

# Day 1 16 October 2023



# 3d Global IDMP Working Group (GIDWG) Stakeholders Meeting

#### AGENDA Global IDMP Working Group (GIDWG) Stakeholders Meeting

Day 1 9:00-17:00 EDT

9:00	Welcome and Introduction	Isabel Chicharo (EMA) / Malin Fladvad (UMC)/Ron Fitzmartin (FDA)	
9:30	Opening remarks	Hilmar Hamann (EMA) / Ron Fitzmartin (FDA) / Shanthi Pal (WHO)	
10:15	GIDWG executive summary	Malin Fladvad (UMC)/Ron Fitzmartin (FDA)	
11:00	Break		
11:15	Review and Consensus on Global substance ID	Olof Lagerlund (UMC)	
12:00	Review and Consensus on Global Dose form ID	Julia Nyman (UMC)	
12:30	Lunch		
13:30	Review and Consensus on Global Strength	Norman Schmuff (FDA)	
14:00	Review and Consensus on global PhPID Operating Model	Malin Fladvad (UMC)	
14:45	Status report on HL7 FHIR for IDMP	Panagiotis Telonis (EMA)	
15:15	Break		
15:45	GIDWG Communication Plan	Ron Fitzmartin (FDA)	
16:30	Wrap up and Review of actions	Isabel Chicharo (EMA)/Malin Fladvad (UMC)/Ron Fitzmartin (FDA)/All	





## 3rd Global IDMP Working Group Stakeholders Meeting

#### **Opening Remarks**

Hilmar Hamann(EMA)/

Ron Fitzmartin (FDA)/

Shanthi Pal (WHO)

16 October 2023

#### Disclaimer

The views presented are those of the presenter, and do not necessarily reflect the views and/or policies of the U.S. Food and Drug Administration.





- FDA strives to be on the forefront of adopting/ supporting innovative technologies and supporting the use of consensus-based international data standards for use in regulatory submissions.
- In the 80s, sponsors prided themselves on the development of their own data standards, formats and submission structures.
  - However, it became clear that reg authorities could not handle submissions in multiple different technologies, data standards, formats and hardware.
- In the 90s, ICH was founded to harmonize processes and practices in drug development. This coincided with founding of CDISC and introduction study data standards. Two Game Changers.
- Global adoption of multiple data standards for various content areas is <u>critical now</u> for submissions and regulatory review.





- Fast forward to 2012 and the release of the initial versions of ISO IDMP standards.
  - Only in the <u>last 5 years</u> have we seen that they could not be implemented for global use without revision, testing, and much more.
- FDA supports the GIDWG and its mission to fill the gap to ensure that IDMP is fit for global implementation and use.
- FDA must align, harmonize, collaborate with other regulatory agencies / stakeholders on global IDMP identifiers, using international collaborations / international organizations, e.g., ICH and ICMRA.



# Let's have a great meeting

# **Thank You**



#### Global IDMP Working Group

# GIDWG Executive Summary: Accomplishments and Planned Activities

Malin Fladvad, UMC Ron Fitzmartin, U.S. FDA

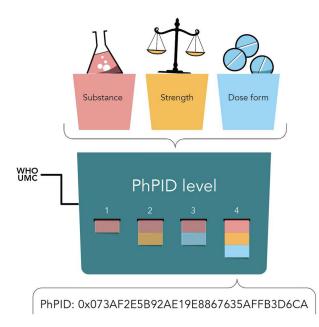
October 16, 2023

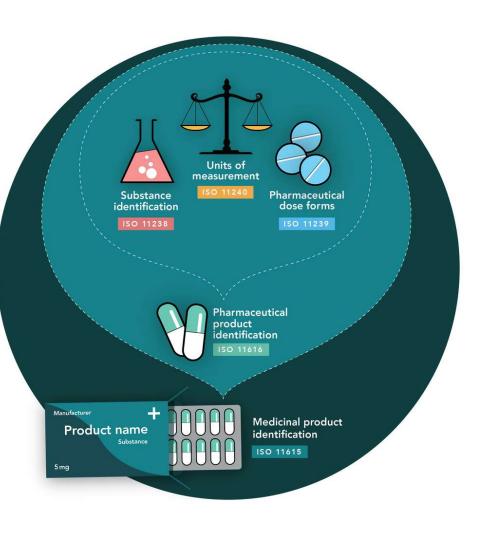
#### Why GIDWG?

- GIDWG was chartered in 2021 as an outcome of a 2019 WHO IDMP Workshop in Geneva, September 2019.
  - Why was GIDWG established?
    - There was <u>no</u> organization focused on demonstrating that the standards can be implemented globally.
  - Membership
    - Founding members include EU EMA, U.S. FDA, and WHO-UMC. IFPMA has joined as an industry member, as well as other regulators, e.g., Health Canada and Brazil ANVISA.
  - What is its focus?
    - Develop and execute projects to demonstrate that the IDMP standards are "fit" for global implementation.
    - Develop a framework, including business rules, best practices and operating model, for the global IDMP implementation and maintenance of global identifiers for marketed products.



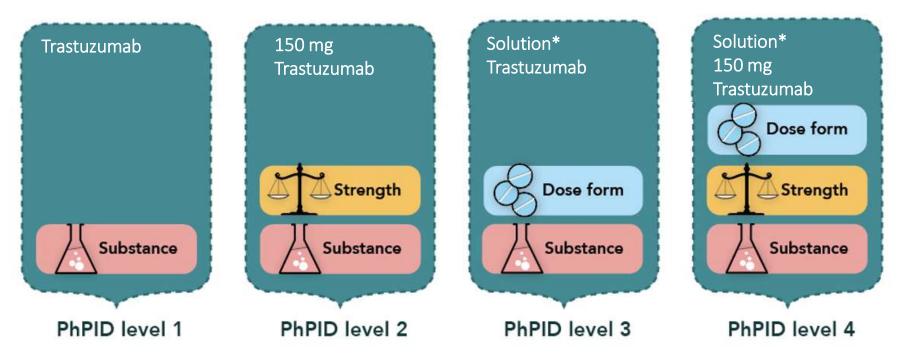
# What is IDMP?







# The PhPID and its levels



\*Dose form characteristics: Solution, Injection, Parenteral, Conventional

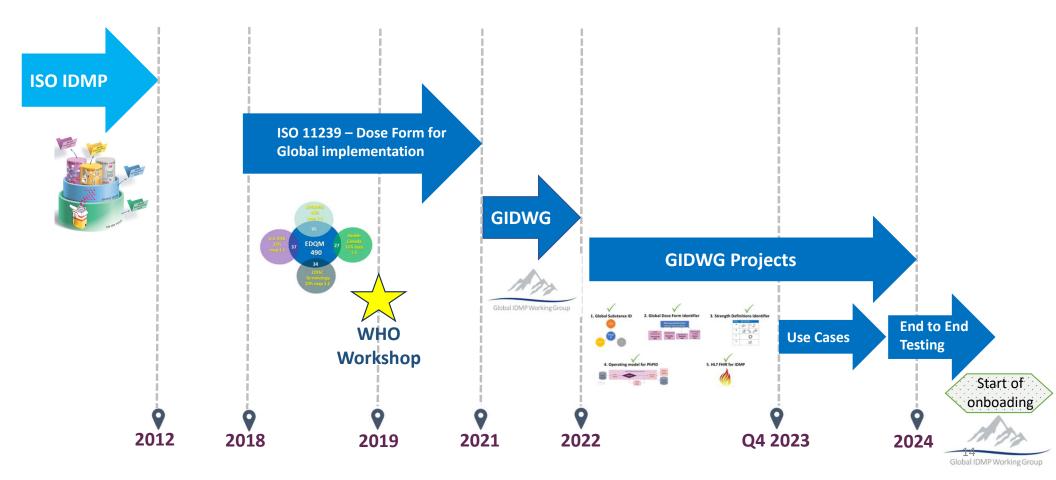


## **Global PhPID connecting the dots**

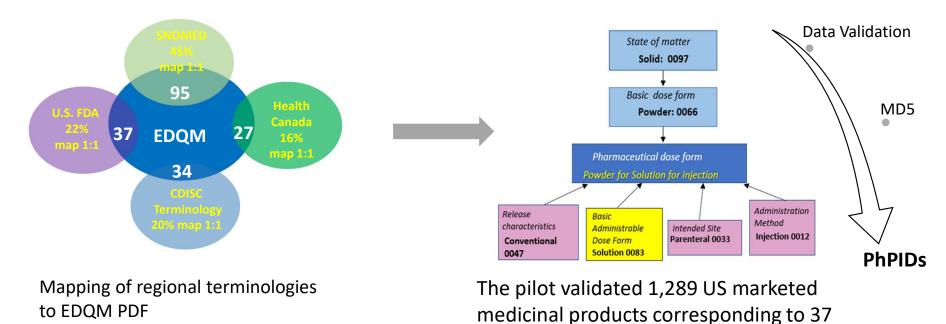




#### **GIDWG's Journey so far...**



#### FDA/UMC pilot for Global PHPIDs Feasibility of using dose form characteristics for mapping to regional terminologies



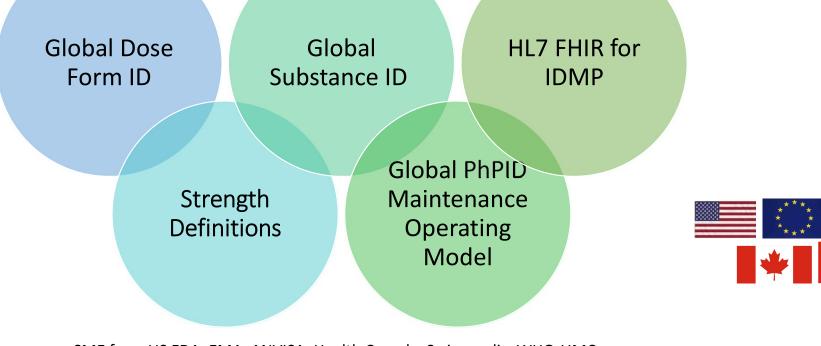
selected substances identified in the

UNICOM pilot product list

Global IDMP Working Group

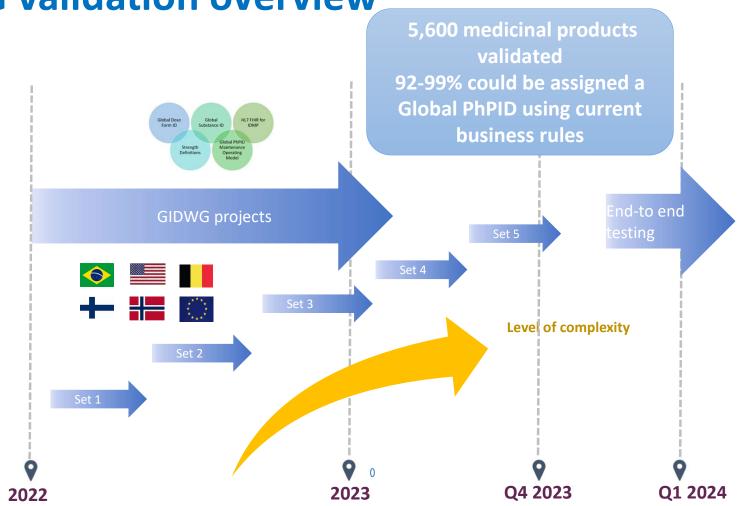
### **GIDWG projects**

Aim to define and reach consensus on processes, best practices and an operating model for maintenance of global identifiers for marketed medicinal products



SME from US FDA, EMA, ANVISA, Health Canada, Swissmedic, WHO-UMC, WHO, EDQM, INN, USP, HL7, HMA-SVG, US-NIH, IFPMA, ISO/CEN, USP

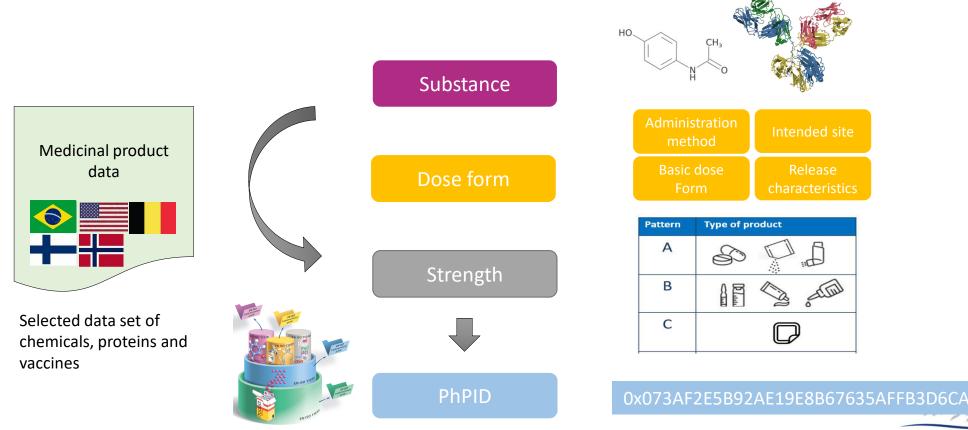




#### **GIDWG** validation overview

Global IDMP Working Group

# Data validation working process



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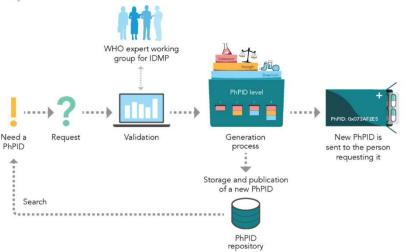
### End-to-End Demonstration Q4 2023

