

eClaimLink

e-Prescription (eRx) Initiative

Business Process Scenario

Version 1.1

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Overview

Scope

As eClaimLink is evolving to include the full billing cycle of healthcare claims, the Dubai Health Authority is proud to introduce the e-Prescription initiative (eRx Initiative).

e-Prescription initiative is the computer-based electronic generation, transmission and filling of a medication prescription, taking the place of paper prescriptions. In Dubai, e-prescribing would allow a Provider\Clinician to electronically transmit a prescription to the DHPO\ eRx Hub (located at DHA's DHPO system), getting coverage feedback from insurance companies real-time before the patient leaves their office. Later when the patient visits the Provider\Pharmacy, the pharmacist downloads the prescription electronically and obtains coverage authorization from the payer at time of dispensing the medication real time.

Dubai is the first to implement such comprehensive e-Prescription solution including Provider\Clinician, Provider\Pharmacy and the Payer transactions all through the DHA systems.

This document will discuss and outline the business and processing aspects of the e-Prescription initiative to help all involved parties configure the technical connections and establish the business requirements through the involved transactions' schemas.

Why e-Prescription

Medications are anticipated to relieve patient's pain and sufferings, and aid them in maintaining good health. Nonetheless, if used inappropriately they can cause serious harm.

E-prescription enhances the process of prescribing medicines by replacing the outdated paper-based methods with a more accurate and efficient tools. It outlines the ability to send error-free, accurate, and comprehensible prescriptions electronically from the Provider\Clinician to the Provider\Pharmacy. e-Prescription is meant to reduce the risks associated with traditional prescription script writing. Moreover, it is being a supportive decision-making tool by making patient medical records and eligibility available at the moment of prescribing and dispensing the medication.

The e-Prescription Initiative allows electronic transfer and sharing of medical prescriptions among different medical entities across the Emirate swiftly and in few clicks.

By providing interactive, medical tips and clinical notifications, e-Prescription significantly helps reduce medical errors and maximizes patient health and safety. By linking it to insurance coverage checks at time of prescribing and dispensing, e-Prescription vastly improves efficiency of the healthcare system, as well as assists health insurance companies in managing their drug expenditure costs. Moreover, patient waiting at time of dispensing will be reduced significantly, eliminating faxes for authorization from insurance companies and Provider\Pharmacy – Provider\Clinician call backs.

e-Prescription will play an important role in enabling the DHA to achieve the goals mentioned below:

- Minimize medical mistakes in prescribing and dispensing.
- Reduce fraud, abuse and waste.
- Monitor drugs utilization more efficiently in Dubai.

- Reduce patients’ wait time at Provider\Pharmacy significantly.
- Inform patients about insurance coverage at Provider\Clinician office and Provider\Pharmacy real time.

