eHealth+
eMedication

Data and Technical Preparation

15 Aug 2024

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Logistics and Supply Chain MultiTech R&D Center (LSCM)

Mr Oliver Mo
Hospital Authority, IT&HI

醫健通 e+藥物 計劃簡介會

日期：二〇二四年三月廿五日

地點：香港科學園

主辦：醫務衛生局、醫院管理局、物流及供應鏈多元技術研發中心

>600+ Attendance

政策目標	醫務衛生局 首席助理秘書長 **洪思敏女士** 策略採購統籌處總監 **張偉麟醫生**
電子健康紀錄互通系統 (「醫健通 +」)與「e+藥物」	醫院管理局(醫管局)資訊科技及醫療信息部 總系統經理(臨床系統產品及品質) **黃永昌先生**
院舍藥物物流及供應鏈與藥物管理	物流及供應鏈多元技術研發中心 研究及技術開發(人機智能互動)總監 **吳道賓博士** 高級顧問(健康服務) **黃永南醫生**
院舍管理系統的經驗分享	ANI Systems 創辦人兼董事長 **江銘豐先生**
「醫健通 +」登記	電子健康紀錄申請及諮詢中心 高級行政主任 **趙婉貞女士**
問答環節	-
中場休息	-

https://emedication.lscm.hk/kickoff/zh/

簡介會照片

以上圖片來自當天活動及會場網站

Logistics and Supply Chain MultiTech R&D Centre
物流及供應鏈多元技術研發中心

4 Objectives – Data Connectivity Onboarding

To facilitate understanding of **data** and **technical** requirements, preparation and pre-requisites to:

攞得到　1. Obtain data from eHealth

睇得明　2. Interpret the data obtained correctly

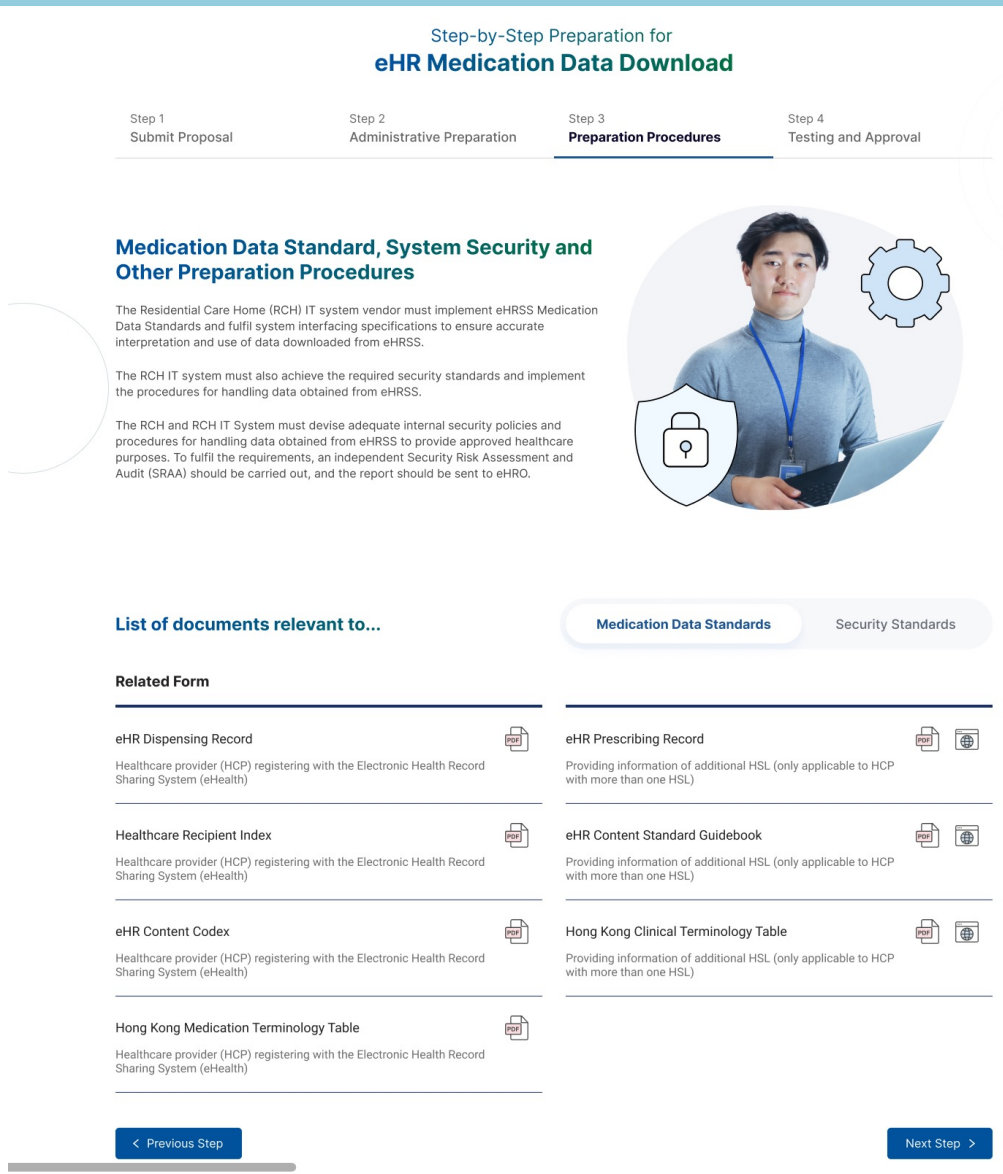
放得啱　3. Identify system changes that may be required in the RCH systems to present correctly and

用得好　4. Use the data obtained from eHealth

Agenda

1. 4 Steps of downloading preparation
2. Data and technical preparation
    1. Prerequisites for obtaining data
    2. Medication data definition in eHealth (Prescribing & Dispensing Data Standards and HKMTT)
    3. Data messaging format (HL7 FHIR)
    4. Technical setup for testing and interfacing
3. FAQ and Q&A

LSCM eMedication Connectivity Platform



Portal for all relevant form, requirements and specifications and links to eHealth.gov.hk

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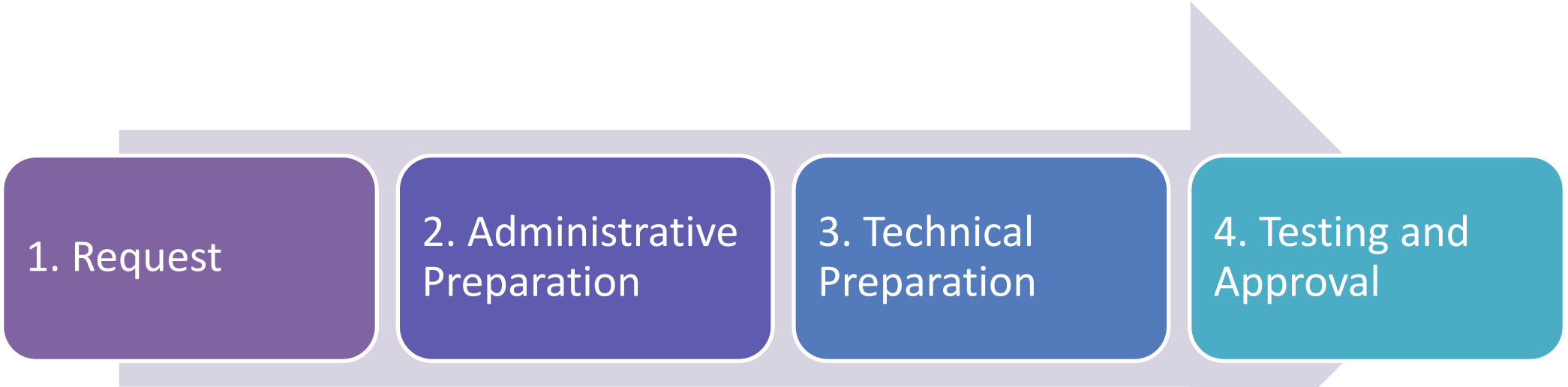
4 STEPS OF DATA DOWNLOAD PREPARATION

Step-by-Step Preparation for Data Downloading



1.Submit request
2.Submit RCH list

1. eHR Registration
- HCP
- HCR
- Sharing / Download

2. Privacy Polices and Procedures
- PIA

1. Data Standards (HKCTT/HKMTT)
2. Interfacing Standards (HL7 FHIR)
3. Security
- Security Checklist
- SRAA

1. Data and Integration Tests
2. Formal approval by eHRO

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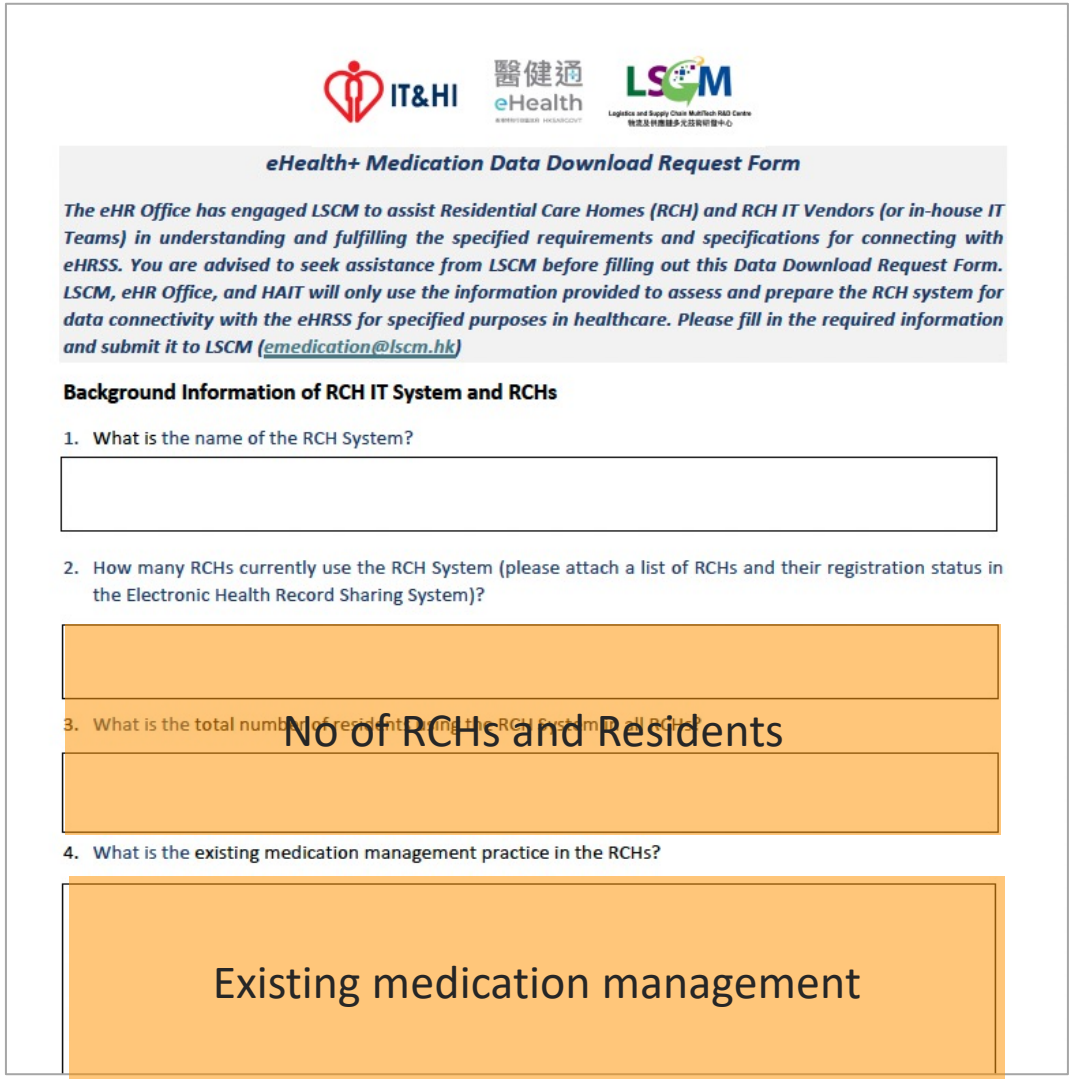
eMedication Data Download Request Form



IT&HI 醫健通 eHealth LSCM

eHealth+ Medication Data Download Request Form

The eHR Office has engaged LSCM to assist Residential Care Homes (RCH) and RCH IT Vendors (or in-house IT Teams) in understanding and fulfilling the specified requirements and specifications for connecting with eHRSS. You are advised to seek assistance from LSCM before filling out this Data Download Request Form. LSCM, eHR Office, and HAIT will only use the information provided to assess and prepare the RCH system for data connectivity with the eHRSS for specified purposes in healthcare. Please fill in the required information and submit it to LSCM (emedication@lscm.hk)

Background Information of RCH IT System and RCHs

1. What is the name of the RCH System?

2. How many RCHs currently use the RCH System (please attach a list of RCHs and their registration status in the Electronic Health Record Sharing System)?

3. What is the total number of resident served by the RCH System in all RCHs?

No of RCHs and Residents

4. What is the existing medication management practice in the RCHs?

Existing medication management

Purposes of Medication Data Download

5. What are the intended uses of the downloaded medication data from eHRSS in medication management in the RCHs?

Intended uses of downloaded medication-related data

RCH IT System Features

6. What is the technical model of the RCH IT system, whether cloud or web-based or on-premises local installation? And the connection means (e.g. internet or leased line or dedicated line connection)

Private / public cloud / connection mode

7. Please provide a list of features of the RCH system, in general and in particular for medication management

RCH system features

eMedication Data Download Request Form

8. Is there any, and if yes, what number of RCHs have adopted third-party medication systems, e.g., automated packaging? If any, provide the name and contact of the third-party system.

Automatic drug packing

9. Has the IT system adopted any medication data standard, structure, or reference terminology in the existing system?

Existing drug data standard and structure

10. What are the IT security measures and functions that have been adopted?

Existing IT security features

11. What are the numbers of healthcare professionals, including doctors, nurses, pharmacists, dispensers, healthcare assistants, etc, using the medication-related functions?

Clinical users no.

12. What is the user authentication adopted (e.g. password, one-time password or others and whether 2 factor authentication have been adopted)?

Existing user authentication methods

13. Have there been any security or privacy assessments done in the RCH system in the past two years? If so, please provide the date of the assessment and the consultancy firm that carried out the assessment.