Testing to demonstrate the use cases for GSID/PhPID operating model

#### SCOPE:

Global IDMP Working Group

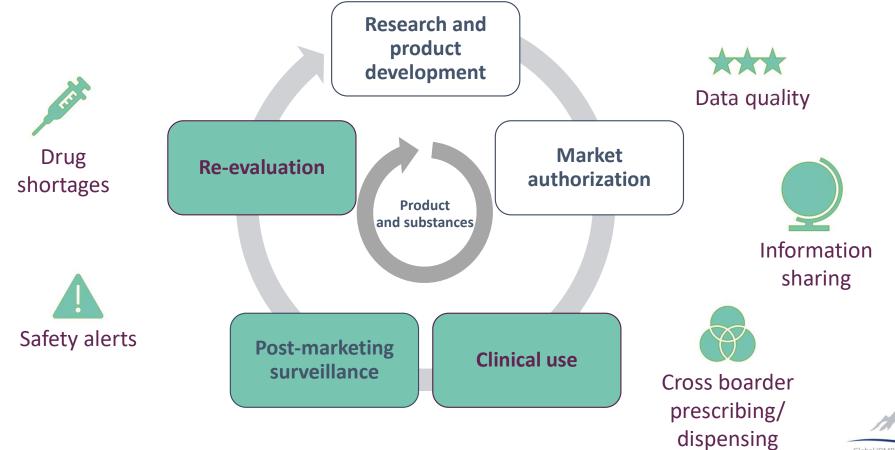
- Validate and generate PhPIDs for products based on the GIDWG/EWG business rules
- EDQM + non-EDQM countries
- Similar products from different countries
- Larger batches & smaller data sets for regulators
- Validated Data Sets based on 150 substances including Chemicals, Biosimilars, Polymers, Nucleic Acids, Structure Divers, 'Mixtures'



Proposed candidate countries:



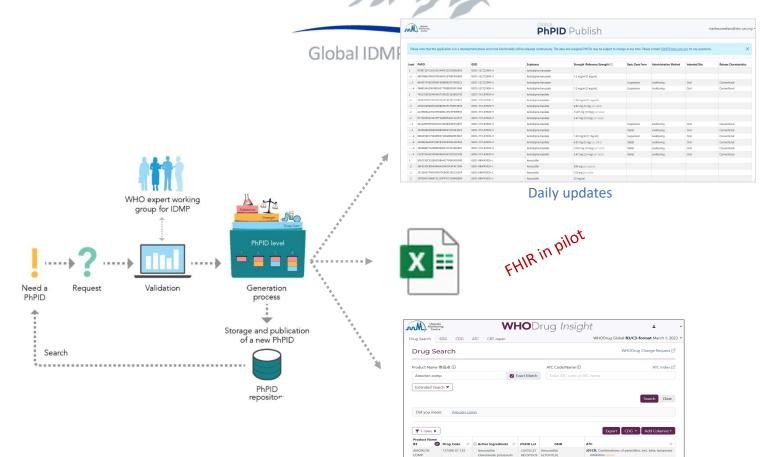
### **Use cases for global PhPID**



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### End-to-End demonstration Q4 2023

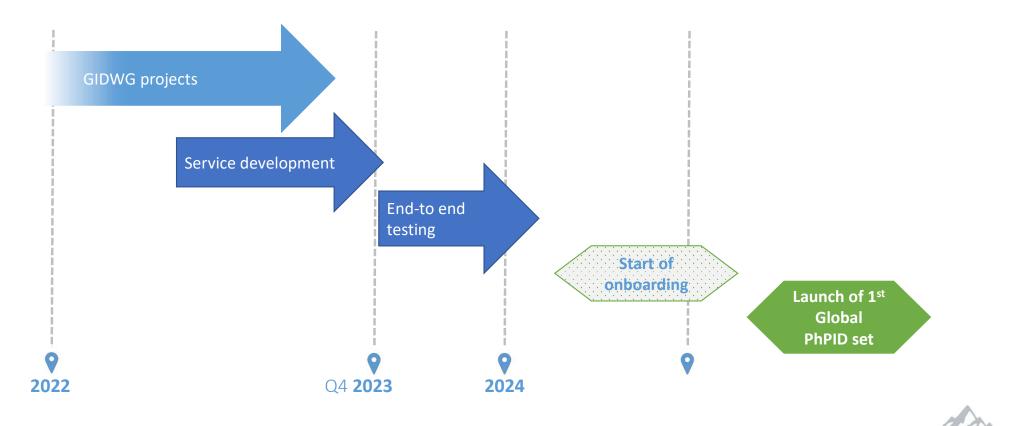
Testing to demonstrate the use cases for GSID/PhPID operating model



Daily updates

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### **Future plans – Global PhPID**



Global IDMP Working Group



# GSID for PhPID assignment in the GIDWG pilots

Olof Lagerlund, October 16<sup>th</sup>

#### Agenda

Introduction

GSID for PhPID assignment in the GIDWG pilots

Results from GIDWG pilots

GSID now and future perspective



# Why a Global substance identifier (GSID)?

#### GSID is an identifier and not a name International naming organizations

- INN, USAN, JAN...
- Pharmacopeias
  - Ph Eur, Korea, Brazil...
- Regional/national identifiers/codes
  - UNII, SMS-ID, ljoken...

PhPID: 0x073AF2E5B92AE19E8867635AFFB3D6CA

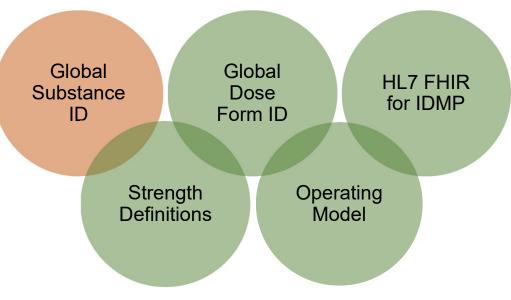
To have consistent generation of global PhPIDs, a single controlled GSID is needed.



# GIDWG GSID project, Project Scope and Deliverables

**Goal:** Globally harmonize and define capture of standardized information for global Substance identification and hereby ensure consistent PhPID construction through/by:

- Identifying the core information set via the ISO TC215 WG6 signature field sub-group.
- Adopting a Global substance ID, i.e., GSID
- Establishing business rules regarding which standardized substance data (GSID) to use in the PhPID generation.
- Establishing a mechanism for the use of confidential data in GSID assignment.

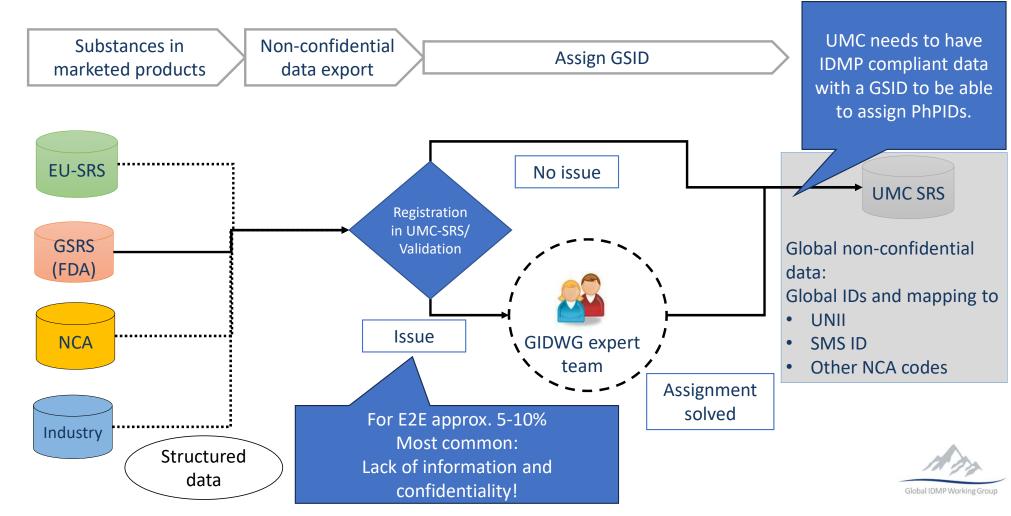


#### www.gidwg.org

WHO, WHO-UMC, INN, FDA, EMA, HMA-SVG, Health Canada, SwissMedic



#### Global substance process in the GIDWG pilots



### Construction of GSID used in the GIDWG pilots

• A unique and consistent code following the ISO/IEC 15459 - Part 3 (Ref ISO/IEC 15459). The code consists of 17 characters long text buildup of a Qualifier, Unique text, and Check character.

#### <mark>GSID</mark>9ST5UC24F36T<mark>N</mark>

- The first 4 characters is the qualifier and will always be the text GSID.
- The middle 12 characters are a unique text buildup of random digits and letters.
- The last character is a check character which is used as a redundancy check used for error detection on identification numbers
- The order for how substance combination are expressed in PhPID algorithm is: Order by GSID (not by substance name) where numbers precedes letters i.e. 9 before A.



# Business rules for GIDWG pilots



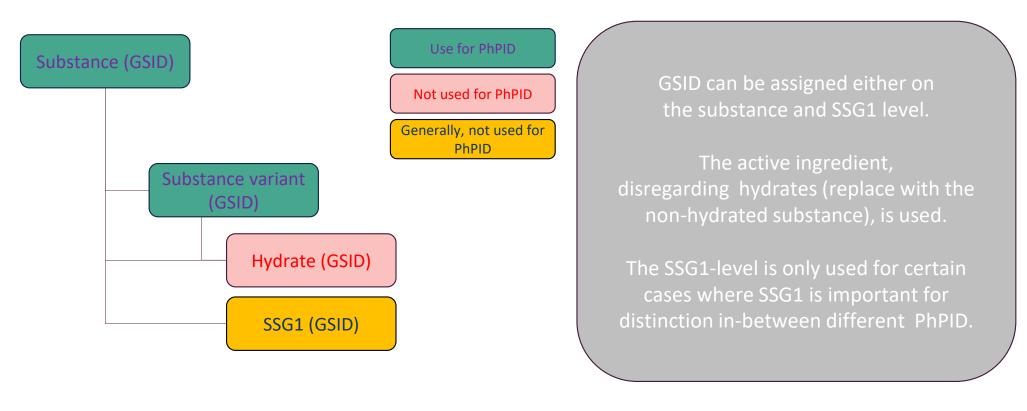
## Business rules for GSID

- The GSID assignment is based on the ISO 11238 and TS 19844. The Business rules should clarify the standards when needed.
- A GSID is a requirement for PhPID assignment.
- To assign a GISD to a substance, the information defining the substance, needs to be publicly available.
- All active ingredients (GSIDs) will be used in the PhPID assignment.
- Process for using the appropriate GSID when generating a PhPID in a consistent manner.

Note: UMC works with harmonisation of data, but is not a regulatory agency



#### GSID selection for PhPID assignment







#### GSID for PhPID, Combination products



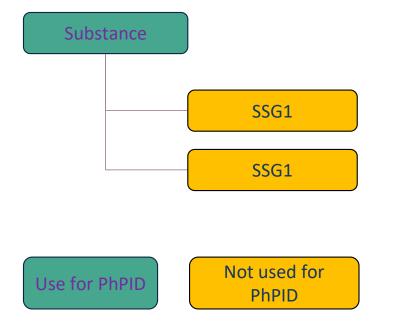
GSID1: Paracetamol GSID2: Codeine anhydrous

Combination products will be assigned one GSID for each active ingredient. All active ingredients will have a corresponding strength in to be assigned a PhPID.

Input string: GSID1; strength1;; GSID2; strength2; dose form



## GSID for PhPID, Proteins



GSID can be assigned on the substance and SSG1 level.

The substance level GSID will be used for PhPID for all proteins, except insulins where both can be used.



## GSID for PhPID, Proteins

Q: Should the GSID of the substance level or SSG1 level be used for PhPID generation?









