand/MAH name)space(+/-any other attributes required to identify the product)

      E.g. ATENOLOL (ATECOR) 50 mg Tablets

2.1.2 Brand (Proprietary) / Manufacturer Name / Marketing Authorisation Holder (MAH)

- The brand/proprietary name represents any trademarked name associated with the product, it may include additional detail necessary for identification including proprietary form, delivery device or container or an alternative name which has market recognisability.
- The brand or proprietary name(s) should appear in brackets after the approved name:

  E.g. BISOPROLOL (CARDICOR)

- Where a product does not have a brand name, the name of the manufacturer responsible for placing the product on the market, should appear in brackets after the approved name. This is relevant for 'non-branded' generics:

  E.g. TRANEXAMIC ACID (BAXTER)

- The Marketing Authorisation Holder (MAH) is also used for 'non-branded' generic products

  E.g. ATORVASTATIN (TEVA)

- Brand (Proprietary) / Manufacturer / MAH name is enclosed within brackets after approved name.
- See Appendix 1 for MAH Abbreviations List used in the HMMS NDF.

2.1.3 Substance Element

- The **substance element** of the name refers to the active substance(s) within the product. The name of the substance should follow international terminology standards and be modified where necessary for clinical need. Examples of standards applied include:
  - rINN - recommended international non-proprietary name
  - INNM - modified recommended international non-proprietary name
  - PINN - proposed international non-proprietary name
  - BAN - British approved name
  - USAN - United States adopted name
  - Other (clinically intuitive name)

- Where available the rINN or INNM should be used to name an active ingredient. Where there is no rINN or INNM available a decision on naming will be made by the HMMS National Office. Alternatives include the approved naming systems listed above or clinically intuitive names.

2.2 Strength (Numeric)

- Product strength is described by the order of magnitude of a particular unit and where relevant, in a particular volume.
- The magnitude and units of a product are described in two separate fields in the HMMS NDF, the Strength Numeric and Strength Unit fields.

  E.g. 250 micrograms → "250" describes the **magnitude** (Strength Numeric field) and "micrograms" describes the **unit** (Strength Unit field).
- Strength should be described as per product SmPC (there may be some exceptions that apply to the way strength is described, which are described in *Section 3* of this document for each product group).
- See *Sections 3.1, 3.2* and Appendix 5: Co-Drugs in HMMS NDF, for rules when describing strengths for combination products.

2.3 Strength (Units)

- Strength unit is described from a list of standardised strength unit descriptions
- See Appendix 2: List of Strength (Unit) Used in HMMS NDF for a predefined list.

2.3.1 Micrograms

- The unit 'micrograms' is always described in full where possible, e.g. for single drug names

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	DIGOXIN (LANOXIN)	250	micrograms	Tablets
System C Label / Drug Search Window Description	DIGOXIN (LANOXIN) 250 micrograms Tablets			

2.3.2 Millilitres

- The unit "millilitres" is used when describing volume or concentration.
- Millilitres is always described as "mL"

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	SENNA (SENOKOT)	7.5	mg/5mL	Oral Liquid
System C Label / Drug Search Window Description	SENNA (SENOKOT) 7.5 mg/5mL Oral Liquid			

2.3.3 Litres

- Wherever possible, describe litres as their equivalent volume expressed as millilitres e.g. 1000mL.
- When the use of litres is used in the drug name description due to character limitations always describe litres as "L"

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	JEVITY PLUS (1500mL)	n/a	n/a	Enteral Feed
System C Label / Drug Search Window Description	JEVITY PLUS (1500mL) Enteral Feed			

2.3.4 Units

- The term "UNITS" should be used when the strength of the product is described in the SmPC as units/i.u./international units. "UNITS" should always be written in **full.**
- "UNITS" are always used to describe insulin strength.
- Strength and the strength unit description UNITS are separated by a space in the dose name field for insulins

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	INSULIN ASPART (NovoRAPID) 100 UNITS/mL 3mL FLEXPEN	n/a	n/a	Pre-filled pen
System C Label / Drug Search Window Description	INSULIN ASPART (NovoRAPID) 100 UNITS/mL 3mL FLEXPEN Pre-filled pen			

2.4 Form Descriptions

- The dose form typically used to describe a product in the HMMS NDF is the "Administrable Dose Form" where this is the "pharmaceutical dose form for administration to the patient, after any necessary transformation of the manufactured dose form has been carried out". This reflects the systems' purpose as a clinical information system[2].
- Some forms may be described slightly differently to the SmPC form description for the drug entry. Please see Appendix 4: Form Descriptions Used in HMMS NDF, for the criteria used for applying form descriptions for specific drug forms.

2. EDQM Standard Terms, Introduction and Guidance for use, 2018. [Online] Available: https://www.edqm.eu/documents/52006/389906/standard_terms_introduction_and_guidance_for_use.pdf/c31aaa23-59cc-8d3d-e394-ffe425bf9b7e?t=1649082718997

- Each separate word of the drug form will be capitalised e.g. Pre-Filled Syringe.
- Dose forms are selected from predefined drop down list in the HMMS NDF.
- There is a 30 character limitation for the dose form field

2.5 Dose Description

- This is the smallest unit that can be dispensed **E.g.** Tablet, Vial, Pre-Filled Syringe, g, mL etc.
- For example IV fluids, the dose description is described by the volume of the bag, **Sodium Chloride (1000mL) dose description is "x 1000 mL",** see *Section 3.15*
- For Parenteral Nutrition (PN) or compounded products, this is described by the final presentation which is a "bag", see *Section 3.28*
- Dose description is described in the singular format

2.6 Concentration Description

- Concentration describes the amount of ACTIVE drug in a solid dosage form and the concentration of ACTIVE drug in a liquid dosage form.

2.6.1 Oral Liquids

- The concentration of oral liquids is expressed as the magnitude [mass unit] **in** volume [expressed as millilitres] as per the product SmPC e.g. 1 g in 10mL concentration should be described as 1 g/10mL in the HMMS NDF.

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	L-CARNITINE (CARNITOR)	1	g/10mL	Oral Liquid
System C Label / Drug Search Window Description	L-CARNITINE (CARNITOR) 1 g/10mL Oral Liquid			

2.6.2 Injections and Pre-filled Syringes

- The concentration of injections and pre-filled syringes is described by the total strength in the total volume of the product.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	GENTAMICIN (PINEWOOD)	80	mg/2mL	Injection
System C Label / Drug Search Window Description	GENTAMICIN (PINEWOOD) 80 mg/2mL Injection			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ADRENALINE (EPINEPHrine) (1:1000)	1	mg/1mL	Injection
System C Label / Drug Search Window Description	ADRENALINE (EPINEPHrine) (1:1000) 1 mg/1mL Injection			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ATROPINE SULFATE (AGUETTANT)	1	mg/5mL	Pre-Filled Syringe
System C Label / Drug Search Window Description	ATROPINE SULFATE (AGUETTANT) 1 mg/5mL Pre-Filled Syringe			

3. Specific Naming Rules and Exceptions

This section is for preparations, products, drugs and drug file entries which require special consideration and exceptions to general principles.

3.1 "Co" Drugs

- A "Co" drug is a drug that describes a combination product and begins with "Co". Co-drugs are unique to British Approved Names (BANs) which are defined in the British Pharmacopoeia.
- The "Co" prefix is only used in the HMMS NDF for drugs that are commonly known in Ireland by their co-drug term. See Appendix 5 for a complete list of co-drugs used in the HMMS NDF.
- If a Co-drug is being defined, use a hyphen (-) between the suffix and prefix. Always use the "Co" name and not the constituent names.
- The strength of the constituents of a Co-drug are described in the drug name field in the HMMS NDF.
- The order of the strength of the constituents will be as they are described in the SmPC / official reference resource
- The drug name field for a Co-drug should be described in the following manner for:
  E.g. CO-DRUG NAMEspaceStrength magnitudeStrength unitsspace/spaceStrength magnitude StrengthUnitsspace(BRAND/MAH name - if AMP)

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	CO-AMOXICLAV 250mg / 125mg (AUGMENTIN)	n/a	n/a	Tablets
System C Label / Drug Search Window Description	CO-AMOXICLAV 250mg / 125mg (AUGMENTIN) Tablets			

3.2 Drugs with Multiple Ingredients

- The order of the strength of the constituents will be as they are described in the SmPC / official reference resource
- The drug name field for products with **up to two** ingredients, which are not defined as a "Co"-drug (*Section 3.1* and Appendix 5), should be described as follows
  E.g. DRUG NAME1space Strength magnitudeStrength unitsspace/spaceDRUG NAME2space Strength magnitudeStrength unitsspace(BRAND/MAH name - if AMP)

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ATENOLOL 100mg / CHLORTALIDONE 25mg (ATECOR CT)	n/a	n/a	Tablets
System C Label / Drug Search Window Description	ATENOLOL 100mg / CHLORTALIDONE 25mg (ATECOR CT) Tablets			

- Due to the 60 character limitation of the drug name description field, products containing **three or more** active ingredients should be described as brand name with the strength of the active ingredients included in the drug name field only. The approved names of any of the active ingredients are not included in the drug name field.
- The drug name field for products with three or more ingredients should be described as follows

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	SYMTUZA 800mg / 150mg / 200mg / 10mg	n/a	n/a	Tablets
System C Label / Drug Search Window Description	SYMTUZA 800mg / 150mg / 200mg / 10mg Tablets			

- See *Section 3.15.2 Multiple Component Fluids Containing Potassium for Intravenous Infusions with multiple ingredients.*

3.3 Use of Salt in Drug Name

- Where the salt is not clinically significant in a pharmaceutical form of that drug, the salt name is not included.
- The dm+d browser should be used as a reference source to assess if the salt name should be included in the drug name in HMMS NDF.
- The salt description should be included in the drug name if the product licensing and mode of action differs based on the drugs salt form with the exception of pre-mixed fluids that contain potassium chloride which are referred to as potassium only due to the 60 character limit (see section 3.15.1)
- Where the strength is expressed as the base salt, this will be included for clarity. See example 1 below.
- Due to character limitations, the salt name may be shortened or omitted from combination products.
- See Appendix 6 for a list of drugs with salt forms and the decision regarding using the salt form in the HMMS NDF.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	DEXAMETHASONE BASE (PHOSPHATE 8mg/2mL) (HAMELIN)**	6.6	mg/2mL	Injection
System C Label / Drug Search Window Description	DEXAMETHASONE BASE (PHOSPHATE 8mg/2mL) (HAMELIN)** 6.6mg/2mL Injection			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	PERINDOPRIL ARGININE (COVERSYL)	5	mg	Tablets
System C Label / Drug Search Window Description	PERINDOPRIL ARGININE (COVERSYL) 5mg Tablets			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	AMLODIPINE (ISTIN)	5	mg	Tablets
System C Label / Drug Search Window Description	AMLODIPINE (ISTIN) 5 mg Tablets			

3.4 Modified-Release Products

- Modified Release products include all products where the title or license of that product infers or states that the release of the active ingredient is altered and should be defined as “Modified-Release”
- These include products that are described as sustained release, prolonged release, slow release etc. See Appendix 4

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	DILTIAZEM (ADIZEM XL)	120	mg	Modified-Release Capsule
System C Label / Drug Search Window Description	DILTIAZEM (ADIZEM XL) 120 mg Modified-Release Capsule			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	NIFEdipine (CORACTEN SR)**	10	mg	Modified-Release Capsules
System C Label / Drug Search Window Description	NIFEdipine (CORACTEN SR)** 10 mg Modified-Release Capsules			

3.5 Immunoglobulins

- Immunoglobulins are described using the drug name description "Human Normal Immunoglobulin"
- The drug name field for Normal Human Immunoglobulins should be described as follows:

  E.g. HUMAN NORMAL IMMUNOGLOBULINspace(BRAND/MAH name)

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	HUMAN NORMAL IMMUNOGLOBULIN (FLEBOGAMMA DIF 10%)	10	g/100mL	Infusion
System C Label / Drug Search Window Description	HUMAN NORMAL IMMUNOGLOBULIN (FLEBOGAMMA DIF 10%) 10 g/100mL Infusion			

3.6 Biosimilars

- Biosimilars will be described using the standard drug name description

  E.g. DRUG NAMEspace(BRAND/MAH name)
- Biosimilar medicines are built as the AMP only
- This also applies to externally manufactured containing biosimilars

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	INFLIXIMAB (INFLECTRA)	100	mg	Infusion
System C Label / Drug Search Window Description	INFLIXIMAB (INFLECTRA) 100 mg Infusion			

3.7 Female Sex Hormones and their Modulators Including HRT

- The active ingredient(s) and brand name should be used for Oestrogens and Hormone Replacement Therapy (HRT), including progestogen only and Progesterone receptor modulators i.e. standard drug name description applies:

  E.g. DRUG NAMEspace(BRAND/MAH name)