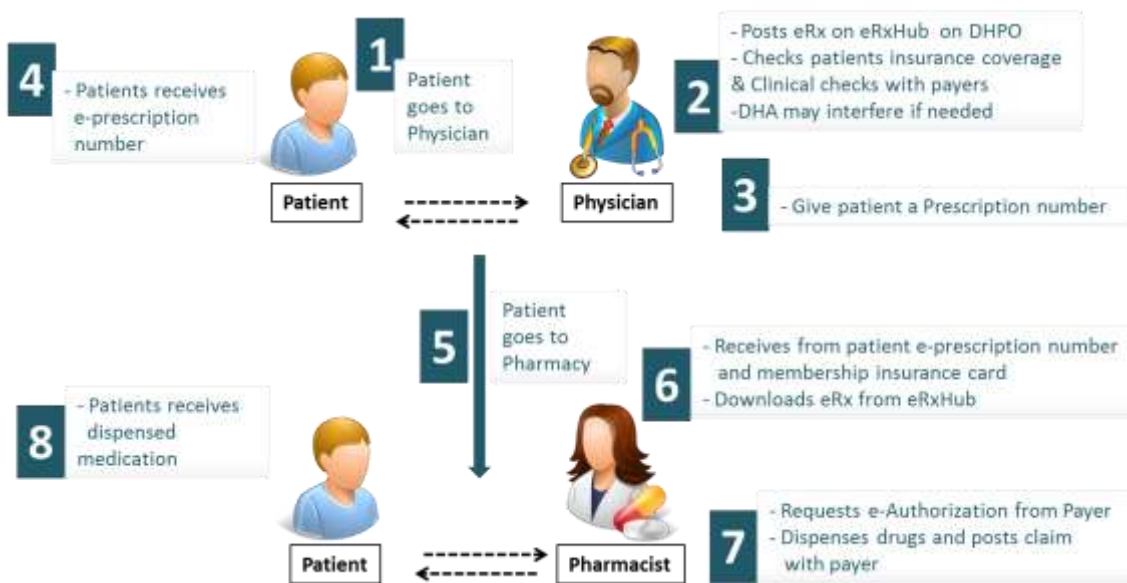
Abbreviations

Below is a list of the abbreviations that may be used within the document body:

Abbreviation	Description
DHA	Dubai Health Authority
eRx	e-Prescription
DHPO	Dubai Health Post Office
eRx Hub	Component of the DHPO managing the e-Prescription transactions
Payer	Healthcare Service Payer
Provider	Healthcare Service Provider
Receiver	Transaction receiver

e-Prescription Initiative Cycle

Below is a diagram representing the high level cycle covered within the e-Prescription initiative.



Involved Transaction

e-Prescription Transactions

e-Prescription cycle consists of two transactions as shown below:

Transaction	Description
e-Prescription Submission	transaction of submitting an e-Prescription from the Healthcare Provider\Clinician to the DHPO\ eRx Hub
e-Prescription Processing	transaction of fetching and processing an e-Prescription from the DHPO\ eRx Hub to the Provider\ Pharmacy

Guideline for Filling Prescription

Provider\Clinician fills in the prescription data. A minimum set of mandatory fields is requested to complete the transaction. Providing additional information will facilitate higher quality services and record keeping for the patient.

Prescription Form

Below is a sample form covering the needed details for preparing an e-Prescription.

Emirates ID 2.5.2

Member ID 2.5.1 **Birthdate (DD/MM/YYYY) 2.5.3** **Patient Weight 2.5.4**

 Kg

Type 2.7.1 **Diagnosis Code/Description 2.7.2**

Drug Code/Name 2.8.4

Generic Name 3 Trade Name 3.1

Use (Number of unit) 2.8.5 (Granular Unit Type) 2.8.9.1 Frequency Value & Type 3.2 Duration 2.8.6 Day(s) Total Quantity 3.3 (Granular Unit Type) 2.8.9.1

Special Instruction 3.4 ROA 2.8.8

Instructions 2.8.9.4

Drug Refills 2.8.7

[Table 1] – Field Descriptions

Below is a list of the field descriptions needed to prepare the e-Prescription. Full field table can be found in the e-Prescription Initiative technical specifications document.

No.	Element	Description	Mandatory
2.5.2	Emirates ID	Number of the patient’s Emirates ID Possible values: Emirates ID Number, or Default values for members that do not have an ID.	yes
2.5.1	Member ID	Unique reference ID of the patient receiving the e-Prescription.	yes

		Possible Values: Insurance Member ID, or other unique identifier of the member.	
2.5.3	Birth date (DD/MM/YYYY)	Birth Date of the patient Possible values: DD/MM/YYYY	yes
2.5.4	Patient Weight	Weight of the patient in Kilograms	yes
2.7.1	Diagnosis Type	Type of the activity Possible values: Predefined list found in common types	yes
2.7.2	Diagnosis Code/Description	ICD code of the diagnosis (Predefined list)	yes
2.8.4	Drug Code/Name	Code of the activity Possible values: code from the standard coding lists	yes
3	Generic Name	Chemical entity name of the drug (predefined list; <i>DDC-S list, activity type 10</i>) column name: (Generic: Strength) Dosage Form. Refer to table 3	yes
3.1	Trade Name	Proprietary or brand name (predefined list; <i>DDC list, activity type 5</i>) Refer to table 4	yes
2.8.5	Use (Number of unit)	Quantity of the activity in granular units	yes
2.8.9.1	(Granular Unit Type)	Granular unit of the frequency, (predefined list) Refer to table 3 and 4	yes
3.2	Frequency Value & Type	Number of repetitions for a given frequency Frequency time unit. Possible values: Hour, Day, Week, Once (Predefined list, <i>Number of repetitions for a given frequency</i>) Refer to table 2	yes
2.8.6	Duration	Duration of the prescribed activity in days.	yes
3.3	Total Quantity	an automatic number that appear based on a specific formula (multiplication of the entered numbers in “Number of unit” * “Frequency Value and Type” * “Duration”)	Yes
3.4	Special Instruction	Instructions for a given activity with more details	No
2.8.8	ROA	Rout of activity administration (Predefined list) Refer to table 5	Yes
2.8.9.4	Instructions	Instructions for a given activity	Yes
2.8.7	Drug Refills	Number of refills for a given activity	No