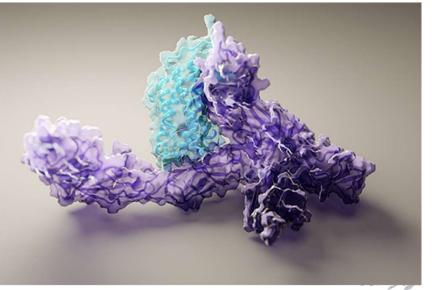
# GSID for PhPID, Proteins

Protein property	Substance level	SSG1
Amino acid sequence	Mandatory	
Glycosylation site	Conditional	
Glycosylation type	Conditional	
Disulfide linkage	Conditional	
Detailed glycosylation info**		Conditional

\*According to ISO/TS 19844:2018

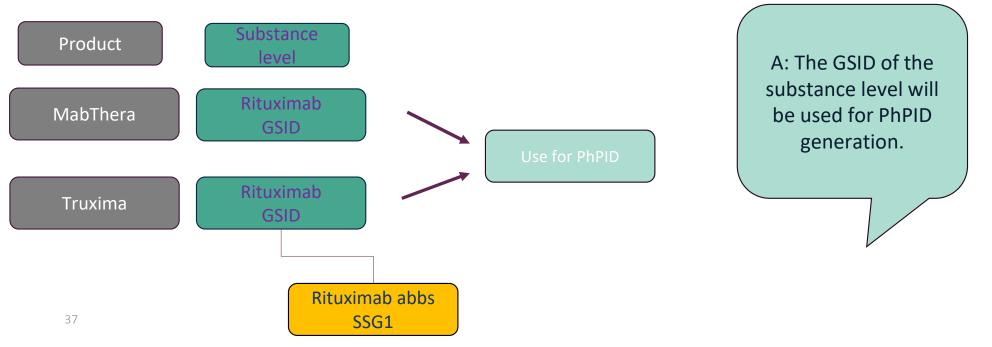
\*\*Generally, not available in the public domain for marketed products.

If any Protein property on substance level is different, it results in a different GSID.



https://biosciences.lbl.gov/2021/09/07/ai-fueled-software-reveals-accurate-protein-structure-prediction/ Global IDMP Working Grou

# GSID for PhPID, Proteins



Note: UMC works with harmonisation of data, but is not a regulatory agency



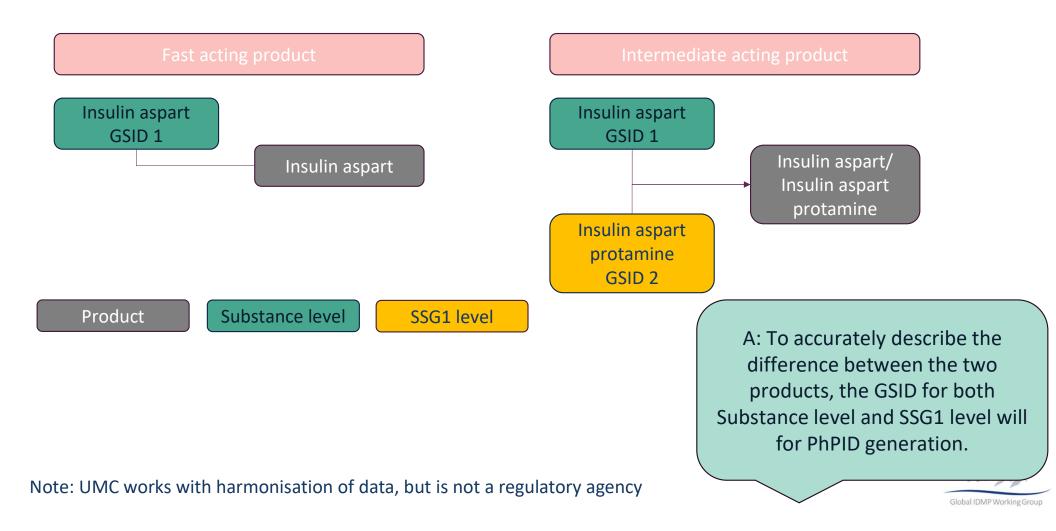
### GSID for PhPID, Insulins



Q: How to describe the difference between fastand intermediate acting insulin products?



# GSID for PhPID, Insulins



GSID for PhPID when products are described differently; Active ingredient variant or active ingredient and excipient, for solids



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#### GSID for PhPID when products are described differently; Active ingredient variant or active ingredient and excipient, for solids

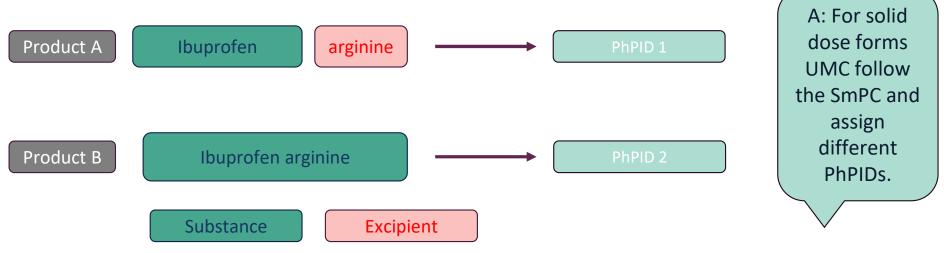
Substance and excipient	Substance variant	Q: Is the active
Fiche info Résumé des caractéristiques du produit Notice		ingredient the
		substance or the
SPEDIFEN 400 mg, film-coated tablet - Summary of product characteristics		substance
ANSM - U	Ipdated on: 12/27/2022	variant?
1. NAME OF THE MEDICINAL PRODUCT	I- IDENTIFICAÇÃO DO MEDICAMENTO	
SPEDIFEN 400 mg, film-coated tablet	Spidufen <sup>®</sup> ibuprofeno arginina	
2. QUALITATIVE AND QUANTITATIVE COMPOSITION	APRESENTAÇÕES	
Ibuprofen		: ibuprofeno e 370 mg de arginina): Embalagens com 6, 10,
6. PHARMACEUTICAL DATA	USO ORAL USO ADULTO E PEDIÁTRICO ACIMA DE 12 AN	os
6.1. List of excipients 🔳	Cada comprimido revestido contóm:	
Anister and on blank mate many ideas many along the	ibuprofeno arginina Excipientes	
Arginine sodium bicarbonate, crospovidone, magnesium stearate.	Livipini	quip recention
Coating: hypromellose, sucrose, titanium dioxide (E171), macrogol 4000.		41

#### GSID for PhPID when products are described differently; Active ingredient variant or active ingredient and excipient, for solids

	stance and xcipient	Substance variant	
Fich SPEL	2. QUALITATIVE AND QUANTITATIVE COMPOSITION	ом 400 mg For one film-coated tablet.	
SPEC 2. QUAI Ibup <u>6. PH</u> <u>6.1. L</u>	6 Cada comprimido revestido contém: ibuprofeno arginina. Excipientes		om 6, 10
Arginin Coating:	nypromellose, sucrose, titanium dioxide (E171), macrogol 4000.		do revestido.

#### GSID for PhPID when products are described differently; Active ingredient variant or active ingredient and excipient, solid dose forms

If the description of a solid dose form product differs between countries i.e. Product A contains one active ingredient and one excipient, and Product B contains the **substance variant** of the ingredient and the excipient, two PhPIDs, one for Product A and one for Product B will be assigned based on the SmPCs.



Note: UMC works with harmonisation of data, but is not a regulatory agency

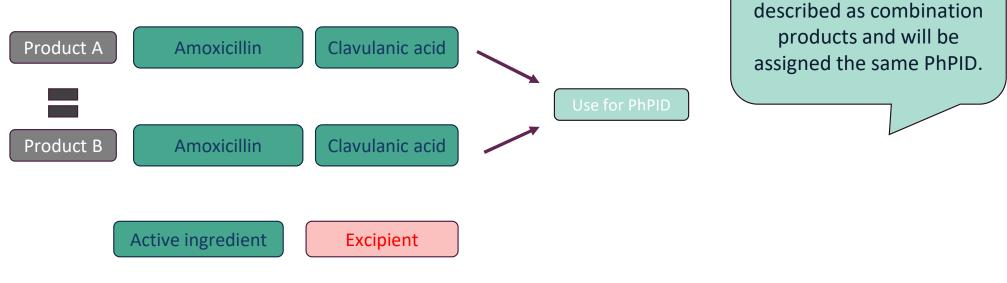
#### GSID for PhPID for products combination products Amoxicillin and clavulanic acid





#### GSID for PhPID for products combination products Amoxicillin and clavulanic acid

The investigated products have all been described as combination products.



Note: UMC works with harmonisation of data, but is not a regulatory agency



A: These products are

GSID for PhPID when products are described differently; Two active ingredients or one active ingredient and one excipient, injectable



Note: The products are from the same MAH!



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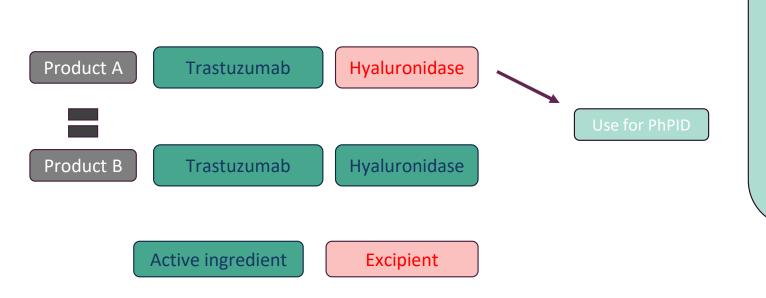
GSID for PhPID when products are described differently; Two active ingredients or one active ingredient and one excipient, injectable

Example Trastuzumab subcutaneous injection.		
Product name	Active ingredient	Excipient*
Herceptin hylecta <sup>USA</sup>	Trastuzumab and hyaluronidase-oysk**	NA
Herceptin SC <sup>EMA</sup>	Trastuzumab	Vorhyaluronidase alfa**
Herceptin (SC) <sup>New Zealand</sup>	Trastuzumab	Recombinant human hyaluronidase (rHuPH20)**

Note: UMC works with harmonisation of data, but is not a regulatory agency



GSID for PhPID when products are described differently; Two active ingredients or one active ingredient and one excipient, injectable



A: When regulators don't agree concerning the number of active ingredients the view of the majority of the regulators takes precedents. In this case the PhPID will be harmonized based on one active ingredient.

Note: UMC works with harmonisation of data, but is not a regulatory agency



# GSID now and future perspective

#### Where are we now?

- Business rules for assigning GSID and use in PhPID developed for:
  - Chemicals
  - Proteins
  - Nucleic acids
  - Polymers
- Structurally diverse
  - Basic hierarchy suggested for Herbals
  - Basic hierarchy suggested for vaccines and preliminary PhPIDs for COVID-19 vaccines
- Business rules proposed for Radiopharmaceuticals
- Limitations due to confidentiality and lack of information

#### Future perspective

- Explore how to solve the limitations and challenges with GSID assignment and use in PhPID generation
- Structurally diverse
  - Vaccines
  - Herbals
- Radiopharmaceuticals continued (in collaboration with GIDWG strength)
- Global harmonization of entering data in the different SRS systems
  - Guides, controlled vocabulary etc.
- Exchange of substance data between stakeholders





# GIDWG Global Dose Form ID Project

Julia Nyman

3d Global IDMP Working Group (GIDWG) Stakeholders Meeting October 16, 2023

# Outline

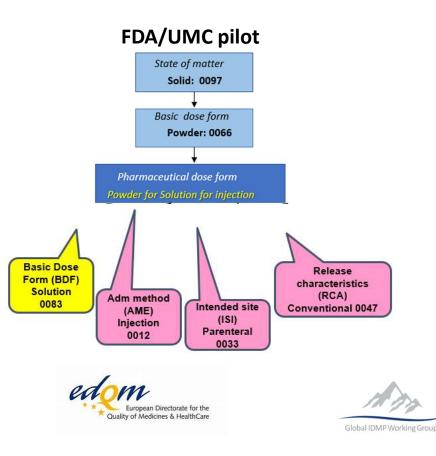
- Background
- GIDWG Dose Form Identifier project
  - Project Overview
  - Validation Process
  - Business Rules and examples
- Limitations
- Q&A



# Background

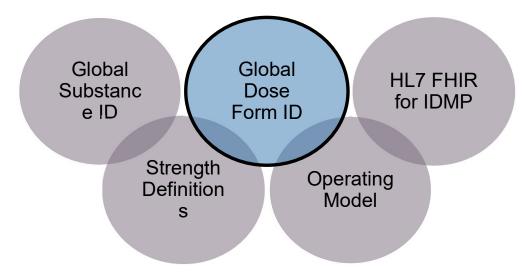
### **Findings from dose form pilots**

- A centrally-maintained dose form terminology for global IDMP is not available.
- Regulatory authorities can continue to use their regional dose form terminology
- Centrally maintained set of dose form characteristics is viable solution for global IDMP
- Cases when dose forms are expressed differently within different jurisdictions
- Cases where certain dose form characteristics have multiple values
- Cases when the medicinal product dose form description is twofold in SmPC



