NHS dictionary of medicines and devices (dm+d)
Technical specification of data files for release 2 of the Dictionary of Medicines and Devices (dm+d)

Release 2.0 Version 3.1

May 2015

This document is produced and maintained by NHS Prescription Services (provided by NHS Business Services Authority) in partnership with the Health and Social Care Information Centre (HSCIC).

Document control since 2013

Version	Date issued	Brief summary of change	Amended / Approved by
07/08/2013	Release 2.0 Version 3.0	Extract Format amended to include GTIN zip file Supplementary files amended to reflect removal of GTIN content GTINs to be 13 or 14 character in length Reference to CSM amended to EMA Reference to ZERO_DISCD amended to DND Former Appendix C GTIN TAG Name and associated details revised and incorporated into Appendix A	NHSBSA
May 2015	Release 2.0 Version 3.1	Partition of document control with the historical records prior to 2013 now located in Annex I towards the end of the document	NHSBSA

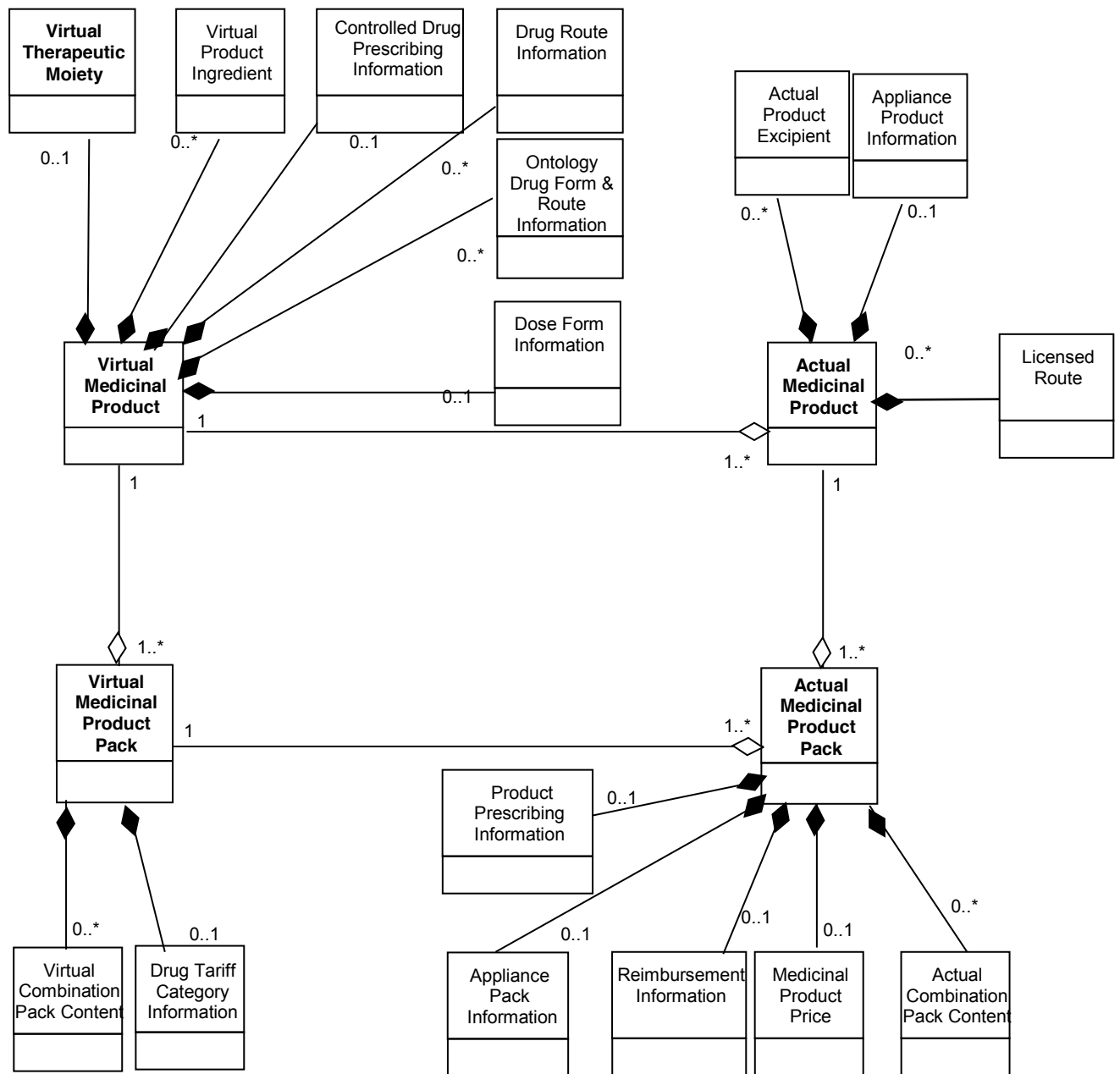# Contents

1   Introduction

This document identifies the technical specifications of the data files for distributing the information contained in release 2 of the Dictionary of Medicines and Devices (dm+d).

It will describe the form and the format of the files, how they can be accessed and how they need to be processed in order to create a useable database and ensure data integrity.