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	DESOGESTREL (CERAZETTE)	75	micrograms	Tablets
System C Label / Drug Search Window Description	DESOGESTREL (CERAZETTE) 75 micrograms Tablets			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ESTRADIOL 1mg / DYROGESTERONE 10mg (FEMOSTON)	n/a	n/a	Tablets
System C Label / Drug Search Window Description	ESTRADIOL 1mg / DYROGESTERONE 10mg (FEMOSTON)			

3.8 Combined Hormonal Contraceptives (Including Devices)

- Brand names should be used for combined hormonal contraceptives and contraceptive devices
- Most combined oral contraceptives exceed the 60 character limit of the drug name description field. To rationalise, all combined oral contraceptives should be described with brand name and the strength of the active ingredients included in the drug name.
- This should apply to all combined oral contraceptives irrespective of the number of constituents.
- The drug description name field should be described as follows:

E.g. BRAND NAMEspace Strength magnitudeStrength unitsspace/spaceStrength magnitudeStrength units

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	OVRANETTE 150micrograms / 30micrograms	n/a	n/a	Tablets
System C Label / Drug Search Window Description	OVRANETTE 150micrograms / 30micrograms			

3.9 Inhalers

3.9.1 Single-drug inhalers

- Inhalers are described by their **SUBSTANCE NAMEspace(BRAND/MAH NAME)**
- The strength should be described as a strength per dose or per blister
- Device type should be described for non-standard inhalers e.g. evohaler, turbohaler

E.g. SUBSTANCE NAMEspace(BRAND/MAH NAME +/- INHALER TYPE)

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	FLUTICASONE PROPIONATE (FLIXOTIDE DISKUS)	50	micrograms/dose	Inhalation Powder (Blister)
System C Label / Drug Search Window Description	FLUTICASONE PROPIONATE (FLIXOTIDE DISKUS) 50 micrograms/dose Inhalation Powder (Blister)			

3.9.2 Combination Inhalers

- All combination inhaler products should be described by brand name irrespective of the number of constituents
- The strength units are included in the drug name field for combination inhalers, as described in the product's SmPC
- For the form "Inhalation Powder (Capsule)" apply the dose description "capsule"
- For the form "Inhalation Powder (Blister)" apply the dose description "dose"
- The pack size description should reflect the number of doses or capsules per inhalation device or inhaler pack

EXAMPLE 1					
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**	**Dose Description**
HMMS NDF Entry	ULTIBRO BREEZHALER 85micrograms / 43micrograms	n/a	n/a	Inhalation Powder (Capsule)	Capsule
System C Label / Drug Search Window Description	ULTIBRO BREEZHALER 85micrograms / 43micrograms Inhalation Powder (Capsule)				

EXAMPLE 2					
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**	**Dose Description**
HMMS NDF Entry	SERETIDE 250 DISKUS 50micrograms / 250micrograms	n/a	n/a	Inhalation Powder (Blister)	Dose
System C Label / Drug Search Window Description	SERETIDE 250 DISKUS 50micrograms / 250micrograms Inhalation Powder (Blister)				

3.10 Insulins

- Drug name descriptions for all insulin containing products should commence with the word 'INSULIN'
- Insulin should be described as follows:

  E.g. INSULIN NAMEspace(BRAND/MAH NAME)spaceSTRENGTH UNITS/mLspacetotal volumespaceDEVICE DESCRIPTION

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	INSULIN DETEMIR (LEVEMIR) 100UNITS/mL 3mL FLEXPEN	n/a	n/a	Pre-filled pen
System C Label / Drug Search Window Description	INSULIN DETEMIR (LEVEMIR) 100UNITS/mL 3mL FLEXPEN Pre-filled pen			

3.11 Dressings

- Dressings should be described by the brand name and the dimensions of the dressing included in the drug name field.
- The product code should be added in brackets after the dimensions of the dressing, in the drug name field (if available).
- Size will be denoted by: CM x CM (capitalised CM and lower case x).

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	AQUACEL AG EXTRA 10CM x 10CM (413567)	n/a	n/a	Dressings
System C Label / Drug Search Window Description	AQUACEL AG EXTRA 10CM x 10CM (413567) Dressings			

3.12 Creams and Ointments

- Creams and ointments (including combination products) should be described by the **ACTIVE INGREDIENTspace(BRAND/MAH name),** see example 1 below.
- Emollients and sun creams are described by brand only, see example 2 below.
- Product name descriptions that exceed the 60 character limit of the drug name description field should be described by brand name only, see example 3 below.
- Strength should be described in %w/v or %w/w (lowercase) if applicable
- Combination creams and ointments with active ingredients within a base, should principally be described by the active ingredient in the base, see example 4 below.

- Products with multiple active ingredients in a base containing multiple excipients, the active ingredient/s and the strength of the active ingredient/s should be stated in the drug name description field, see example 5 below.
- The form of the product should reflect the main characteristics, for example Cream or Ointment.
- It is acceptable to abbreviate the name of manufactured products that have no brand name attributed, and that have multiple active ingredients to fit within the 60 character limit of the drug name description field. The product should still be clearly identifiable, as in example 5.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	BETAMETHASONE DIPROPIONATE (DIPROSONE)	0.05	% w/w	Cream
System C Label / Drug Search Window Description	BETAMETHASONE DIPROPIONATE (DIPROSONE) 0.05% w/w Cream			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	NIVEA PROTECT & MOISTURE SPF 50 PLUS	n/a	n/a	LOTION
System C Label / Drug Search Window Description	NIVEA PROTECT & MOISTURE SPF 50 PLUS LOTION			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	TRIMOVATE	n/a	n/a	Cream
System C Label / Drug Search Window Description	TRIMOVATE Cream			

EXAMPLE 4				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	SALICYLIC ACID 40%w/v / EMULSIFYING OINTMENT (EMP LTD)	n/a	n/a	Ointment
System C Label / Drug Search Window Description	SALICYLIC ACID 40% w/v / EMULSIFYING OINTMENT (EMP LTD) Ointment			

EXAMPLE 5				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	COAL TAR 10%w/w/SALIC. ACID 10%w/w/BETNOVATE 10%w/w/WSP(EMP**	n/a	n/a	Gel
System C Label / Drug Search Window Description	COAL TAR 10%w/w/SALIC. ACID 10%w/w/BETNOVATE 10 %w/w/WSP (EMP** GEL			

3.13 Eye preparations

- Eye preparations should be described as **DRUG NAMEspace(BRAND/MAH name)**
- Eye preparation strengths should be described as per SmPC example using ‘mg/1mL’ or ‘mg/g’
- Refer to ‘Preservative Free Formulations’ for eye preparations that are preservative free

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	BRINZOLAMIDE (AZOPT)	10	mg/1mL	Eye Drops
System C Label / Drug Search Window Description	BRINZOLAMIDE (AZOPT) 10 mg/1mL Eye Drops			

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	BETAMETHASONE 0.1%w/v /NEOMYCIN 3500 Units/1mL (BETNESOL-N)	n/a	n/a	Eye / Ear / Nasal Drops
System C Label / Drug Search Window Description	BETAMETHASONE 0.1%w/v /NEOMYCIN 3500 Units/1mL (BETNESOL-N) Eye / Ear / Nasal Drops			

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	MAXITROL	n/a	n/a	Eye Drops
System C Label / Drug Search Window Description	MAXITROL Eye Drops			

3.14 Injections

- Injections may be described differently in the SmPC and BNF according to the container in which they are presented e.g. The term “powder for solution ***for injection*** vials” and “powder and solvent for suspension for injection ampoules” are commonly used, however use of these descriptors is constrained by field character length.

- See Appendix 4: Form Descriptions describes the principles that should be applied for naming injections
- **The term "Injection" can be used in the Drug Form Description field to describe injectable products presented as either, powder or solution in ampoules or vials where there is more than one injection route specified in the SmPC**
- **The following principles broadly apply:**
  - "**Injection**" - For any single product entity described as "for injection" that is not a pre-filled syringe, pen or device that can be given by more than one route or the route is not defined in SmPC.
  - "**Injection/Infusion"** – For any single product entity described as "for injection" and "for infusion" that is not a pre-filled syringe, pen or device, that can be given by more than one as defined in the SmPC.
  - **"Subcutaneous Injection" -** For any single product entity described as "for injection" that is not a pre-filled syringe, pen or device, that is **only** given via the **subcutaneous** route.
  - **"Intramuscular Injection" -** For any single product entity described as "for injection" that is not a pre-filled syringe, pen or device, that is **only** given via the **intramuscular** route.
  - **"Intrathecal Injection" -** For any single product entity described as "for injection" that is not a pre-filled syringe, pen or device, that is **only** given via the **intrathecal route.** The word **"INTRATHECAL"** will also be included in the product drug name description.

EXAMPLE 1 Exception as Calcium Folinate has a number of Names				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	CALCIUM FOLINATE (LEUCOVORIN) (TEVA) (10mL)	100	mg/10mL	Injection
System C Label / Drug Search Window Description	CALCIUM FOLINATE (LEUCOVORIN) (TEVA) (10mL) 100mg/10mL Injection			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	PROTAMINE SULFATE (LEO)	7000	UNITS/5mL	Injection/Infusion
System C Label / Drug Search Window Description	PROTAMINE SULFATE (LEO) 7000 UNITS/5mL Injection/Infusion			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ARIPiprazole (ABILIFY)	9.75	mg/1.3mL	Intramuscular Injection
System C Label / Drug Search Window Description	ARIPiprazole (ABILIFY) 9.75 mg/1.3mL Intramuscular Injection			

EXAMPLE 4				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	BACLOFEN (AQUETTANT INTRATHECAL)**	10	mg/mL	Intrathecal infusion
System C Label / Drug Search Window Description	BACLOFEN (AQUETTANT INTRATHECAL)** 10mg/5mL intrathecal Infusion			

3.14.1 Pre-Filled Syringes and Pre-Filled Pens

- As the dose description field does not appear on the dispensing label in System C, differentiating the same product in different preparations is difficult when checking a label or identifying the correct product from the drug selection window. Therefore, the delivery device "Pre-Filled Syringe" or "Pre-Filled Pen" is repeated in the form field and the dose description field.

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ENOXAPARIN SODIUM (CLEXANE) (DIVIDELLA)	40	mg/0.4mL	Pre-filled syringe
System C Label / Drug Search Window Description	ENOXAPARIN SODIUM (CLEXANE) (DIVIDELLA) 40 mg/0.4mL Pre-filled syringe			

3.14.2 Ampoules and Vials

- **Ampoules and Vials not described in the Form Description Table**
- A vial can store **multiple doses of a medication, whereas an ampoule is for one dose only** If medication remains in an ampoule **once opened** and after intended dosage administered, the ampoule has to be discarded with due care. Therefore, it may be necessary to describe an Ampoule and a Vial separately.
- When it is important to identify that an injection is a vial or an ampoule the word "vial" or "ampoule" can be used within the drug name field. This would be the case where a product is available in the same strength and this only way to make a distinction.

3.14.3 Implants

- Implants should be described as Implants in the 'Form' field. It is not necessary to drill down to the route.
- "Implant" will remain the Form even if the vessel is a Pre-Filled Syringe.

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	GOSERELIN (ZOLADEX LA)	10.8	mg	Implant
System C Label / Drug Search Window Description	GOSERELIN (ZOLADEX LA) 10.8mg Implant			

3.15 Intravenous Fluids and Infusions

- Appendix 4: Form Descriptions should be referred to when naming infusions
- **The following principles broadly apply:**
    - "**Infusion**" - For any single product entity described as "for infusion" that can be given by more than one route or the route is not defined in SmPC
    - "**Injection/Infusion"** – For any single product entity described as "for injection" and "for infusion" that is not a pre-filled syringe, pen or device, that can be given by more than one route as per the SmPC
    - **"Epidural Infusion" -** For any single product entity described as "for infusion", which is **only** given **by epidural.**
- The supplier name/product code should be included in the drug name description field for all standard Glucose, Sodium Chloride and Hartmann's drug file entries to differentiate products.
- Abbreviations may be required, and spaces between drug names may be deleted when multiple component fluids/infusions drug name description names exceed the 60 character limit for this field. See examples 1 and 2 below.
- The use of chemical symbols is permitted for sodium chloride (NaCl) and abbreviations of constituent names may also be required e.g. Glucose abbreviated to GLUC to ensure drug name description does not exceed 60 character limit for this field.
- The MAH name may need to be abbreviated, due to the character limit. As an example Baxter is abbreviated to "**BX**".
- The volume of the bag in mL of a single unit should be included in the drug name description field

  E.g. **DRUG NAMEspace(BRAND/MAH name+product code)space(volume mL)**

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	GLUCOSE (BAXTER FE0087G) (100mL)	5	%w/v	Infusion
System C Label / Drug Search Window Description	GLUCOSE (BAXTER FE0087G) (100mL) 5 %w/v Infusion			

3.15.1 IV Fluids Containing Potassium

- "POTASSIUM" is included as the first drug name in the drug name description field. The salt description is not included where the fluid contains potassium chloride (due to 60 character limit for this field).
- Strength is included in both percentage and mmol. If the drug name description exceeds the 60 character limit for this field, mmol only should be used to describe strength in the drug name field (or in percentage only if mmol are not defined in the SmPC).
- Diluent (Glucose or Sodium Chloride or both) should be included in the drug name description field after the potassium.