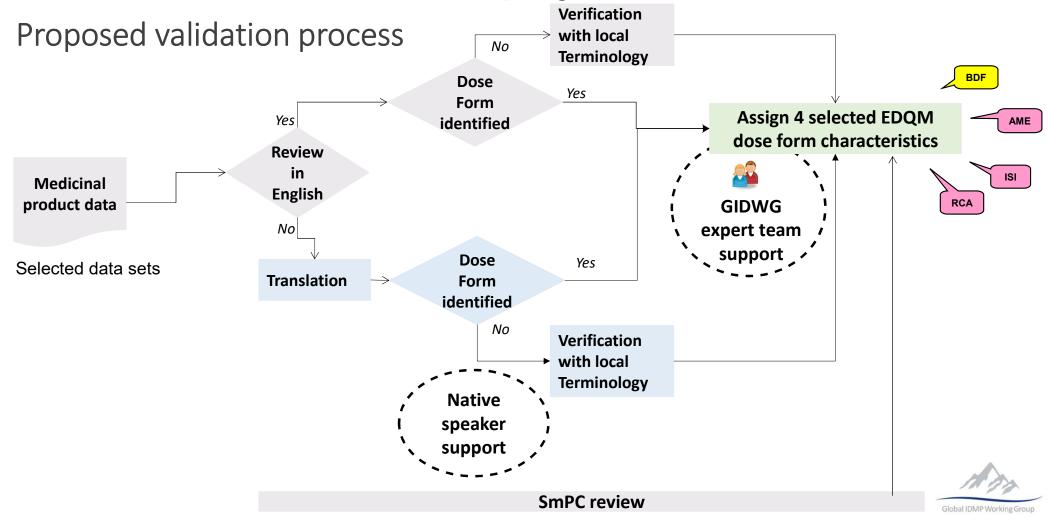
**Project Scope and Deliverables** 

- Further investigate 4 dose form characteristic approach on larger datasets for at least one another region
- Assert the scalability and automation of the process
- Develop and Formalize Business Rules





www.gidwg.org



### **High-level Business Rules**

Basic Dose Form (BDF)



The BDF is generally assigned based on SmPC information

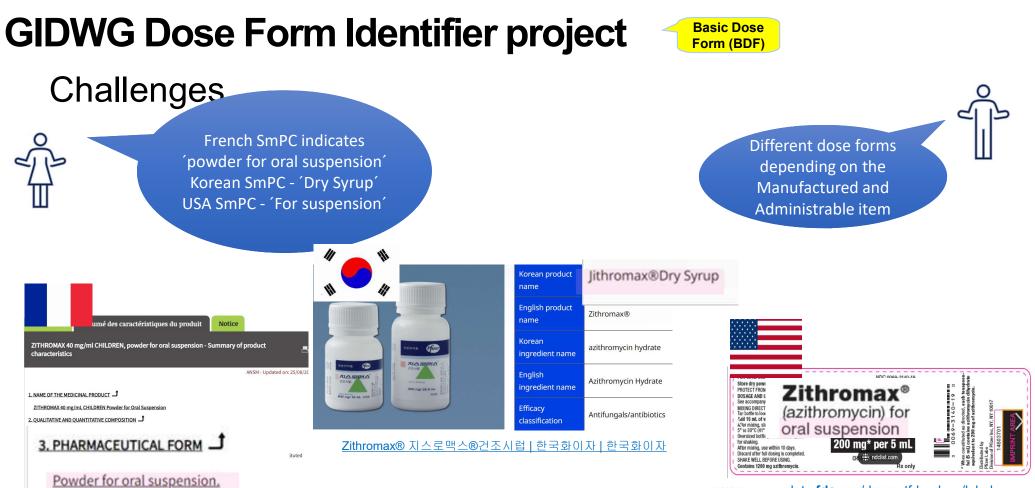
The BDF is always referring to Administrable Dose Form (AdmDF)

Only one BDF is to be assigned for one AdmDF and hereby a 4-digit code is to be generated

Dose form specific assignment rules

e.g.

BR: Where a medicinal product is described as 'Syrup', the term 'Solution' or 'Suspension' will be assigned. The basic dose "syrup" should never be used since syrup is either a solution or a suspension



www.accessdata.fda.gov/drugsatfda docs/label

ZITHROMAX for oral suspension is supplied in bottles containing azithromycin dihydrate powder equivalent to 300 mg, 600 mg, 900 mg, or 1200 mg azithromycin per bottle and the



Summary of Product Characteristics - ZITHROMAX 40 mg/mL CHILDREN Powder for Oral Suspension - Public Drug Database (medicaments.gouv.fr)

#### Harmonization

Medicinal Product	Country	SmPC Dose form	SmPC ManBDF	SmPC AdmBDF	Harmonized BDF
Zithromax®	France	Powder for Oral Suspension	Powder	Suspension	
200mg/5mL (azithromycin)	USA	For oral suspension	Powder	Suspension	Suspension
	Korea	드라이 시럽 Dry syrup	Powder	Syrup	

Basic Dose Form (BDF)



### **High-level Business Rules**

Administration Method (AME)

AME is generally assigned based on SmPC information.

AME is generally assigned based on primary use.

One AME or multiple AMEs can be assigned to a medicinal product. When multiple AMEs can be assigned, multiple-value code is generated per AME.

Dose form specific assignment rules

e.g. BR: Where a medicinal product can be administered as 'Injection' and/or 'Infusion', only AME 'Injection' is assigned



Administration Method (AME)

#### Challenges

USA label says 'For injection' In Norway 'Infusion' only. In Brazil 'Injectable solution' and 'Intravenous infusion' We review Brazilian SmPC with our Portuguese speaking colleagues

Administration

Method (AME)





(trastuzumabe) Lyophilized Powder for Injectable Solution

Produtos Roche Químicos e Farmacêuticos S.A. Pó liofilizado para solução injetável 150 mg

INTRAVENOUS INFUSION ADULT USE COMPOSITION Active ingredient: each single

Active ingredient: each single-dose vial contains 150 mg of trastuzumab lyophilized powder for solution injectable for intravenous infusion. Reconstituted Herceptin<sup>®</sup> concentrate contains 21 mg/mL trastuzumab.

петсерии - рија че птонзвонајв че зачче (чјајоуо́Го́С́́́́́́́́́́́he.com.br)



LABEL (fda.gov)



Roche (Roche Norway AS) Herceptin «Roche» - Felleskatalogen

**POWDER FOR CONCENTRATE FOR SOLUTION FOR INFUSION** 150 mg: *Each via* trastuzumab *150 mg*, L-histidine hydrochloride, L-histidine,  $\alpha$ , $\alpha$ -trehalose dihyd Without preservative.

Administration Method (AME)

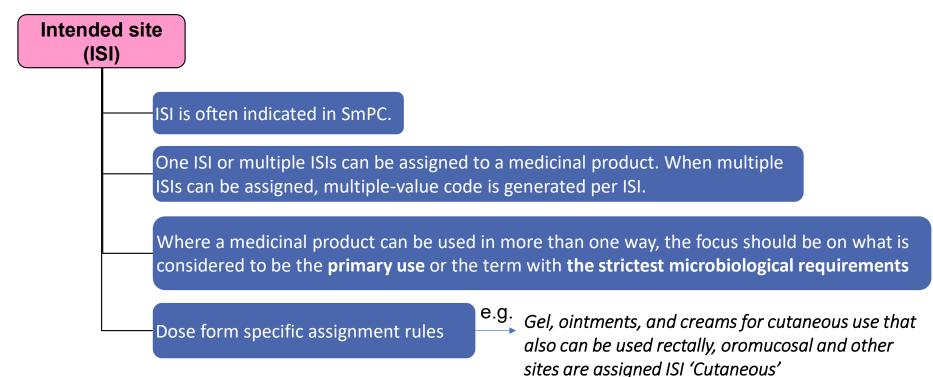
# Harmonization

Medicinal Product	Country	Dose form (SmPC)	Administration method according to SmPC	Harmonized AME
Herceptin (Trastuzumabe)	Brazil	Lyophilized Powder for Injectable Solution	Injection	
Herceptin (Trastuzumab)	Norway	Powder for concentrate for solution for infusion	Infusion	Injection
Trazimera for injection (Trastuzuma-gyyp)	USA	For injection (lyophilized powder)	Injection	



Intended site (ISI)

### **High-level Business Rules**





#### Challenges

What is primary use? Nasal, oromucosal, dental? Pulmonary? Vaginal and/or Cutaneous? Primary use is not specified. However, obstetrics is associated with skin damage, referring to strictest microbiological requirements

Intended

site (ISI)



Aspen Nordic Cutaneous spray, solution 100 mg/ml (Clear to almost clear, slightly pinkish or yellow liquid with the smell of ethanol and menthol and banana flavor.)

#### 4.1 Therapeutic indications

#### Surface anesthesia on mucous membranes

- Odontology: Surface anesthetics, for example, before injections during injection anaesthesia.
- Oto-rhino-laryngology: Surface anesthesia for maxillary sinus puncture and for procedures in the nose, pharynx and epipharynx
- Obstetrics: During childbirth, in the final stages and when suturing birth injuries
- Closure of instruments, tubes and catheters in the respiratory tract and gastrointestinal tract

https://www.fass.se/LIF/product?userType=0&nplId=19901126000029



#### 4.1 Therapeutic indications

4. Clinical particulars

#### General

This product is **non-sterile** and therefore not recommended for use prior to procedures that require aseptic techniques.

For the prevention of pain associated with the following procedures:

#### <u>Otorhinolaryngology</u>

Anaesthesia prior to minor non-invasive procedures in the nasal cavity, pharynx and epipharynx including rhinoscopy and laryngoscopy.

#### Obstetrics

As supplementary pain control for procedures not requiring aseptic technique

Insertion of instruments and catheters into the respiratory and digestive tract

Provides surface anaesthesia for the oropharyngeal and tracheal areas to reduce reflex activity, attenuate haemodynamic response and to facilitate insertion of the catheter or the passage of instruments during endotracheal intubation, laryngoscopy, bronchoscopy, oesophagoscopy and gastroscopy.

Dental practice

Before minor dental procedures where local anaesthesia is desired

https://www.medicines.org.uk/emc/product/882/smpc/print



#### INFORMAÇÕES AO PROFISSIONAL DA SAÚDE

1. INDICAÇÕES A lidocaína 10% é indicado como anestésico tópico na prev

#### Otorrinolaringologia

Punções dos seios maxilares

-Anestesia da orofaringe para prevenir náuseas e vômitos du

#### Obstetrícia

Durante o estágio final do parto e antes da episiotomia e sut

#### Odontologia

Antes de injeções, impressões dentárias, radiografias, remo-

https://consultas.anvisa.gov.br/#/bulario/g/?numeroRegistro=113430175

Intended site (ISI)

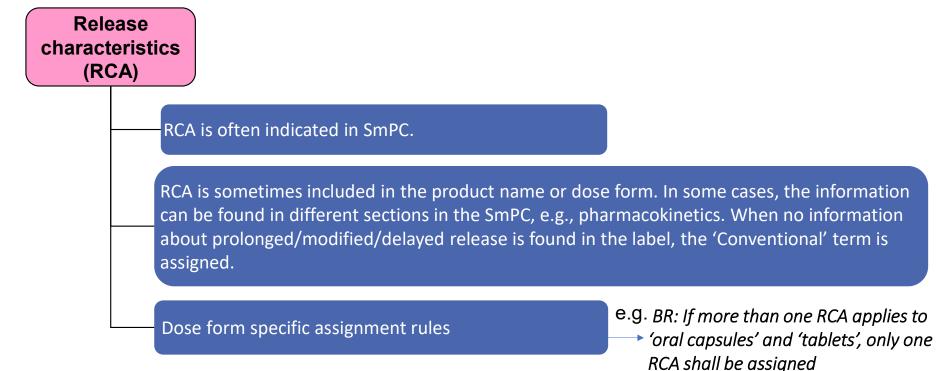
#### Harmonization

Medicinal Product	Country	ISI in SmPC	Possible EDQM ISI	Harmonized ISI
Xylocain Cutaneous spray 100 mg/mL (lidokain)	Sweden	<ul> <li>Odontology</li> <li>Oto-rhino-Laryngology</li> <li>Obstetrics</li> <li>Closure of instruments, tubes and catheters in the respiratory tract and gastrointestinal tract</li> </ul>	<ul> <li>Nasal</li> <li>Oromucosal (also reflects laryngopharyngeal use)</li> <li>Dental</li> <li>Pulmonary</li> <li>Vaginal and/or Cutaneous</li> </ul>	
Xylocaine 10mg Spray (Lidocaine)	UK	<ul> <li>Otorhinolaryngology</li> <li>Dental practice</li> <li>Obstetrics</li> <li>Insertion of instruments and catheters into the respiratory and digestive tract</li> </ul>	<ul> <li>Nasal</li> <li>Oromucosal (also reflects laryngopharyngeal use)</li> <li>Dental</li> <li>Pulmonary</li> <li>Vaginal and/or Cutaneous</li> </ul>	Cutaneous
Lidocaína 10% (Lidocaine)	Brazil	<ul> <li>Odontology</li> <li>Oto-rhino-Laryngology</li> <li>Obstetrics</li> </ul>	<ul> <li>Nasal</li> <li>Oromucosal (also reflects laryngopharyngeal use)</li> <li>Dental</li> <li>Vaginal and/or Cutaneous</li> </ul>	