2   dm+d Release 2 Database Structure

The dm+d release 2 database consists of five major concept areas and a number of ancillary support areas and is fully described in the documents 'NHS dictionary of medicines and devices Data Model' and NHS Dictionary of Medicines and Devices Editorial Policy.

The basic structure of the database is:

The 5 main concepts are:

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

The cardinality on the diagram depicts:

- Each VTM can have many VMP's associated
- Each VMP can be related to a single VTM

- Each VMP can have many AMP's associated
- Each AMP is related to a single VMP

- Each AMP can have many AMPP's associated
- Each AMPP is related to a single AMP

- Each VMP can have many VMPP's associated
- Each VMPP is related to a single VMP

- Each VMPP can have many AMPP's associated
- Each AMPP is related to a single VMPP

Two extra areas have been identified to hold common data:

- Ingredients (shown in the diagram as Virtual Product Ingredient and Actual Product Excipient).

- Lookup (these are items held as codes within the model but with a narrative meaning eg Virtual medicinal product prescribing status is stored as 1 or 2 but these values relate to "Valid as a prescribable product" and "Invalid to prescribe in NHS primary care" respectively).Other values are available, see lookup file for the complete list.

2.1 dm+d Release 2 Extract Timetable

Once a week a full extract of the database will be published. This will be in a zipped format in order to minimise the download time. The data will be available for download from TRUD (Terminology Release Update Distribution). This is a service provided by the Health and Social Care Information Centre.

2.2 dm+d Release 2 Extract Files (General)

All files extracted from the database will be in XML format (.xml) and will be provided with an associated schema file (.xsd) that describes the format of the XML file and can be used to validate the XML file structure.

There will be a total of 7 XML files and associated schemas made available as per the agreed timetable.

3   Extract Format

Each week 7 files (and 1 further GTIN zip file, see note below) will be extracted relating to the following areas of the database:

- Virtual Therapeutic Moieties File (will contain all VTM's)

- Virtual Medicinal Product File (will contain all VMP's)

- Actual Medicinal Product File (will contain all AMP's)

- Virtual Medicinal Product Pack File (will contain all VMPP's)

- Actual Medicinal Product Pack File (will contain all AMPP's)

- Ingredient File (will contain all ingredients associated with active VMP's and AMP's)

- Lookup File (will contain descriptions of all items that are held as codes in the other files).

A full description of these files is given in appendix A.

This set of files represents the entire data population of the dictionary at a specific point in time and must be combined to give a true image of the database.

In order to maintain referential integrity within the target database the files need to be loaded in the following order:

i)   Lookup/Ingredient

ii)   VTM

iii) VMP

iv) AMP/VMPP

 v)   AMPP

Within the VMPP and AMPP files there are entries relating to combination packs that will require loading after the main VMPPs and AMPPs are populated.

This order assumes that the target database is being populated from scratch each time and that the structure is not significantly different to the dm+d Release 2 model.

Please note the extract will also contain a GTIN zip file that was previously available in the Supplementary Files. This is also presented as an XML file with an associated schema.

3.1   Access to Extract

The XML extracts and associated schema files will be available for download from the TRUD download site on a page secured by username and password. A username and password will be distributed to those allowed access to the files.

3.2   Implementation Guidelines

The following guidelines should be noted:

- No additions or deletions should be made to the data set.

- None of the information within the data set should be altered.

- In order to achieve a standard coding system the supplied SNOMED CT codes should be used within suppliers' systems throughout the prescribing and dispensing process as well as for reimbursement and subsequent information provision. Any mapping to existing coding systems is the responsibility of the suppliers.

4   Supplementary Files

In addition to the dm+d files there is a supplementary file produced that provides details of BNF and ATC information relating to VMP's and AMP's.

This file is produced to the same timetable as the dm+d files and is also presented as an XML file with associated schema file.

The file, when loaded, has a dependency on the pre-existence of VMP and AMP data and as such should be loaded after the main dm+d files.

Appendix A – Detailed Description of XML Files (including GTIN File)

Conventions used in tag naming.

DT = date in format CCYY-MM-DD
CD = from lookup
NM = name
ID = key field pointing to another tag on same or different file

VTM

TAG Name	Optional	Description
<VIRTUAL_THERAPEUTIC_MOIETIES>		Root Node
<VTM>		Individual Virtual Therapeutic Moiety (VTM) (this collection of tags will occur for each VTM)
<VTMID>		Virtual Therapeutic Moiety identifier (SNOMED Code) Up to a maximum of 18 integers
<INVALID>	Y	Invalidity flag. If set to 1 indicates this is an invalid entry in file. 1 integer only
<NM>		Virtual Therapeutic Moiety Name Up to a maximum of 255 characters
<ABBREVNM>	Y	Virtual Therapeutic Moiety Abbreviated name Up to a maximum of 60 characters
<VTMIDPREV>	Y	Previous VTM identifier (SNOMED CODE) Up to a maximum of 18 digits
<VTMIDDT>	Y	Virtual Therapeutic Moiety Identifier date - Date the VTM identifier became Valid Always 10 characters
</VTM>		End Tag
</VIRTUAL_THERAPEUTIC_MOIETIES>		End Tag