  E.g. **POTASSIUMspaceStrength magnitudeStrength unitspace(Strength manitudemmol)space/spaceDILUENTspaceStrength magnitude%space(MAH +/- CODE) (volume mL)**

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	POTASSIUM 0.3% (20mmol) / GLUCOSE 5% (BAXTER FE1263) (500mL)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	POTASSIUM 0.3% (20mmol) / GLUCOSE 5% (BAXTER FE1263) (500mL) Infusion			

3.15.2 Multiple component fluids containing Potassium

- Multiple component fluids **should follow standard** SmPC or BNF nomenclature (where applicable). Naming should also follow the order and sequence in which the components are listed.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	POTASSIUM 0.15% / GLUC 4%/NaCl 0.18% (BX FE1704)(1000mL)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	POTASSIUM 0.15% / GLUC 4%/NaCl 0.18% (BX FE1704)(1000mL) Infusion			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	POTASSIUM 0.3% / GLUC 4% /NaCl 0.18% (BX FE1723J)(500mL)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	POTASSIUM 0.3% / GLUC 4% /NaCl 0.18% (BX FE1723J)(500mL) Infusion			

3.16 Compound Sodium Lactate/Hartmann's Solution

- Hartmann's Solution also known as Ringers Solution is described as per the SmPC nomenclature, Compound Sodium Lactate
- Compound sodium lactate may require abbreviation to Hartmann's. if the drug name description exceeds the 60 character limit for this field

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	COMPOUND SODIUM LACTATE (HARTMANN'S)(BX) FKE2324)(1000mL)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	COMPOUND SODIUM LACTATE (HARTMANN'S)(BX FKE2324)(1000mL) Infusion			

3.17 Plasma Substitutes

- Plasma substitutes should be described by the **SUBSTANCE NAMEspace(BRAND/MAH name)space(volume mL)**
- If a product is better known by the brand/MAH name then the brand/MAH name should be used, as determined by the HMMS National Office.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	HYDROXYETHYLE STARCH (VOLUVEN FREEFLEX)(500mL)	6	% w/v	Infusion
System C Label / Drug Search Window Description	HYDROXYETHYLE STARCH (VOLUVEN FREEFLEX)(500mL) 6 %w/v Infusion			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	GELOPLASMA (500mL)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	GELOPLASMA (500mL) Infusion			

3.18 Dialysis Solution

- Dialysis fluids should be described by brand name followed by CAPD/APD for Continuous Ambulatory Peritoneal Dialysis or Automated Peritoneal Dialysis (if applicable to the product name in SmPC)
- The product code in (brackets) and the size of one unit in mL should be included in the drug name description.

- Dialysis fluids should use the form 'Dialysis Solution'

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	HEMOSOL BO (5000mL)	n/a	n/a	Dialysis Solution
System C Label / Drug Search Window Description	HEMOSOL BO (5000mL) Dialysis Solution			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	PHYSIONEAL 35 APD (BTPE8277) (5000mL)	1.36	%w/v	Dialysis Solution
System C Label / Drug Search Window Description	PHYSIONEAL 35 APD (BTPE8277) (5000mL) 1.36 %w/v Dialysis Solution			

3.19 Liposomal and lipid-complex formulations

- There should be a clear distinction between liposomal, pegylated-liposomal, lipid-complex and conventional formulations when prescribing, dispensing, administering and communicating about medicines containing these formulations.
- Medicines containing these formulations have a high risk of error and should explicitly include 'liposomal', 'pegylated-liposomal' or 'lipid-complex' in the drug name description to reduce potentially fatal outcomes.[3]
- Liposomal, pegylated-liposomal and lipid-complex products should be described using the generic name, then 'liposomal', 'pegylated-liposomal' or 'lipid-complex' (as appropriate) followed by the brand name in (BRACKETS).

EXAMPLE 1: Conventional Doxorubicin				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	DOXOrubicin (TEVA)	50	mg/25mL	Infusion
System C Label / Drug Search Window Description	DOXOrubicin (TEVA) 50 mg/25mL Infusion			

EXAMPLE 2: Pegylated Liposomal Doxorubicin				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	DOXOrubicin LIPOSOMAL PEGYLATED (ZOLSKETIL)	20	mg/10mL	Infusion
System C Label / Drug Search Window Description	DOXOrubicin LIPOSOMAL PEGYLATED (ZOLSKETIL) 20 mg/10 mL Infusion			

[3] https://www.gov.uk/drug-safety-update/liposomal-and-lipid-complex-formulations-name-change-to-reduce-medication-errors

EXAMPLE 3: Conventional Amphotericin				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	AMPHOTERICIN (FUNGIZONE)	50	mg	Infusion
System C Label / Drug Search Window Description	AMPHOTERICIN (FUNGIZONE) 50 mg Infusion			

EXAMPLE 4: Liposomal Amphotericin				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	AMPHOTERICIN LIPOSOMAL (AMBISOME)	50	mg	Infusion
System C Label / Drug Search Window Description	AMPHOTERICIN LIPOSOMAL (AMBISOME) 50 mg Infusion			

3.20 Advanced Therapy Medicinal Products (ATMP)

- Advanced therapy medicinal products (ATMPs) are medicines for human use that are based on genes, tissues or cells.
- Due to the biological nature and uniqueness of each of these products, they should be described using the brand name with the strength in (BRACKETs).

  E.g. BRAND NAMEspace(STRENGTH)
- These medicines should not be prescribed by their generic name.
- The strength and strength unit fields should be left blank. The form used should adhere to the standards in *Section 2.3* of this document.
- The dose descriptor should be 'Dose'. 'Dose' is used because a dose for a particular patient can consist of one or more bags/syringes of Intravenous Infusion/Injection and this will vary to suit the requirements of the patient.
- The means by which the strength is described can vary between products. For example, the strength may be 'x Plaque forming units / mL' or 'x Genomes / mL' (x being the numeric value or range of values).
- The value "to the power of" should be represented by ^, as superscript cannot be applied in System C.

EXAMPLE					
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**	**Dose Description**
HMMS NDF Entry	KYMRIAH (1.2 x 10^6 – 6 x 10^8 CELLS)	n/a	n/a	Intravenous Infusion	Dose
System C Label / Drug Search Window Description	KYMRIAH (1.2 x 10^6 – 6 x 10^8 CELLS) Infusion				

3.21 Vaccines

- Vaccines should be described by brand names, where applicable.
- The word "VACCINE" should be included in the drug name description field
- Seasonal Influenza vaccine should be described as **INFLUENZA VACCINEspaceyearspace(BRAND/MAH name)(volume of presentation- if applicable)**, see example 2 below.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	MENVEO VACCINE	n/a	n/a	Injection
System C Label / Drug Search Window Description	MENVEO VACCINE Injection			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS Entry	INFLUENZA VACCINE 2022/2023 (INFLUVAC TETRA) (0.5mL)	n/a	n/a	Pre-filled Syringe
System C Label / Drug Search Window Description	INFLUENZA VACCINE 2022/2023 (INFLUVAC TETRA) (0.5mL) Pre-filled Syringe			

3.22 Clinical Trials

- Clinical Trials should be described in collaboration with each individual locations requirements for each clinical trial
- Agreed and approved HMMS Clinical Trial drug nomenclature:

  CT-CLINICAL TRIAL DRUG NAMEspaceStrength magnitudeStrength units space/spacePLACEBO *(if required)*space(Trial name +/- trial number)

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	CT-CAGRISEMA 2mg/mL+1mg/mL(0.5mg/0.5mg)/PLACEBO REDEFINE2	0.75	mL	Pre-filled Pen
System C Label / Drug Search Window Description	CT-CAGRISEMA 2mg/mL+1mg/mL(0.5mg/0.5mg)/PLACEBO REDEFINE2 0.75mL Pre-filled Pen			

3.23 Compassionate Use Programmes

- A Compassionate use programme is a treatment option that allows the use of an unauthorised medicine. Under strict conditions, products in development can be made available to groups of patients who have a disease with no satisfactory authorised therapies and who cannot enter clinical trials.
- **Compassionate use items** will follow the standard editorial rules outlined in this policy but will include (CUP) at the end of the drug name description

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	TRASTUZUMAB EMTANSINE (KADCYLA) (CUP)	100	mg	Infusion
System C Label / Drug Search Window Description	TRASTUZUMAB EMTANSINE (KADCYLA) (CUP) 100mg Infusion			

3.24 Contrast Media

- All X-ray contrast media should be described by **SUBSTANCE NAMEspace(BRAND/MAH name)**
- The approved brand name, container type and volume will be described in the drug name description
- The container description will be included in the drug name description if contained within the SmPC name, or to differentiate between the same product available in different containers e.g. GLASS or POLYPROPYLENE
- The volume of the preparation will be included in the drug name description.
- The strength will be expressed in mg/1mL or %w/v (where applicable) to reflect the SmPC strength description.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	IOHEXOL (OMNIPAQUE) (GLASS) (20 mL)	300	mg/1mL	Injection
System C Label / Drug Search Window Description	IOHEXOL (OMNIPAQUE) (GLASS) (20 mL) 300 mg/1mL Injection			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	IOPAMIDOL (NIOPAM 300) (500mL)	61.24	%w/v	Injection
System C Label / Drug Search Window Description	IOPAMIDOL (NIOPAM 300) (500mL) 61.24 %w/v Injection			

3.25 Radiopharmaceuticals / Radioisotopes

- **Radioisotopes** are pharmaceutical preparations (often referred to as agents/kits) that have been labelled with a radioactive tracer (isotope)
- The drug name description should be described using the brand name of the agent/kit and the product code (if available)
- The strength of Radioisotopes (if available) should be expressed as a number in the drug name description field with the acronym KBq (kilobecquerels), MBq (megabecquerels) or GBq (gigabecquerels) as the unit of strength.
- The strength of an agent/ kit may also be expressed in the numeric strength and unit of strength in the drug strength field as applicable.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	TECHNESCAN MIBI	1	mg	Kit
System C Label / Drug Search Window Description	TECHNESCAN MIBI 1mg Kit			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	XOFIGO (1100KBq/1mL) (6mL)	n/a	n/a	Injection
System C Label / Drug Search Window Description	XOFIGO (1100KBq/1mL) (6mL) Injection			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
System C Label / Drug Search Window Description	RENOCIS DMSA	1	mg	Kit
System C Label Description	RENOCIS DMSA 1mg Kit			

3.26 Third party manufactured products

- Where medications are purchased ready-prepared from third-party compounding providers, the full drug name descriptor for intravenous infusion products should include:
  - the drug name + (proprietary name in brackets, if applicable e.g. for monoclonal antibodies)
  - dose range in brackets as described by third party provider
  - diluent in brackets (if applicable)
  - manufacturer/compounding provider name in brackets
- For the purpose of space limitations and consistency of third party manufactured product descriptions, sodium chloride 0.9% w/v has been abbreviated to NaCl 0.9%.
- For injections ready-prepared from third-party providers, the strength will be specified in the strength field. Or where it is described as a dose banded range, the dose range will be included in the drug name.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	RITUXIMAB (MABTHERA) (501-600mg) / NaCl 0.9% (BAXTER)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	RITUXIMAB (MABTHERA) (501-600mg) / NaCl 0.9% (BAXTER) Infusion			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	VINCRISTINE (0-0.5mg) / NaCl 0.9% (BAXTER)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	VINCRISTINE (0-0.5mg) / NaCl 0.9% (BAXTER) Infusion			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	FLUOROURACIL (2051-3000mg) / NaCl 0.9% (BAXTER)	n/a	n/a	Infusion
System C Label / Drug Search Window Description	FLUOROURACIL (2051-3000mg) / NaCl 0.9% (BAXTER) Infusion			

EXAMPLE 4				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	FLUOROURACIL (1-1100mg) (ITH)	n/a	n/a	Pre-Filled Syringe
System C Label / Drug Search Window Description	FLUOROURACIL (1-1100mg) (ITH) Pre-Filled Syringe			

EXAMPLE 5				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	BORTEZOMIB (0.5-1.39mg) (BAXTER)	n/a	n/a	Pre-Filled Syringe
System C Label / Drug Search Window Description	BORTEZOMIB (0.5-1.39mg) (BAXTER) Pre-Filled Syringe			