Previous security and privacy assessment

LSCM-eMedication Proposal Submission Form v1

RCH List

eHealth+ Medication Data Download Request Form (RCH List)

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Please nominate and highlight 1-3 RCHs for piloting medication data download through your system and we will engage them for necessary administrative preparation

List of RCHs that are using the RCH system

Name of RCH	Number of Residents	Has the RCH registered eHRSS as a Healthcare Provider (Y/N)	Estimated % of residents regisered eHRSS as a Healthcare Recipient (%)	Contact Person at RCH (we will follow up with your nominated RCHs to facilitate eHRSS registration related matters at later stage)	email address	Phone Number

RCH list for LCSM's and eHR Registration Office's follow-up and administrative preparation

Logistics and Supply Chain MultiTech R&D Centre
物流及供應鏈多元技術研發中心

Step-by-Step Preparation for Data Downloading

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提升院舍藥物安全
參與電子藥物計劃

Enhance Medication Safety at Residental Homes
Participate eMedication Programme

加入醫健通+實現卓越健康管理

Join the eHealth+ for Quality Health Management

醫健通 eHealth

LSCM Logistics and Supply Chain MultiTech R&D Centre
物流及供應鏈多元技術研發中心

計劃優勢 Benefits

參與醫健通 e+ 藥物可以讓院舍取覽院友的完整健康紀錄，並獲取處方和配藥數據，這有助於提升:

Participating in eHealth eMedication enables Residential Care Home access to residents' comprehensive health records and obtain medication prescribing and dispensing data, fostering improvements in:

- 護理質量 Quality of Care
- 藥物安全 Medical safety
- 服務效率 Care efficiency
- 與醫護人員的溝通 Communication with healthcare professionals

如何參加? How to participate?

本院舍正在籌備參加醫健通+電子藥物計劃，讓我們能夠為您提供更加個人化和有效的護理。
請聯絡本院職員檢查你是否已參加醫健通並已給予本院互通同意並安排有關手續。

Our Residential Care Home is enrolling in the eMedication programme, enabling us to provide you with more personalised and effective care. Please contact our staff to check if you have registered eHealth and given sharing consent to our Residential Care Home.

對計劃有任何疑問? Any Enquiry?

如果您對此計劃有任何疑問或疑慮或不願意參加，請隨時與我們的工作人員聯繫。

If you have any questions or concerns or are unwilling to participate in this programme, please don't hesitate to contact our staff.

有關醫健通的詳情，請瀏覽 www.ehealth.gov.hk

For more information about eHealth, please visit www.ehealth.gov.hk

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Obtain – Interpret – Present - Use

TECHNICAL PREPARATION

Technical Preparation for Data Downloading

攞得到

Obtain

- eHR Registered/Consent - “Active Resident List”
- API HL7 FHIR

睇得明

Interpret

- eHR Medication Data Standard (Prescribing / Dispensing) 醫健通 eHealth
- HK Medication Terminology Table (HKMTT) 醫健通 eHealth

放得啱

Present

- Data field matching and mapping
- System changes (potential) for presentation of downloaded data

用得好

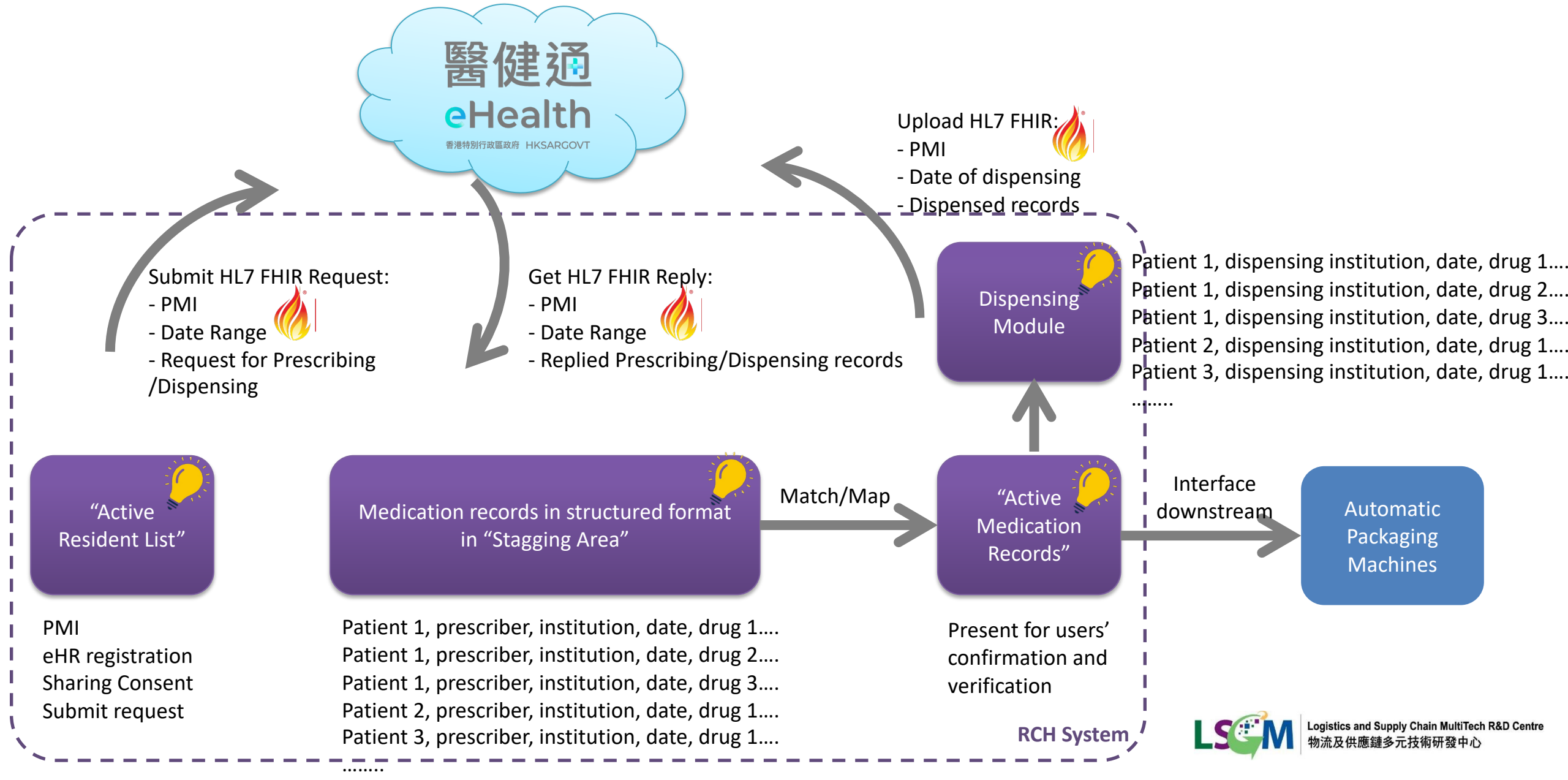
Use

- Creation of Medication Administration Record (MAR)…
- Facilitation of drug repacking and other medication management ….

Testing Requirements

Sequential Processes for Data Download from eHealth for Meaningful Use

RCH IT Systems and eHealth Interfacing



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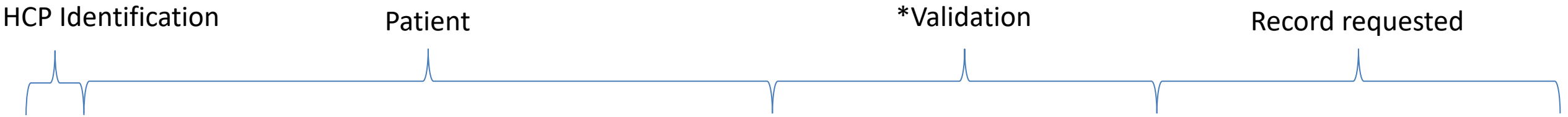
Via “Active Resident List” in eMR submit a Record Request to eHealth



eHR HCP ID	eHR HCR No	Family Name, Given Name	ID	Patient Birth Date	Gender	eHR Registered	Sharing Consent	Medication Download agreed	Date Range Start Date End Date	Prescribed Record	Dispensed Record
32145698 70	470381070919	Lee, One	A123456(7)	1911-01-01	M	Y	Y	Y	2024-01-01 to 2024-03-31	Y	-
32145698 70	210987654321	Cheung, Mui	C765421(1)	1943-12-02	F	Y	Y	Y	2024-02-01 to 2024-03-31	Y	Y

Submit

**Other validation rules applied at eHealth upon processing each data download request from RCH*

List of patients with parameters to specify for record retrieval

HL7 FHIR Messaging Format

HL7 FHIR Messages (JSON)

```
curl --location --request POST 'https://api.core.ehr.gov.hk/gateway/ehrss-eif-drugds-
delivery/v1.0/v3/baseR4/MedicationRequest/_search' \

--header 'Content-Type: application/x-www-form-urlencoded' \

--header 'Authorization: Bearer
eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICJSTVdpZENHNVVfSjJOTE11YkVGRTk0TXRTX0JpTDNJVUo1SEg0U2l3ZmRBIn0.eyJleHAiOjE3MTg3ODE4MjI
anRpIjoiNmVmNzk4ZTctODFiMy00ZjU2LWJmMmUtNDllMmIzYWRhYjYxIiwiaXNzIjoiaHR0cHM6Ly9hcGkudWF0LmVoci5nb3YuaGsvcmVhbG
pbS14cy1laHJzcy1laWYtZHJ1Z2RzIiwic3ViIjoiNWI3OTVkYzItOWEwNC00ZjUwLWFhNzMtZDFkODYzZGM0MDU3IiwidHlwIjoiQmVhcmVyI
iwiYXpwIjoiMTAwMDAwMTQwMCIsInNjb3BlIjoiYXBpbS14cy1laHJzcy1laWYtZHJ1Z2RzIiwiY2xpZW50SWQiOiIxMDAwMDAxNDAwIiwiY2xpZW50SG9zdCI6IjE3Mi4xOS4x
Mi4yNDAiLCJoY3AiOiI5NTMyNzA2OTkyIiwiY2xpZW50QWRkcmVzcyI6IjE3Mi4xOS4xMi4yNDAifQ.NPVRz4srInQyS1f6NG-MCOxOfOFw0qJIQl6iCRmZy-
0oL6lg5Cx1YgB9FnSqpbx3LaHBNdeRmrZrBF5abr2bKaYCJguZExUthg_JBGVOC_EuuUhayM5Z52IC82LT-
wVS8zoIqW1XHclRD7E08H6Kb012rAGvZP9FDjqAPQwIXBdhOHleLLmuE_sNQubstHa8Qc2hroZlPMBk4SWmkF1YJ03pO8pL_avqHZ3Gnh6sRHXyra059dq5XUzHiZC2bSVDJc94
rC4YasNs9jUeJL2Ix36kMZr5VgqePAmeChLyAPvnU8Lzmwq7PV6vjwATUtPccuEeR12s-2H3hQS0E6bVSQ' \

--data-urlencode 'subject:Patient.name.family=LEE' \

--data-urlencode 'subject:Patient.name.given=One' \

--data-urlencode 'subject:Patient.gender=male' \

--data-urlencode 'subject:Patient.birthDate=1991-01-01' \

--data-urlencode 'authoredOn=ge2023-01-01' \

--data-urlencode 'authoredOn=le2024-03-21' \

--data-urlencode 'subject:Patient.identifier:of-type=https://ehealth.gov.hk/FHIR/typeofID-ext|ID|A1234567' \

--data-urlencode 'subject:Patient.identifier:of-type=https://ehealth.gov.hk/FHIR/typeofID-ext|EHRNO|470381070819'
```

Specify records to be retrieved

Prescribed Record

Surname: **Lee**

Given Name: **One**

Sex: **M**

DOB: **1911-01-01**

Date from: **2023-01-01**

Date to: **2023-03-21**

HKID: **A1234567**

eHR ID: **470381070919**

How to define a drug name

HONG KONG MEDICATION TERMINOLOGY TABLE (HKMTT)

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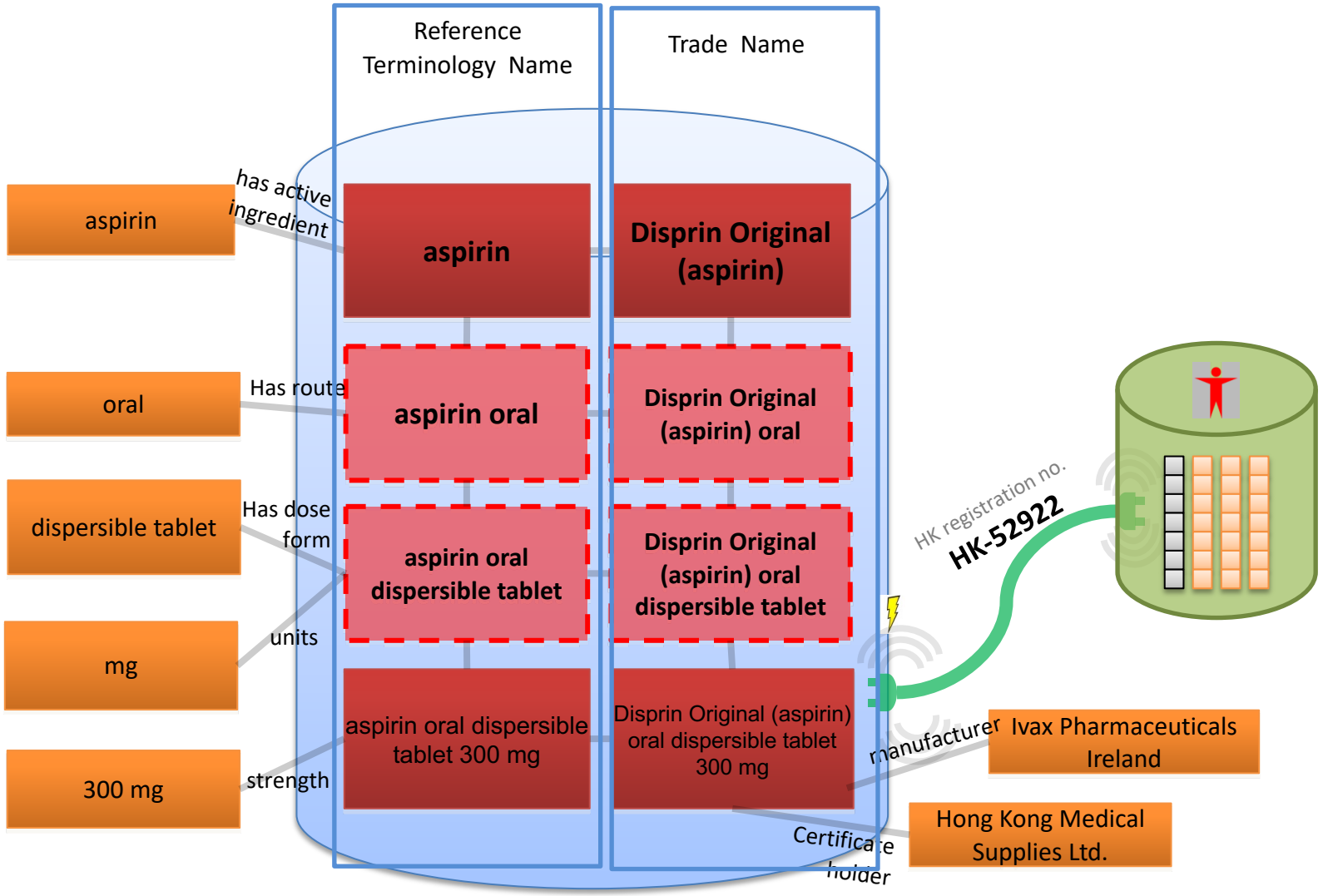
HK Medication Terminology Table (HKMTT) 香港藥物術語表