VMP

TAG Name	Optional	Description
<VIRTUAL_MED_PRODUCTS>		Root Node
<VMPS>		Collection of VMP's
<VMP>		Individual Virtual Medicinal Product (VMP) (this collection of tags will occur for each VMP)
<VPID>		Virtual Medicinal Product identifier (SNOMED Code) Up to a maximum of 18 digits
<VPIDDT>	Y	Date VMP identifier became Valid Always 10 characters
<VPIDPREV>	Y	Previous product identifier (SNOMED Code) Up to a maximum of 18 digits
<VTMID>	Y	VTM identifier (SNOMED Code). Can be located in VTM file. Up to a maximum of 18 integers
<INVALID>	Y	Invalidity flag - If set to 1 indicates this is an invalid entry in file. 1 digit only
<NM>		Virtual Medicinal Product Name Up to a maximum of 255 characters
<ABBREVNM>	Y	Virtual Medicinal Product Abbreviated name Up to a maximum of 60 characters
<BASISCD>		Basis of preferred name - Name basis code narrative can be located in lookup file under tag <BASIS_OF_NAME> Always 4 digits
<NMDT>	Y	Date of Name applicability Always 10 characters
<NMPREV>	Y	Previous Name Up to a maximum of 255 characters
<BASIS_PREVCD>	Y	Basis of previous name - code narrative can be located in lookup file under tag <BASIS_OF_NAME> Always 4 digits
<NMCHANGECD>	Y	Reason for name change - code narrative can be located in lookup file under tag <NAMECHANGE_REASON> Always 4 digits
<COMBPRODCD>	Y	Combination product Indicator - code narrative can be located in lookup file under tag <COMBINATION_PROD_IND> Always 4 digits

<PRES_STATCD>		Virtual Medicinal Product Prescribing Status - Prescribing Status code narrative can be located in lookup file under tag <VIRTUAL_PRODUCT_PRES_STATUS> Always 4 digits
<SUG_F>	Y	Sugar Free Indicator (present and set to 1 if sugar free) 1 digit only
<GLU_F>	Y	Gluten Free Indicator (present and set to 1 if gluten free) 1 digit only
<PRES_F>	Y	Preservative Free Indicator (present and set to 1 if preservative free) 1 digit only
<CFC_F>	Y	CFC Free Indicator (present and set to 1 if CFC free) 1 digit only
<NON_AVAILCD>	Y	Non-availability indicator - code narrative can be located in lookup file under tag <VIRTUAL_PRODUCT_NON_AVAIL> Always 4 digits
<NON_AVAILDT>	Y	Non availability status date Always 10 characters
<DF_INDCD>	Y	Dose form indicator. Narrative can be located in lookup file under <DF_INDICATOR> 1 digit only
<UDFS>	Y	Unit dose form size - Numerical value relating to size of entity. This will only be present if the unit dose form attribute is 'discrete'. Up to a maximum of 10 digits and 3 decimal places
<UDFS_UOMCD>	Y	Unit dose form units - Unit of Measure code relating to the size. This will only be present if the unit dose form attribute is 'discrete'. Narrative can be located in lookup file under tag <UNIT_OF_MEASURE> Up to a maximum of 18 digits
<UNIT_DOSE_UOMCD>	Y	Unit dose unit of measure - Unit of Measure code relating to a description of the entity that can be handled. This will only be present if the Unit dose form attribute is 'discrete'. Narrative can be located in lookup file under tag <UNIT_OF_MEASURE>

		Up to a maximum of 18 digits
</VMP>		End Tag
</VMPS>		End Tag
<VIRTUAL_PRODUCT_INGREDIENT>		Virtual Product Ingredient tags.
<VPI>		Ingredients associated with each VMP (this collection of tags will occur for each VMP/ingredient relationship)
<VPID>		VMP identifier (As above in VMP tag) Up to a maximum of 18 digits
<ISID>		Ingredient substance identifier (SNOMED Code) can be located in ingredient file. Up to a maximum of 18 digits
<BASIS_STRNTCD>	Y	Basis of pharmaceutical strength - code narrative can be located in lookup file under tag <BASIS_OF_STRNTH> Always 4 digits
<BS_SUBID>	Y	Basis of strength substance identifier (SNOMED ode) can be located in ingredient file Up to a maximum of 18 digits
<STRNT_NMRTR_VAL>	Y	Strength value numerator - Value of numerator element of strength Up to a maximum of 10 digits and 3 decimal places
<STRNT_NMRTR_UOMCD>	Y	Strength value numerator unit - Numerator value of strength Unit of Measure code. Narrative can be located in lookup file under tag <UNIT_OF_MEASURE> Up to a maximum of 18 digits
<STRNT_DNMTR_VAL>	Y	Strength value denominator - Value of denominator element of strength Up to a maximum of 10 digits and 3 decimal places
<STRNT_DNMTR_UOMCD>	Y	Strength value denominator unit - Denominator value of strength Unit of Measure code. Narrative can be located in lookup file under tag <UNIT_OF_MEASURE> Up to a maximum of 18 digits
</VPI>		End Tag
</VIRTUAL_PRODUCT_INGREDIENT>		End Tag
<ONT_DRUG_FORM>		Ontology Form & Route information associated with each VMP
<ONT>		Ontology Form & Route associated with each VMP (this collection of tags will occur for each