3.27 Unlicensed Drugs

- All unlicensed medicines will be created as individual medication products. This is essential to provide a full audit trail for unlicensed products and to record batch number and expiry date
- All unlicensed medicines drug name field should end with **. This will enable easy identification of unlicensed medications and will also provide a clear distinction between a licensed and unlicensed variation of the same product
- If a brand name is being used by more than one MAH, then the details of the brand name and MAH should be included in the drug name description.
- Localities can use a **DMAINT** special considerations function such as 'Record Batch Number' if additional notification to end users is required.
- Medicines with both licensed and unlicensed preparations have the same ATC code in the HMMS NDF. This allows for more robust and accurate reporting functionalities in specific therapeutic areas.
- The 'DUSEW' program will be used on System C to centrally remove any unused unlicensed medication products following a period of time defined by the HMMS National Office to keep the National HMMS NDF current. Unlicensed products can be re-activated if they are needed in the future.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	OXYBUTYNIN (LYRINEL XL)**	5	mg	Modified Release Tablets
System C Label / Drug Search Window Description	OXYBUTYNIN (LYRINEL XL)** 5mg Modified Release Tablets			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	BETAMETHASONE 0.1% w/w / NEOMYCIN 0.5% w/w (BETNOVATE-N)**	n/a	n/a	Ointment
System C Label / Drug Search Window Description	BETAMETHASONE 0.1% w/w / NEOMYCIN 0.5% w/w (BETNOVATE-N)** Ointment			

3.28 Parenteral Nutrition

3.28.1 Standard Parenteral Nutrition

- The Drug Name description 60 character limit can be problematic when describing Parenteral Nutrition (PN) products.
- Externally compounded PN products by a third party manufacturer are described using the acronym PN at the beginning of the drug name description
- Brand names should be used for commercially available PN products
- The product code (if available) should be included in the product name description
- The volume of the bag/product in mL of a single unit should be included in the product name description
- The 'Form' should be described as 'Parenteral Nutrition'.
- The 'Dose Description' should be described as a 'Bag'.
- The 'Fast Code' for Parental Nutrition is a capital 'N'.
- The VAT code will be 'Z' as Parenteral Nutrition is exempt from VAT.
- Stock PN bags used for paediatric patients should include a description of the patient type or weight band in its product name description e.g. NEONATAL PRETERM, NEONATAL TERM, UNDER 10kg CENTRAL
- The product code (if available) and the supplier name should be included in the product name description

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	PN NEONATAL TERM (BAXTER) (FDCN40001) (1000mL)	n/a	n/a	Parenteral Nutrition
System C Label / Drug Search Window Description	PN NEONATAL TERM (BAXTER) (FDCN40001) (1000mL) PARENTERAL NUTRITION BAG			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	TRIOMEL WITH ELECTROLYTES (N7-1140E) (2000mL)	n/a	n/a	Parenteral Nutrition
System C Label / Drug Search Window Description	TRIOMEL WITH ELECTROLYTES (N7-1140E) (2000mL) Parenteral Nutrition			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	SMOFKABIVEN CENTRAL EXCEL BAG (1477mL)	n/a	n/a	Parenteral Nutrition
System C Label / Drug Search Window Description	SMOFKABIVEN CENTRAL EXCEL BAG (1477mL) Parenteral Nutrition			

3.28.2 Individualised Parenteral Nutrition

- PN products that are manufactured on an individual patient basis from the base constituents (amino acids, glucose, lipids and trace elements) should :
  - Be described with the precursor PN to enhance search functionality
  - Include the term 'INDIVIDUALISED" in the drug name description to denote that it is patient specific or bespoke PN
  - Include patient type e.g. adult or paediatric in the product name description

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	PN PAEDIATRIC INDIVIDUALISED (BAXTER)**	n/a	n/a	Parenteral Nutrition
System C Label / Drug Search Window Description	PN PAEDIATRIC INDIVIDUALISED (BAXTER)** Parenteral Nutrition			

3.29 Oral Nutritional Feeds

- Brand names should be used to describe oral or enteral nutritional feeds
- The 'Form' will be described as 'Oral Feed'.
- Where multiple volumes exist for a specific product, the volume of the bottle/product should be included in mL of a single unit, in the product name description.
- Where multiple flavours exist for a product should include the flavour of the product in the product name description

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ENSURE COMPACT BANANA	n/a	n/a	Oral Feed
System C Label / Drug Search Window Description	ENSURE COMPACT BANANA Oral Feed			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	FORTISIP BANANA	n/a	n/a	Oral Feed
System C Label / Drug Search Window Description	FORTISIP BANANA Oral Feed			

3.30 Enteral Nutritional Feeds

- Brand names should be used to describe enteral nutritional feeds
- The 'Form' will be described as 'Enteral Feed'.
- Where multiple volumes exist for a specific product, the volume of the bottle/product should be included in mL of a single unit, in the product name description.
- Where multiple flavours exist for a product should include the flavour of the product in the product name description

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	OSMOLITE 1 KCAL (1000mL)	n/a	n/a	Enteral Feed
System C Label / Drug Search Window Description	OSMOLITE 1 KCAL (1000mL) Enteral Feed			

EXAMPLE 4				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	NUTRISON MULTIFIBRE (1500mL)	n/a	n/a	Enteral Feed
System C Label / Drug Search Window Description	NUTRISON MULTIFIBRE (1500mL) Enteral Feed			

3.31 Vitamins and Food Supplements

- Vitamins should be described using their ATC code name description. If the ATC code uses the chemical name, for example, “colecalciferol”” then that should be used in the drug name description e.g. “Vitamin D “ will be described as “colecalciferol”.
- Vitamins and food supplements that contain up to two ingredient(s) should be described by the INN and as per *Section 2.1* of the policy document.
- Vitamin and food supplement products with multiple ingredients should be described by the brand name in the drug name description

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	SELENIUM (SONA)	50	micrograms	Tablets
System C Label / Drug Search Window Description	SELENIUM (SONA) 50 micrograms Tablets			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	MAGNESIUM (SONA)	250	mg	Tablets
System C Label / Drug Search Window Description	MAGNESIUM (SONA) 250 mg Tablets			

EXAMPLE 3				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ASCORBIC ACID 1000mg / GLUCOSE 663mg (RUBEX)	n/a	n/a	Effervescent Tablets
System C Label / Drug Search Window Description	ASCORBIC ACID 1000mg / GLUCOSE 663mg (RUBEX) Effervescent Tablets			

EXAMPLE 4				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	SONA MULTIPLUS JUNIOR MAX	n/a	n/a	Oral Liquid
System C Label / Drug Search Window Description	SONA MULTIPLUS JUNIOR MAX Oral Liquid			

EXAMPLE 5				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	HALIBORANGE MULTIVITAMIN	n/a	n/a	Chewable Tablets
System C Label / Drug Search Window Description	HALIBORANGE MULTIVITAMIN Chewable Tablets			

EXAMPLE 6				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	CENTRUM ADVANCE 50 PLUS	n/a	n/a	Tablets
System C Label / Drug Search Window Description	CENTRUM ADVANCE 50 PLUS Tablets			

3.32 Sugar Free Liquid Products

- "Oral Liquid" should be used in the form field to describe all oral liquid preparations as per standardised drug forms, see Appendix 4
- "Sugar free Oral Liquid" should be used in the form field to describe all sugar free oral liquid preparations as per standardised drug forms, see Appendix 4

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	PARACETAMOL (CALPOL SIX PLUS) (STRAWBERRY)	250	mg/5mL	Sugar Free Oral Liquid
System C Label / Drug Search Window Description	PARACETAMOL (CALPOL SIX PLUS) (STRAWBERRY) 250mg/5mL Sugar Free Oral Liquid			

EXAMPLE				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	METHADONE (MARTINDALE)	1	mg/1mL	Sugar Free Oral Liquid
System C Label / Drug Search Window Description	METHADONE (MARTINDALE) 1 mg/1mL Sugar Free Oral Liquid			

3.33 Excipients – Non-active

- Attributes pertaining to non-active excipients are NOT included in the drug file entry.
- If the presence of a non-active excipient is a concern, clinicians and pharmacy staff should check the product literature for the particular product being prescribed or dispensed.

3.34 Preservative Free Formulations

- Preservative free injections
  - '(PRESERVATIVE FREE)' in (BRACKETs) should be used in the drug name description field for all preservative free injections when denoted as such in the SmPC for the product and/or if it is describing a an 'Intrathecal Injection'.
  - '(PRESERVATIVE FREE)' in (BRACKETs) should be used in the drug name description field for all injections where both preservative free and with preservative preparations exist.
- Preservative free eye formulations will be described as 'Preservative Free Eye Drops' in the 'Form' field as preservatives can cause irritation to the eye and need to be identifiable.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	MORPHINE SULFATE (PRESERVATIVE FREE) (KALCEX)	30	mg/1mL	Injection
System C Label / Drug Search Window Description	MORPHINE SULFATE (PRESERVATIVE FREE) (KALCEX) 30 mg/1mL Injection			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	ATROPINE SULFATE (IMPRIMIS)**	0.01	%w/v	Preservative Free Eye Drops
System C Label / Drug Search Window Description	ATROPINE SULFATE (IMPRIMIS)** 0.01%w/v Preservative Free Eye Drop			

3.35 Tallman Lettering

- Tall Man lettering is a method of applying uppercase lettering to sections of look-alike, sound-alike drug names to bring attention to the points of dissimilarity.
- It has been shown to improve the accuracy of drug name perception and to reduce errors due to drug name similarity
- Tall Man lettering has been employed throughout the HMMS National Drug File. See Appendix 6 for VMPs and brands that are described using Tallman lettering convention.
- Caveat: The use of a lowercase letter as the first letter of a medication product impacts the alphabetical order of drugs in ward stock lists, picking lists and reporting with the System C software. As a result the first letter of all medication products including those where Tallman applies is capitalised.

EXAMPLE 1				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	MethylPREDNISolone (DEPO-MEDRONE)	120	mg/3mL	Injection
System C Label / Drug Search Window Descriptio	MethylPREDNISolone (DEPO-MEDRONE) 120mg/3mL Injection			

EXAMPLE 2				
HMMS NDF Field	**Drug Name**	**Strength (Numeric)**	**Strength (Unit)**	**Form**
HMMS NDF Entry	MetroNIDAZOLE (FLAGYL)	200	Mg	Tablets
System C Label / Drug Search Window Descriptio	MetroNIDAZOLE (FLAGYL) 200 mg Tablets			

4. Fast Search Letter

- Short codes are based on the first three letters of the drug name, the first 2 characters of the strength and followed by a customary last character (the fast search letter)
- The last character of the short code is a customised field which can represent, but is not limited to form or dose description used.
- See Appendix 9 for a list of examples of drug forms (or dose description) and fast search letters. Note: there is not a one to one relationship between form and fast letter search i.e. one letter can be used for multiple drug forms.

5. ATC Codes

- All medication products in the HMMS NDF will have an assigned Anatomical Therapeutic Chemical (ATC) code
- The ATC code is sourced from World Health Organisation (WHO) Database - Collaborating Centre for Drugs Statistics Methodology in Norway (https://www.whocc.no/atc_ddd_index/)
- ATC level 5 coding is used (individual substance level) where available
- The code is linked to the name of the substance (normally the INN name – important if a clinically intuitive names is used in place of rINN name, see *Section 3.14* for example of Calcium Leucovorin).
- If the product does not have an ATC the following categories should be used:
    - AP.12.11.01- Ancillary Products
    - OD.09.20.01- Clinical Trial & no ATC drugs
- Dressings without a SmPC are assigned the ancillary products ATC code. For reporting purposes, there are exceptions to this, see Appendix 9
- For creams and ointments without a SmPC, the NHS dm+d browser is used as a resource to check if the product is considered a medicinal product.
    - If the cream / ointment is on the NHS dm+d browser, the product is assigned the most suitable ATC code as determined by the HMMS National Office for reporting purposes.
    - If the cream / ointment is not included on the NHS dm+d browser, the product is assigned the ancillary product ATC code.
- The WHO ATC code database is updated annually. In response, the HMMS National Office will update the HMMS NDF to include any new codes and to incorporate any amendments to existing categories or codes.