As of Aug 2024 HKMTT contains 14,000 unique pharmaceutical products actively registered in HK

How to define the prescribing and dispensing details in a medication record

EHR PRESCRIBING AND DISPENSING DATA STANDARD

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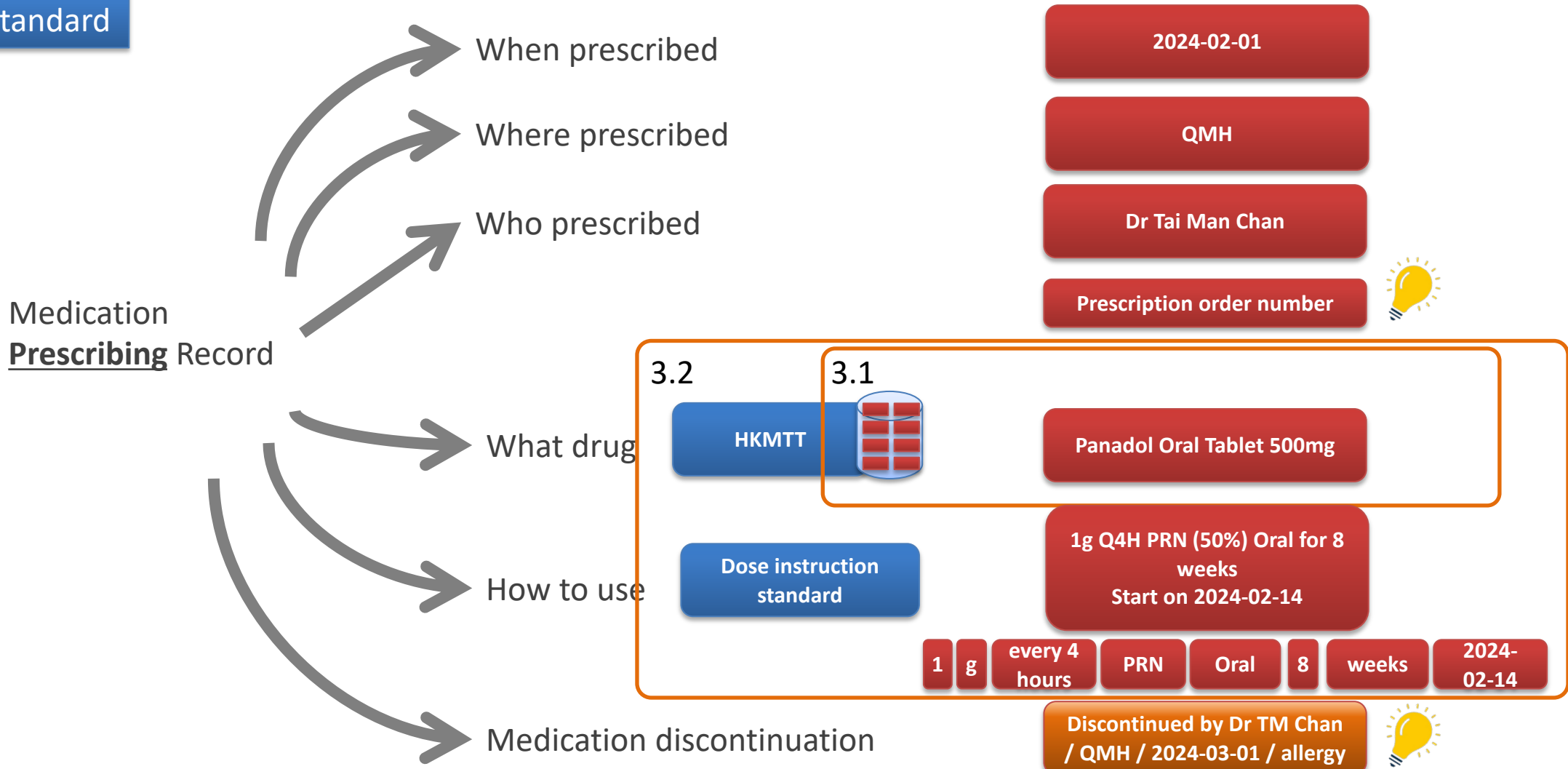
eHR Sharable Data - **Prescribing** Record 處方醫物資料標準

Prescribing Data Standard



eHR further define and standardize other data elements in medication prescribing and dispensing records

eHR Sharable Data - **Dispensing** Record 配發醫物資料標準

Dispensing Data Standard

Medication **Dispensing** Record

- When dispensed → 2024-02-01
- Where dispensed → QMH
- Who prescribed → Dr Tai Man Chan
- Prescription order number
- Dispensing order number
- What drug → HKMTT → Panadol Oral Tablet 500mg
- How to use → Dose instruction standard → 500 mg 2 tablet Q4H PRN (50%) Oral 8 weeks 336 tablet Start on 2024-02-14

500	mg	2	tablet	every 4 hours	PRN	Oral	8	weeks	2024-02-14	336	tablet

- Medication discontinuation → Discontinued by Dr TM Chan / QMH / 2024-03-01 / allergy

Similar data standards applied for dispensing records with additional relevant data elements for dispensing

eHR Healthcare Recipient Index Data Standard

	Entity Name	Definition	Data Type (code)	Data Type (description)	Example (Certified Level 3)	Code Table
eHR no	eHR number	A unique eHR healthcare recipient identifier assigned to each patient for each participation in the Hong Kong eHR	ST	String	123456789012	
Name	English surname	Patient's surname in English	ST	String	Chan	
	English given name	Patient's given name in English	ST	String	Tai Man Peter	
	Chinse name	Patient's full Chinese name	ST	String	李小明	
	Chinese Commercial Code	Chinese Commercial Code for the patient's Chinese name	NM	Numeric	2621 1420 2494	
	Other name	Any name by which the patient has been known other than the [English given name - patient] or [Chinese name - patient]	ST	String		
Sex	Sex*	[eHR value] of the "Sex" code table. It is used to identify the sex of the patient	CE	Coded element	M*	Sex
DOB	Data of birth	Patient's date of birth	TS	Time Stamp	1991-03-02	
	Exact date of birth	[eHR value] of the "Exact data" code table. It is used to indicate whether the displayed date of birth is the exact birth date as indicated in the ID document	CE	Coded element	EDMY	Exact date
ID No	Type of identity document	[her value} of the "type of identity document" code table. It is the type of patient's identiy document presented	CE	Coded element	ID	Type of identity document
	Identity document number	The document number of the type of identity document	ST	String	A1234567	

*Gender is defined as "male" and "female" in FHIR

eHR Healthcare Recipient Index Data Standard – Codex Table

Type of identity document
Purpose : to identify the type of identity document the patient presented during eHR registration
Reference : HA

Term ID	eHR Value	eHR Description	Chinese Description	Full Description
9050004	AR	Adoption Certificate	領養證明書	Adopted Children Register (include those issued by HKSAR and non-HKSAR government authorities)
9050039	BC	Birth Certificate - HK	香港出生證明書	Hong Kong Birth Certificate
9050713	CD	Consular Corps ID Card	領事團身份證	Consular Corps Identity Card
9050111	DI	Document of Identity for Visa Purposes	香港特別行政區簽證身份書	HKSAR Document of Identity for Visa Purposes
9050131	EC	Exemption Certificate	豁免證明書(或稱豁免登記證明書)	Certificate of Exemption
9050496	ED	eHR document	電子健康紀錄文件	Document issued by eHRC for newborn registration
9050175	ID	HKID Card	香港身份證	Hong Kong Identity Card
9050515	MD	Macao ID Card	澳門身份證	Macao Identity Card
9050189	OC	Travel documents - PRC	中華人民共和國發出之其他旅遊証件	Other travel documents issued by the People Republic of China government / authorising agent, exclude One-way Permit and Two-way Permit
9050188	OP	Travel document - overseas	其他國家/地區發出之旅遊証件	Travel documents issued by other countries / regions
9050311	OW	One-way Permit	單程証	One-way Permit
9050516	RE	Recognizance Form	擔保書(行街紙)	Recognizance Form
9050370	RP	Re-entry Permit	香港特別行政區回港證	HKSAR Re-entry Permit
9050457	TW	Two-way Permit	雙程証	Two-way Permit

LEVEL 3.1

eHR **Prescribing** Data Standard

When
Where
Who

What drug

How to use

Entity Name	Definition	Data Type (code)	Data Type (description)	Example (Certified Level 3)	Code Table
Prescription datetime	Datetime when the prescription was made	TS	Time stamp	2024-02-01 10:32:00	
Prescribing institution identifier	[Healthcare institution identifier] in the eHR Healthcare Provider Index for the healthcare institution which issued the prescription order	CE	Coded element	QMH	
Prescribing institution long name	[Healthcare institution displayed English long name] or the [Healthcare institution displayed Chinese long name] in the eHR Healthcare Provider Index for the healthcare institution which issued the prescription order	ST	String	Quen Mary Hospital	Healthcare Institution
Prescribing institution local name	Local description of the healthcare provider by which the prescription order was made.	ST	String	Queen Mary	Healthcare Institution
Prescription order number	A unique number assigned for each drug order issued by individual healthcare institution. One drug order would include multiple prescribed drugs.	ST	String	MOEQMH123456700	
Prescriber's English full name	Full English name (with title) of the healthcare professional who prescribed the drug.	ST	String	Dr Chan Tai Man	
Prescriber's Chinese full name	Full Chinese name (with title) of the healthcare professional who prescribed the drug.	ST	String	陳大文醫生	
Prescribed drug - recognised terminology name	Name of the recognised terminology for the prescribed drug	CE	Coded element	HKCTT	Pharmaceutical Product
Prescribed drug identifier - recognised terminology	Unique identifier of the prescribed drug in the recognised terminology	CE	Coded element	6027457	Pharmaceutical Product
Prescribed drug description - recognised terminology	Description of the prescribed drug in recognised terminology. It should be the corresponding description of the selected [Prescribed drug identifier - recognised terminology].	CE	Coded element	Panadol (paracetamol) oral tablet 500 mg (HK-02280)	
Prescribed drug code - local terminology	Local code of the prescribed drug developed by the healthcare provider	ST	String	PARA01	
Prescribed drug description - local terminology	Local description of the prescribed drug developed by the healthcare provider	ST	String	PARACETAMOL TABLET 500MG	
Dose instruction	The entire combined dose instruction information of an ordered drug; the syntax should contain the following information of the prescription order: (i) route of administration, (ii) dose, (iii) frequency, and (iv) duration of treatment or treatment start and end date	ST	String	1g Q4H PRN (50%) Oral for 8 weeks start on 2024-02-14	
Special instruction	Additional information relating to the use of the prescribed drug	ST	String	For Pain	

LEVEL 3.2

eHR **Prescribing** Data Standard – Dosing Instruction

	Entity Name	Definition	Data Type (code)	Data Type (description)	Example (Certified Level 3)	Code Table
Dose Dose Unit	Prescribed drug dose value	Numeric value of the prescribed drug dose unit	NM	Numeric	500	
	Prescribed drug dose unit code	eHR value of the prescribed drug dose unit code table for identifying the prescribed drug dose unit	CE	Coded element	7700374	Prescribed Drug Dose Unit
	Prescribed drug dose unit description	eHR description of the prescribed drug dose unit code table for for identifying the prescribed drug dose unit	ST	String	mg	Prescribed Drug Dose Unit
	Prescribing drug dose unit local description	Local description of the prescribed drug dose unit developed by the healthcare provider	ST	String	milligram	
Frequency	Prescribed drug frequency code	eHR value of the Drug Frequency code table for identifying the prescribed drug dose frequency	CE	Coded element	7703206	Drug - Frequency
	Prescribed drug frequency description	eHR description of the Drug Frequency code table for identifying the prescribed drug dose frequency	ST	String	every 4 hours	Drug - Frequency
	Prescribed drug frequency local description	Local description of the prescribed drug frequency developed by the healthcare provider	ST	String	Q4H	
Supplementary Frequency	Prescribed drug supplementary frequency code	eHR value of the Drug Supplementary Frequency code table for identifying the prescribed drug dose supplementary frequency	CE	Coded element	7703236	Drug - Supplementary Frequency
	Prescribed drug supplementary frequency description	eHR description of the Drug Supplementary Frequency code table for identifying the prescribed drug dose supplementary frequency	String	String	On odd days	Drug - Supplementary Frequency
	Prescribed drug supplementary frequency local description	Local description of the prescribed drug supplementary frequency developed by the healthcare provider	String	String	Odd Days	
PRN Indicator	Prescribed drug PRN indicator	An indicator for PRN indication if the prescribed medication order is indicated for use on as needed basis	CE	Coded element	Yes	
Route	Prescribed route of medication administration code	eHR value of the Route of medication administration code table for identifying the prescribed route of medication administration	CE	Coded element	7700046	Route of medication administration
	Prescribed route of medication administration description	eHR description of the Route of medication administration code table for identifying the prescribed route of administration	ST	String	Oral	Route of medication administration
	Prescribed route of medication administration local description	Local description of the Route of medication administration developed by the healthcare provider	ST	String	ORAL	