		VMP/formulation route relationship)
<VPID>		VMP ID (as above in VMP tag) Up to a maximum of 18 digits
<FORMCD>		Virtual Medicinal Product Form & Route - code, narrative can be located in lookup file under tag <ONT_FORM_ROUTE> Always 4 characters
</ONT>		End Tag
</ONT_DRUG_FORM>		End Tag
<DRUG_FORM>		Formulation or Form associated with each VMP
<DFORM>		Formulation associated with each VMP (this collection of tags will occur for each VMP/formulation relationship)
<VPID>		VMP identifier (as above in VMP tag) Up to a maximum of 18 digits
<FORMCD>		Formulation code, narrative can be located in lookup file under tag <FORM> Up to a maximum of 18 digits
</DFORM>		End Tag
</DRUG_FORM>		End Tag
<DRUG_ROUTE>		Routes associated with each VMP
<DROUTE>		Route associated with each VMP (this collection of tags will occur for each VMP/route relationship)
<VPID>		VMP identifier (as above in VMP tag) Up to a maximum of 18 digits
<ROUTECD>		Route code, narrative can be located in lookup file under tag <ROUTE> Up to a maximum of 18 digits
</DROUTE>		End Tag
</DRUG_ROUTE>		End Tag
<CONTROL_DRUG_INFO>		Control Drug Information associated with each VMP
<CONTROL_INFO>		Control Drug Information associated with each VMP (this collection of tags will occur for each VMP/formulation relationship)
<VPID>		VMP identifier (as above in VMP tag) Up to a maximum of 18 digits

<CATCD>		Control Drug category - , narrative can be located in lookup file under tag <CONTROL_DRUG_CATEGORY> Always 4 digits
<CATDT>	Y	Date of applicability Always 10 characters
<CAT_PREVCD>	Y	Previous Control Drug Information – 'Controlled Drug category prior to change date' - narrative can be located in lookup file under tag <CONTROL_DRUG_CATEGORY> Always 4 digits
</CONTROL_INFO>		End Tag
</CONTROL_DRUG_INFO>		End Tag
</VIRTUAL_MED_PRODUCTS>		End Tag

AMP

TAG Name	Optional	Description
<ACTUAL_MEDICINAL_PRODUCTS>		Root Node
<AMPS>		Collection of AMP's
<AMP>		Individual Actual Medicinal Product (AMP) (this collection of tags will occur for each AMP)
<APID>		AMP identifier (SNOMED Code) Up to a maximum of 18 digits
<INVALID>	Y	Invalidity flag - If set to 1 indicates this is an invalid entry in file. 1 digit only
<VPID>		VMP identifier, points to parent Virtual Medicinal Product on VMP file Up to a maximum of 18 digits
<NM>		Actual Medicinal Product Name Up to a maximum of 255 characters
<ABBREVNM>	Y	Actual Medicinal Product Abbreviated name Up to a maximum of 60 characters
<DESC>		Actual Medicinal Product Description Up to a maximum of 700 characters
<NMDT>	Y	Date of name applicability Always 10 characters
<NM_PREV>	Y	Previous Name Up to a maximum of 255 characters
<SUPPCD>		Supplier - Supplier Code, narrative can be located in lookup file under tag <SUPPLIER> Up to a maximum of 18 digits
<LIC_AUTHCD>		Current Licensing Authority - Licensing Authority Code, narrative can be located in lookup file under tag <LICENSING_AUTHORITY> Always 4 digits
<LIC_AUTH_PREVCD>	Y	Previous Licensing Authority Code, narrative can be located in lookup file under tag <LICENSING_AUTHORITY> Always 4 digits
<LIC_AUTHCHANGECD>	Y	Reason for change of licensing authority code, narrative can be located in lookup under tag <LICENSING_AUTHORITY_CHANGE_REASON> Always 4 digits

<LIC_AUTHCHANGEDT>	Y	Date of change of licensing authority Always 10 characters
<COMBPRODCD>	Y	Combination product indicator Code, narrative can be located in lookup file under tag <COMBINATION_PROD_IND> Always 4 digits
<FLAVOURCD>	Y	Flavour Code, narrative can be located in lookup file under tag <FLAVOUR> Always 4 digits
<EMA>	Y	EMA Additional Monitoring indicator – will be present and set to 1 if true 1 digit only
<PARALLEL_IMPORT>	Y	Parallel Import indicator – will be present and set to 1 if true 1 digit only
<AVAIL_RESTRICTCD>		Restrictions on availability Code, narrative can be located in lookup file under tag <AVAILABILITY_RESTRICTION> Always 4 digits
</AMP>		End Tag
</AMPS>		End Tag
<AP_INGREDIENT>		Actual Product Excipients - AMP ingredients (excipients)
<AP_ING>		AMP excipients – this collection of tags will occur for each AMP/Ingredient relationship
<APID>		Actual Product (AMP) identifier Up to a maximum of 18 digits
<ISID>		Ingredient substance identifier (can be located in ingredient file) Up to a maximum of 18 digits
<STRNTH>	Y	Pharmaceutical strength numerical value - strength value Up to a maximum of 10 digits and 3 decimal places
<UOMCD>	Y	Pharmaceutical Strength Unit of Measure code, narrative can be located in lookup file under tag <UNIT_OF_MEASURE> Up to a maximum of 18 digits
</AP_ING>		End Tag
</AP_INGREDIENT>		End Tag
<LICENSED_ROUTE>		Licensed route for AMP's
<LIC_ROUTE>		AMP licensed routes – this collection of tags will occur for each AMP/route relationship
<APID>		AMP identifier Up to a maximum of 18 digits