6. Expense Code Category

- All products in the HMMS NDF will have an assigned Expense Code Category
- Expense Code Categories are used to support financial reporting to the General Ledger and Business Intelligence
- The Expense Code Categories utilised within the HMMS NDF have been agreed by the HSE Finance Master Data Unit for use as the Charge of Account (COA) codes in the General Ledger
- Level 1 ATC codes will be utilised as Expense Code Categories in HMMS for all medicinal products
- For non-medicinal products that do not have an ATC code the Expense Code Category of 'MEDICAL AND SURGICAL SUPPLIES' will be utilised
- For medicinal products that do not have an ATC code as the product may be an investigational medicinal product (clinical trial) or it may not have received marketing authorisation in any jurisdiction the Expense Code Category of 'OTHER DRUGS & MEDICINES' will be utilised
- The Expense Code Category field in HMMS has a 6 character limitation
- Charge of Account codes are 7 digit codes that begin with the number 6
- HMMS will utilise a 6 digit Expense Code Category that will be prefixed with the number 6 when exporting to the General Ledger
- See Appendix 10 for a detailed description of what medicinal product therapeutic groups are contained within the Level 1 ATC Codes

WHO ATC		HMMS Expense Code Category Description	HMMS Expense Code Number	Chart of Accounts Code Number
A	ALIMENTARY TRACT AND METABOLISM	A:ALIMENTARY TRACT + METABOLIS	090101	6090101
B	BLOOD AND BLOOD FORMING ORGANS	B:BLOOD AND BLD FORMING ORGANS	090201	6090201
C	CARDIOVASCULAR SYSTEM	C:CARDIOVASCULAR SYSTEM	090301	6090301
D	DERMATOLOGICALS	D:DERMATOLOGICALS	090401	6090401
G	GENITO URINARY SYSTEM AND SEX HORMONES	G:GU SYSTEM + SEX HORMONES	090501	6090501

H	SYSTEMIC HORMONAL PREPARATIONS, EXCL. SEX HORMONES AND INSULINS	H:SYS HORM ex SEX HORM + INSUL	090601	6090601
J	ANTIINFECTIVES FOR SYSTEMIC USE	J:ANTIINFECTIVES - SYSTEMIC USE	090701	6090701
L	ANTINEOPLASTIC AND IMMUNOMODULATING AGENTS	L:ANTINEOPLASTIC + IMMUNOMODUL	090801	6090801
M	MUSCULO-SKELETAL SYSTEM	M:MUSCULO-SKELETAL SYSTEM	090901	6090901
N	NERVOUS SYSTEM	N:NERVOUS SYSTEM	091001	6091001
P	ANTIPARASITIC PRODUCTS, INSECTICIDES AND REPELLENTS	P:ANTIPARASITIC, INSECTICID **+**	091101	6091101
R	RESPIRATORY SYSTEM	R:RESPIRATORY SYSTEM	091201	6091201
S	SENSORY ORGANS	S:SENSORY ORGANS	091301	6091301
V	VARIOUS	V:VARIOUS (ATC code V)	091401	6091401
NOT APPLICABLE		MEDICAL & SURGICAL SUPPLIES	121101	6121101
NOT APPLICABLE		OTHER DRUGS & MEDICINES	092001	6092001

7. VAT Codes

- All products in the HMMS NDF will have an assigned VAT Code
- The following VAT Codes will apply:

Rate (%)	Code	Description
0	Z	Zero VAT rated
13.5	R	Reduced
23	S	Standard

- In general, the assignment of VAT rates to a product is based on guidance issued by Revenue (https://www.revenue.ie/en/vat/vat-rates/search-vat-rates/vat-rates-database.aspx).
- Charging the correct VAT rate on behalf of the Revenue Commissioners of Ireland for a medicinal product is the sole responsibility of the VAT registered business.

8. Pack Sizes & Dose Units

- Only pack sizes of medication products known to be available for use in Ireland will be added to the HMMS NDF.
- Available pack sizes to the Irish market is dependent upon the MAH and suppliers.
- A dose unit is the smallest unit that can be issued (this is a numeric field).
- The number of dose units dispensed will appear on the dispensing label, e.g. 20 Tablets
- As a general rule dose units should match the smallest dispensable unit for a particular medicine.
- The container is selected from a drop down list in the HMMS NDF.
- Dose units/container is the number of dose units in the whole container

EXAMPLES			
HMMS NDF Entry	**Dose unit**	**Container**	**Dose units/container**
E.g. Pack of 30 solid dosage forms tablets / capsules or vials	1	Pack	30
E.g. Cream 30g pack	30	Pack	1
E.g. Oral Liquid 150mL pack	150	Bottle / Pack	1
E.g. Eye Drop 5mL bottles	5	Bottle	1

Products for Extemporaneous Preparation

- When the HMMS National Office is notified that a product is used as a component of an extemporaneous preparation, an additional pack size will be built for the product.
- The container "Pack for EXTEMP use" is used to distinguish the product for use in extemporaneous preparation from the alternative "Pack" container that is dispensed as a whole original pack.
- This is to allow less than a full pack to be used in an extemporaneous formula.
- To accommodate for extemporaneous preparation, the additional pack size will be created where the dose unit will be 1 and the number of dose units per container will be the total number of g or mL in the whole original container.
- References sources to determine availability of pack sizes include:
    - Manufacturers/suppliers
    - Summary of Product Characteristics (this should be used to confirm a particular pack size exists but note not all pack sizes in an SmPC will be marketed)
    - Supporting information from a requesting site (pictures of pack, screenshots of wholesaler websites)

EXAMPLE			
HMMS NDF Entry	**Dose unit**	**Container**	**Dose units/container**
E.g. Cream 30g pack for Extemporaneous Preparation	1	Pack for EXTEMP use	30

9. Warning/Supplementary Labels

- Supplementary Labels are cautionary or advisory warnings that are associated with a drug and may be included in the dispensing label of the drug
- Supplementary Labels are a non-mandatory data point that can be assigned to a drug in the HMMS NDF
- Supplementary labels are assigned to specific drugs in accordance with the British National Formulary (BNF) cautionary/advisory labels
- Upon dispensing the drug, a supplementary label warning will print on the label alongside the dispensing instructions
- Supplementary labels are maintained in the DMAMDW program within System C
- Warnings should be written in mixed case letters and should not all be in uppercase
- See Appendix 11 for a list of supplementary labels utilised in HMMS NDF

10. Drug Flags

- Drug flags are system-reserved flags that can be assigned to a drug which confer additional functionality and will affect the drug in every locality.
- The drug flags in the System C software are:

Drug Flag	System C Functionality	Use in HMMS NDF
Controlled Drug	Invokes the Controlled Drug functionality. Outputs relevant storage instruction on Inpatient labels.	Controlled Drug functionality has no value add for the HMMS project. Controlled Drug Flag not utilised in HMMS NDF
Unlicensed Medications	Forces entry of Batch number on receipt, and batch number and consultant on issue.	Unlicensed medications functionality impacting end user workflows for the HMMS project. Unlicensed Medication Flag not utilised in HMMS NDF
Lock in a RESTRICTED MEDICINE cupboard	Outputs relevant storage instruction on Inpatient labels.	Currently not utilised in HMMS NDF
For supply on a NAMED DOCTOR and NAMED PATIENT basis only	Prompt displayed in Dispensing process, inserts place holders for additional information on order forms.	Currently not utilised in HMMS NDF
High Alert	Displays High Alert warnings when drug is selected	Currently not utilised in HMMS NDF at the common level. Individual localities may assign this flag and any associated warnings for use within that locality.
Certificate of Analysis required	Additional information displayed on order forms.	Currently not utilised in HMMS NDF
Store in fridge (I/P) OR Cool place – use before expiry date (O/P)	Outputs relevant storage instruction on dispensing labels.	Used for all medication products that require fridge storage
BlueTeq Drug	Dispensing Requests which are matched to a drug with this flag will be indicated in Dispensing Request Management	N/A in Ireland

11. Ancillaries/Consumables

- All required and relevant ancillaries and consumables are included in the HMMS NDF
- Ancillaries and consumables are described in the same format, where possible, as a new drug entry.
- Examples of ancillaries / consumables include:
    - EASYCHAMBER SPACER (YELLOW) (CHILD)

- PHARMA SCREW CAPS DF (R3/38) (MCLERNON) (45R338DF)
- WITCH HAZEL (ULTRAPURE)
- TRYPTIC SOY BROTH SINGLE STRENGTH (CHERWELL) (224090/6.0204)

- The ATC Code **AP.12.11.01- Ancillary Products** should be used where no obvious ATC Code can be assigned to the product from the WHO ATC.
- The manufacturer code for the product should be included in the drug name description when available to help with product identification

12. Unknowns

- In circumstances where a medicine or product to be added to the HMMS NDF does NOT meet scenarios or rules outlined in the editorial policy it should be escalated to HMMS National Office management for a decision.

13. National Code

- The National Medicinal Product Catalogue (NMPC) project are to publish National Codes at a product level. Until publication the National Code field in the HMMS National Drug File will remain empty. This field will be populated with VMP/AMP codes from the NMPC once available.

14. Appendix A

Appendix 1: Marketing Authorisation Holder Abbreviations List

AA PHARMA	G.L.PHARMA	NOVA LABS
AAH	GENESIS	NUTRICIA
ACCORD	GERARD	OMEGAPHARM
ACTAVIS	GLOBAL HARVEST	ORION
AFT	GEORGELLE	OVELLE
ALLIANCE	GREENSTONE	PANPHARMA
AMDIPHARM	GYNEX	PAR PHARMACEUTICALS
ANI PHARMA	HALEWOOD	PERRIGO
ANKERMANN	HAMELIN	PFIZER
APOTEX	HBS HEALTHCARE	PHARMA NORD
APROK	HEALTHAID	PHARMACY BRAND
AQUETTANT	HEALTHFARM	PHARMARGUS
ARISTO	HERITAGE	PHOENIX
ASCOT	HEXAL	PINEWOOD
ASPEN	HIKMA	REIG JOFRE
ATHLONE	HOLLAND & BARRETT	RICHTER
AUROBINDO	HOPE	RISING
AUROLAB	HOSPIRA	ROSEMONT
AZURE	HOSPIRA APOTEX	ROWEX
B. BRAUN	HUMCO	ROWEX SANDOZ
BAUSCH AND LOMB	IPS SPECIALS	ROYAL FREE HOSPITAL
BAXTER (abbreviated to BX where character limitation)	ITH	RPH PHARMACEUTICALS
BAYSHORE	JEDPHARMA	SANDOZ
BD	JENAPHARM	SANOFI-AVENTIS
BEELINE	KALCEKS	SCANIPHARM

BIOHIT	KENDALL	SIGMA
BLUEFISH	KENT PHARMACEUTICALS	SOLGAR
BMS	KINEDEXE	SONA
BNM GROUP	KRKA	SOURCE NATURALS
BOOTS	KYOWA KIRIN	STOCKPORT
BROWN AND BURK LTD	LAMBERTS	STRADA STREULI
BOWMED/AZEVEDOS	LEK	STRIDES
BRILLPHARMA	LENNOX LABS	SYNCHRONY PHARMA
CHANELLE	LEO	TAD
CHENIDEX	MACURE	TAJ PHARMA
CLARIS	MAJOR	TEMAG PHARMA
CLONMEL	MARTINDALE	TEOPHARMA
COLONIS	MEDAC	TEVA
CRESCENT	MEDISCA	TILLOMED
DLRC PHARMA	MEDISOURCE	TIOFARMA
EASTONE	MERCURY	TYPHARM
ECOLAB	MYLAN	ULTRAPURE
EMP LTD	NATURES AID	WAMPOLE
ESSENTIAL	NATURES ANSWER	WEST-WARD
ETHYPHARM	NATURES BOUNTY	WOCKHARDT
FAMAR NETH	NATURES WAY	XEAL
FERRING	NICHE	ZENTIVA
FORAN	NORIDEM	
F.KABI (FRESENIUS KABI)	NORTH STAR	
	NOVA PHARMA	