[Table 2] – Number of repetitions for a given frequency

Below is a table giving a sample of different repetitions for a given frequency.

FREQUENCY VALUE & TYPE	FREQUENCY VALUE		FREQUENCY TYPE
EVERY ONE HOUR (24 TIMES PER DAY)	24	PER	DAY
EVERY 2 HOURS (12 TIMES PER DAY)	12	PER	DAY
EVERY 3 HOURS (8 TIMES PER DAY)	8	PER	DAY
EVERY 4 HOURS (6 TIMES PER DAY)	6	PER	DAY
EVERY 6 HOURS (4 TIMES PER DAY)	4	PER	DAY
EVERY 8 HOURS (3 TIMES PER DAY)	3	PER	DAY
EVERY 12 HOURS (2 TIMES PER DAY)	2	PER	DAY
EVERY 24 HOURS (1 TIME PER DAY)	1	PER	DAY
AT BEDTIME (1 TIME PER DAY)	1	PER	DAY
ONCE DAILY (1 TIME PER DAY)	1	PER	DAY
TWICE DAILY (2 TIMES PER DAY)	2	PER	DAY
AS NEEDED	0	PER	DAY

[Table 3] – Dubai Drug Codes (DDC) – Generic Codes (Activity Type = 10)

Below is a table providing a sample of the Dubai Drug Codes using their generic names. A full list of the DDC Generic Codes can be found on the eClaimLink website under the [DHD\Codes&Lists](#)

Scientific Code	(Generic : Strength) Dosage Form	Granular Type
108204-267	(ESTRADIOL : 50 MCG) TRANSDERMAL PATCHES	PATCH
104401-039	(ESTRADIOL : 1 MG) (NORETHISTERONE : 0.5 MG) FILM COATED TABLETS	TABLET
123906-090	(MESALAZINE : 1000 MG) SACHETS	SACHET
106305-027	(ASCORBIC ACID (VITAMIN C) : 1000 MG) EFFERVESCENT TABLETS	TABLET
106615-223	(PARACETAMOL : 100 MG) RECTAL SUPPOSITORIES	SUPPOSITORY

[Table 4] – Dubai Drug Codes (DDC) – Trade Names (Activity Type = 5)

Below is a table providing a sample of the Dubai Drug Codes using their generic names. A full list of the DDC codes can be found on the eClaimLink website under the [DHD\Codes&Lists](#)

DDC Code	Trade Name	Ingredient Strength	Dosage Form Package	Granular Unit	Unit Type
1507-106309-1241	VAGI-C	ASCORBIC ACID (VITAMIN C) [250 MG]	VAGINAL TABLETS (6'S, BLISTER PACK)	6	TABLET
1505-411501-1482	NOW COQ 10 WITH SELENIUM AND VITAMIN E	VITAMIN E (AS D-ALPHA TOCOPHERYL ACETATE)/COENZYME Q10/SELENIUM [30 IU 50 MG 70 MCG]	CAPSULES (SOFT GELATIN) (30'S, BOTTLE)	30	CAPSULE
1447-402501-2091	VALINE	VALINE [12.5 MG/G]	ORAL POWDER (4G X 30, SACHET)	30	SACHET
1337-207307-2671	SANCUSO	GRANISETRON [34.3MG (3.1 MG/24 HR)]	TRANSDERMAL PATCHES (1'S, PATCHES	1	PATCH

[Table 5] – Rout of Administration (ROA)

Below is a table providing a sample of the Dubai Drug Codes using their generic names. A full list of the Routs of Administration (ROA) can be found on the eClaimLink website under the [DHD\Codes&Lists](#)

Rout of Administration (ROA)	Code
TOPICAL	11
TRANSDERMAL	358
PARENTERAL	411
NASAL	14
ORAL	1

Sample 1 – General Prescription For Common Cases

Most of the cases should be entered in the system using the below general scenario (using most commonly used Granular unit Types (such as; Tablets, Capsules, Sachet, Patch, and Caplet) and the “Frequency Value & Type” list that is in the system).