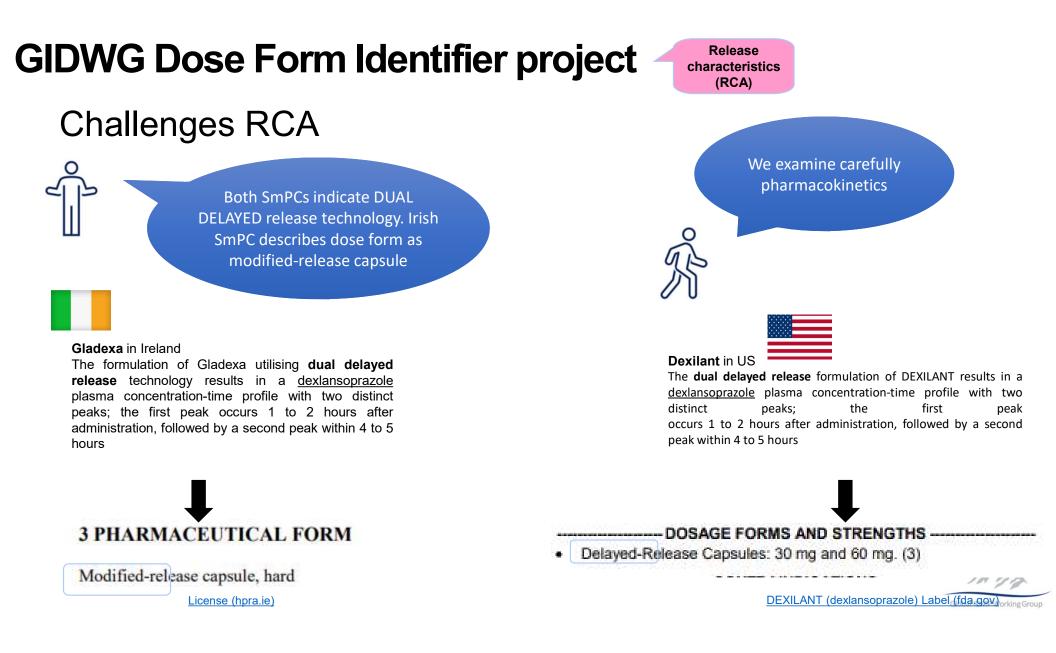
Release characteristics (RCA)

### **High-level Business Rules**

RCA is to be assigned based on the following principles:







Release characteristics (RCA)

#### Harmonization

Medicinal Product	Country	RCA in SmPC	EDQM RCA	Harmonized RCA
Gladexa (Dexlansoprazole)	Ireland	Modified-release capsules	Modified	
Dexilant (Dexlansoprazole)	USA	Delayed-release capsules	Delayed	Delayed



### Limitations

- Automation of the whole assignment process
- Risk of inconsistencies









# GIDWG Global Strength Definitions ID Project

Norman Schmuff

3d Global IDMP Working Group (GIDWG) Stakeholders Meeting October 16, 2023

# Outline

- Background
- GIDWG Strength Definitions project
  - Project Overview
  - Validation Process
  - Business Rules and examples
- Limitations
- Q&A



### **Background** Identified challenges

- Presentation strength versus concentration strength application on strength expression
- How to express strength for products requiring dilutions
  - Concentrates which shall be diluted with an unknown amount of
  - Products where different amounts of diluent is to be added, resu one presentation strength and two or more different concentrati strengths
- Variation in use of units for strength expression for similar product
- The given strength may need to be recalculated based the molecular weight



# Background

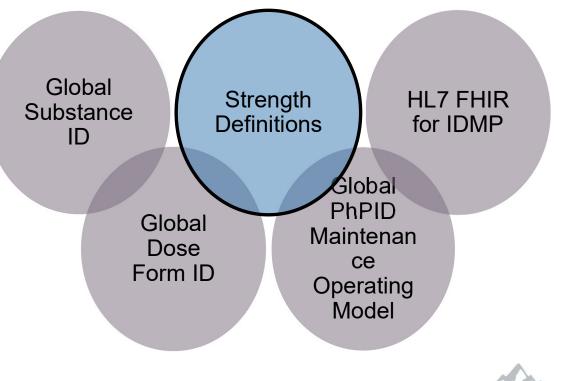
#### Findings: proposed strength pattern framework

The pattern framework determines how the strength of a Pharmaceutical Product (PhP) should be expressed for a certain type of product, using presentation strength or concentration strength.

Pattern	Type of product
A	
В	
С	

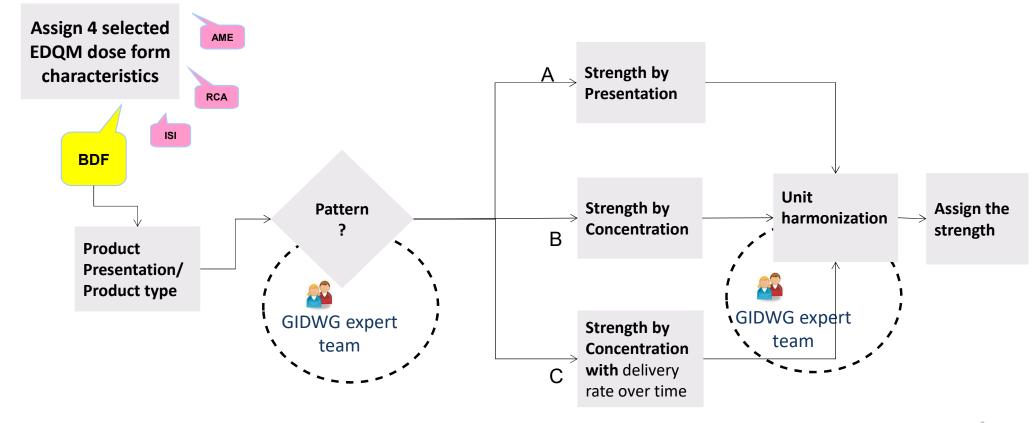
# **GIDWG Global Strength Definitions ID project** Project Scope and Deliverables

- Identify and address different representation of strength for products in different regions
- Clarify the use of presentation strength and concentration strength
- Explore the Pattern Framework further to ensure prioritized dose forms in EDQM and additional product data set are covered
- Assert the scalability and automation of the process
- Formalize Business Rules for each pattern and investigated dose forms



SME from EMA, US-FDA, Swissmedic, Health Canada, ANVISA, PMDA, WHO-UMC, WHO, EDQM, INN, USP

#### Proposed validation process



#### **Business Rules Overview - numerical values**

Value	Business Rule applied
Reference Strength	No longer is part of PhPID generation
Value range	Strength should be expressed in the value range of 1-999 with two decimals: O,1 g or 100 mg, select 100 mg 1000 mg or 1 g, select 1 g Per day, a number of hours are selected (e.g., 24h).
Value number	The value number should always be 1. e.g., mg/mL. If the strength is given as 100 mg/ 5 mL it should be converted to 20 mg/ 1 mL
Liquid preparations	The value number should always be mg/mL if pattern B (even if SmPC gives mg/g).
(e.g., Cutaneous solution)	
Semi-solid preparations	Value number should always be mg/g if pattern B (even if SmPC gives mg/mL).
(cream, gel, foam, ointment, paste)	



#### **Business Rules Overview - units**

Unit given in SmPC	Business Rule applied	Harmonized Examples
IU, U, units	When the strength is given in 'IU' ('UI', 'I.U.'), 'u' ('U') or 'units' the strength to be expressed is in 'IU'.Oxytocin 20 IU/mL Calcitonin-Salmon 200 IU Insulins IU/mL	
%	When the strength is given in '%', the harmonized strength is expressed in 'mg/mL' or 'mg/g'	Diclofenac sodium 1.5 % to 16.02 mg /ml
mg/g or mg/mL	When a strength is given as 'mg/g' or 'mg/mL' express according to dose form, eg mg/ml for solutions and mg/g for cream	Diclofenac sodium solution 16.02 mg /ml Hydrocortisone cream 10 mg/g
Unit variations for biosimilars, heparins and insulins	Unit variations is expressed in 'IU'.	Insulin lispro Sanofi <sup>®</sup> 100 Units/mL will be assigned as 100 UI/mL
Hormones	Hormones shall be either expressed as 'mg' or 'IU'.	Glucagon: mg Calcitonin: IU Oxytocin: IU



#### **Business Rules Overview: Pattern A**

Pattern	Type of product	Product Presentation
Α	<ul> <li>Solid, countable</li> <li>Solid dose forms in "container"</li> <li>Portion soluble</li> <li>Metered dose delivered by a metered actuation (dose cannot be adjusted)</li> </ul>	example <ul> <li>Tablet, film-coated</li> <li>Suppository</li> <li>Gum</li> </ul>
(Mandatory: Presentation Strength)	<ul> <li>Single dose liquid and concentrate (in cases of 'total' use)</li> <li>Powder for injections (total, partial and multi-dose)</li> <li>When the powder is transformed into concentrate the pattern is based on powder, not concentrate.</li> </ul>	<ul> <li>Nebulizer</li> <li>Pre-filled syringes</li> </ul>
	<ul> <li>Transdermal gel (unit and metered-doses)</li> </ul>	Testogel <sup>®</sup> unit dose

Example: Pattern A - Solid, countable

Phenergan<sup>®</sup> (promethazine HCI) Tablets and Suppositories

#### B only

DESCRIPTION

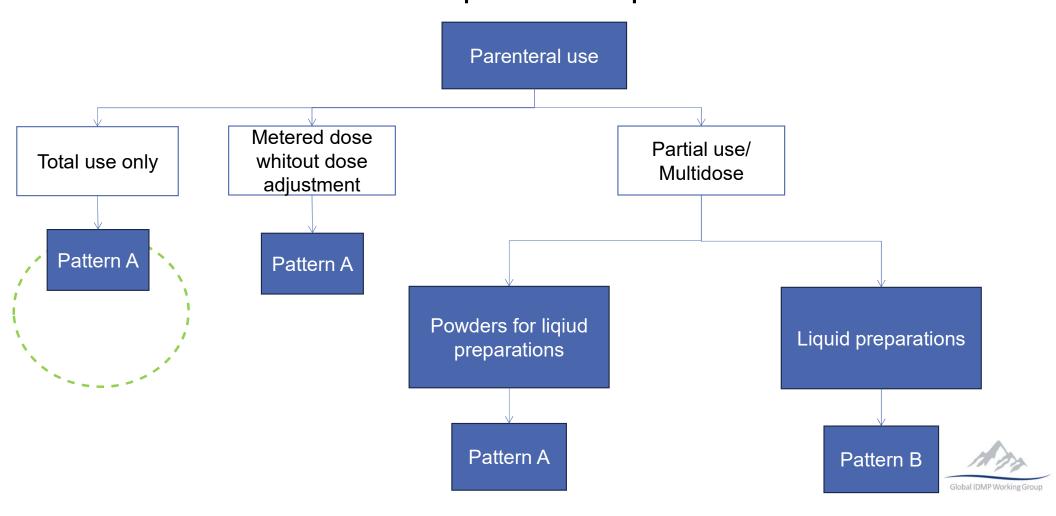


Each rectal suppository of Phenergan contains 12.5 mg, 25 mg, or 50 mg promethazine HCl with ascorbyl palmitate, silicon dioxide, white wax, and cocoa butter. Phenergan Suppositories are for rectal administration only.