Appendix 2: Strength (Unit) Used in HMMS NDF

Strength (Unit)	Strength (Unit)	Strength (Unit)	Strength (Unit)
%	mg/1.4mL	mg/285mL	micrograms/0.2mL
%v/v	mg/1.5mL	mg/287mL	micrograms/0.3mL
%v/w	mg/1.7mL	mg/28mL	micrograms/0.4mL
%w/v	mg/1.9mL	mg/290mL	micrograms/0.5mL
%w/w	mg/100 mL	mg/293mL	micrograms/0.6mL
cm	mg/105mL	mg/295mL	micrograms/0.75mL
ELISA units/0.5mL	mg/108mL	mg/296mL	micrograms/10mL
ELISA units/1mL	mg/10mL	mg/2g	micrograms/1mL
g	mg/11.7mL	mg/2mL	micrograms/24 hours
g/1.5mL	mg/110mL	mg/300mL	micrograms/2mL
g/100g	mg/115mL	mg/305mL	micrograms/3mL
g/100mL	mg/116mL	mg/30mL	micrograms/4mL
g/10mL	mg/12.5mL	mg/315mL	micrograms/50mL
g/1mL	mg/120mL	mg/317.5mL	micrograms/5mL
g/200mL	mg/122mL	mg/320mL	micrograms/actuation
g/20mL	mg/124mL	mg/32mL	micrograms/dose
g/250mL	mg/126mL	mg/330mL	micrograms/g
g/25mL	mg/128mL	mg/335mL	micrograms/hour
g/2mL	mg/12mL	mg/340mL	million units
g/3.3mL	mg/13.4mL	mg/34mL	million units/0.5mL
g/300mL	mg/130mL	mg/350mL	million units/1mL
g/30mL	mg/13mL	mg/35mL	mL
g/40mL	mg/148mL	mg/36mL	mmol
g/500mL	mg/14mL	mg/37.5mL	mmol/10mL
g/50mL	mg/15mL	mg/38mL	mmol/1mL
g/5mL	mg/16.7mL	mg/3mL	mmol/20mL
g/60mg	mg/16mL	mg/4.5mL	mmol/5mL
g/60mL	mg/1g	mg/400mL	mmol/L
gN	mg/1mL	mg/40mL	molar
Kallikrein inactivator units	mg/2.2mL	mg/45mL	units
Kallikrein inactivator units/50mL	mg/2.4mL	mg/4g	units/0.1mL
mg	mg/2.5 g	mg/4mL	units/0.25mL
mg /16hours	mg/2.5mL	mg/5.26mL	units/0.2mL
mg/0.05mL	mg/200mL	mg/5.5mL	units/0.35mL
mg/0.15mL	mg/20mL	mg/50mL	units/0.3mL
mg/0.1mL	mg/22mL	mg/51mL	units/0.45mL
mg/0.2mL	mg/24hours	mg/52.6mL	units/0.4mL
mg/0.3mL	mg/24mL	mg/52mL	units/0.5mL
mg/0.4mL	mg/250mL	mg/550mL	units/0.6mL
mg/0.55mL	mg/25mL	mg/5g	units/0.7mL
mg/0.5mL	mg/26.3 mL	mg/5mL	units/0.8mL
mg/0.67mL	mg/262mL	mg/600mL	units/0.9mL
mg/0.6mL	mg/263mL	mg/60mL	units/1.5mL
mg/0.75mL	mg/267mL	mg/6mL	units/100mg
mg/0.7mL	mg/268mL	mg/7.5mL	units/10mL

mg/0.85mL	mg/26mL	mg/7mL	units/1mL
mg/0.8mL	mg/270mL	mg/8.5mL	units/2.5mL
mg/0.9mL	mg/272mL	mg/8mL	units/20mL
mg/1.112mL	mg/274mL	mg/actuation	units/2mL
mg/1.119mL	mg/276mL	mg/dose	units/5mL
mg/1.12mL	mg/278mL	micrograms	units/drop
mg/1.1mL	mg/280mL	micrograms/0.08mL	units/g
mg/1.2mL	mg/282mL	micrograms/0.15mL	units/spray
mg/1.3mL	mg/284mL	micrograms/0.1mL	

Appendix 3: Dose Descriptions Used in HMMS NDF

Dose Description	Dose Description	Dose Description	Dose Description
1mg/1g	Jug	Single Dose Unit	x 2.5mL
Adaptor	kg	Spray	x 20 mL
Ampoule	Kit	Stick	x 200 mL
Applicator	l	Strip	x 2000 mL
Bag	Label	Suppository	x 220 mL
Bin	Lancet	Suture	x 2250 mL
Boat	Lozenge	Swab	x 24g
Book	Mat	Syringe	x 25 mL
Bottle	mg	Tablet	x 250 mL
Box	microgram	Tape	x 2500 mL
Capsule	mL	Test	x 30 mL
Carton	mmol	Tin	x 300 mL
Cartridge	Needle	Tray	x 3000 mL
Chair	Pack	Tube	x 350 mL
Charge	Pad	unit	x 355 mL
Chewing Gum	Pastille	Unit	x 3780 mL
Container	Patch	units/0.1mL	x 3785 mL
Device	Pellet	Vaginal Ring	x 4 mL
Disk	Pen	Vial	x 40 mL
Dose	Pencil	Wipe	x 400 mL
Dressing	Pessary	x 10mL	x 45 mL
Drop	Plaster	x 100 mL	x 450 mL
Enema	Plate	x 1000 mL	x 4750 mL
Filter	Powder	x 118 mL	x 50 mL
g	Pre-Filled Injection Device	x 120 mL	x 500 mL
Gastro-Resistant Capsules	Pre-Filled Pen	x 125 g	x 5000 mL
Gel	Pre-Filled Syringe	x 125 mL	x 60 mL
Generator	Pump	x 130mL	x 70 mL
Glove	Sachet	x 1500 mL	x 750 mL
Granule	Seal	x 150g	x 87mL
Implant	Sealant	x 150mL	x 90 mL
Infusor	Sealant Matrix	x 174mL	x24g
Insert	Shoe Cover	x 1900 mL	

Appendix 4: Form Descriptions Used in HMMS NDF

HMMS NDF	Replacing	Replacing	Replacing

Drug Form Description			
Applicator			
Bag			
Balm			
Bandage			
Bath Additive			
Bladder Installation	conc for intravesical soln	intravesical soln	intravesical susp
	pwd for bladder irrigation		
Bladder Irrigation	pwd for bladder irrigation		
Bone Cement			
Bone Filler			
Broth			
Buccal Tablets	buccal tablet	buccal film	muco adhesive buccal tablet
Capsules			
Catheter Maintenance Solution			
Caustic Applicator			
Chewable Tablets	chewable capsule		
Chewing Gum	medicated chewing gum		
Concentrated Oral Liquid			
Condom			
Cream			
Dental Gel	periodontal gel		
Dental Insert			
Dental Liquid	dental emulsion	dental soln	dental susp
Dental Paste	toothpaste		
Device			
Dialysis Solution	soln for haemo dialysis	soln for peritoneal dialysis	
Dispersible Tablets	chewable/dispersible tablet	gargle tablets for soln	
Dressings			
Dry Powder for Inhalation			
Ear Drops	ear drops emulsion	ear drops soln	ear drops pwd for susp
	ear drops susp		
Ear Ointment			
Ear/Eye Ointment			
Ear Spray	ear spray emulsion	ear spray soln	ear spray susp
Ear/Eye Ointment			
Effervescent Granules			
Effervescent Powder			
Effervescent Tablets			
Emollient			
Enema	pwd for rectal soln		

Epidural Infusion			
Eye / Ear / Nasal Drops	ear/eye/nasal drops soln		
Eye / Ear Drops	ear/eye drops soln	ear/eye drops susp	
Eye Drops	eye drops emulsion	eye drops pwd for soln	eye drops pwd for susp
	eye drops soln	eye drops susp	
Eye Gel			
Eye Ointment	eye cream		
Eye Spray			
Foam Enema			
Foam			
Gastro-Resistant Capsules	Enteric coated capsules		
Gastro-Resistant Granules	Enteric coated granules		
Gastro-Resistant Tablets	Enteric coated tablets		
Gel	pwd & gel for gel	transdermal gel	transdermal gel in sachet
Generator			
Gloves			
Granules	coated granules	coated granules in a sachet	granules for oral soln
	granules for oral susp	granules for oral/rectal susp	granules for rectal susp
	granules in a sachet		
Heel Balm			
Implant	implant in PFS	intravitreal implant	
Impregnated Tape Dressings			
Infusion	conc +solv for soln for inf	conc for conc for soln for inf	conc for disp for inf
	Pdr And Soln For Soln For Inj	pwd & solv for soln for inf	pwd for conc for soln for inf
	conc for emul for inf	conc for soln for inf	disp for conc for disp for inf
	disp for inf	emulsion for inf	solv for soln for inf
	pwd for disp for inf	pwd for susp for inf	pwd for soln for inf
	soln for inf	soln for inf in cartridge	
Infusor			
Inhalation			
Inhalation Gas			
Inhalation Powder (Blister)			
Inhalation Powder (Capsule)	inhalation powder		
Inhalation Vapour	Inhalation Vapour, liquid	inhalation vapour ointment	inhalation vapour soln

Inhaler	pressureised inhalation soln	pressurised inhalation susp	pressurised inhaler
Injection	conc +solv for disp for inj	conc + solv for soln for inj	conc + solv for susp for inj
	emulsion for inj	emulsion for susp for inj	gel for inj
	pwd & solv for susp for inj	pwd for disp for inj	pwd for soln for inj
	conc for susp for inj	disp for inj	emulsion for emulsion for inj
	pwd & soln for susp for inj	pwd & solv for disp for inj	pwd & solv for soln for inj
	pwd for susp for inj	soln for inj	soln for inj in cartridge
	granules for susp for inj	pwd & soln for soln for inj	
	conc for disp for inj	conc for soln for inj	
Injection/Infusion			
Intestinal gel			
Intracameral Injection			
Intracavernous Injection			
Intradermal Injection			
Intralesional Injection			
Intramuscular Injection			
Intraocular Injection			
Intraocular Irrigation	intraocular irrigation soln		
Intrathecal Infusion			
Intrathecal Injection			
Intrauterine Device	intrauterine delivery system		
Intravenous Infusion			
Intravenous Injection			
Intravenous Injection			
Intravevous Infusion			
Intravitreal Injection			
Irrigation Solution			
Kit			
Labels			
Liquid			
Lotion			
Lozenges	compressed lozenges	lozenge	
Medicated Stick	cutaneous stick	dental stick	nasal stick
Modified-Release Capsules	modified release hard capsules	modified release soft capsules	prolonged-release capsules
Modified-Release Eye Drops			
Modified-Release Granules	prolonged-release granules		
Modified-Release Tablets	prolonged-release tablets		

Tablets			
Mouthwash	conc for gargle	conc for oromucosal soln	cutaneous/oromucosal soln
	gargle pwd for soln	gargle/mouthwash	oromucosal soln
	gargle		
Nail Lacquer	medicated nail laquer		
Nasal Cream			
Nasal Drops	nasal drops emulsion	nasal drops powder for soln	nasal drops pwd for soln
	nasal drops soln	nasal drops susp	
Nasal Gel			
Nasal Liquid			
Nasal Ointment	cutaneous/nasal ointment		
Nasal Spray	nasal spray emulsion	nasal spray powder for soln	nasal spray soln
	nasal spray susp	nasal/oromuscosal soln	nasal/oromuscosal spray soln
Nasogastric Feed			
Nebuliser Liquid	conc for nebuliser soln	inhalation soln	nebuliser disp
	nebuliser soln	nebuliser susp	pwd for nebuliser soln
	nebuliser emulsion		
Ocular Irrigation Solution			
Ocular Liquid			
Ocular Pre-Filled Syringe			
Oil			
Ointment	transdermal ointment		
Ophthalmic Insert			
Ophthalmic Strip			
Oral Drops	oral drops emulsion	oral drops granules for soln	oral drops liquid
	oral drops powder for susp	oral drops soln	oral drops susp
Oral Feed			
Oral Gel	oromucosal gel		
Oral Granules			
Oral Liquid	conc for oral sol	conc for oral susp	oral emulsion
	pwd& solv for oral soln	pwd & solv for oral susp	prolonged-release oral susp
	oral soln in sachet	oral susp	oral susp in sachet
	susp for oral susp	syrup	syrup in a sachet
	oral soln	oral soln in bottle	
Oral Lyophilisates			
Oral Paste	oral paste in sachet	oromucosal paste	

Oral Powder	oral powder in sachet	pwd for oral soln	pwd for oral soln in a sachet
	pwd ofr oral susp	pwd for oral susp in a sachet	
Oral Spray			
Orodispersible Tablets			
Oromucosal Spray	oromucosal spray emulsion	oromucosal spray soln	oromucosal spray susp
Parenteral Nutrition			
Paste	cutaneous paste	poultice	
Pastilles			
Patch Test			
Patches	cutaneous patch	transdermal patch	
Pellets			
Pen			
Pen Needles			
Perineural Injection			
Pessaries			
Powder	conc for oral/rectal soln	pwd for oral/rectal susp	
Pre-Filled Injection Device			
Pre-Filled Pen	prolonged-release susp in pfp	soln for inj in PFP	susp for inj in PFP
Pre-Filled Syringe	emulsion for inj/inf in PFS	soln for inf in PFS	soln for inj in PFS
	soln for inj/inf in PFS	susp for inj in PFS	
Preservative Free Eye Drops	eye drops PF		
Preservative Free Eye Ointment	eye ointment PF		
Prick Test			
Prolonged-Release Injection	prolonged-release disp for inj	prolonged-release soln for inj	prolonged-release susp for inj
	Powder and solvent for prolonged-release suspension for injection		
Rectal Ointment			
Scalp Application	cutaneous foam		
Shampoo			
Shampoo Cap			
Single Use Eye Drops			
Skin Cleanser	wash		
Soluble Tablets			
Solution	conc for rectal soln	soln for organ preservation	
Solution for Inhalation			

Spacer Device			
Spray	cutaneous spray		
Stockings			
Subcutaneous Infusion			
Subcutaneous Injection			
Sublingual Spray	sublingual spray soln		
Sublingual Tablets			
Sugar Free Oral Liquid			
Suppositories			
Suture			
Swabs			
Syringe			
Tablets			
Tampons			
Test			
Test Strips			
Tissue Adhesive	soln for sealant	sealant matrix	pwd & solv for sealant
Topical Liquid	tablet for cutaneous soln		
Topical Paint			
Topical Powder	cutaneous powder	cutaneous spray, powder	
Topical Solution	cutaneous liquid	cutaneous soln	cutaneous spray soln
	cutaneous spray susp	cutaneous susp	pwd for cutaneous soln
Topical Spray	cutaneous spray, emulsion	cutaneous spray ointment	
Urethral Stick			
Vaginal Cream			
Vaginal Device	vaginal delivery system		
Vaginal Gel			
Vaginal Tablets			
Wipes			