Prescription Form

Emirates ID		Emirates ID, not available? select reason	
999-9999-9999999-9		▼	
Member ID	Birthdate (DD/MM/YYYY)	Patient Weight	
4323481	29/12/1992	64 Kg	
Type	Diagnosis Code/Description		Add Diagnosis
Secondary ▼			
Principle	038.41- Septicemia due to hemophilus influenzae (H.influenzae)		[edit del]
Drug Code/Name			
<input type="radio"/> Generic Name <input checked="" type="radio"/> Trade Name			
2728-005- (Clarithromycin :500 MG)FILM COATED TABLET,500 MG			Add Drug
Use (Number of unit)	(Granular Unit Type)	Frequency Value & Type	Duration
1		EVERY 8 HRS ▼	5 Day(s)
			Total Quantity 15 (Granular Unit Type)
<input type="radio"/> Special Instruction			ROA Oral ▼
Instructions			
Use 1 TABLET EVERY 8 HOURS FOR A DURATION OF 5 DAYS BEFORE MEALS			<input type="checkbox"/> Drug Refills

Step 1 – Patient information

1. Fill in the Emirates ID, Member ID, Birth date and Patient weight.
2. Enter the Diagnosis Code or Name. This field is an auto fill field where it will start filling the diagnosis and show all possible options by entering the code or the diagnosis first letters.

Emirates ID		Emirates ID, not available? select reason	
999-9999-9999999-9		▼	
Member ID	Birthdate (DD/MM/YYYY)	Patient Weight	
4323481	29/12/1992	64 Kg	

Step 2 – Diagnosis information

3. Fill in the diagnosis details including the diagnosis type and diagnosis code.

Type	Diagnosis Code/Description
Principle	038.41- Septicemia due to hemophilus influenzae (H.influenzae)

Step 3 – Drug information

4. Choose either “Generic Name” or “Trade Name”.
 - If you choose “Generic Name” a special list of Generics with their codes will be the auto filled list that is different than the one related to Trade Name. (Check the Table 3 to see the lists name and number).
5. Enter the Generic Code or Name. This field is an auto fill field where it will start filling the drug and show all possible options by entering the code or the diagnosis first letters.

Drug Code/Name
 Generic Name Trade Name

2728-005- (Clarithromycin :500 MG)FILM COATED TABLET,500 MG

Add Drug

6. If you choose “Trade Name” a special list of drug Trade names with their codes will be the auto filled list that is different than the one related to Generic Name. (Check the Table 4 to see the lists name and number).
7. Enter the Trade Code or Name .This field is an auto fill field where it will start filling the drug and show all possible options by entering the code or the diagnosis first letters.

Drug Code/Name
 Generic Name Trade Name

0053-148602-0391 - KLACID, CLARITHROMYCIN, 500 MG, FILM COATED TABLETS 20'SBLISTER PACK

Add Drug

8. Enter the number of units needed to be given to the patient based on the Granular unit type. (Granular Unit Type will appear automatically based on the drug granular type. The types are shown in a specific list as shown in the table No. 3 for generic case or table No. 4 for trade cases).

9. Choose the Frequency value and type from the drop menu.

Drug Code/Name
 Generic Name Trade Name

0053-148602-0391 - KLACID, CLARITHROMYCIN, 500 MG, FILM COATED TABLETS 20'SBLISTER PACK Add Drug

Use (Number of unit) TABLET Frequency Value & Type Duration Day(s) Total Quantity TABLET

- To enter a special Frequency value and type other than the ones in the drop menu, choose option "Others".