LEVEL 3.2

eHR **Prescribing** Data Standard – Dosing Instruction

	Entity Name	Definition	Data Type (code)	Data Type (description)	Example (Certified Level 3)	Code Table
Site	Prescribed site of medication administration code table	eHR value of the site of medication administration code table for identifying the prescribed site of medication administration	CE	Coded element	8001753	Site of medication administration
	Prescribed site of medication administration description	eHR description of the site of medication administration code table for for identifying the prescribed drug dose unit	ST	String	Face	Site of medication administration
	Prescribed site of medication administration local description	Local description of the site of medication administration developed by the healthcare provider	ST	String	Facial Surface	
Duration	Prescribed drug duration value	Numeric value of the prescribed drug duration	NM	Numeric	8	
	Prescribed drug duration unit code	eHR value of the drug duration unit code table for identifying the prescribed drug duration unit	CE	Coded element	7703286	Drug - duration unit
	Prescribed drug duration unit description	eHR description of the drug duration code table for identifying the prescribed drug dose frequency	ST	String	week	Drug -Duration unit
	Prescribed drug duration unit local description	Local description of the prescribed drug duration developed by the healthcare provider	ST	String	WEEK	
Quantity	Prescribed drug quantity value	Numeric value of the prescribed drug quantity	NM	Numeric	336	
	Prescribed drug quantity code	eHR value of the drug quantity code table for identifying the prescribed drug quantity unit	CE	Coded element	7700245	Prescribed drug quantity unit
	Prescribed drug quantity description	eHR description of the drug quantity code table for identifying the prescribed drug quantity	ST	String	tablet	Prescribed drug quantity unit
	Prescribed drug quantity local description	Local description of the prescribed drug quantity developed by the healthcare provider	ST	String	Tab	
Start Date	Prescribed drug treatment start date	Treatment start date as specified by the healthcare provider	ST	String	2024-02-14	

LEVEL 3.2

eHR Prescribing Data Standard – Dosing Instruction

	Entity Name	Definition	Data Type (code)	Data Type (description)	Example (Certified Level 3)	Code Table
Special instruction	Special instruction for prescription order	Additional information relating to the use of the prescribed drug	ST	String	Omit if heart rate <60	
Prescription order number	Prescription order number	Unique number assigned for each drug order issued by individual healthcare institution	ST	String	MOEQMH123456700	
Sequence Numbers	Prescribed drug sequence number	Sequence number of the prescribed drug	NM	Numeric	1-999	
	Prescribed drug dose value sequence number	Sequence number of the prescribed dose value	NM	Numeric	0-999	
	Prescribed drug dose instruction sequence number	Sequence number of the prescribed drug dose instruction	NM	Numeric	0-999	
Conjunction	Prescribed drug dose value conjunction code	eHR value of drug conjunction code table for dose value conjunction	CE	Coded element	9050518	Drug- conjunction
	Prescribed drug dose value conjunction description	eHR description of drug conjunction for dose value conjunction	ST	String	And	
	Prescribed drug instruction value conjunction code	eHR value of drug conjunction code table for dose instruction value conjunction	CE	Coded element	9050519	Drug- conjunction
	Prescribed drug dose instruction conjunction description	eHR description of drug conjunction for dose instruction value conjunction	ST	String	Then	
Discontinuation	Prescribed medication discontinuation status	Remark information of a prescribed medication record provided by a healthcare provider indicating the reason, date and by whom the medication is discontinued	CE	Coded element	Y	
	Prescribed medication discontinuation information	Additional information relating to the discontinuation	ST	String	allergy	
	Prescribed medication discontinuation institution identifier	Healthcare institution identifier discontinued the prescribed medication	CE	Coded element	QMH	Healthcare Institution
	Prescribed medication discontinuation institution long name	Healthcare institution displayed name	ST	String	Queen Mary Hospital	Healthcare Institution
	Prescribed medication discontinuation institution local name	Local description of the Healthcare institution by which the prescribed medication is discontinued	ST	String	Queen Mary	
	Prescribed medication discontinuation prescriber's English name	English name of healthcare professional who discontinued the prescribed medication	ST	String	Dr Cheung Siu Man	
	Prescribed medication discontinuation prescriber's Chinese name	Chinese name of healthcare professional who discontinued the prescribed medication	ST	String	張小文醫生	
	Date of prescribed medication discontinuation	Date on which the prescribed medication is marked as discontinued	TS	Time stamp	2024-02-14	

Drug Sequence Number of the prescribed drug to indicate the drug sequence in a prescribing order (arbitrarily assigned by the prescribing system for different drugs in an order)

1	INSULIN HUMAN ISOPHANE + NEUTRAL 70%/30% penfill 100u/ml 3ml (humulin 70/30) subcutaneous : 12 unit(s) before dinner for 8 weeks, then 16 unit(s) before dinner for 8 weeks	12	Unit	1	then	
1	INSULIN HUMAN ISOPHANE + NEUTRAL 70%/30% penfill 100u/ml 3ml (humulin 70/30) subcutaneous : 12 unit(s) before dinner for 8 weeks, then 16 unit(s) before dinner for 8 weeks	16	Unit	2		
2	METFORMIN HCL tablet oral : 500 mg tds for 16 weeks					
3	GLICLAZIDE tablet oral : 80 mg before breakfast and 80 mg before dinner for 16 weeks	80	mg	1	and	
3	GLICLAZIDE tablet oral : 80 mg before breakfast and 80 mg before dinner for 16 weeks	80	mg	2		
4	LISINOPRIL tablet oral : 15 mg daily for 16 weeks					
5	PIOGLITAZONE HCL tablet <Special Drug> oral : 15 mg daily for 16 weeks					
6	ATORVASTATIN tablet <Special Drug> oral : 40 mg daily for 16 weeks					
7	WARFARIN SODIUM tablet oral : 1 mg once per day (on odd days) and 1.5 mg once per day (on even days) for 16 weeks	1	mg	1	and	
7	WARFARIN SODIUM tablet oral : 1 mg once per day (on odd days) and 1.5 mg once per day (on even days) for 16 weeks	1.5	mg	2		
8	LACTULOSE liquid oral : 10 ml tds prn (50%) for 16 weeks					
9	FLUOCINOLONE ACETONIDE cream 0.005% 5g topical : daily [skin] for 16 weeks					
10	LORAZEPAM tablet oral : 1 mg at bedtime prn (50%) for 16 weeks, dispense 56 dose					

Dose Instruction Sequence Number indicating the drug dosing lines sequence at different time e.g. step up or down regime (usually with conjunction “Then”)

Dose Value Sequence Number of the prescribed dose value of the same drug in multiple prescribing lines with supplementary frequency (e.g. am/pm; odd days/even days usually with conjunction “And”)

Dose Unit (117)

Prescribed drug dose unit
Purpose: To define the names of the recognised terminology for prescribed drug dose unit
Reference: SNOMED-CT; Hospital Authority, e-HR

eHR Value	eHR Description
7700273	actuation
7700274	allergy unit
7700275	ampoule
7700276	antigenic Herpes simplex unit
7700277	anti-Xa international unit
7700278	application
7700279	applicator
7700280	applicatorful
7700281	bag
7700283	bar
7700285	billion organisms unit
7700286	billion vibrios
7700287	blister
7700288	bottle
7700428	BP unit
7700291	capsule
7703616	CAR-positive viable T cells
7700292	carton
7700293	cartridge
7700295	cm
7700296	colony forming unit
7700298	cubic metre
7700300	cylinder
7700301	D antigen unit
7700302	device
7700303	disc
7700304	dose
7700305	dressing
7700306	drop
7700308	enema
7700267	FIP-U
7700268	flocculation unit
7700310	fluid ounce
7700314	g
7700323	g / vial
7700311	gigabecquerel
7700324	gum
7700325	implant
7700326	inch
7700329	international unit
7700333	jar
7700343	kg
7700336	kilo international unit
7700339	kilobecquerel
7700340	kilobecquerel / mL
7700345	kit
7700429	Kyowa unit
7700347	L
7700348	L / L
7700346	LD {50} unit
7700425	Lf unit
7700349	lozenge
7700240	m2
7700350	megabecquerel
7700351	megabecquerel / mL
7700371	mEq
7700374	mg
7700386	mg / vial
7700354	microcurie
7700355	microgram
7700357	microgram / actuation
7702824	microgram HA
7700364	microlitre / g
7700365	microlitre / L
7700368	micromole / L
7700370	millicurie
7700398	million international unit
7700401	million unit
7700403	million unit / mL
7700387	mL
7700392	mm
7700393	mmol
7700395	mmol / mL
7700409	nanogram
7700410	nanogram / g
7700411	nanogram / mL
7700412	nanolitre
7700413	nanolitre / mL
7703702	number
7700415	organisms unit
7700416	ounce
7700417	pack
7700418	pad
7703703	pair
7700420	pastille
7700421	patch
7700423	pessary
7700424	Ph Eur unit
7700229	piece
7700230	pill
7700231	plaque forming unit
7700265	plaster
7700419	ppm
7700232	pre-filled injection device
7700233	pre-filled syringe
7700234	pressor unit
7700235	roll
7700236	sachet
7700237	set
7702947	spoonful (5 mL)
7700238	spray
7703507	SQ-HDM
7700426	SQ-U
7703688	SRU
7700241	strip
7700242	suppository
7700243	syringe
7700245	tablet
7700246	test
7700248	tin
7700250	tube
7700251	tuberculin unit
7700253	unit
7700255	unit / dose
7700256	unit / g
7700427	USP unit
7700262	vial

Frequency (87)

“Daily frequency”
“Within the same day”

Drug - frequency
Purpose: To define the daily frequency for drug
Source: SNOMED-CT, Hospital Authoirty, e-HR

eHR Value	Full Description
7703152	once daily
7703687	once per day
7703153	one to two times daily
7703154	one to three times daily
7703155	one to four times daily
7703156	twice daily
7703157	twice daily during daytime
7703158	two to three times daily
7703159	two to four times daily
7703160	three times daily
7703161	three times daily during daytime
7703162	three to four times daily
7703163	four times daily
7703164	four times daily during daytime
7703165	four to six times daily
7703166	five times daily
7703167	five times daily during daytime
7703168	six times daily
7703169	seven times daily
7703170	eight times daily
7703171	nine times daily
7703172	ten times daily
7703173	eleven times daily
7703174	twelve times daily
7703175	sixteen times daily
7703176	in the morning
7703177	in the morning on day of examination
7703178	at noon
7703179	in the afternoon
7703180	in the evening
7703181	at night
7703182	at night before the day of examination
7703183	at bedtime
7703184	before breakfast
7703185	with breakfast
7703186	after breakfast
7703187	before lunch
7703188	with lunch
7703189	after lunch
7703190	before dinner
7703191	with dinner
7703192	after dinner
7703193	every fifteen minutes
7703194	every thirty minutes
7703195	hourly
7703196	hourly during daytime
7703197	every one to two hours
7703198	every two hours

eHR Value	Full Description
7703199	every two hours during daytime
7703200	every two to three hours
7703201	every two to four hours
7703202	every three hours
7703203	every three hours during daytime
7703204	every three to four hours
7703205	every three to six hours
7703206	every four hours
7703207	every four hours during daytime
7703208	every four hours while awake
7703209	every four to six hours
7703210	every five hours
7703211	every six hours
7703212	every six to eight hours
7703213	every eight hours
7703214	every eight to twelve hours
7703215	every ten hours
7703216	every twelve hours
7703217	every sixteen hours
7703218	every eighteen hours
7703219	every twenty four hours
7703220	every thirty six hours
7703221	every forty hours
7703222	every forty eight hours
7703223	every sixty hours
7703224	every seventy two hours
7703225	every ninety six hours
7703226	once
7703227	at once
7703228	at start of attack
7703229	then stop
7703230	before procedure
7703231	after procedure
7703232	1 hour before procedure
7703233	on call to operating theatre
7703234	on induction of anaesthesia
7703235	as directed
7703685	take as directed
7703686	use as directed

Supplementary frequency (49)

"across time (more than 1 day)"

Drug - supplementary frequency
Purpose: to define the supplementary frequency for drug
Source: SNOMED-CT, Hospital Authoirty, e-HR

eHR Value	eHR Description
7703236	on odd days
7703237	on even days
7703238	on alternate days
7703239	every three days
7703240	every four days
7703241	every five days
7703242	every thirty days
7703243	once weekly
7703244	twice weekly
7703245	twice weekly on Monday and Thursday
7703246	twice weekly on Thursday and Sunday
7703247	twice weekly on Tuesday and Friday
7703248	twice weekly on Wednesday and Saturday
7703249	two to three times weekly
7703250	three times weekly
7703251	three times weekly on Monday, Wednesday and Friday
7703252	three times weekly on Tuesday, Thursday and Saturday
7703253	three times weekly on Wednesday, Friday and Sunday
7703254	three to four times weekly
7703255	four times weekly
7703256	five times weekly
7703257	six times weekly
7703258	seven times weekly
7703259	every two weeks
7703260	every three weeks
7703261	every four weeks
7703262	every six weeks
7703263	every ten weeks
7703264	once monthly
7703265	twice monthly
7703266	three times monthly
7703267	four times monthly
7703268	on odd months
7703269	on even months
7703270	every two months
7703271	every three months
7703272	every four months
7703273	every six months
7703274	every nine months
7703275	on every Monday
7703276	on every Tuesday
7703277	on every Wednesday
7703278	on every Thursday
7703279	on every Friday
7703280	on every Saturday
7703281	on every Sunday
7703282	on Monday through Friday
7703283	on day of examination
7703284	on day of procedure

Route (82)