<ROUTECD>		Licenced route - Route Code, narrative can be located in lookup file under tag <ROUTE> Up to a maximum of 18 digits
</LIC_ROUTE>		End Tag
</LICENSED_ROUTE>		End Tag
<AP_INFORMATION>		Appliance product information
<AP_INFO>		Appliance information
<APID>		AMP identifier Up to a maximum of 18 digits
<SZ_WEIGHT>	Y	Size / Weight Up to a maximum of 100 characters
<COLOURCD>	Y	Colour code, narrative can be located in lookup file under tag <COLOUR> Always 4 digits
<PROD_ORDER_NO>	Y	Product order number - Order number of product within Drug Tariff Up to a maximum of 20 characters
</AP_INFO>		End Tag
</AP_INFORMATION>		End Tag
</ACTUAL_MEDICINAL_PRODUCTS>		End Tag

VMPP

TAG Name	Optional	Description
<VIRTUAL_MED_PRODUCT_PACK>		Root Node
<VMPPS>		Collection Of VMPP's
<VMPP>		Individual Virtual Medicinal Product Packs (VMPP) – this collection of tags will occur for each VMPP
<VPPID>		Virtual Medicinal Product Pack Identifier (SNOMED Code) Up to a maximum of 18 digits
<INVALID>	Y	Invalidity flag - If set to 1 indicates this is an invalid entry in file. 1 digit only
<NM>		Virtual medicinal product pack description – Name Up to a maximum of 420 characters
<VPID>		VMP identifier – refers to parent VMP in VMP file Up to a maximum of 18 digits
<QTYVAL>	Y	Quantity Value Up to a maximum of 10 digits and 2 decimal places
<QTY_UOMCD>	Y	Quantity Unit of Measure code, narrative can be located in lookup file under tag <UNIT_OF_MEASURE> Up to a maximum of 18 digits
<COMBPACKCD>	Y	Combination pack indicator - Combination pack code, narrative can be located in lookup file under tag <COMBINATION_PACK_IND> Always 4 digits
</VMPP>		End Tag
</VMPPS>		End Tag
<DRUG_TARIFF_INFO>		Drug Tariff Category Information
<DTINFO>		Drug tariff info for VMPP – this collection of tags will occur for each VMPP/drug Tariff combination
<VPPID>		VMPP identifier (as above in VMPP tag) Up to a maximum of 18 digits
<PAY_CATCD>		Drug Tariff payment category code, narrative can be located in lookup file under tag <DT_PAYMENT_CATEGORY> Always 4 digits
<PRICE>	Y	Drug Tariff Price

			Up to a maximum of 6 integers
<DT>		Y	Date from which DT price is applicable Always 10 characters
<PREVPRICE>		Y	Previous price Up to a maximum of 6 integers
</DTINFO>			End Tag
</DRUG_TARIFF_INFO>			End Tag
<COMB_CONTENT>			Combination Pack content
<CCONTENT>			Combination pack pairs – this collection of tags will occur for each combination pack
<PRNTVPPID>			VMPP identifier for parent pack Up to a maximum of 18 digits
<CHLDVPPID>			Constituent virtual product pack identifier - VMPP identifier for sub pack Up to a maximum of 18 digits
</CCONTENT>			End Tag
</COMB_CONTENT>			End Tag
</VIRTUAL_MED_PRODUCT_PACK>			End Tag

AMPP

TAG Name	Optional	Description
<ACTUAL_MEDICINAL_PROD_PACKS>		Actual Medicinal Product Packs
<AMPPS>		All Actual Medicinal Product Packs
<AMPP>		This collection of tags will repeat for each AMPP
<APPID>	Y	AMPP identifier (SNOMED Code) Up to a maximum of 18 digits
<INVALID>	Y	Invalidity flag - If set to 1 indicates this is an invalid entry in file. 1 digit only
<NM>		Actual Medicinal Product Pack description Up to a maximum of 774 characters
<ABBREVNM>	Y	Actual Medicinal Product Pack Abbreviated Name Up to a maximum of 60 characters
<VPPID>		VMPP identifier (reference back to parent VMPP on VMPP file) Up to a maximum of 18 digits
<APID>		AMP identifier (reference back to parent AMP on AMP file) Up to a maximum of 18 digits
<COMBPACKCD>	Y	Combination pack Indicator code, narrative can be located in lookup file under tag <COMBINATION_PACK_IND> Always 4 digits
<LEGAL_CATCD>		Legal category code, narrative can be located in lookup file under tag <LEGAL_CATEGORY> Always 4 digits
<SUBP>	Y	Sub Pack Info Up to a maximum of 30 characters
<DISCCD>	Y	Discontinued Flag code, narrative can be located in lookup file under tag <DISCONTINUED_IND> Always 4 digits
<DISCDT>	Y	Discontinued Flag Change date - Date of discontinuation Always 10 characters
</AMPP>		End Tag
</AMPPS>		End Tag
<APPLIANCE_PACK_INFO>		Appliance pack Information.