Drug Code/Name
 Generic Name Trade Name

108204-267 - (ESTRADIOL : 50 MCG) TRANSDERMAL PATCHES, PATCH Add Drug

Use (Number of unit) PATCH Frequency Value & Type Duration Day(s) Total Quantity PATCH

EVERY 8 HOURS
EVERY 6 HOURS
OTHERS

- Two boxes will open to enter the frequency value in the first box (as labeled) and the frequency type in the other box (as labeled)

Drug Code/Name
 Generic Name Trade Name

108204-267 - (ESTRADIOL : 50 MCG) TRANSDERMAL PATCHES, PATCH Add Drug

Use (Number of unit) PATCH Frequency Value & Type Duration Day(s) Total Quantity PATCH

↓ ↓

Drug Code/Name
 Generic Name Trade Name

108204-267 - (ESTRADIOL : 50 MCG) TRANSDERMAL PATCHES, PATCH Add Drug

Use (Number of unit) PATCH Frequency Value & Type Duration Day(s) Total Quantity PATCH

10. Enter the Duration number in the related box. (Duration should be counted in Days).
11. Total quantity is an automatic number that appear based on a specific formula (multiplication of the entered numbers in “Number of unit” * “Frequency Value and Type” * “Duration”)
12. Choose the related Rout of Admin (ROA) from the drop menu. (ROA is a list as shown in Table No. 5).
13. Instructions field will automatically fill all the entered information in fields: Number of unit, Frequency Value and Type and Duration.

Drug Code/Name
 Generic Name Trade Name

0053-148602-0391 - KLACID, CLARITHROMYCIN, 500 MG, FILM COATED TABLETS 20'SBLISTER PACK Add Drug

Use (Number of unit) TABLET Frequency Value & Type Duration Day(s) Total Quantity TABLET

Special Instruction ROA

Instructions

Use 1 TABLET EVERY 8 HOURS FOR A DURATION OF 5 DAYS

14. User can add any detail to the instruction box.

Drug Code/Name
 Generic Name Trade Name

0053-148602-0391 - KLACID, CLARITHROMYCIN, 500 MG, FILM COATED TABLETS 20'SBLISTER PACK Add Drug

Use (Number of unit) TABLET Frequency Value & Type Duration Day(s) Total Quantity TABLET

Special Instruction ROA

Instructions

Use 1 TABLET EVERY 8 HOURS FOR A DURATION OF 5 DAYS BEFORE MEALS

15. Press the “Add” button to confirm the prescription details.

Sample 2 – Selected Granular Units

For some drugs, entering the granular unit is not possible therefore a special scenario is needed to deal with, for example in the case of “**Tube**” granular unit, which is used for dosage forms such as creams, ointment, and gel, **the number of granular unit** can’t be specified.

Emirates ID

Unknown status, without a card

Member ID

Birthdate (DD/MM/YYYY)

Patient Weight

 Kg

Type Diagnosis Code/Description

Secondary

Principle C84.00 - Mycosis fungoides, unspecified site

Add Diagnosis

[edit | del]

Drug Code/Name

Generic Name Trade Name

0031-109203-0151 - LAMIFEN, TERBINAFINE, 10 MG/G, CREAM 15G COLLAPSIBLE TUBE

Add Drug

Use (Number of unit)

(Granular Unit Type)

Frequency Value & Type

Duration

Day(s)

Total Quantity

ROA

Apply the cream to the affected skin and surrounding area in a thin layer and rub in lightly **twice daily** for a period of **7 days**.

0 Drug Refills

[Table 6] – Selected Granular Units

Below is a table containing a sample of the selected granular units for the example above:

NA	TOPICAL SPRAY	CAN	CARTON
DROPPER BOTTLE	DROP-TAINER BOTTLE	FLEXPEN	INJECTION
MULTIPUNCTURE TEST UNIT	PACKET	POUCH	PREFILLED APPLICATOR
PREFILLED SYRINGE VIAL PACK	PUMP PACK	ROLL ON BOTTLE	SPRAY BOTTLE
TIN	TURBUHALER	UNIT	AMPOULE
APPLCATOR	CAKE	CANISTER	DISKHALER
DROPPER VIAL	EASYHALER	INHALER UNIT	JAR

PACKAGE	PEN	PRE FILLED PEN	SPRAY UNIT
PREFILLED SYRINGE	PUMP SPRAY	ROTAHALER	bottle
TUBE	TWISTHALER	VIAL	DISKUS
SYRINGE	DISPENSER	PREFILLED SYRINGE	LOOSE
BOX	MINIM	SYRINGE VIAL PACK	CONTAINER

Selected Granular Units Scenarios

Below are some scenarios to demonstrate the selection of different granular units.