Route of medication administration
Purpose: To define the names of the recognised terminc
Source: SNOMED-CT, Hospital Authoirty, e-HR

eHR Value	eHR Description
7703235	as directed
7700000	buccal
7700001	dental
7700002	ear
7700003	endotracheopulmonary
7700004	epidural
7700007	epilesional
7700008	external
7700009	eye
7700103	gargle
7700013	gastroenteral
7700014	gingival
7700015	haemodialysis
7700016	haemofiltration
7700017	infiltration
7700018	inhalation
7700019	instillation
7700020	intra-arterial
7700021	intra-articular
7703689	intracameral
7700022	intracatheter
7700023	intracavernosal
7700024	intracervical
7700025	intracisternal
7700026	intradermal
7700027	intradiscal
7700028	intraepidermal
7700029	intralesional
7700030	intramuscular
7703690	intramyometrial
7700031	intranasal
7700032	intraocular
7700033	intraosseous
7700034	intraperitoneal
7700035	intrapleural
7700036	intrathecal
7700037	intratracheal
7700038	intrauterine
7700039	intravascular
7700040	intravenous
7703691	intraventrical
7700041	intravesical
7700042	intravitreal
7702946	laryngopharyngeal
7700043	mucosal
7700044	nasal
7700045	ophthalmic
7700046	oral
7700050	oral application
7700051	oromucosal
7702942	oropharyngeal
7700052	parenteral
7703692	percutaneous
7700054	periarticular
7700055	peritoneal
8003030	Pharynx
7700056	rectal
7703693	respiratory tract
8001162	scalp structure
7700194	shampoo
8002147	stoma site
7700057	subconjunctival
7700058	subcutaneous
7703694	subdermal implant
7700059	sublingual
7700060	submucosal
7700061	topical
7700062	transdermal
7700063	urethral
7700064	urogenital
7703695	use as emollient
7703696	use as facial wash
7703697	use as soap
7703698	use for bathing
7703699	use for hand wash
7703730	use for peritoneal dialysis
7703731	use for wet wrap therapy
7703732	use for wound dressing
7700065	vaginal
7703700	via gastrostomy tube
7703701	via nasogastric tube
8003121	vulva

Site (144)

Site of medication administration
Purpose: to define the body site of medication administration
Source: SNOMED-CT, Hospital Authoirty, e-HR

eHR Value	eHR Description
8003668	Alopecia
8003591	Hairline
8001207	Scalp
8003658	Skin of perioral region of face
8003670	Acne
8001522	Cheek
8003592	Chin
8001753	Face
8001654	Skin of forehead
8003652	Skin of vermilion border
8003593	Both lips
8003653	Commissure of lips
8003595	Both eyes
8003594	Eyebrow
8003175	Left eye
8003174	Right eye
8003659	Structure of circumorbital skin
8001864	Eyelid
8003190	Left lower eyelid
8003596	Left upper and lower eyelids
8003188	Left upper eyelid
8003597	Lower eyelid
8003189	Right lower eyelid
8003598	Right upper and lower eyelids
8003187	Right upper eyelid
8001053	Upper eyelid
8000944	Both ears
8002029	Left ear
8000760	Right ear
8003648	Skin structure of ear lobule
8002980	Skin structure of postauricular region
8000138	Skin of nose
8003655	Skin structure of nasolabial fold
8003657	Skin structure of tip of nose
8003600	Anterior naris
8003599	Left anterior naris
8003601	Right anterior naris
8003030	Pharynx
8003602	Affected area
8000935	Blister
8002470	Hyperkeratosis
8003667	Focal hyperkeratosis
8003671	Eczema
8000592	Eruption
8003672	Hair follicle inflammation
8001510	Furuncle
8001492	Keloid
8001184	Pressure ulcer
8003666	Rosacea
8002530	Scar
8002974	Skin
8003673	Skin margin of focal hyperkeratosis
8002147	Stoma Site
8002264	Ulcer
8002513	Verruca
8003669	Vitiligo
8000520	Wound
8003604	Abdominal skin crease
8000844	Areola structure
8001825	Back, excluding neck
8002993	Breast
8003605	Breast skin crease
8001250	Neck
8000726	Nipple
8000570	Shoulder
8001785	Skin of abdomen
8003606	Skin of waist region of trunk
8003654	skin structure of nuchal region
8001359	Thorax
8003252	Trunk
8002053	Umbilical region
8003607	Both upper arms
8003563	Elbow region
8000532	Forearm
8003608	Left upper arm
8003609	Right upper arm
8001804	Skin of axilla
8001475	Skin structure of forearm
8003646	Skin structure of left upper limb
8003647	Skin structure of right upper limb
8002986	Skin structure of upper limb
8003265	Upper limb
8001951	Left hand
8003610	Palm
8001848	Right hand
8002987	Skin of hand
8003650	Skin structure of dorsal area of hand
8001808	Thumb
8001902	Wrist
8003612	All fingers
8003613	Index finger
8003614	Little finger
8003615	Middle finger
8003616	Ring finger
8003611	Skin of interdigital space of hand
8003651	Skin structure of part of digit of hand
8001402	Anus
8003663	Diaper area
8001061	Genital labium
8003264	Inguinal region
8000170	Pubic region
8000694	Skin of buttock
8003656	skin of natal cleft
8001898	Skin of scrotum
8001072	Skin structure of inguinal region
8000675	Skin structure of perianal area
8001113	Both lower legs
8003617	Calf of leg
8001318	Left lower leg
8001610	Limb
8003266	Lower Limb
8000914	Right lower leg
8003661	Skin structure of left lower limb
8002988	Skin structure of lower limb
8003662	Skin structure of right lower limb
8001646	Thigh
8003619	Both knees
8001905	Left knee
8001633	Right knee
8000947	Ankle region
8001459	Foot
8000700	Left foot
8003618	Plantar aspect of heel
8001830	Right foot
8003649	Skin structure of dorsum of foot
8003660	Skin structure of sole of foot
8003622	Both shins
8003620	Left shin
8003621	Right shin
8003623	Heel
8003624	Left heel
8003625	Right heel
8001733	Nail unit structure
8003626	Periungual skin
8003627	Interdigital space of foot
8000843	Toe
8001512	Glans penis
8001060	Skin of foreskin
8000979	Skin of penis
8002985	Skin of perineum
8002038	Urinary bladder
8000514	Urethra
8003122	Vagina
8003121	Vulva

Duration (6)

Drug - duration unit

Purpose: The "Drug - duration unit" code table for identifying the duration unit for prescribed / dispensed drug

Source: SNOMED-CT, Hospital Authoirty, e-HR

eHR Value	eHR Description
7703285	day
7703286	week
7703287	month
7700299	cycle
7700304	dose
7700264	hr

Quantity (82)

Prescribed drug quantity unit
Purpose: To define the names of the recognised terminology for prescribed drug quantity unit
Source: SNOMED-CT, Hospital Authoirty, e-HR

eHR Value	eHR Description
7700275	ampoule
7700279	applicator
7700280	applicatorful
7700281	bag
7700285	billion organisms unit
7700286	billion vibrios
7700287	blister
7700288	bottle
7700289	box
7700290	can
7700291	capsule
7700292	carton
7700293	cartridge
7700296	colony forming unit
7700298	cubic metre
7700299	cycle
7700300	cylinder
7700301	D antigen unit
7700302	device
7700303	disc
7700304	dose
7700307	drug delivery system
7700308	enema
7700314	g
7700311	gigabecquerel
7700324	gum
7700325	implant
7700326	inch
7700327	inhaler
7700329	international unit
7700330	international unit / g
7700333	jar
7700340	kilobecquerel / mL
7700342	kilocalorie / mL
7700343	kg
7700345	kit
7700347	L
7700348	L / L
7700349	lozenge
7700240	m2
7700350	megabecquerel
7700354	microcurie
7700368	micromole / L
7700370	millicurie
7700374	mg
7700387	mL
7700409	nanogram
7700411	nanogram / mL
7700412	nanolitre
7700413	nanolitre / mL
7703702	number

eHR Value	eHR Description
7700415	organisms unit
7700416	ounce
7700417	pack
7700418	pad
7703703	pair
7700420	pastille
7700421	patch
7700422	pen
7700423	pessary
7700424	Ph Eur unit
7700229	piece
7700230	pill
7700265	plaster
7700419	ppm
7700232	pre-filled injection device
7700233	pre-filled syringe
7700234	pressor unit
7700235	roll
7700236	sachet
7700237	set
7700238	spray
7700242	suppository
7700243	syringe
7700245	tablet
7700246	test
7700248	tin
7700250	tube
7700253	unit
7700256	unit / g
7700257	unit / microgram
7700262	vial

Conjunction (2)

Drug - conjunction
Purpose: To define the conjunctions between dose and instruction lines
Source: SNOMED-CT, Hospital Authoirty, e-HR

eHR Value	eHR Description
9050518	and
9050519	then

PRN Indicator (2)

PRN Indicator
Purpose: to define the value for PRN
Source: Hospital Authority; e-HR

eHR Value	eHR Description
Y	Yes
N	No

Medication Discontinuation Status (1)

Medication discontinuation status
Purpose: to define the value for medication discontinuation status
Source: Hospital Authority; e-HR

eHR Value	eHR Description
Y	Yes

How to defined the prescribing and dispensing details in a medication record

HL7 International

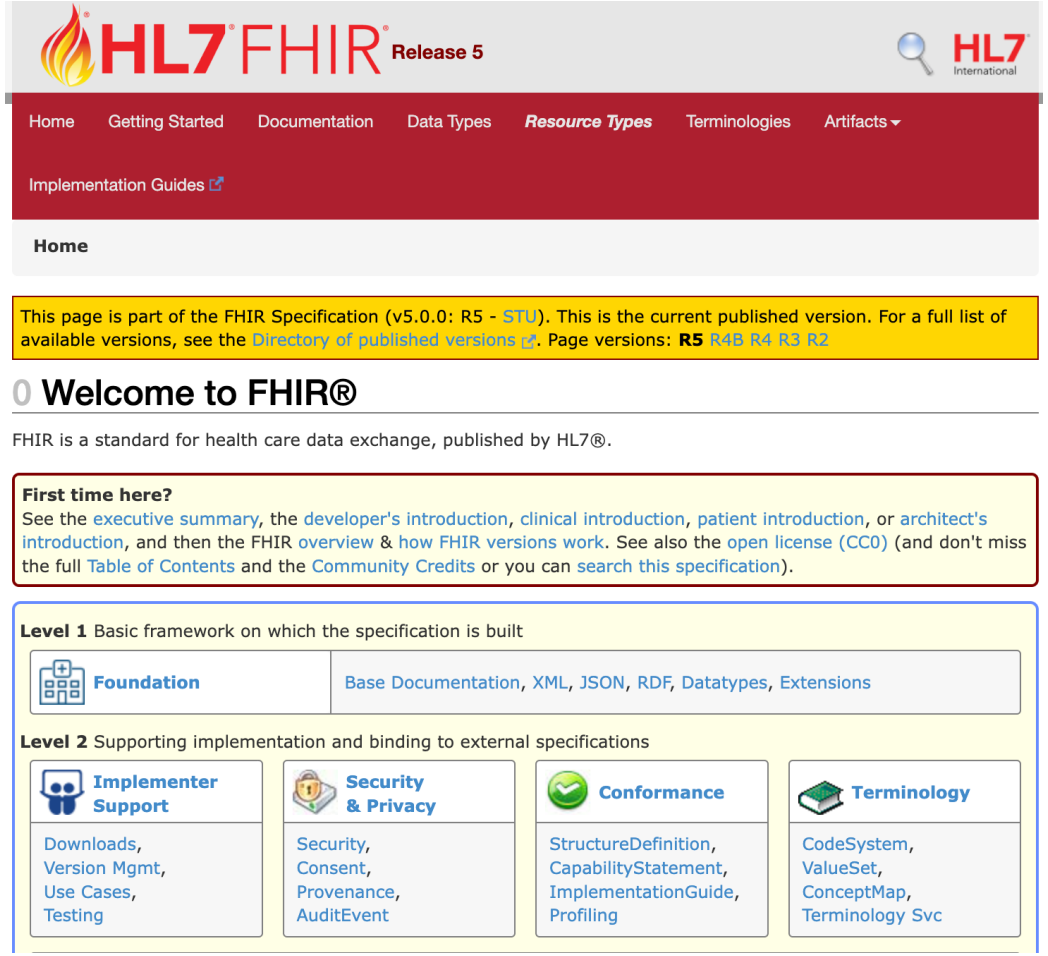
Logistics and Supply Chain MultiTech R&D Centre
物流及供應鏈多元技術研發中心

Health Level Seven

HL7 International

- HL7, or Health Level Seven, is an international standard specifically designed to facilitate the sharing of healthcare data, including medication information, between different systems and organizations.
- HL7 functions as a common language for healthcare systems—a language that allows different software applications to communicate seamlessly with one another.
- Compared with traditional XML messaging, HL7 is more interoperable, more efficient data exchange, more specific to healthcare context
- HL7 ensures that the data is formatted and transmitted in a consistent, understandable way, regardless of the systems involved.

https://www.hl7.org/



- **HL7 FHIR** (Fast Healthcare Interoperability Resources)
  - an open modern healthcare data standard that facilitates the efficient exchange of health information across different systems using the latest web technologies.
- **RESTful API**: **RE**presentational **S**tate **T**ransfer, a quick, easy way (HTTP) to request and respond to specific information
  - Direct request (Get request)
  - Targeted response (in JSON **Resources**)
  - Realtime access (easy to parse)
- **JSON (JavaScript Object Notation)**: simple, easy-to-read format and clear message
- **Resource-Oriented Architecture (ROA)**: organises healthcare data into specific modular components for fast, accurate, and scalable data sharing
  - Lightweight and efficient – more concise and compact for easy data transfer
  - Easy to parse and read – machine and human-readable without data reformatting and manipulation
  - Flexible and extensible – adaptable data structure and schema
  - Interoperable – widely accepted

https://hl7.org/fhir/?utm_referrer=https%3A%2F%2Fwww.hl7.org%2F

https://www.healthit.gov/topic/standards-technology/standards/fhir

Packaging in a Standardised Format for Easy and Quick Delivery

SpeedPost 特快專遞

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Preparation Before You Post

- Steps of Posting
- Postage Calculator and Delivery Standard
- Cut-off Time for Posting by Destination
- Customs Requirements by Destination
- More about Posting