<PACK_INFO>		This collection of tags will occur for each AMPP appliance pack information relationship
<APPID>		AMPP identifier as in AMPP tag above Up to a maximum of 18 digits
<REIMB_STATCD>		Appliance Reimbursement status code, narrative can be located in lookup file under tag <REIMBURSEMENT_STATUS> Always 4 digits
<REIMB_STATDT>	Y	Date Appliance reimbursement status became effective. Always 10 characters
<REIMB_STATPREVCD>	Y	Appliance Reimbursement previous status code, narrative can be located in lookup file under tag <REIMBURSEMENT_STATUS> Always 4 digits
<PACK_ORDER_NO>	Y	Pack order number - Order number of pack within Drug Tariff Up to a maximum of 20 characters
</PACK_INFO>		End Tag
</APPLIANCE_PACK_INFO>		End Tag
<DRUG_PRODUCT_PRESCRIB_INFO>		Product Prescribing Information
<PRESCRIB_INFO>		This collection of tags will exist for every AMPP/Prescribing information relationship
<APPID>		AMPP identifier Up to a maximum of 18 digits
<SCHED_2>	Y	Schedule 2 indicator – will be present and set to 1 if true 1 digit only
<ACBS>	Y	ACBS indicator – will be present and set to 1 if true 1 digit only
<PADM>	Y	Personally Administered indicator – will be present and set to 1 if true 1 digit only
<FP10_MDA>	Y	FP10 MDA Prescription indicator – will be present and set to 1 if true 1 digit only
<SCHED_1>	Y	Schedule 1 indicator – will be present and set to 1 if true 1 digit only
<HOSP>	Y	Hospital indicator – will be present and set to 1 if true 1 digit only
<NURSE_F>	Y	Nurse Formulary indicator – will

		be present and set to 1 if true 1 digit only
<ENURSE_F>	Y	Nurse Extended Formulary indicator – will be present and set to 1 if true 1 digit only
<DENT_F>	Y	Dental Formulary indicator – will be present and set to 1 if true 1 digit only
</PRESCRIB_INFO>		End Tag
</DRUG_PRODUCT_PRESCRIB_INFO>		End Tag
<MEDICINAL_PRODUCT_PRICE>		Medicinal product price - AMPP Price
<PRICE_INFO>		This collection of tags will occur for each Actual Medicinal Product Pack (AMPP) Price relationship
<APPID>		AMPP identifier Up to a maximum of 18 digits
<PRICE>	Y	Price Up to a maximum of 9 integers
<PRICEDT>	Y	Date of price validity - Date of price applicability Always 10 characters
<PRICE_PREV>	Y	Price prior to change date - Previous Price Up to a maximum of 9 integers
<PRICE_BASISCD>		Price basis flag - Basis of price code, narrative can be located in lookup file under tag <PRICE_BASIS> Always 4 digits
</PRICE_INFO>		End Tag
</MEDICINAL_PRODUCT_PRICE>		End Tag
<REIMBURSEMENT_INFO>		AMPP reimbursement Information
<REIMB_INFO>		This collection of tags will occur for each AMPP/reimbursement info relationship
<APPID>		AMPP identifier Up to a maximum of 18 digits
<PX_CHRGS>	Y	Prescription Charges Up to a maximum of 2 digits
<DISP_FEES>	Y	Dispensing Fees Up to a maximum of 2 digits
<BB>	Y	Broken Bulk indicator will be present and set to 1 if true 1 digit only
<LTD_STAB>		The Drug Tariff no longer identifies products for this purpose. Therefore this indicator is no longer populated in dm+d. The data field will persist but remains blank.
<CAL_PACK>	Y	Calendar pack indicator will be present and set to 1 if true

			1 digit only
<SPEC_CONTCD>	Y		Special Container Indicator code, narrative can be located in lookup file under tag <SPEC_CONT> Always 4 digits
<DND>	Y		Discount Not Deducted Indicator (previously Zero Discount Indicator) Always 4 digits
<FP34D>	Y		FP34D prescription item indicator will be present and set to 1 if true 1 digit only
</REIMB_INFO>			End Tag
</REIMBURSEMENT_INFO>			End Tag
<COMB_CONTENT>			Combination Pack content
<CCONTENT>			Combination pack pairs – this collection of tags will occur for each combination pack
<PRNTAPPID>			AMPP identifier for parent pack Up to a maximum of 18 digits
<CHLDAPPID>			AMPP identifier for sub pack Up to a maximum of 18 digits
</CCONTENT>			End Tag
</COMB_CONTENT>			End Tag
</ACTUAL_MEDICINAL_PROD_PACKS>			End Tag