Medicinal Product	SmPC Dose form	Harmonized BDF	SmPC Strength	Strength	
Phenegran (promethazine HCl)	suppository	suppository	25 mg	25 mg	



#### **GIDWG Global Strength Definitions ID project** Business Rules Overview: parenteral products



# Example: Pattern A - Single dose liquid and concentrate

#### -----DOSAGE FORMS AND STRENGTHS-----

100 mg/mL concentration (3.1):

- Prefilled syringes: 30 mg/0.3 mL, 40 mg/0.4 mL
- Graduated prefilled syringes: 60 mg/0.6 mL, 80 mg/0.8 mL, 100 mg/1 mL
- Multiple-dose vial: 300 mg/3 mL

150 mg/mL concentration (3.2):

Graduated prefilled syringes: 120 mg/0.8 mL, 150 mg/1 mL



Medicinal Product	SmPC Dose form	Harmonized BDF	SmPC Strength	Harmonised strength
Lovenox	Prefilled			
(enoxaparin	syringe	Solution	40mg/0.4 mL	40 mg
sodium)	Synnge			



#### **Business Rules Overview: Pattern B**

Pattern	Type of product	Product Presentation
	A single dose (partial use) and multi-dose	Examples:
	of continuous presentation	<ul> <li>parenteral liquid and concentrate</li> </ul>
		<ul> <li>oral powder multi-dose</li> </ul>
		<ul> <li>bulk powders/granules</li> </ul>
		<ul> <li>semi- solids "bulk" liquids (e.g., eye drops),</li> </ul>
В		<ul> <li>spray that is not metered-dose</li> </ul>
		• cream
(Mandatory:		<ul> <li>Nebulizer* (solution for nebulization)</li> </ul>
Concentration		<ul> <li>Oral solutions* (vials or bottles): Haloperidol 2mg/ml bottle</li> </ul>
Strength)		Oromucosal solutions
		Multi-dose vials
	Eye-drops single- and multi-dose	<ul> <li>Eye drops pipettes, vials or bottles: Saflutan 15mcg/mL (pipette</li> </ul>
		or bottle)



# **Example: Pattern B - multi-dose of continuous presentation**

#### For topical use

#### DESCRIPTION

Locoid<sup>®</sup> (hydrocortisone butyrate) Cream, 0.1% contains the topical corticosteroid, hydrocortisone butyrate, a non-fluorinated hydrocortisone ester. It has the chemical name: 11 $\beta$ ,17,21-Trihydroxypregn-4-ene-3,20-dione 17-butyrate; the molecular formula: C<sub>25</sub>H<sub>36</sub>O<sub>6</sub>; the molecular weight: 432.54; and the CAS registry number: 13609-67-1.

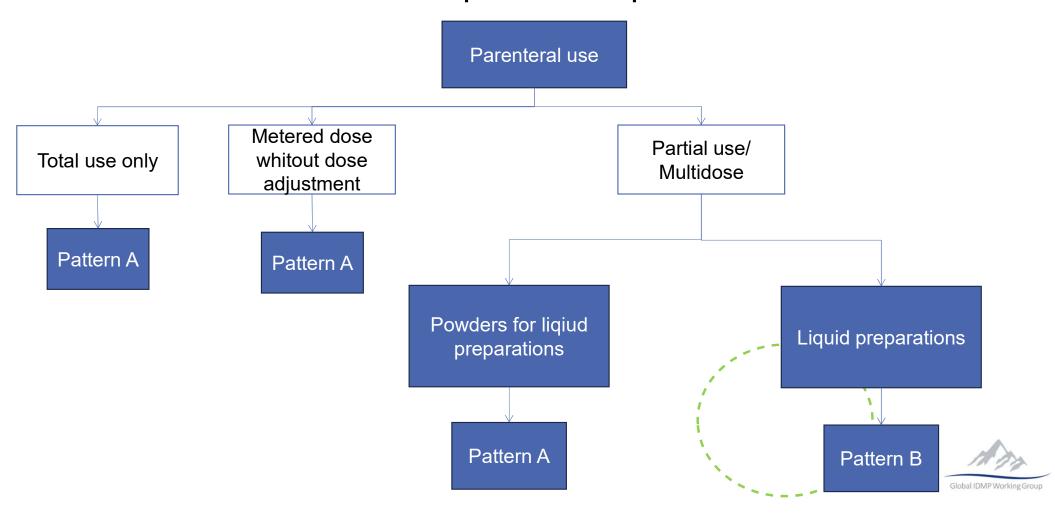
Each gram of Locoid<sup>®</sup> Cream contains 1 mg of hydrocortisone butyrate in a hydrophilic base consisting of cetostearyl alcohol, ceteth-20, mineral oil, white petrolatum, anhydrous citric acid, sodium citrate, propylparaben and butylparaben (preservatives) and purified water.

Medicinal Product	SmPC Dose form	Harmonized BDF	SmPC Strength	Harmonized Strength
Locoid (hydrocortisone butyrate)	Cream	Cream	0,1%	1mg/g



An

#### **GIDWG Global Strength Definitions ID project** Business Rules Overview: parenteral products



# Example: Pattern B - single dose (partial use) and multi-dose of continuous presentation (dosing is individual or/ dosing varies depending on other factors)

#### -----DOSAGE FORMS AND STRENGTHS------

100 mg/mL concentration (3.1):

- Prefilled syringes: 30 mg/0.3 mL, 40 mg/0.4 mL
- Graduated prefilled syringes: 60 mg/0.6 mL, 80 mg/0.8 mL, 100 mg/1 mL.
- Multiple-dose vial: 300 mg/3 mL

150 mg/mL concentration (3.2):

Graduated prefilled syringes: 120 mg/0.8 mL, 150 mg/1 mL



Medicinal Product	SmPC Dose form	Harmonized BDF	SmPC Strength	Strength
Lovenox (enoxaparin sodium)	Gradually prefilled syringe	solution	60 mg/0.6 mL	10 mg/mL

## **Business Rules Overview: Pattern C**

Pattern	Type of product	Product Presentation
expression by	Products enclosed in a "presentation", where the dosing varies depending on other factors (e.g., weight, indication, administration method)	<ul> <li>Fentanyl 25mcg/ 1 hour</li> </ul>



Example: Pattern C - Products enclosed in a "presentation", where the dose dosing varies

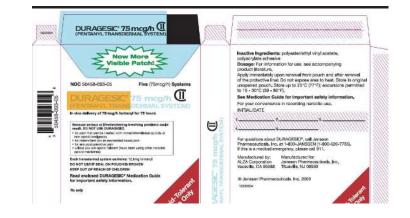
#### DESCRIPTION

DURAGESIC<sup>®</sup> (fentanyl transdermal system) is a transdermal system providing continuous systemic delivery of fentanyl, a potent opioid analgesic, for 72 hours. The

#### System Components and Structure

The amount of fentanyl released from each system per hour is proportional to the surface area (25 mcg/h per 10.5  $cm^2$ ). The composition per unit area of all system sizes is identical.

Dose* (mcg/h)	Size (cm <sup>2</sup> )	Fentanyl Content (mg)
12**	5.25	2.1
25	10.5	4.2
50	21	8.4
75	31.5	12.6
100	42	16.8



\*Nominal delivery rate per hour \*\*Nominal delivery rate is 12.5 mcg/hr



## **Business Rules Overview: Harmonization**

Medicinal Product	SmPC Dose form	Harmonized BDF	Pattern	SmPC Strength	Harmonized Strength
Durogesic (fentanyl)	Transdermal system	Patch	C Strength by presentation	25 mcg/h per 10.5 cm2	12.5mcg/h



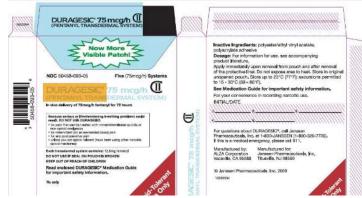
# Example: Pattern C - Products enclosed in a "presentation", where the dose dosing varies

#### DESCRIPTION

DURAGESIC<sup>®</sup> (fentanyl transdermal system) is a transdermal system providing continuous systemic delivery of fentanyl, a potent opioid analgesic, for 72 hours. The

#### System Components and Structure

The amount of fentanyl released from each system per hour is proportional to the surface area (25 mcg/h per 10.5  $cm^2$ ). The composition per unit area of all system sizes is identical.



<u>(</u> n	Dose*         Size           ncg/h)         (cm <sup>2</sup> )           12**         5.25           25         10.5           50         21           25         21.5	Fentanyl Content (mg) 2.1 *] 4.2 ** 8.4	Nominal delivery rate per hour Nominal delivery rate is 12.5 mcg/hr	Je Contraction of the second s	la la
Medicinal Product	SmPC Dose form	Harmonized BDF	SmPC Strength	Harmonized Strength	
Durogesic (fentanyl)	Transdermal system	Patch	25 mcg/h per 10.5 cm2	12.5mcg/h	Working Group

# Thank you!



# **GIDWG Operating Model**

Malin Fladvad Head of WHODrug Portfolio Uppsala Monitoring Centre

October 16, 2023

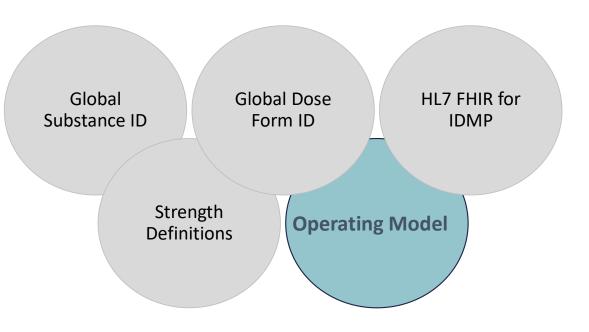


## **GIDWG Operating Model**

Project Scope and Deliverables

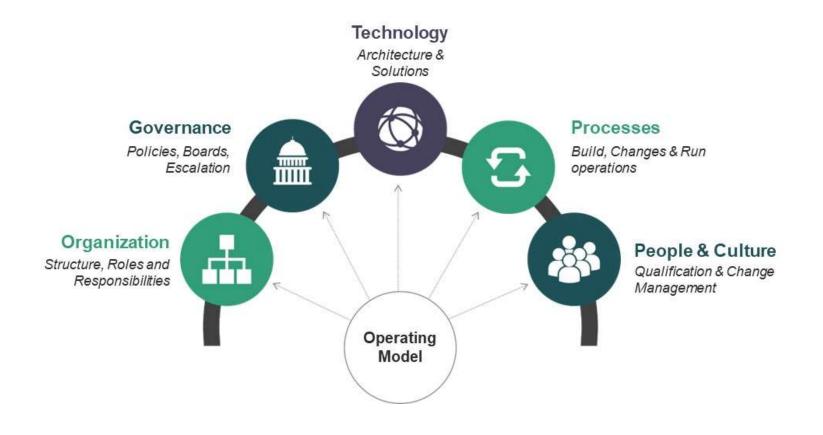
- Definition of the consensus-based operating model(s) for WHO-UMC as the international maintenance organization as an end-to-end pilot:
  - Demonstration of defined operating model(s) for global PhPID on a selection of the following use cases, including product level associations when applicable
    - Pharmacovigilance
    - Drug shortages
    - Drug utilization
    - Cross border prescription
  - Process definition by three jurisdictions (EMA, US-FDA AND ANVISA)





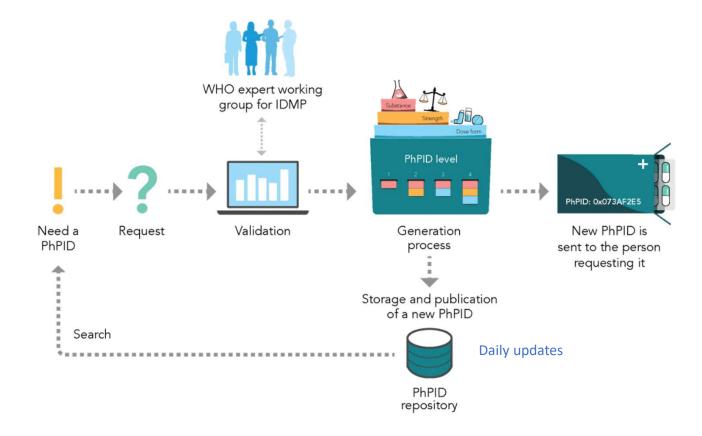


# **Global PhPID Operating Model**



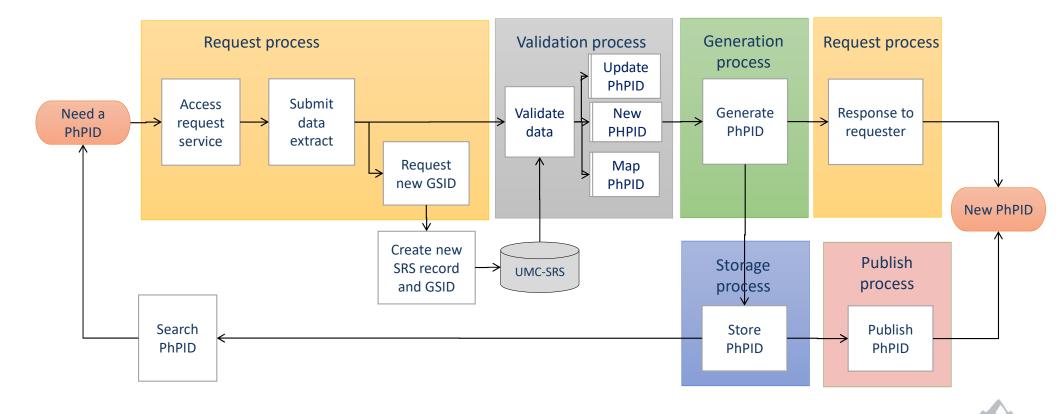


# **Operating model**





# PhPID Operating Model including GSID request technology & solutions





The Pharmaceutical Product Identifier (PhPID) is defined by one of the five ISO standards for Identification of Medicinal Products (IDMP), which aims to increase clarity and efficiency in communications about medicines globally. PhPIDs are created based on the product information for substances, strengths, and dose forms. Some additional information, e.g. country and market authorization holder, are also needed for validation purposes.