Appendix 5: Co-drugs in HMMS NDF

Name Description in HMMS	Ingredient 1	Ingredient 2

CO-AMILOZIDE	Amiloride	Hydrochlorothiazide
CO-AMOXICLAV	Amoxicillin	Clavulanic acid
CO-DANTHRAMER	Dantron	Poloxamer
CO-TRIMOXAZOLE	Trimethoprim	Sulfamethoxazole

Appendix 6: Use of Salt in Drug Name in HMMS NDF

Drug	Decision
BETAMETHASONE SODIUM PHOSPHATE BETAMETHASONE VALERATE	Name salt for injections & topical (not oral)

BETAMETHASONE DIPROPIONATE	
CALCIUM CARBONATE CALCIUMS ACETATE CALCIUM GLUCONATE CALCIUM UNDECYLENATE	Name all salts
CHLORHEXIDINE ACETATE CHLORHEXIDINE GLUCONATE	Name all salts
DEXAMETHASONE SODIUM PHOSPHATE	Name salt for injections (not oral)
DICLOFENAC SODIUM DICLOFENAC PHOSPHATE	Name all salts
FERROUS SULFATE FERROUS FUMARATE FERROUS GLUCONATE	Name all salts
FLUTICASONE FUROATE FLUTICASONE PROPIONATE	Name salt for nasal spray (not inhaler)
FUSIDIC ACID	Fusidic acid only
HEPARIN (UNFRACTIONATED)	Listed as Heparin
HYDROCORTISONE ACETATE HYDROCORTISONE BUTYRATE HYDROCORTISONE	Name all salts
HYOSCINE BUTYLBROMIDE HYOSCINE HYDROBROMIDE	Name all salts
ISOSORBIDE DINITRATE ISOSORBIDE MONONITRATE	Name all salts
MAGNESIUM SULFATE MAGNESIUM TRISILICATE MAGNESIUM CARBONATE MAGNESIUM HYDROXIDE MAGNESIUM ASPARTATE MAGNESIUM CITRATE MAGNESIUM GLYCEROPHOSPHATE	Name all salts
MethylPREDNISolone SODIUM SUCCINATE MethylPREDNISolone ACETATE	Name salt for injections (not oral)
PERINDOPRIL ERBUMINE PERINDOPRIL ARGININE	Name all salts
POTASSIUM CHLORIDE POTASSIUM CITRATE	Name all salts

POTASSIUM BICARBONATE POTASSIUM PERMANGANATE	
QuiNINE SULFATE QuiNINE BISULFATE	Name all salts
SODIUM BENZOCATE SODIUM BICARBONATE SODIUM CHLORIDE SODIUM CITRATE SODIUM CROMOGLICATE SODIUM FLUORIDE FEREDETATE SODIUM FUSIDATE SODIUM HYALURONATE SODIUM NITRATE SODIUM PHOSPHATE SODIUM PICOSULFATE SODIUM TETRADECYL SULFATE SODIUM THIOSULFATE	Name all salts
TENOFOVIR DISOPROXIL TENOFOVIR ALAFENAMIDE	Listed as Tenofovir due to character limitations & no clinical significance
TESTOSTERONE ENANTATE TESTOSTERONE PROPIONATE	Name all salts
TRIAMCINOLONE ACETONIDE TRIAMCINOLONE HEXACETONIDE	Name all salts
ZINC SULFATE ZINC ACETATE ZINC OXIDE ZINC UNDECENOATE	Name all salts

Appendix 7: Tallman Lettering in HMMS NDF

Drug Name With Tall Man Letters	Confused With
BuPROPion	BusPIRone
BusPIRone	BuPROPion
ClomiPHENE	ClomiPRAMINE
ClomiPRAMINE	ClomiPHENE

CycloSERINE	CicloSPORIN
CicloSPORIN	CycloSERINE
DAUNOrubicin	DOXOrubicin
DOBUTamine	DOPamine
DOPamine	DOBUTamine
DOXOrubicin	DAUNOrubicin
HydrALAZINE	HydrOXYzine – HYDROmorphone
HYDROmorphone	HydrOXYzine — HydrALAZINE
HydrOXYzine	HydrALAZINE – HYDROmorphone
MedroxyPROGESTERone	MethylPREDNISolone
MethylPREDNISolone	MedroxyPROGESTERone
MitoXANTRONE	Not specified
NiCARdipine	NIFEdipine
NIFEdipine	NiCARdipine
RisperiDONE	ROPINIRole
ROPINIRole	RisperiDONE
VinBLAStine	VinCRIStine
VinCRIStine	VinBLAStine
ALPRAZolam	LORazepam — ClonazePAM
AMILoride	AmLODIPine
AmLODIPine	AMILoride
ARIPiprazole	RABEprazole
AzaCITIDine	AzaTHIOprine
AzaTHIOprine	AzaCITIDine
CarBAMazepine	OXcarbazepine
CARBOplatin	CISplatin
CeFAZolin	CefOXitin — CefTAZidime — CefTRIAXone
CefOXitin	CeFAZolin - CefTAZidime — CefTRIAXone
CefTAZidime	CeFAZolin — CefOXitin — CefTRIAXone
CefTRIAXone	CeFAZolin – CefOXitin – CefTAZidime
ChlordiazePOXIDE	ChlorproMAZINE**
ChlorproMAZINE**	ChlordiazePOXIDE
CISplatin	CARBOplatin
CloBAZam	ClonazePAM
ClonazePAM	CloNIDine — CloZAPine — CloBAZam — LORazepam
CloNIDine	ClonazePAM – cloZAPine — KlonoPIN*
CloZAPine	ClonazePAM — CloNIDine
CycloGEST*	CytoTEC*
CytoTEC*	CycloGEST*
DACTINomycin	DAPTOmycin
DAPTOmycin	DACTINomycin
DEPO-Medrone*	SOLU-Medrone*
SOLU-Medrone*	DEPO-Medrone*
DiazePAM	DilTIAZem
DilTIAZem	DiazePAM
DOCEtaxel	PACLitaxel
DOXOrubicin**	IDArubicin
DULoxetine	FLUoxetine — PARoxetine
EPHEDrine	EPINEPHrine
EPINEPHrine	EPHEDrine
EpiRUBicin	EriBULin

EriBULin	EpiRUBicin
FlavoxATE	FluvoxaMINE
FLUoxetine	DULoxetine — PARoxetine
FluPHENAZine	FluvoxaMINE
FluvoxaMINE	FluPHENAZine - FlavoxATE
GuaiFENesin	GuanFACINE
GuanFACINE	GuaiFENesin
HumaLOG*	HumuLIN*
HumuLIN*	HumaLOG*
HydrALAZINE**	HydroCHLOROthiazide – HydrOXYzine**
HydroCHLOROthiazide	HydrOXYzine** — HydrALAZINE**
HYDROmorphone**	Morphine — OxyMORphone
HYDROXYprogesterone	MedroxyPROGESTERone**
HydrOXYzine**	HydrALAZINE** — HydroCHLOROthiazide
IDArubicin	DOXOrubicin** – IdaruCIZUmab
IdaruCIZUmab	IDArubicin
InFLIXimab	RiTUXimab
ISOtretinoin	Tretinoin
LaMICtal*	LamISIL*
LamISIL*	LaMICtal*
LamiVUDine	LamoTRIgine
LamoTRIgine	LamiVUDine
LevETIRAcetam	LevOCARNitine — LevoFLOXacin
LevOCARNitine	LevETIRAcetam
LevoFLOXacin	LevETIRAcetam
LORazepam	ALPRAZolam — ClonazePAM
MedroxyPROGESTERone**	HYDROXYprogesterone
MetFORMIN	MetroNIDAZOLE
MetroNIDAZOLE	MetFORMIN
MiFEPRIStone	MiSOPROStol
MiSOPROStol	MiFEPRIStone
MitoMYcin	MitoXANTRONE**
MitoXANTRONE**	MitoMYcin
NexAVAR*	NexIUM*
NexIUM*	NexAVAR*
NiCARdipine**	NiMODipine – NIFEdipine**
NIFEdipine**	NiMODipine — NiCARdipine**
NiMODipine	NIFEdipine** – NiCARdipine**
NovoRAPID*	NovoMIX*
NovoMIX*	NovoRAPID*
OLANZapine	QUEtiapine
OXcarbazepine	CarBAMazepine
OxyCODONE	HYDROcodone — OxyCONTIN*– OxyMORphone
OxyCONTIN*	OxyCODONE – OxyMORphone
PACLitaxel	DOCEtaxel
PARoxetine	FLUoxetine — DULoxetine
PAZOPanib	PONATinib
PEMEtrexed	PRALAtrexate
PenicillAMINE	Penicillin
PENTobarbital	PHENobarbital
PHENobarbital	PENTobarbital
PONATinib	PAZOPanib

QUEtiapine	OLANZapine
QuiNIDine	QuiNINE
QuiNINE	QuiNIDine
RABEprazole	ARIPiprazole
RisperDAL*	ROPINIRole**
RisperiDONE**	ROPINIRole**
RiTUXimab	InFLIXimab
RomiDEPsin	RomiPLOStim
RomiPLOStim	RomiDEPsin
ROPINIRole**	RisperDAL*— RisperiDONE**
SandIMMUN*	SandoSTATIN*
SandoSTATIN*	SandIMMUN*
SAXagliptin	SITagliptin
SEROquel*	SINEquan*
SINEquan*	SEROquel*
SITagliptin	sAXagliptin — SUMAtriptan
SORAfenib	SUNItinib
SulfADIAZINE**	SulfaSALAzine
SulfaSALAzine	SulfADIAZINE**
SUMAtriptan	SITagliptin — ZOLMitriptan
SUNItinib	SORAfenib
TEGretol*	TRENtal*
TiaGABine	TiZANidine
TiZANidine	TiaGABine
TraMADol	TraZODone
TraZODone	TraMADol
TRENtal*	TEGretol*
ValACIClovir	ValGANciclovir
ValGANciclovir	ValACIClovir
ZOLMitriptan	SUMAtriptan
ZyPREXA*	ZyrTEC*
ZyrTEC*	ZyPREXA*

Appendix 8: Fast Search Letter in HMMS NDF

Form	Fast Search Letter	Form	Fast Search Letter
Applicator	A	Modified-Release Capsules	C
Bag	B	Modified-Release Eye Drops	D
Balm	B	Modified-Release Granules	G
Bandage	B	Modified-Release Tablets	T
Bath Additive	B	Mouthwash	M

Bladder Instillation	I	Nail Lacquer	L
Bladder Irrigation	I	Nasal Cream	C
Bone Cement	B	Nasal Drops	D
Bone Filler	B	Nasal Gel	G
Broth	B	Nasal Liquid	L
Buccal Tablets	T	Nasal Ointment	O
Capsules	C	Nasal Spray	S
Catheter Maintenance Solution	C	Nasogastric Feed	F
Caustic Applicator	A	Nebuliser Liquid	L
Chewable Tablets	T	Ocular Irrigation Solution	S
Chewing Gum	G	Ocular Liquid	L
Concentrated Oral Liquid	L	Ocular Pre-Filled Syringe	S
Condom	C	Oil	O
Cream	C	Ointment	O
Dental Gel	G	Ophthalmic Insert	I
Dental Insert	I	Ophthalmic Strip	S
Dental Liquid	L	Oral Drops	D
Dental Paste	P	Oral Feed	F
Device	D	Oral Gel	G
Dialysis Solution	D	Oral Granules	G
Dispersible Tablets	T	Oral Liquid	L
Dressings	D	Oral Lyophilisates	L
Dry Powder for Inhalation	I	Oral Paste	P
Ear Drops	D	Oral Powder	P
Ear Ointment	O	Oral Spray	S
Ear Spray	S	Orodispersible Tablets	T
Ear/Eye Ointment	O	Oromucosal Spray	S
Effervescent Granules	G	Parenteral Nutrition	N
Effervescent Powder	P	Paste	P
Effervescent Tablets	T	Pastilles	P
Emollient	E	Patch Test	T
Enema	E	Patches	P
Epidural Infusion	I	Pellets	P
Eye / Ear / Nasal Drops	D	Pen	P
Eye / Ear Drops	D	Pen Needles	N
Eye Drops	D	Perineural Injection	I
Eye Gel	G	Pessaries	P
Eye Ointment	O	Powder	P
Eye Spray	S	Pre-Filled Injection Device	I
Foam Enema	E	Pre-Filled Pen	P
Gastro-Resistant Capsules	C	Pre-Filled Syringe	S
Gastro-Resistant Granules	G	Preservative Free Eye Drops	D
Gastro-Resistant Tablets	T	Preservative Free Eye Ointment	O
Gel	G	Prick Test	T
Generator	G	Prolonged-Release Injection	I
Gloves	G	Rectal Ointment	O
Granules	G	Scalp Application	A