Ingredient

TAG Name	Optional	Description
<INGREDIENT_SUBSTANCES>		Root Node
<ING>		Ingredients – this collection of tags will occur for each ingredient
<ISID>		Ingredient Substance Identifier (SNOMED Code) Up to a maximum of 18 digits
<ISIDDT>	Y	Date ingredient substance identifier became valid Always 10 characters
<ISIDPREV>	Y	Previous ingredient substance identifier (SNOMED Code) Up to a maximum of 18 digits
<INVALID>	Y	Invalidity flag - If set to 1 indicates this is an invalid entry in file. 1 digit only
<NM>		Ingredient Substance Name Up to a maximum of 255 characters
</ING>		End Tag
</INGREDIENT_SUBSTANCES>		End Tag

Lookup

TAG Name	Optional	Description
<LOOKUP>		Root Node
<COMBINATION_PACK_IND>		Code descriptions for AMPP/VMPP combination indicator
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</COMBINATION_PACK_IND>		End Tag
<COMBINATION_PROD_IND>		Code descriptions for AMP/VMP combination indicator
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</COMBINATION_PROD_IND>		End Tag
<BASIS_OF_NAME>		Code descriptions for VMP name basis.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 150 characters
</INFO>		End Tag
</BASIS_OF_NAME>		End Tag
<NAMECHANGE_REASON>		Code descriptions for VMP name change reason.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description

		Up to a maximum of 150 characters
</INFO>		End Tag
</NAMECHANGE_REASON>		End Tag
<VIRTUAL_PRODUCT_PRES_STATUS>		Code descriptions for VMP prescribing status.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</VIRTUAL_PRODUCT_PRES_STATUS>		End Tag
<CONTROL_DRUG_CATEGORY>		Code descriptions for controlled drug category.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</CONTROL_DRUG_CATEGORY>		End Tag
<LICENSING_AUTHORITY>		Code descriptions for licensing authority.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</LICENSING_AUTHORITY>		End Tag
<UNIT_OF_MEASURE>		Code descriptions for units of measure.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code (SNOMED) Up to a maximum of 18 digits
<CDDT>	Y	Date code is applicable from Always 10 characters

<CDPREV>	Y	Previous code Up to a maximum of 18 digits
<DESC>		Description Up to a maximum of 150 characters
</INFO>		End Tag
</UNIT_OF_MEASURE>		End Tag
<FORM>		Code descriptions for formulations (Form).
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code (SNOMED) Up to a maximum of 18 digits
<CDDT>	Y	Date code is applicable from Always 10 characters
<CDPREV>	Y	Previous code Up to a maximum of 18 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</FORM>		End Tag
<ONT_FORM_ROUTE>		Code descriptions for ontology form route (VMP Form & Route) combinations.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</ONT_FORM_ROUTE>		End Tag
<ROUTE>		Code descriptions for routes of administration.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code (SNOMED) Up to a maximum of 18 digits
<CDDT>	Y	Date code is applicable from Always 10 characters
<CDPREV>	Y	Previous code Up to a maximum of 18 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag

</ROUTE>		End Tag
<DT_PAYMENT_CATEGORY>		Code descriptions for Drug Tariff categories.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 characters
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</DT_PAYMENT_CATEGORY>		End Tag
<SUPPLIER>		Code descriptions for suppliers.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code (SNOMED) Up to a maximum of 18 digits
<CDDT>	Y	Date code is applicable from Always 10 characters
<CDPREV>	Y	Previous code Up to a maximum of 18 digits
<INVALID>	Y	Invalidity flag - If set to 1 entry is invalid. 1 digit only
<DESC>		Description Up to a maximum of 80 characters
</INFO>		End Tag
</SUPPLIER>		End Tag
<FLAVOUR>		Code descriptions for flavours.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</FLAVOUR>		End Tag
<COLOUR>		Code descriptions for colours.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits

<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</COLOUR>		End Tag
<BASIS_OF_STRNTH>		Code descriptions for basis of strength.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 150 characters
</INFO>		End Tag
</BASIS_OF_STRNTH>		End Tag
<REIMBURSEMENT_STATUS>		Code descriptions for reimbursement status.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</REIMBURSEMENT_STATUS>		End Tag
<SPEC_CONT>		Code descriptions for special container indicator.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</SPEC_CONT>		End Tag
<DND>		Code descriptions for Discount Not Deducted indicator.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description