Related Links

- Drop-off

Mail Packaging and Preparation

Step 1 :	**Check the Weight and Size Limit of the Posting Destination** Refer the "Weight and size limit" under More About Posting
Step 2 :	**Fill in the Posting Form (Pos 460)** Please fill in the Posting Form (Pos 460), sample as below :  Posting Tips Completing Address Pack (Pos 460)
Step 3 :	**Fill in applicable Custom Declaration Form** Refer to Customs Requirements by Destination 
Step 4 :	**Preparing the Commercial Invoice (if applicable)** Commercial invoice is required if the posting item is not a document or posting to certain destinations e.g. Italy. Posting Tips Preparing the Commercial Invoice
Step 5 :	**Affixing Agreement Number Barcode Label** Before posting, an Agreement Number Barcode Label must be affixed to the lower left corner of the item and the designated space on the Address Pack (Post Office Copy) for identification purpose.  1. The designated space on the Address Pack (Post Office Copy) 2. The lower left corner of the item

JavaScript Object Notation (JSON)

Prescribing Data Standard

Medication **Prescribing** Record

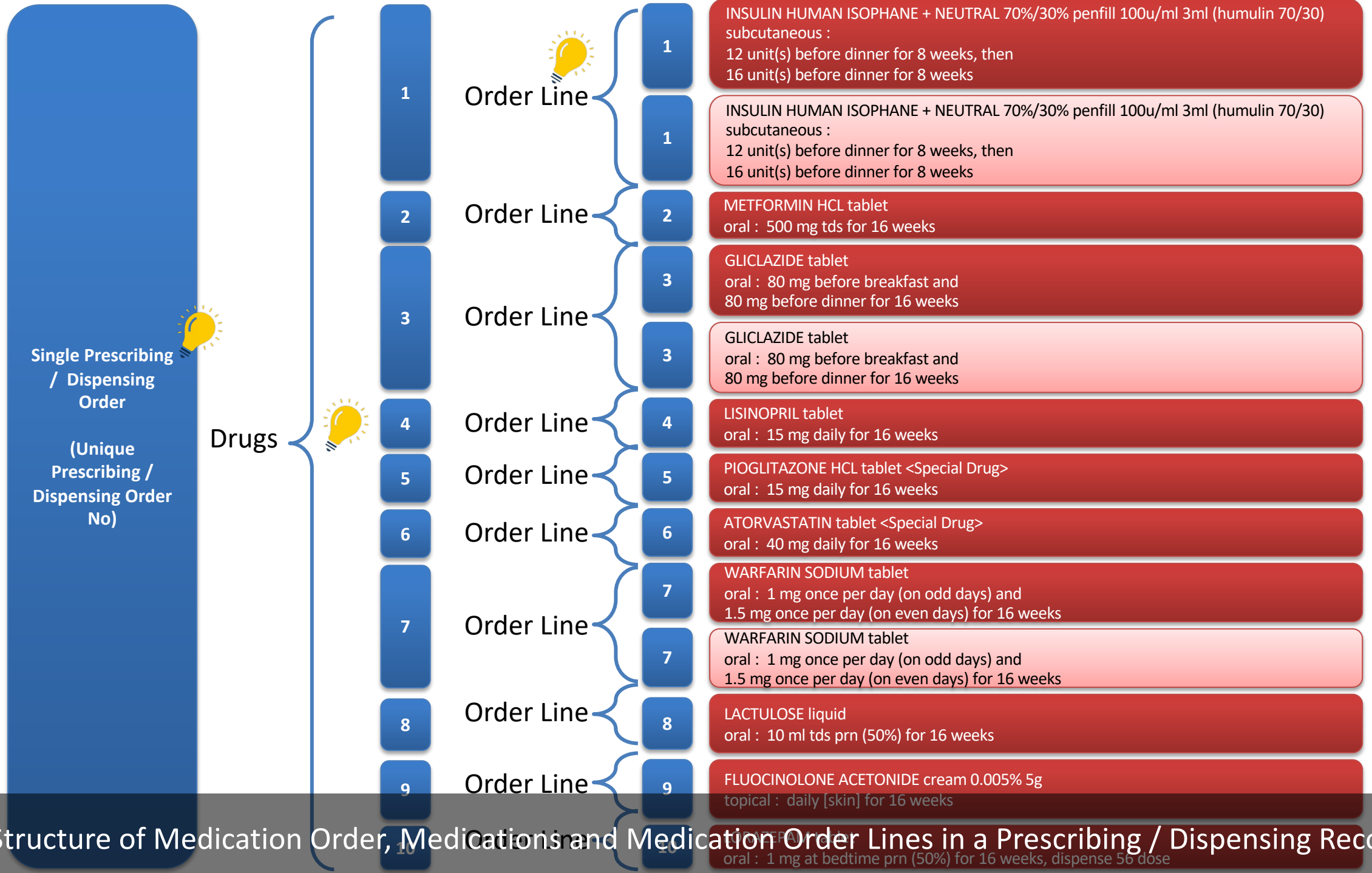
- When prescribed → JSON " Resource "
- Where prescribed → JSON " Resource "
- Who prescribed → JSON " Dr Resource an "
- JSON " Prescrip Resource number "
- What drug → HKMTT JSON " Panadol Resource 500mg "
- How to use → Dose instruction standard JSON " 1g Q4H P Resource 8 weeks Start 2-14 "
- JSON " R R R R R R R "
- Medication discontinuation → JSON " Discontin Resource TM Chan / QMH / allergy "

Discrete Medication Data as **Resources** is “packaged” in **JSON** format

How to interpret the medication data from eHealth

EHR PRESCRIBING AND DISPENSING DATA STRUCTURE

Logistics and Supply Chain MultiTech R&D Centre
物流及供應鏈多元技術研發中心



Structure of Medication Order, Medications and Medication Order Lines in a Prescribing / Dispensing Record

1

INSULIN HUMAN ISOPHANE + NEUTRAL 70%/30%
penfill 100u/ml 3ml (humulin 70/30)
subcutaneous :
12 unit(s) before dinner for 8 weeks, then
16 unit(s) before dinner for 8 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	DIConj	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	1	1	before dinner	then	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration
Humulin 70/30 (insulin isophane human + insulin soluble human) subcutaneous suspension for injection (cartridge) (70%/30%) 100 international unit / mL (3 mL)	2023-04-18	Dispense by Pharmacy	1	INSULIN HUMAN ISOPHANE + NEUTRAL 70%/30% penfill 100u/ml 3ml (humulin 70/30) subcutaneous : 12 unit(s) before dinner for 8 weeks, then 16 unit(s) before dinner for 8 weeks	false	subcutaneous	12	unit	8 week

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	COP, User26	1	1	before dinner	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration
Humulin 70/30 (insulin isophane human + insulin soluble human) subcutaneous suspension for injection (cartridge) (70%/30%) 100 international unit / mL (3 mL)	2023-04-18	Dispense by Pharmacy	2	INSULIN HUMAN ISOPHANE + NEUTRAL 70%/30% penfill 100u/ml 3ml (humulin 70/30) subcutaneous : 12 unit(s) before dinner for 8 weeks, then 16 unit(s) before dinner for 8 weeks	false	subcutaneous	16	unit	8 week

2

METFORMIN HCL tablet
oral : 500 mg tds for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	2	0	three times daily	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
metformin hydrochloride oral table	2023-04-18	Dispense by Pharmacy	0	METFORMIN HCL tablet oral : 500 mg tds for 16 weeks	false	oral	500	mg	16	week

3

GLICLAZIDE tablet
oral : 80 mg before breakfast and
80 mg before dinner for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	DVConj	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	3	1	before breakfast	and	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
gliclazide oral tablet	2023-04-18	Dispense by Pharmacy	1	GLICLAZIDE tablet oral : 80 mg before breakfast and 80 mg before dinner for 16 weeks	false	oral	80	mg	16	week

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	3	2	before dinner	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
gliclazide oral tablet	2023-04-18	Dispense by Pharmacy	1	GLICLAZIDE tablet oral : 80 mg before breakfast and 80 mg before dinner for 16 weeks	false	oral	80	mg	16	week

4

LISINOPRIL tablet
oral : 15 mg daily for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	4	0	daily	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
lisinopril oral tablet	2023-04-18	Dispense by Pharmacy	0	LISINOPRIL tablet oral : 15 mg daily for 16 weeks	false	oral	15	mg	16	week

5

PIOGLITAZONE HCL tablet <Special Drug>
oral : 15 mg daily for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	5	0	daily	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
pioglitazone (as hydrochloride) oral tablet	2023-04-18	Dispense by Pharmacy	0	PIOGLITAZONE HCL tablet <Special Drug> oral : 15 mg daily for 16 weeks	false	oral	15	mg	16	week

6	ATORVASTATIN tablet <Special Drug> oral : 40 mg daily for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	6	0	once daily	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
atorvastatin (as calcium) oral tablet	2023-04-18	Purchase by Patient	0	ATORVASTATIN tablet <Special Drug> oral : 40 mg daily for 16 weeks	false	oral	40	mg	16	week

7	WARFARIN SODIUM tablet oral : 1 mg once per day (on odd days) and 1.5 mg once per day (on even days) for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	SupplFreq	DVConj	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	7	1	once per day	on odd days	and	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration
warfarin sodium oral tablet	2023-04-18	Dispense by Pharmacy	1	WARFARIN SODIUM tablet oral : 1 mg once per day (on odd days) and 1.5 mg once per day (on even days) for 16 weeks	false	oral	1	mg	16 week

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	SupplFreq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	7	2	once per day	on even days	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration
warfarin sodium oral tablet	2023-04-18	Dispense by Pharmacy	1	WARFARIN SODIUM tablet oral : 1 mg once per day (on odd days) and 1.5 mg once per day (on even days) for 16 weeks	false	oral	1.5	mg	16 week

8	LACTULOSE liquid oral : 10 ml tds prn (50%) for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	8	0	three times daily	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
Duphalac (lactulose) oral liquid	2023-04-18	Dispense by Pharmacy	0	LACTULOSE liquid oral : 10 ml tds prn (50%) for 16 weeks	true	oral	10	ml	16	week

9	FLUOCINOLONE ACETONIDE cream 0.005% 5g topical : daily [skin] for 16 weeks

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	9	0	once daily	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
FLUOCINOLONE 0.005% 5G (TOPICAL)	2023-04-18	Dispense by Pharmacy	0	FLUOCINOLONE ACETONIDE cream 0.005% 5g topical : daily [skin] for 16 weeks	false	topical	10	ml	16	week

10	LORAZEPAM tablet oral : 1 mg at bedtime prn (50%) for 16 weeks, dispense 56 dose

eHRNo	IDNo	Name	DOB	Sex	Institution	Prescriber	RxSeqNo	DoseVSeqNo	Freq	StartDate	RxOrderNo
781300906326	I0035402	PATIENT, RED	1935-01-01	Male	VH Hospital	CPO, User26	10	0	at bedtime	2023-04-18	MOEVH 2300043629

DrugName	OrderDate	Note	DoseInstruNo	Text	PRN	Route	Dose	Unit	Duration	
lorazepam oral tablet	2023-04-18	Dispense by Pharmacy	0	LORAZEPAM tablet oral : 1 mg at bedtime prn (50%) for 16 weeks, dispense 56 dose	true	oral	1	mg	16	week

HL7 FHIR RESTful API

REpresentational **S**tate **T**ransfer, approach to data exchange. The philosophy behind FHIR is to create a set of **Resources** that individually or in combination categories of data, or "**Resources**" to exchange data.

The **Patient Resource**, for example, includes demographic data related to a patient, such as their name, address, and ID number.

Medication and the **detailed components** of a medication order are also treated as discrete and related resources

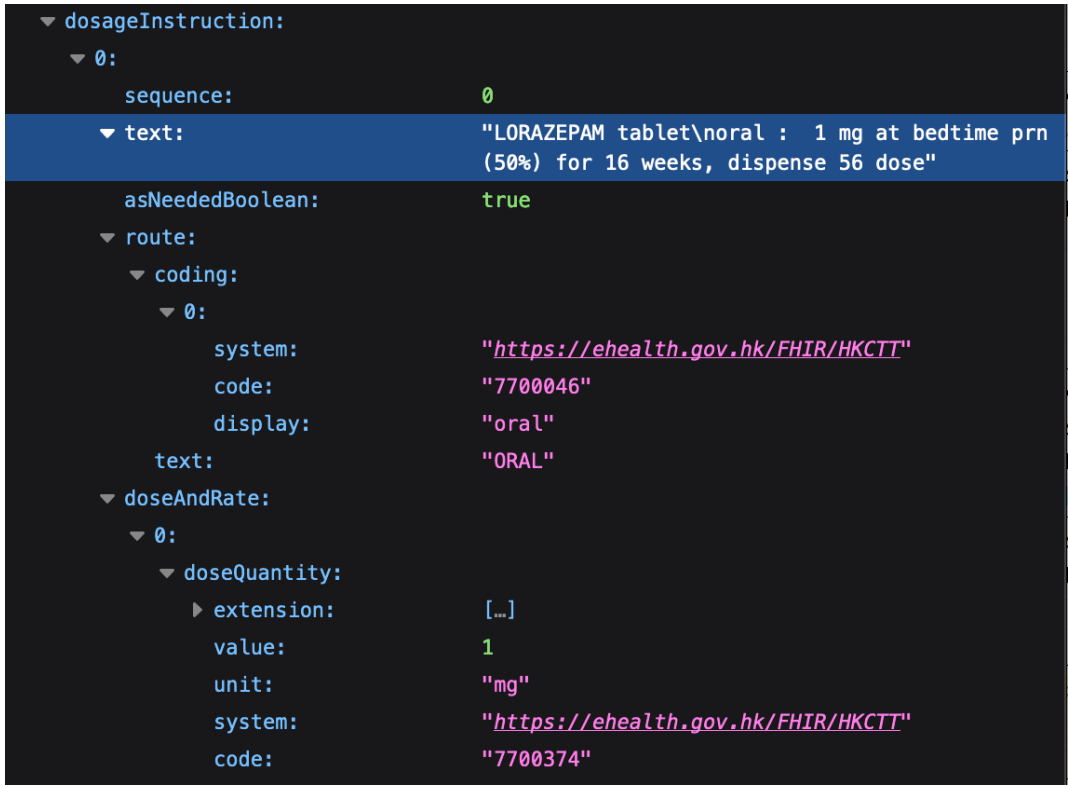
Resources also improves granular data retrieval, so that a request returns just the relevant data rather than a full record or document that itself must then be searched