Heel Balm	B	Shampoo	S
Implant	I	Shampoo Cap	S
Impregnated Tape Dressings	D	Single Use Eye Drops	D
Infusion	I	Skin Cleanser	C
Infusor	I	Soluble Tablets	T
Inhalation	I	Solution	S
Inhalation Gas	G	Solution for Inhalation	I
Inhalation Powder (Blister)	P	Spacer Device	D
Inhalation Powder (Capsule)	P	Spray	S
Inhalation Vapour	V	Stockings	S
Inhaler	I	Subcutaneous Infusion	I
Injection	I	Subcutaneous Injection	I
Injection/Infusion	I	Sublingual Spray	S
Intestinal gel	G	Sublingual Tablets	T
Intracameral Injection	I	Sugar Free Oral Liquid	L
Intracavernous Injection	I	Suppositories	S
Intradermal Injection	I	Suture	S
Intralesional Injection	I	Swabs	S
Intramuscular Injection	I	Syringe	S
Intraocular Injection	I	Tablets	T
Intraocular Irrigation	I	Tampons	T
Intrathecal Infusion	I	Test	T
Intrathecal Injection	I	Test Strips	T
Intrauterine Device	D	Tissue Adhesive	A
Intravenous Infusion	I	Topical Liquid	L
Intravenous Injection	I	Topical Paint	P
Intravitreal Injection	I	Topical Powder	P
Irrigation Solution	S	Topical Solution	S
Kit	K	Topical Spray	S
Labels	L	Urethral Stick	S
Liquid	L	Vaginal Cream	C
Lotion	L	Vaginal Device	D
Lozenges	L	Vaginal Gel	G
Medicated Stick	S	Vaginal Tablets	T

Appendix 9: Dressings/Implant Assigned a WHO ATC code in HMMS NDF

Name of Dressing / Implant in HMMS	Assigned WHO ATC Code
PROMOGRAN	B.02.BC.30
COLLATAMP G	B.02.BC.30
TACHOSIL	B.02.BC.30

TETRACAINE (AMETOP 4% GEL / DRESSINGS DISPENSING PACK)	N.01.BA.03

Appendix 10: Therapeutic Groups included in World Health Organisation in Level 1 ATC Code Category

1st Level Code	ATC 1st Level Name	Pharmacological or therapeutic groups included by World Health Organisation per category
A	ALIMENTARY TRACT AND METABOLISM	STOMATOLOGICAL PREPARATIONS DRUGS FOR ACID RELATED DISORDERS DRUGS FOR FUNCTIONAL GASTROINTESTINAL DISORDERS ANTIEMETICS AND ANTINAUSEANTS BILE AND LIVER THERAPY DRUGS FOR CONSTIPATION ANTIDIARRHEALS, INTESTINAL ANTIINFLAMMATORY/ANTIINFECTIVE AGENTS

		ANTIOBESITY PREPARATIONS, EXCL. DIET PRODUCTS DIGESTIVES, INCL. ENZYMES DRUGS USED IN DIABETES VITAMINS MINERAL SUPPLEMENTS TONICS ANABOLIC AGENTS FOR SYSTEMIC USE APPETITE STIMULANTS OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS
B	BLOOD AND BLOOD FORMING ORGANS	ANTITHROMBOTIC AGENTS ANTIHEMORRHAGICS ANTIANEMIC PREPARATIONS BLOOD SUBSTITUTES AND PERFUSION SOLUTIONS OTHER HEMATOLOGICAL AGENTS
C	CARDIOVASCULAR SYSTEM	CARDIAC THERAPY ANTIHYPERTENSIVES DIURETICS PERIPHERAL VASODILATORS VASOPROTECTIVES BETA BLOCKING AGENTS CALCIUM CHANNEL BLOCKERS AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM LIPID MODIFYING AGENTS
D	DERMATOLOGICALS	ANTIFUNGALS FOR DERMATOLOGICAL USE EMOLLIENTS AND PROTECTIVES PREPARATIONS FOR TREATMENT OF WOUNDS AND ULCERS ANTIPRURITICS, INCL. ANTIHISTAMINES, ANESTHETICS, ETC. ANTIPSORIATICS ANTIBIOTICS AND CHEMOTHERAPEUTICS FOR DERMATOLOGICAL USE CORTICOSTEROIDS, DERMATOLOGICAL PREPARATIONS ANTISEPTICS AND DISINFECTANTS MEDICATED DRESSINGS ANTI-ACNE PREPARATIONS OTHER DERMATOLOGICAL PREPARATIONS
G	GENITO URINARY SYSTEM AND SEX HORMONES	GYNECOLOGICAL ANTIINFECTIVES AND ANTISEPTICS OTHER GYNECOLOGICALS SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM UROLOGICALS
H	SYSTEMIC HORMONAL PREPARATIONS, EXCL. SEX HORMONES AND INSULINS	PITUITARY AND HYPOTHALAMIC HORMONES AND ANALOGUES CORTICOSTEROIDS FOR SYSTEMIC USE THYROID THERAPY PANCREATIC HORMONES CALCIUM HOMEOSTASIS
J	ANTIINFECTIVES FOR SYSTEMIC USE	ANTIBACTERIALS FOR SYSTEMIC USE ANTIMYCOTICS FOR SYSTEMIC USE ANTIMYCOBACTERIALS ANTIVIRALS FOR SYSTEMIC USE IMMUNE SERA AND IMMUNOGLOBULINS VACCINES

L	ANTINEOPLASTIC AND IMMUNOMODULATING AGENTS	ANTINEOPLASTIC AGENTS ENDOCRINE THERAPY IMMUNOSTIMULANTS IMMUNOSUPPRESSANTS
M	MUSCULO-SKELETAL SYSTEM	ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS TOPICAL PRODUCTS FOR JOINT AND MUSCULAR PAIN MUSCLE RELAXANTS ANTIGOUT PREPARATIONS DRUGS FOR TREATMENT OF BONE DISEASES OTHER DRUGS FOR DISORDERS OF THE MUSCULO-SKELETAL SYSTEM
N	NERVOUS SYSTEM	ANESTHETICS ANALGESICS ANTIEPILEPTICS ANTI-PARKINSON DRUGS PSYCHOLEPTICS PSYCHOANALEPTICS OTHER NERVOUS SYSTEM DRUGS
P	ANTIPARASITIC PRODUCTS, INSECTICIDES AND REPELLENTS	ANTIPROTOZOALS ANTHELMINTICS ECTOPARASITICIDES, INCL. SCABICIDES, INSECTICIDES AND REPELLENTS
R	RESPIRATORY SYSTEM	NASAL PREPARATIONS THROAT PREPARATIONS DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES COUGH AND COLD PREPARATIONS ANTIHISTAMINES FOR SYSTEMIC USE OTHER RESPIRATORY SYSTEM PRODUCTS
S	SENSORY ORGANS	OPHTHALMOLOGICALS OTOLOGICALS OPHTHALMOLOGICAL AND OTOLOGICAL PREPARATIONS
V	VARIOUS	ALLERGENS ALL OTHER THERAPEUTIC PRODUCTS DIAGNOSTIC AGENTS GENERAL NUTRIENTS ALL OTHER NON-THERAPEUTIC PRODUCTS CONTRAST MEDIA DIAGNOSTIC RADIOPHARMACEUTICALS THERAPEUTIC RADIOPHARMACEUTICALS SURGICAL DRESSINGS

Appendix 11: Supplementary Labels Used in HMMS NDF

Number	Supplementary Label
1	1.Warning: This medicine may make you sleepy
2	2.Warning: This medicine may make you sleepy. If this happens, do not drive or use tools or machines. Do not drink alcohol
3	3.Warning: This medicine may make you sleepy. If this happens, do not drive or use tools or machines
4	4.Warning: Do not drink alcohol
5	5.Do not take indigestion remedies 2 hours before or after you take this medicine

6	6.Do not take indigestion remedies, or medicines containing iron or zinc, 2 hours before or after you take this medicine
7	7.Do not take milk, indigestion remedies, or medicines containing iron or zinc, 2 hours before or after you take this medicine
8	8.Warning: Do not stop taking this medicine unless your doctor tells you to stop
9	9.Space the doses evenly throughout the day. Keep taking this medicine until the course is finished, unless you are told to stop
10	10.Warning: Read the additional information given with this medicine
11	11.Protect your skin from sunlight-even on a bright but cloudy day. Do not use sunbeds
12	12.Do not take anything containing aspirin while taking this medicine
13	13.Dissolve or mix with water before taking
14	14.This medicine may colour your urine. This is harmless
15	15.Caution: flammable. Keep your body away from fire or flames after you have put on the medicine
16	16.Dissolve the tablet under your tongue- do not swallow. Store the tablets in this bottle with the cap tightly closed. Get a new supply 8 weeks after opening
17	17.Do not take more than … in 24 hours
18	18Do not take more than … in 24 hours. Also, do not take more than … in any one week
19	19.Warning: This medicine makes you sleepy. If you still feel sleepy the next day, do not drive or use tools or machines. Do not drink alcohol.
21	21.Take with or just after food, or a meal
22	22.Take 30 to 60 minutes before food
23	23.Take this medicine when your stomach is empty. This means an hour before food or 2 hours after food
24	24.Suck or chew this medicine
25	25.Swallow this medicine whole. Do not chew or crush
26	26.Dissolve this medicine under your tongue
27	27.Take with a full glass of water
28	28.Spread thinly on the affected skin only
29	29.Do not take more than 2 at any one time. Do not take more than 8 in 24 hours
30	30.Contains paracetamol. Do not take anything else containing paracetamol while taking this medicine. Talk to a doctor at once if you take too much of this medicine, even if you feel well
32	32.Contains aspirin. Do not take anything else containing aspirin while taking this medicine
CT	For Clinical Trial Use Only

Appendix 12: Editorial Policy Glossary of Terms

Included below is a high-level glossary of terms included in this document.

Term	Definition
Anatomical Therapeutic Chemical code (ATC)	This is a unique code assigned to a medicine based on the system/organ it works on. It is assigned by the WHO (World Health Organisation)
Ancillary products (AP)	Are products purchased by a pharmacy department that does not have an ATC code
British approved name (BAN)	An official, non-proprietary or generic name given to a pharmaceutical substance as defined by the British Pharmacopeia

British National Formulary (BNF)	This is a medical and pharmaceutical publication that contains information and advice on prescribing and pharmacology on medicines available on the National Health Service (NHS)
Dictionary of Medicines and devices (Dm+d)	This website is a dictionary of descriptions and codes which represent medicines and devices being used in the NHS, mainly used for reimbursement purposes
DMAINT	Drug Management programme in HMMS used at a local level
DMAMDW	Drug Description Maintenance programme in HMMS at a common level
DUSEW	Programme to mark a drug inactive/active at a common level
EPMA	Electronic Prescribing and medicines administration
HMMS	Hospital Medicines Management System
Marketing Authorisation Holder (MAH)	A company or legal entity that has the authorisation to market a medicine in one or several European Union Member States
National Medicines Product Catalogue (NMPC)	A future HSE project to produce a National drug library for the Republic of Ireland
Summary of product characteristics (SmPC)	A document describing the properties and officially approved conditions of a medicine. This reference is utilised to inform healthcare professionals on how to use the medicine safely and effectively

Appendix 13: Bibliography

https://www.nala.ie/wp-content/uploads/2019/08/Literacy-audit-for-healthcare-settings.pdf accessed 21st October 2022

https://www.thepsi.ie/gns/Pharmacy_Practice/code-of-conduct.aspx accessed 21st October 2022

https://www.edqm.eu/en/standard-terms-database accessed the 26th of October 2022

15. Appendix B: Document Control

Revision History

Version	Date	Nature of Change
0.1		First draft

Document Owner

Name	Title

Document Approvals

If applicable, this document is only a draft until it is formally approved by a person with authority to do so. The PMO has a paperless policy so a 'wet ink' signature is not required. Email approval is sufficient, as long as it is explicit, unambiguous and filed as a PDF, embedded into this document below with a clear, concise file name (e.g., 'Approval of Project End Report.pdf'). Alternatively, file the PDF approval alongside this document in the project document library in Modus. The key is to ensure that evidence of approval is visible to any reader of this document and would stand up to the scrutiny of an audit, without any need for clarification.
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- Six months following initial implementation
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- Following an annual review

Document Conventions

Words and terms that are capitalised (e.g., Change Management) are reserved project management terms which are defined at https://healthireland.sharepoint.com/sites/PMO/Shared Documents/Glossary of Project Management Terms.pdf.

Where acronyms are used, the first instance in the document will be accompanied by the full phrase (e.g., Service Level Agreement (SLA)). Thereafter, just the acronym will be used unless there is a reason to use the full term again in any given context. All such terms are defined in Appendix C.

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