		Up to a maximum of 60 characters
</INFO>		End Tag
<DND>		End Tag
<VIRTUAL_PRODUCT_NON_AVAIL>		VMP non availability of VMP status codes.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</VIRTUAL_PRODUCT_NON_AVAIL>		End Tag
<DISCONTINUED_IND>		Code descriptions for discontinued indicator.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</DISCONTINUED_IND>		End Tag
<DF_INDICATOR>		Code descriptions for Dose form indicator.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code 1 digit only
<DESC>		Description Up to a maximum of 20 characters
</INFO>		End Tag
</DF_INDICATOR>		End Tag
<PRICE_BASIS>		Code descriptions for basis of AMPP price.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60

		characters
</INFO>		End Tag
</PRICE_BASIS>		End Tag
<LEGAL_CATEGORY>		Code descriptions for AMPP legal category.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
</LEGAL_CATEGORY>		End Tag
<AVAILABILITY_RESTRICTION>		Code descriptions for AMP availability restriction.
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
<AVAILABILITY_RESTRICTION>		End Tag
<LICENSING_AUTHORITY_CHANGE_REASON>		
<INFO>		This collection of tags will occur for each code description pair.
<CD>		Code Always 4 digits
<DESC>		Description Up to a maximum of 60 characters
</INFO>		End Tag
<LICENSING_AUTHORITY_CHANGE_REASON>		End Tag
</LOOKUP>		End Tag

GTIN

TAG Name	Optional	Description
<GTIN_DETAILS>		Root Node
<AMPPS>		All Actual Medicinal Product Packs that have Global Trade Identification Numbers (GTINs).
<AMPP>		This collection of tags will repeat for each AMPP that contains a GTIN
<AMPPID>		AMPP identifier (SNOMED code) Reference to AMPP on main AMPP file Up to a maximum of 18 digits
<GTIN>		GTIN Either 13 or 14 digits with the rightmost digit a Check Digit
<STARTDT>		GTIN date - Date the GTIN became Valid Always 10 characters
<ENDDT>	Y	The date the GTIN became invalid Always 10 characters
</GTINDATA>		End Tag
</AMPP>		End Tag
</AMPPS>		End Tag
</GTIN_DETAILS>		End Tag

Appendix B – Detailed description of BNF/ATC XML files

Conventions used in tag naming.

DT = date in format CCYY-MM-DD
CD = from lookup
NM = name
ID = key field pointing to another tag on same or different file

BNF/ATC

TAG Name	Optional	Description
<BNF_DETAILS>		Root Node
<VMPS>		All Virtual Medicinal Products that have British National Formulary (BNF) or Anatomical Therapeutic Classification (ATC) details.
<VMP>		Virtual Medicinal Product – this collection of tags will occur for each Virtual Medicinal Product
<VPID>		VMP identifier (SNOMED code). Reference to VMP on main VMP file Up to a maximum of 18 digits
<BNF>	Y	BNF Code Up to a maximum of 8 digits
<ATC>	Y	ATC Code Up to a maximum of 7 characters
<DDD>	Y	Defined Daily dose relating to ATC code Up to a maximum of 6 digits
<DDD_UOMCD>	Y	Defined daily dose Unit of measure, narrative can be located in lookup file under tag <UNIT_OF_MEASURE> Up to a maximum of 18 digits
</VMP>		End Tag
</VMPS>		End Tag
<AMPS>		All Actual Medicinal Products that have BNF details.
<AMP>		Actual Medicinal Product – this collection of tags will occur for each Actual Medicinal Product
<APID>		AMP identifier (SNOMED code). Reference to AMP on main AMP file. Up to a maximum of 18 digits
<BNF>		BNF Code Up to a maximum of 8 digits
</AMP>		End Tag
</AMPS>		End Tag
</BNF_DETAILS>		End Tag

Annex I

Historical Issue Sheet

Document reference	CDR018H
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Author	Alan Marshall/Kevan Mahoney
Issued to	Authorised dm+d Users
Why issued	For reference

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Version	Date	Amended by	Approved by	Details of amendments
Initial Release	24/05/2002	-	G Coyne	N/A
A	09/09/2002	A Marshall	K Mahoney	Change in Tag Names
B	16/12/2002	A Marshall	K Mahoney	Changes in extract frequency
C	05/02/2003	A Marshall	K Mahoney	Changes in tag order to match model
D	10/02/2003	A Marshall	K Mahoney	Addition of INVALID and VMP non availability indicator
E	05/03/2004	R Thompson	A Marshall	Release 2 of DM+D
F	06/12/2004	A Marshall		Reflect changes to schedule 10 and 11 indicator
G	19/01/06	A Marshall		Changes to VTM for release 2.3 and supplementary BNF/ATC files
H	15/12/06	K Frenz M Johnson		Changes to match Editorial Policy and Data Model. Correction of TAG name in document only for strength value denominator/unit from 'DENOM' to 'DNMTR'
I	27/11/07	M Johnson		EAN supplementary file
J	18/04/2008	M Johnson		Field sizes added
K	13/10/2008	M Johnson		Reflect changes to distribution process. Updates to VMP prescribing status
L	28/07/2009	M Johnson		All references to EAN have been changed to GTIN

M	17/082010	M. Johnson		Reflect textual changes to a VMP Prescribing status value.
N	07/08/2013	G. Bawn G. Jepson		Extract Format amended to include GTIN zip file Supplementary files amended to reflect removal of GTIN content GTINs to be 13 or 14 character in length Reference to CSM amended to EMA Reference to ZERO_DISCD amended to DND Former Appendix C GTIN TAG Name and associated details revised and incorporated into Appendix A