In this service you will find two options for requesting PhPIDs for Pharmaceutical Products. Either to complete the form per product via the Single PhPID Request option, or to upload a file with multiple PhPID requests via the PhPID Batch Request option.

You also find an option to request a Global Substance Identifier (GSID). For pharmaceutical products with new substances you need to request a GSID before you can request a PhPID.

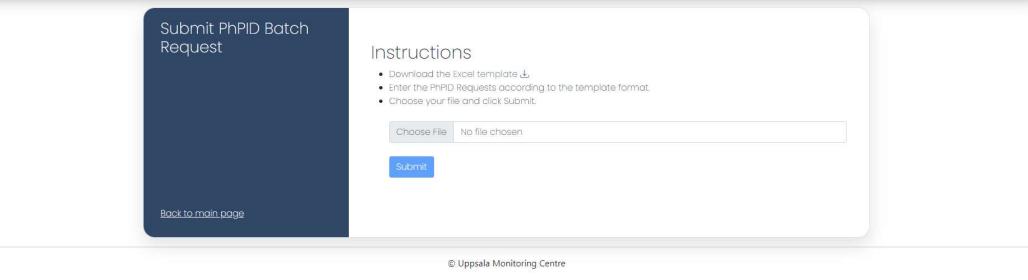


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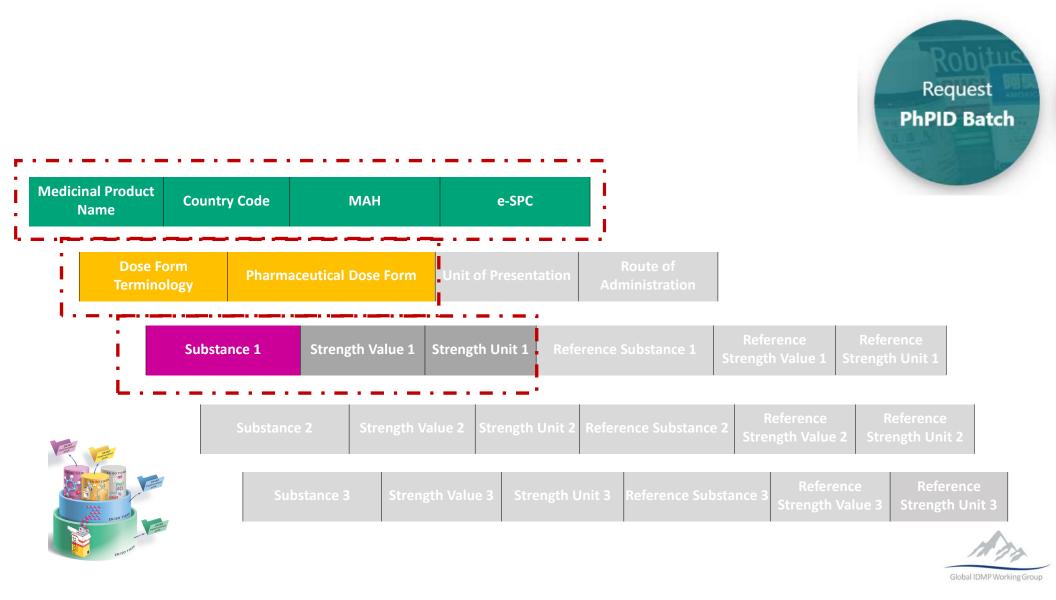
#### Global PhPID Request

💄 Marilina Castellano - Uppsala Monitoring Centre 🕶



Terms | UMC's Privacy Policy





# Business rules for Global PhPID generation input string

#### General

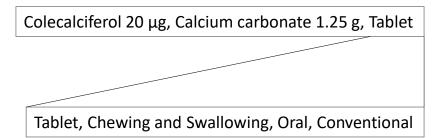
- The identifiers will be separated by a semicolon (;)
- Substances will be separated by a pipe (|) and ordered by GSID

#### Strength & Units

- Amount is represented with a point (.) and two decimals
- A presentation strength or a concentration strength is used
- Units and unit of presentation will be translated into numeric values by conversion tables

#### Form

• Multiple Administration method & Intended site are represented within square brackets ([]) and ordered by ID (lowest to highest)



83K48AU12C;20.00;4;15054000;;;;;|8XSL3D4GX6;1.25;2;15054000;;;;;0069;[0007;0019];0031;0047



## New features in Global PhPID Request







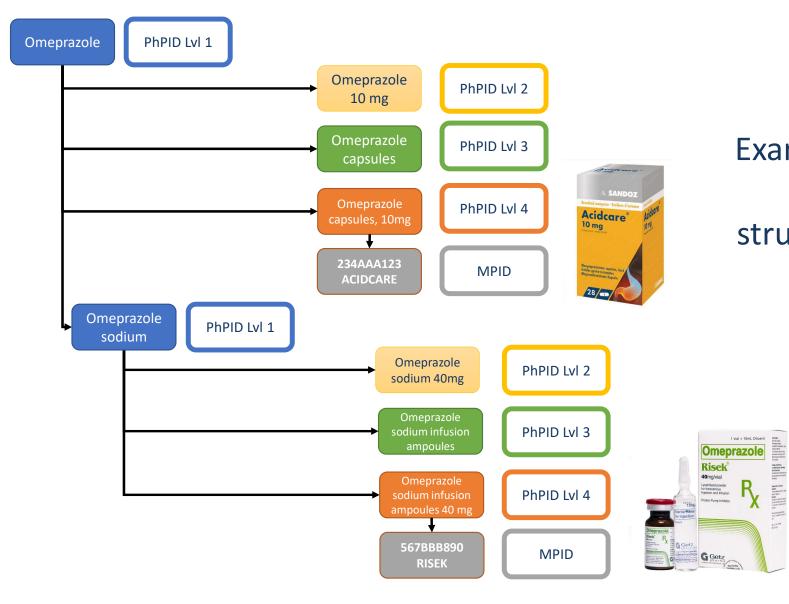
marilina.castellano@who-umc.org •

×

Please note that this application is in a development phase and more functionality will be released continuously. The data and assigned PhPIDs may be subject to change at any time. Please contact IDMP@who-umc.org for any questions.

Level	PhPID	GSID	Substance	Strength (Reference Strength) ①	Basic Dose Form	Administration Method	Intended Site	<b>Release Characteristics</b>
1	B78B712FC26C629344AF2C513DE8E992	GSID-11ZJZ2XD4-U	Amlodipine benzoate					
.2	68CF8B03F8AC9FE6ABF51576BFEA95BE	GSID-11ZJZ2XD4-U	Amlodipine benzoate	1.3 mg/ml (1 mg/ml)				
3	0E4EE7F1029FB4EF690BD029F7A85CC1	GSID-11ZJZ2XD4-U	Amlodipine benzoate		Suspension	Swallowing	Oral	Conventional
4	9680514A1D6F8B361772BDB5D26F39AD	GSID-11ZJZ2XD4-U	Amlodipine benzoate	1.3 mg/ml (1 mg/ml)	Suspension	Swallowing	Oral	Conventional
1	7422765EEE495A837241B2C3620AEF3E	GSID-3YJL6M9Z0-H	Amlodipine besilate					
.2	265D389BFF4C991C7165F8C9BF939DC7	GSID-BYJL6M9Z0-H	Amlodipine besilate	1.39 mg/ml (1 mg/ml)				
.2	4C8AC54E0207ACD9B2994FC3F0E1EB7B	GSID-3YJL6M9Z0-H	Amlodipine besilate	6.93 mg (5 mg) per tablet				
.2	AA39B88AA7D293692BBC235C9F09B5E6	GSID-3YJL6M9Z0-H	Amlodipine besilate	13.87 mg (10 mg) per tablet				
.2	B7769405423433FF1989B348CC143375	GSID-3YJL6M9Z0-H	Amlodipine besilate	3.47 mg (2.5 mg) per tablet				
3	662A2B95D592B1387A50AB2D9D33465F	GSID-3YJL6M9Z0-H	Amlodipine besilate		Suspension	Swallowing	Oral	Conventional
3	21E01B86E050659089E8E67A3C6E1363	GSID-3YJL6M9Z0-H	Amlodipine besilate		Tablet	Swallowing	Oral	Conventional
4	04BAE98EC790205B37298ADB405E3D63	GSID-3YJL6M9Z0-H	Amlodipine besilate	1.39 mg/ml (1 mg/ml)	Suspension	Swallowing	Oral	Conventional
4	A490DC664C872987E3CEEEFDAC59F034	GSID-3YJL6M9Z0-H	Amlodipine besilate	6.93 mg (5 mg) per tablet	Tablet	Swallowing	Oral	Conventional
4	5B6880B7763EB0E8D0E127F6C54D26B7	GSID-3YJL6M9Z0-H	Amlodipine besilate	13.87 mg (10 mg) per tablet	Tablet	Swallowing	Oral	Conventional
4	C92572AA1E2FD469E45C5A7ACD22CA1D	GSID-3YJL6M9Z0-H	Amlodipine besilate	3.47 mg (2.5 mg) per tablet	Tablet	Swallowing	Oral	Conventional
1	B76CF9DC518DF0C0BA42F7E002455F8D	GSID-88APA95ZH-L	Amoxicillin					
.2	20FE199CB0945846A25AEC9C6F41720A	GSID-88APA95ZH-L	Amoxicillin	500 mg per capsule				
. 2	2FCEE6E7FA9CA9997DCB6517B2C352F0	GSID-88APA95ZH-L	Amoxicillin	125 mg per tablet				
.2	2FE9D4C41006731128F07CF2C0848EDE	GSID-88APA95ZH-L	Amoxicillin	25 mg/ml				

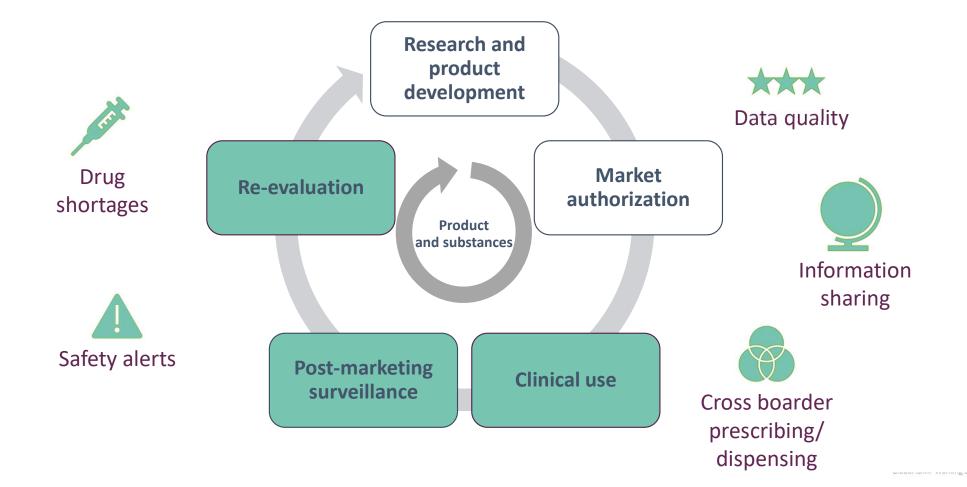




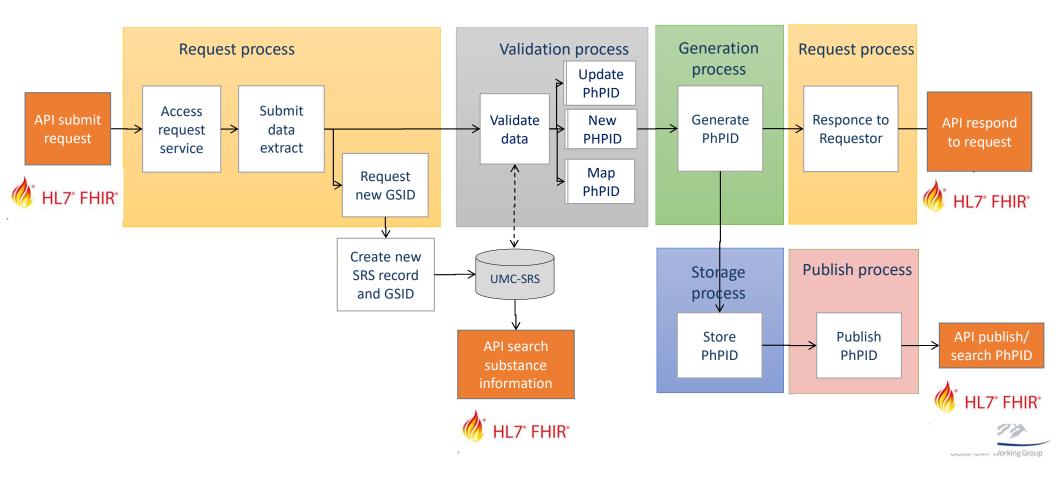
Example of PhPID levels and structural links to Medicinal Product Dictionary