The Office of the National Coordinator for Health Information Technology

Lightweight JSON make storing and transporting data easy

JSON

- Text format for storing and transporting data
- Lightweight data interchange format
- Self-describing and easy to understand
- Conversion between JSON string and JavaScript Object
  - JSON.parse() and JSON.stringify()
- Convention of JSON string
  - Data is in name/value pairs
  - Data is separated by commas
  - Curly braces hold objects
  - Square brackets hold arrays



Simple steps for extracting data from JSON string

Step 1: Obtain the JSON data (inline, from a file, or API)
Step 2: Parse the JSON **string** into a JavaScript **object** using **JSON.parse()**.
Step 3: Access and extract the required data using **dot notation**.
Step 4: Modify the JSON data if necessary.
Step 5: Convert the JavaScript object back into a JSON string **using JSON.stringify()** for uploading
Step 6: Handle any errors during parsing or fetching.

https://www.w3schools.com/js/js_json_intro.asp

HL7 FHIR Logistics Supply Chain Analogy

Resource: Self-contained data

JSON: Packing Format

Metadata/identifiers: Barcodes

Endpoint URL: Postal Stamp

Data Security Protocol: Packaging Tape

API: Postal Service Counter

Data Integrity Protocols

Direct Data Transfer

Rapid Data Delivery

Automated Data Processing

Data Upload

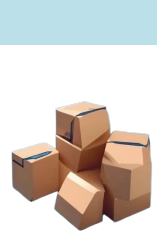
Data Download

Data Flow Optimisation

FHIR (Delivery) as a service

Data Request-Response

JSON: Data parsing



Final Data Delivery

RESTful API – Postal Service
JSON – Packaging
Resources OA – Individual parcels
Metadata/identifiers – 2D barcode
Source of Data – Point of Origin
API Gateway – Postal Service Counter
Endpoint URL – Postal Stamp and Label
Data Security Protocol – Packaging Tape
Error Handling Mechanism – Return Address

Unique Resource Identifier (URI) – Tracking no.
Data Validation – Customs Checkpoints
Distributed Servers / Cloud – Post Office Network
Data Backup / Recovery – Postal Insurance
Automated Data Processing – Auto sorting machines
Delivery Notification- Push Notifications Webhooks
High-Priority Data Request - Express Mail
Data Integrity Protocols - Cold-Chain Delivery
Rapid Data Delivery – Next-Day Delivery

Direct Data Transfer - Non-Stop Flight
Uninterrupted Data Exchange - Through-Train
Performance Metrics - Delivery KPI
Dedicated FHIR servers - Dedicated Courier Company
FHIR as a service - Delivery as a Service
Mobile healthcare applications - Field Service Workers
Final data delivery to end-users - Last Mile
Data flow Optimisation - Map Routing
Timed Data Exchanges – Scheduling

Why HL7 FHIR ?

Criteria	HL7 FHIR	HL7 International	Traditional XML
Effort of Implementation	**Low to Moderate** - Modern web technologies make FHIR easier to implement and integrate, especially for new systems.	**Moderate to High** - Requires significant setup and knowledge of healthcare-specific messaging standards.	**Moderate to High** - General-purpose and often requires custom development to handle healthcare-specific data.
Efficiency	**High** - Uses RESTful APIs and JSON for quick, targeted data retrieval, minimizing overhead and improving speed.	**Moderate** - Efficient within healthcare-specific contexts but may involve larger message sizes and more processing.	**Low to Moderate** - More verbose and heavy, leading to slower data transfer and processing.
Effectiveness	**High** - Provides precise, real-time access to specific medication data, ensuring up-to-date and relevant information.	**Moderate to High** - Effective for standardized healthcare communication but less adaptable to real-time needs.	**Moderate** - Effective for structured data but less suited for dynamic, real-time interactions common in healthcare.
Ease of use	**High** - JSON is lightweight and easy to parse; FHIR's resource-oriented model simplifies data handling.	**Moderate** - Requires familiarity with HL7 messaging formats; less intuitive for developers compared to FHIR.	**Low to Moderate** - More complex to parse and manipulate, especially for healthcare-specific data needs.
Flexibility	**High** - Highly adaptable to different data needs and easily extendable to accommodate new data types.	**Moderate** - Limited flexibility due to predefined message structures and a focus on specific healthcare use cases.	**Low to Moderate** - Can be flexible, but requires extensive customization for healthcare contexts.
Real-Time Capability	**High** - Supports real-time, on-demand data access.	**Moderate** - Can be real-time but with more overhead.	**Low** - Typically slower and less suited for real-time needs.

Criteria	HL7 FHIR	HL7 International	Traditional XML
Extensibility	**High** - Easily extendable to incorporate new resources or data types as healthcare needs evolve.	**Moderate** - Extensible within the confines of the HL7 framework but may require significant effort to modify.	**Moderate** - Extensible, but often requires significant redevelopment to accommodate new standards or data types.
Interoperability	**High** - Designed for seamless integration with other systems using modern web standards, promoting broad interoperability.	**High** - Strong interoperability within healthcare but may struggle with integration into non-healthcare systems.	**Moderate** - General-purpose, so integration requires more effort and may face compatibility challenges.
Data Granularity	**High** - Retrieve specific pieces of data without bulk.	**Moderate** - Data exchange can be more comprehensive than specific.	**Low to Moderate** - Often involves bulkier data structures.
Scalability	**High** - Handles growing data needs and complexity well.	**Moderate** - Scales within healthcare contexts but less flexible.	Low to Moderate - Can scale but at the cost of efficiency.
Customization	**High** - Easily customizable to fit specific needs without losing interoperability.	**Moderate** - Customizable within limits but more rigid.	**Moderate** - Customizable but with significant effort, especially for healthcare.
Cost of Implementation	**Low to Moderate** - Less expensive due to modern tooling and flexibility.	**Moderate to High** - Can be costly due to complexity and setup requirements.	Moderate - Costs associated with customization and less efficient processing.

TESTING AND APPROVAL

Test cases

Testing environment

Testing accounts

eHealth+ eMedication
Data and Technical Preparation

15th Aug 2024

Agenda

Technical setup for testing and interfacing

Technical setup for testing and interfacing

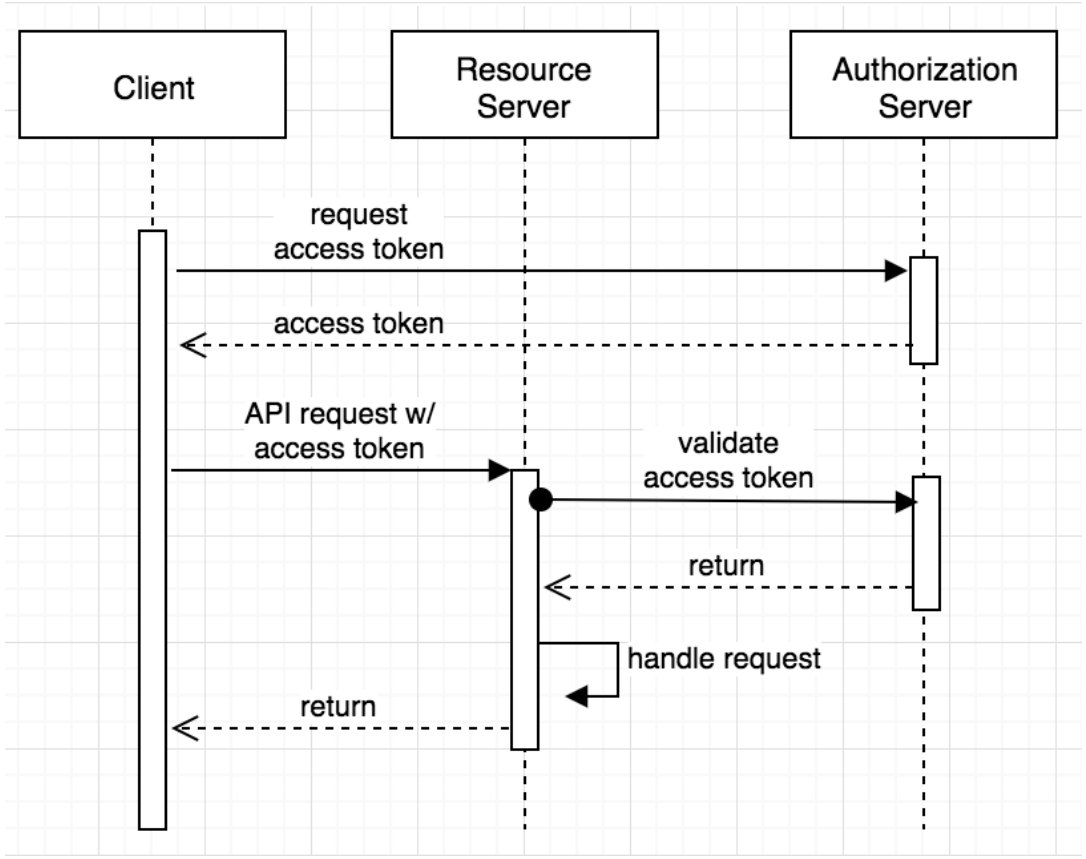
Registered HCP (RCH)

Professional User
Doctor/Nurse/Dentist
Pharmacist
Part I Optometrist
Physiotherapist
Occupational therapist
Lab Technologist
Radiographer

OAuth

Step 1. Get Token

Step 2. Download Drugds Data



Step 0. OAuth Registration

HCP ID	System Name	System Description	Version	Cert Mark	Public Certificate
e.g 9907819043	e.g ZZZ System	e.g ZZZ System	e.g 1.0.0	e.g zR03F/9NlgN0GYinG/O6jeuIjZTMYOl/recGPTt5Coo=	X.509 digital certificate in Privacy Enhanced Mail (PEM) using RSAWithSHA256 algorithm *__UAT__: eHR BoomBase Cert Or HK-Post Certification *__PRD__: HK-Post Certification only

system id

e.g 1000001270

HK POST: https://www.hongkongpost.gov.hk/product/ecert/type/enc/index.html

Step 1. Get Token

```
curl --location 'https://api.uat.ehr.gov.hk/token/get-token' \
--header 'Content-Type: application/x-www-form-urlencoded' \
--data-urlencode 'scope=apim-xs-ehrss-eif-drugds' \
--data-urlencode 'client_assertion_type=urn:ietf:params:oauth:client-assertion-type:jwt-bearer' \
--data-urlencode 'grant_type=client_credentials' \
```

```
--data-urlencode
'client_assertion=eyJhbGciOiJSUzI1NiJ9.eyJpc3MiOiIxMDAwMDAxMjcwIiwic3ViIjoiMTAwMDAwMTI3MCIsImF1ZCI6Imh0dHBzOi8vYXBpLnVhdC5laHIuZ292LmhrL3JlYWxtcy9laHJzcyIsImV4cCI6MTcxNjg1ODUwNSwianRpIjoiMDdmOTExNTUtN2RhNy00ZjQ2LWFjODUtMDFmNjk4OGE0NzQyIn0.Rch2PuonzRuLCacMCHQaylJP1tjfJNFcHhCYYK75Wu5i8o9ndYPTyxpN7JSXKiX9mSwkbKUPcWUTGcFB0tyfh66IQhROQvguXkKPr8sD2RPtezh3dPUPnbeh4gFcj3khhNUPS2-KiFrusW3YimccEiqfGDPN0ov-erKoLzlA4KdEgeSUaOIOD8CClPRBPDy7qvPTpk4ZfDcsh2kb4AQtLMBvMWrg8nD_Mr0X2RfstK1dUAyKd40IZD43pKOrHtFeDo4pJBkUxsxr5J5JtqxFIV_MWn-H9q6qM9_eWc1Q_p08Qrn5uTTD6R5XbwL1WOhr5tXNkLD-ZcXINQgAut_Rig'
```

Decoded EDIT THE PAYLOAD AND SECRET

HEADER: ALGORITHM & TOKEN TYPE

```
{
  "alg": "RS256"
}
```

PAYLOAD: DATA

```
{
  "iss": "1000001270",
  "sub": "1000001270",
  "aud": "https://api.uat.ehr.gov.hk/realms/ehrss",
  "exp": 1716858505,
  "jti": "07f91155-7da7-4f46-ac85-01f6988a4742"
}
```

VERIFY SIGNATURE

```
RSASHA256(
  base64UrlEncode(header) + "." +
  base64UrlEncode(payload),
  Public Key in SPKI, PKCS #1, X.509 Certificate, or JWK string format.
  ,
  Private Key in PKCS #8, PKCS #1, or JWK string format. The key never leaves your browser.
)
```