Patient information

1. Start filling the Emirates ID, Member ID, Birthdate and Patient weight.

Emirates ID

Member ID **Birthdate (DD/MM/YYYY)** **Patient Weight**

 Kg

Diagnosis information

2. Enter the Diagnosis Code or Name. This field is an auto fill field where it will start filling the diagnosis and show all possible options by entering the code or the diagnosis first letters.
3. Click on “Add Diagnosis” button.

Type	Diagnosis Code/Description	
Principle	038.41- Septicemia due to hemophilus influenzae (H.influenzae	Add Diagnosis
		[edit del]

Drug Information

4. Choose either “Generic Name” or “Trade Name”.
5. If you choose “Generic Name” a special list of Generics with their codes will be the auto filled list that is different than the one related to Trade Name. (Check the Table No. 3 to see the lists name and number).
6. Start entering the Generic Code or Name .This field is an auto fill field where it will start filling the drug and show all possible options by entering the code or the diagnosis first letters.

Drug Code/Name
 Generic Name Trade Name

122104-117 - DEXAMETHASONE 4MG TABLETS

Add Drug

7. If you choose “Trade Name” a special list of drug Trade names with their codes will be the auto filled list that is different than the one related to Generic Name. (Check the Table No. 4 to see the lists name and number).
8. Start entering the Trade Code or Name .This field is an auto fill field where it will start filling the drug and show all possible options by entering the code or the diagnosis first letters.

Drug Code/Name
 Generic Name Trade Name

1098-122104-1171 - DEXAMETHASONE 4MG TABLETS, DEXAMETHASONE, 4 MG, TABLETS 100'SBOX

Add Drug

9. If the selected drug has one of the specific granular units listed in the table above (Table No. 6), the system will automatically deactivate the granular unit of frequency field.

Drug Code/Name
 Generic Name Trade Name

Add Drug

Use (Number of unit) (Granular Unit Type) Frequency Value & Type Duration Day(s) Total Quantity (COLLAPSIBLE TUBE)

Special Instruction

Drug Refills

10. Choose the Frequency value and type from the drop menu.
11. Enter the Duration number in the related box. (Duration should be counted in Days).
12. Total quantity is an automatic number that appear based on a specific formula (multiplication of the entered numbers in “Number of unit” * “Frequency Value and Type” * “Duration”)
13. Choose the related Rout of Admin (ROA) from the drop menu. (ROA is a list as shown in Table No. 5)
14. Instructions field will automatically fill all the entered information in fields: Number of unit, Frequency Value and Type and Duration.
15. User can add any detail to the instruction box.
16. Click on “Add Drug” button

Special Instructions

Some prescription cases may require more instructions by the clinician. Therefore the instructions will be accommodated within the e-Prescription as shown in the snapshot below.

Emirates ID		999-9999-9999999-9		Unknown status, without a card	
Member ID	Birthdate (DD/MM/YYYY)	Patient Weight	Kg		
4531145	25/02/1995	45			
Type	Diagnosis Code/Description		Add Diagnosis		
Secondary					
Principle	C84.00 - Mycosis fungoides, unspecified site		[edit del]		
Drug Code/Name					
<input type="radio"/> Generic Name <input checked="" type="radio"/> Trade Name					
1098-122104-1171 - DEXAMETHASONE 4MG TABLETS, DEXAMETHASONE, 4 MG, TABLETS 100'SBOX			Add Drug		
Use (Number of unit)	TABLET	Frequency Value & Type	Duration	Total Quantity	ROA
			7 Day(s)	15 TABLET	Oral
<input type="radio"/> Special Instruction Instructions					
500 Microgram is given at 6 hourly intervals for 48 hours, followed by 2 MG every 6 hours for a further 48 hours.					0 Drug Refills