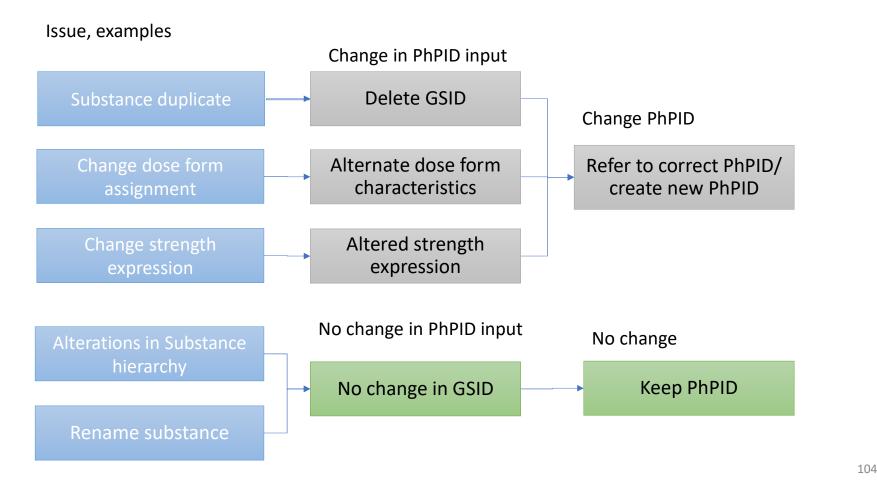
# Use cases for end-to-end testing of global PhPID



## PhPID Operating Model with FHIR



# Proposed change management of PhPID



# Suggestion PhPID change management

 Suggestion to implement non-current identifiers for PhPID and GSID



# Outstanding challenges

- Process efficiency- actions to simplify data harmonisation process
  - SPC mining
  - Use SPOR registry to ensure better harmonisation of MAH information
- Cont. Change management



# Suggested updates of ISO IDMP

#### 1. Kits

**Suggestion:** assign a PhPID for the 'Kits' since even if a marketed product is sold as a single strength or added in a 'kit', the AE must be able to be recorded. Also applies to kits with multiple substances.

#### 2. Contraceptives and placebos

Suggestion: Contraceptives will be considered as a kit (multiple substances included per tablet).

**TBD:** Find better definition for placebo.

How to handle placebo in a kit, should we differentiate between a product with different numbers of placebo tablets as well as no placebo at all?



# Suggested updates of ISO IDMP – cont.

#### 3. Strength for PhPID generation input

**Suggestion:** ISO 11616 describes the use of both strength and reference strength for PhPID generation but after evaluation GIDWG suggests to only use strength, the addition of reference strength does not add any important information for discrimination in-between different PhPIDs and therefore only impose risk for errors.

4. Re-evaluation of the MD5 hash

**Suggestion:** to use a non-hash ID for the global PhPID to simplify ID maintenance and minimize risk of confusion between potential regional PhPID and global PhPID



# Thank you!





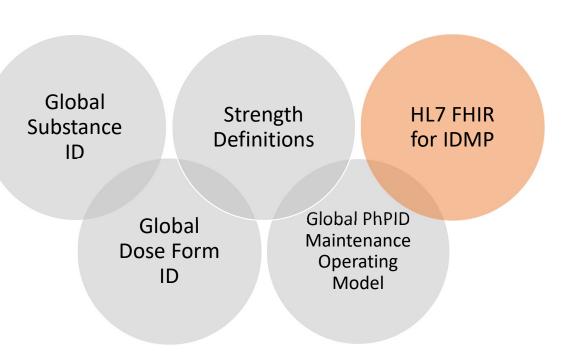
# Status report on HL7 FHIR for IDMP

Panagiotis Telonis (EMA)

## GIDWG IDMP in HL7 FHIR project

#### Project scope and deliverables

- Challenges regarding automatic exchange of medicinal product and substance information
- Participate in developing, verifying, and balloting HL7 FHIR resources related to IDMP based on the currently identified global use cases (pharmacovigilance, cross-border prescriptions, drug shortages)
- Exchange IDMP/product and substance data between the US, EU and WHO-UMC according to use cases
- Align to common product messages in FHIR
- Demonstrate in HL7 FHIR Connectathons and other stakeholder events





Please note that this service is in a development phase and more functionality will be released continuously. Contact IDMP@who-umc.org for any questions.



#### Welcome to the Global PhPID Request service!

FHIR

The Pharmaceutical Product Identifier (PhPID) is defined by one of the five ISO standards for Identification of Medicinal Products (IDMP), which aims to increase clarity and efficiency in communications about medicines globally. PhPIDs are created based on the product information for substances, strengths, and dose forms. Some additional information, e.g. country and market authorization holder, are also needed for validation purposes.

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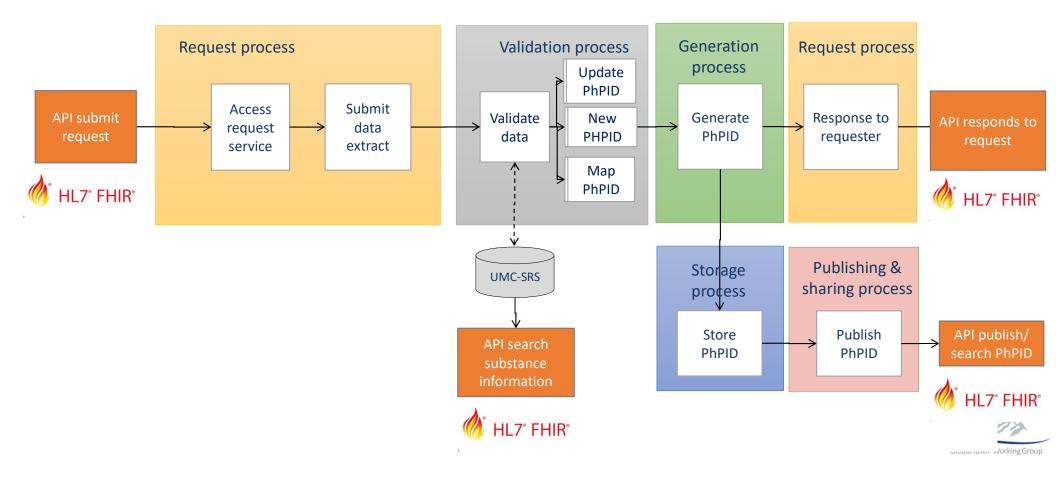
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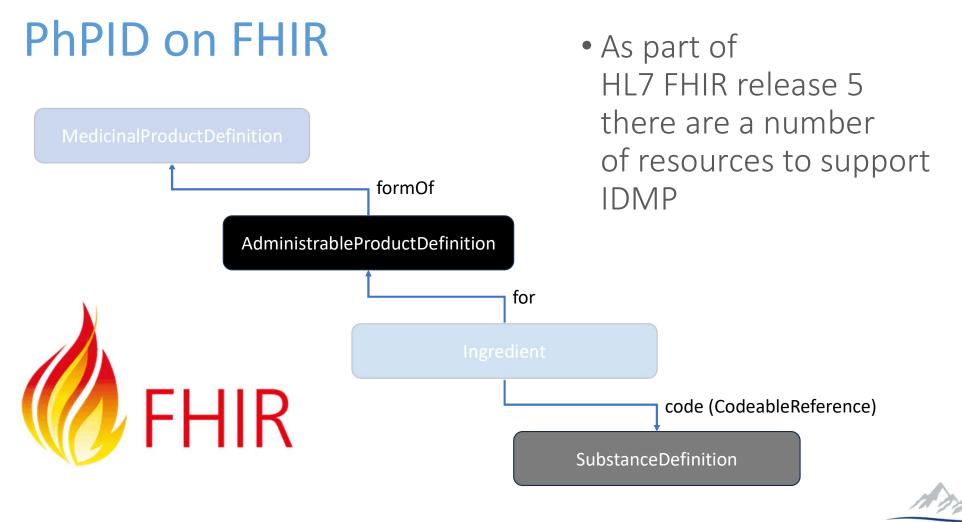


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## PhPID Operating Model with FHIR





Global IDMP Working Group

### HL7 FHIR Connectathon 34 & HL7 WG meeting (9-15 Sep 2023)

### Connectathon (What)

- HL7 FHIR Connectathons feature hands-on FHIR development and testing.
- Implementers and developers come together to hold technical discussions that advance the FHIR specification, develop FHIR-based solutions, and exchange data with other FHIR interfaces.
- Connectathons are a great opportunity to work directly with FHIR developers and senior members of the FHIR standards development team

### Track Objective

- Scenarios to Test and gather feedback on the following:
- Test scenario #1: Confirm how to make connections between the Vulcan ePI and SPL-FHIR by manually transforming an ePI to a SPL-FHIR.
- Test scenario #2: A patient travels from Europe to US and has to find the similar US medicinal product to their European prescription.
- Test scenario #3: A patient travels from Japan to US and has to find the similar US medicinal product to their Japanese prescription.
- Test scenario #4: Incorporate ISO IDMP identifiers into the ePIs to facilitate international connections. Focus on the PhPID generation; lookup and usage; and matching identifiers cross-border to support the relevant test scenarios above.

2023 - 09 Connectathon 34 - FHIR - Confluence (hl7.org)

Connectathon 34 Report Out 9.25.23.docx (live.com)











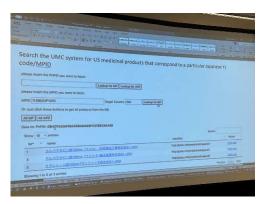


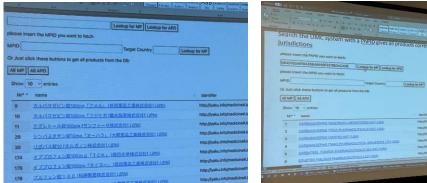






Global IDMP Working Group





#### Given the retrieved PhPID we can now retrieve the corresponding MPID in USA

#2378E24CA5E Lookup for APD

https://umc-ext-dev-phponfhirdemo-preview-rg01webapp.azurewebsites.net/MedicinalProductDefinition?\_has: AdminstrableProductDefinition:form-of:identifier=http://www.whoumc.org/phpid|F92168108C432D63DACDD70444176BB3&namecountry=USA

### Use Case



#### Get the PhPID for the Japanese MPID

https://umc-ext-dev-phponfhirdemo-preview-rg01webapp.azurewebsites.net/

AdministrableProductDefinition?form-of.identifier= http://iyaku.info/medicine 2189011F1262









# GIDWG Communications Plan Discussion

October 2023

## Thoughts

- Does GIDWG need a Communications Plan?
  - They seem simple to develop, but they are not. Why? They need monthly maintenance.
- For meetings, we need to have a process for assigning the lead, development, review, and submission and tracking of abstracts.
- Should we compile a core set of slides to draw from and keep it updated.
- Do we need to have a peer-reviewed article(s)? Or can we publish in various organization newsletters, e.g., DIA Forum
- Social Media we need a plan ahead of meetings and on-going basis.
- We need someone to coordinate / lead the Communications Plan team.



## Sample Grid for Professional Meetings

	Professional Meetings				
	AUDIENCE	MESSAGE TYPE	DELIVERY METHOD	ABSTRACT DUE DATE	MEETING DATE
DIA Global	Mixed	Data Standards / PV	Podium Presentation	September 2023	June 2024
DIA RSDIM USA	Regulatory Ops, tech companies	Data Standards	Podium Presentation	June 2023	Feb 2024
DIA Europe	Mixed	Data Standards / EU SPOR / PV	Podium Presentation	May 2023	March 2024
DIA Canada	Mixed	Data Standards / PV	Podium Presentation	Text Here	Text Here
DIA China	Mixed	Data Standards / PV	Podium Presentation	Text Here	Text Here
DIA Japan	Mixed	Data Standards / PV	Podium Presentation	Text Here	Text Here
DIA Global Pharmacovigilance and Risk Management Strategies	PV	PV	Podium Presentation	June 2023	February 2024
34th Pharmacovigilance UK & EU	PV	PV	Podium Presentation	Sept 2023	Jan 2024

# Thank you!







# Wrap Up and Review Action Items/Decisions





## Thank you for your work on IDMP!