Step 1. Response


```
{
   "access_token":
"eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICJSTVdpZENHNVVfSjJOTE11YkVGRTk0TXRTX0JpTDNJVUo1SEg0U2l3ZmRBIn0.e
yJleHAiOjE3MTY4NTg1NDEsImlhdCI6MTcxNjg1ODQ4MSwianRpIjoiZjk2MTg4OGYtN2E2YS00MDljLWJmMmUtNWRhZDY1MzZiOTAxIi
wiaXNzIjoiaHR0cHM6Ly9hcGkudWF0LmVoci5nb3YuaGsvcmVhbG1zL2VocnNzIiwiYXVkIjoiYXBpbS14cy1laHJzcy1laWYtZHJ1Z2RzIiwic
3ViIjoiNTkzZTEwYzgtNjllNS00NmQxLWI3YzctNjhhMzllMzY5MWQyIiwidHlwIjoiQmVhcmVyIiwiYXpwIjoiMTAwMDAwMTI3MCIsInNjb
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IdbihRo2YjzjVb-J-W4pnN_s1XqekBs1Tk1Ie8etA6WdKAXEJU0fZ4eip4U9xy3p1tRf6eUCuYkB1aaZnHINsJ42A1KaM2XGPaLCR-
4wuC_W046xzv5nJf-DL_4Uf43QpFc6QLxtzVdh7vzrvlC1LPFN57aCXwxsRXpR9ei2n9YrQw4vo_oKIoF0FDOGa0jstRxsv9DXVSQS0Mf-
NzAIg",

   "expires_in": 60,

   "refresh_expires_in": 0,

   "token_type": "Bearer",

   "not-before-policy": 0,

   "scope": "apim-xs-ehrss-eif-drugds"

}
```
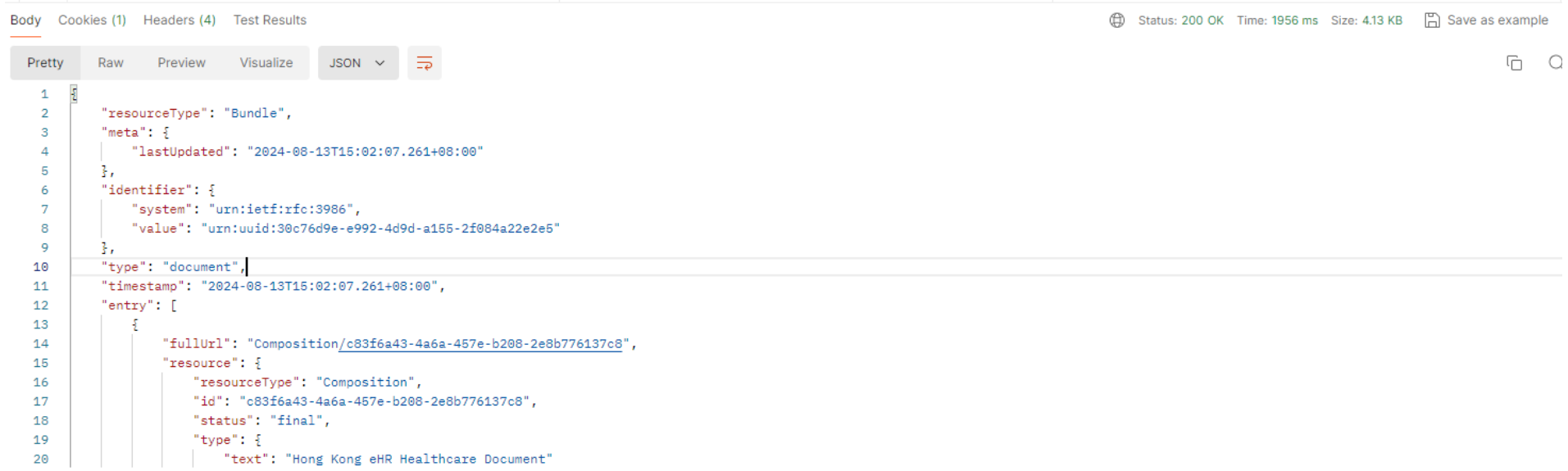

Step 2. Download Medication Data

```
curl --location 'https://api.uat.ehr.gov.hk/gateway/ehrss-eif-drugds-delivery/v1.0/v3/baseR4/MedicationRequest/_search' \

--header 'Authorization: Bearer
eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICJSTVdpZENHNVVfSjJOTE11YkVGRTk0TXRTX0JpTDNJVUo1SEg0U2l3ZmRBIn0.eyJleHAiOjE3MTY4NTg1NDEsImlhdCI6MTcxNjg1ODQ4MSwianRpIjoiZjk2MTg4OGYtN2E2YS00MDljLWJmMmUtNWRhZDY1MzZiOTAxIiwiaXNzIjoiaHR0cHM6Ly9hcGkudWF0LmVoci5nb3YuaGsvcmVhbG1zL2VocnNzIiwiYXVkIjoiYXBpbS14cy1laHJzcy1aWYtZHJ1Z2RzIiwic3ViIjoiNTkzZTEwYzgtNjlNS00NmQxLWI3YzctNjhhMzllMzY5MWQyIiwidHlwIjoiQmVhcmVyIiwiYXpwIjoiMTAwMDAwMTI3MCIsInNjb3BlIjoiYXBpbS14cy1laHJzcy1aWYtZHJ1Z2RzIiwiY2xpZW50SWQiOiIxMDAwMDAxMjcwIiwiY2xpZW50SG9zdCI6IjE3Mi4xOS4xMi4yNDAiLCJoY3AiOiI1MDczNTQzMjQ5IiwiY2xpZW50QWRkcmVzcyI6IjE3Mi4xOS4xMi4yNDAifQ.MYC_ldUSph8u_Qbuu0NQjHyQMUsn7ImazJvDM5xZZ2SqGsGjQSzMogrj7SzHRxt4vmc6JswSBtlppF9flSYEo-D-3UzWXTgXhm8KPP_75Ialz_HGhqderQ12ObA-10eW-IdbihRo2YjzjVb-J-W4pnN_s1XqekBs1Tk1Ie8etA6WdKAXEJU0fZ4eip4U9xy3p1tRf6eUCuYkB1aaZnHINsJ42A1KaM2XGPaLCR-4wuC_W046xzv5nJf-DL_4Uf43QpFc6QLxtzVdh7vzrvlC1LPFN57aCXwxsRXpR9ei2n9YrQw4vo_oKIoF0FDOGa0jstRxsv9DXVSQS0Mf-NzAIg' \

--header 'Content-Type: application/x-www-form-urlencoded' \

--data-urlencode 'subject%3APatient.name.family=PATIENT' \

--data-urlencode 'subject%3APatient.name.given=RED' \

--data-urlencode 'subject%3APatient.gender=male' \

--data-urlencode 'subject%3APatient.birthDate=1935-01-01' \

--data-urlencode 'subject%3APatient.identifier%3Aof-type=https://ehealth.gov.hk/FHIR/typeofID-ext|EHRNO|781300806326' \

--data-urlencode 'subject%3APatient.identifier%3Aof-type=https://ehealth.gov.hk/FHIR/typeofID-ext|ID|I0035402' \

--data-urlencode 'authoredOn=ge2022-08-04' \

--data-urlencode 'authoredOn=le2024-04-06'
```

Step 3. Response Message



Q&A

Thank you!

Key Specifications Documents for Data Preparation

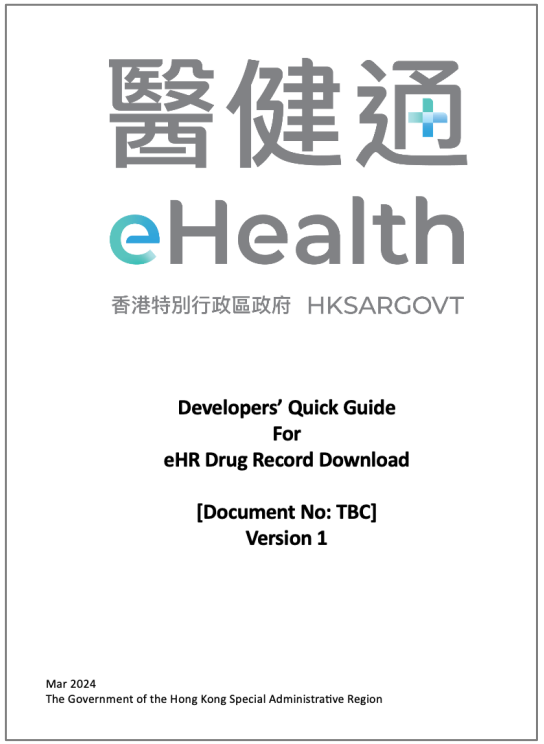
eHealth+ Medication Data Download Request Form

The eHR Office has engaged LSCM to assist Residential Care Homes (RCH) and RCH IT Vendors (or in-house IT Teams) in understanding and fulfilling the specified requirements and specifications for connecting with eHRSS. You are advised to seek assistance from LSCM before filling out this Data Download Request Form. LSCM, eHR Office, and HAIT will only use the information provided to assess and prepare the RCH system for data connectivity with the eHRSS for specified purposes in healthcare. Please fill in the required information and submit it to LSCM (emedication@lscm.hk)

Background Information of RCH IT System and RCHs

1. What is the name of the RCH System?
2. How many RCHs currently use the RCH System (please attach a list of RCHs and their registration status in the Electronic Health Record Sharing System)?
3. What is the total number of residents using the RCH System in all RCHs?
4. What is the existing medication management practice in the RCHs?

Request Form



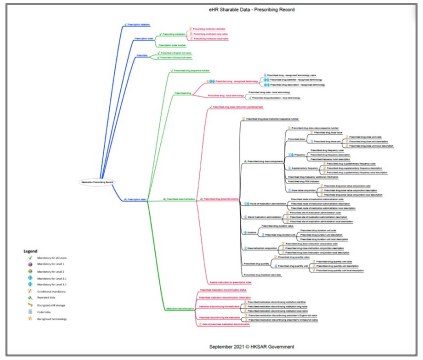
醫健通
eHealth
香港特別行政區政府 HKSARGOVT

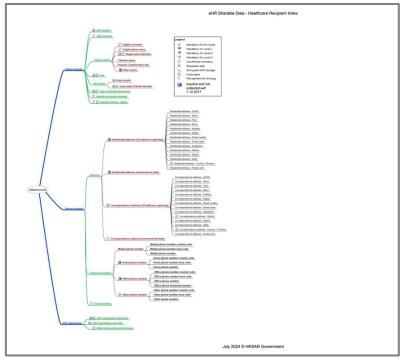
Developers' Quick Guide
For
eHR Drug Record Download

[Document No: TBC]
Version 1

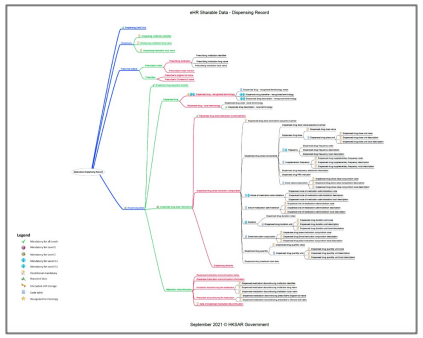
Mar 2024
The Government of the Hong Kong Special Administrative Region

Quick Guide

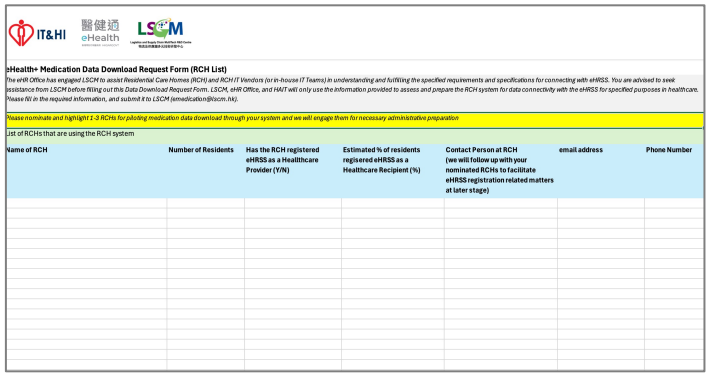




Healthcare Recipient Index



Medication Data Standards



eHealth+ Medication Data Download Request Form (RCH List)

The eHR Office has engaged LSCM to assist Residential Care Homes (RCH) and RCH IT Vendors (or in-house IT Teams) in understanding and fulfilling the specified requirements and specifications for connecting with eHRSS. You are advised to seek assistance from LSCM before filling out this Data Download Request Form. LSCM, eHR Office, and HAIT will only use the information provided to assess and prepare the RCH system for data connectivity with the eHRSS for specified purposes in healthcare. Please fill in the required information, and submit it to LSCM (emedication@lscm.hk).

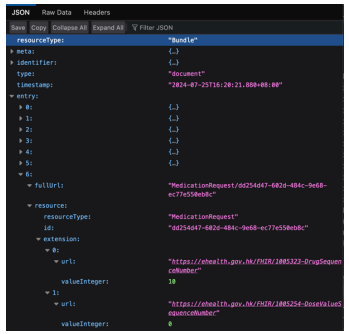
Please nominate and highlight 1-3 RCHs for piloting medication data download through your system and we will engage them for necessary administrative preparation

List of RCHs that are using the RCH system

Name of RCH	Number of Residents	Has the RCH registered eHRSS as a Healthcare Provider (Y/N)	Estimated % of residents registered eHRSS as a Healthcare Recipient (%)	Contact Person at RCH (we will follow up with your nominated RCHs to facilitate eHRSS registration related matters at later stage)	email address	Phone Number

RCH List

Briefing ppt



Test Cases

Logistics and Supply Chain MultiTech R&D Centre
物流及供應鏈多元技術研發中心

Register Your Interest and Start Preparation

Register Your Interest and Feedback

Preparation

1. Fill in and return the Request Form and RCH List
2. Download and learn
    1. This presentation file
    2. Developer's Quick Guide
    3. eHR Prescribing Data Standard
    4. eHR Dispensing Data Standard
    5. JSON test cases
3. Prepare testing account and environment
4. Start matching and mapping the expected download data to your system
5. Review your system and implement any necessary changes
6. Review your readiness for system testing (with LSCM and eHR IT)

Recap

4 Objectives – Data Connectivity Onboarding

To facilitate understanding of **data** and **technical** requirements, preparation and pre-requisites to:

攞得到　1. Obtain data from eHealth

睇得明　2. Interpret the data obtained correctly

放得啱　3. Identify system changes that may be required in the RCH systems to present correctly and

用得好　4. Use the data obtained from eHealth

Events and Training

Invitation to the Fourth Connectathon of HL7 Hong Kong FHIR® Connectathon Series 2023-2024

July 9, 2024 /// No Comments

We are pleased to invite you to the Fourth Connectathon of HL7 Hong Kong FHIR® Connectathon Series 2023-2024, which will be held on Aug 5,

Read More »

Post Event of the 3rd Connectathon of HL7 HK FHIR® Connectathon Series 2023-2024

June 18, 2024 /// No Comments

Third Connectathon of the HL7 Hong Kong FHIR® Connectathon Series 2023-2024 took place on May 6, 2024, at the HK Productivity Centre. The event was

Read More »

Invitation to the Third Connectathon of HL7 Hong Kong FHIR® Connectathon Series 2023-2024

April 26, 2024 /// No Comments

We are pleased to invite you to the Third Connectathon of HL7 Hong Kong FHIR® Connectathon Series 2023-2024, which will be held on May

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	Date	Topics
1	Nov 2023	Patient Encounter, Medication, GOPC PPP data download
2	Feb 2024	Allergy/ADR, Immunisation
3	6 May 2024	Problem, Procedure
4	5 Aug 2024	Clinical Note / Summary, Investigation report, Referral, Medical Certificate
5	Sep – Oct 2024	Laboratory, Radiology
6	Nov – Dec 2024	Chinese Medicine

https://hl7.org.hk/events-and-training/

Under Discussion and Planning

- Medication order specialty (MED, SUR…etc.)
- PRN %
- Next follow-up appointments download (MED, SUR…etc.)
- Allergy download
- Barcode specification on drug pack (HA drug)
- Drug administration and remarks uploading (from RCH)
- Dispensing record uploading (from RCH)