ACCESS Health Digital
Powering the Future of Healthcare
A division of ACCESS Health International

Statement of Confidentiality

1. Functional Area – Pharmacy

1.1. Purpose

This document describes the Business Requirements Specifications (BRS) for Pharmacy Management in a primary care and specialist care setting.

1.2. Intended Audience

This document is intended for the Product Engineering team to commence development of 'Pharmacy Management' microservice, and the audience would comprise of

1.2.1. Development, Design & Implementation Team which may include Architects, Designers, Developers, and Business Analysts
1.2.2. Key stakeholders in the government at central and state levels

1.3. Overview

This microservice deals with various functionalities mentioned in this document that would enable streamlining and standardization of the Outpatient (OP) Pharmacy workflow and associated processes like ensuring reduction in medication errors, enhancing patient care and patient safety, report drug usage and effective management of institutional processes and resources.

1.4. Scope

Functionality scope includes:

- Medication Order/ E-Prescription
- Medication Dispensation
- Payment
- OTC drug order
- Telemedicine

1.4.1 Medication Order/ E-Prescription

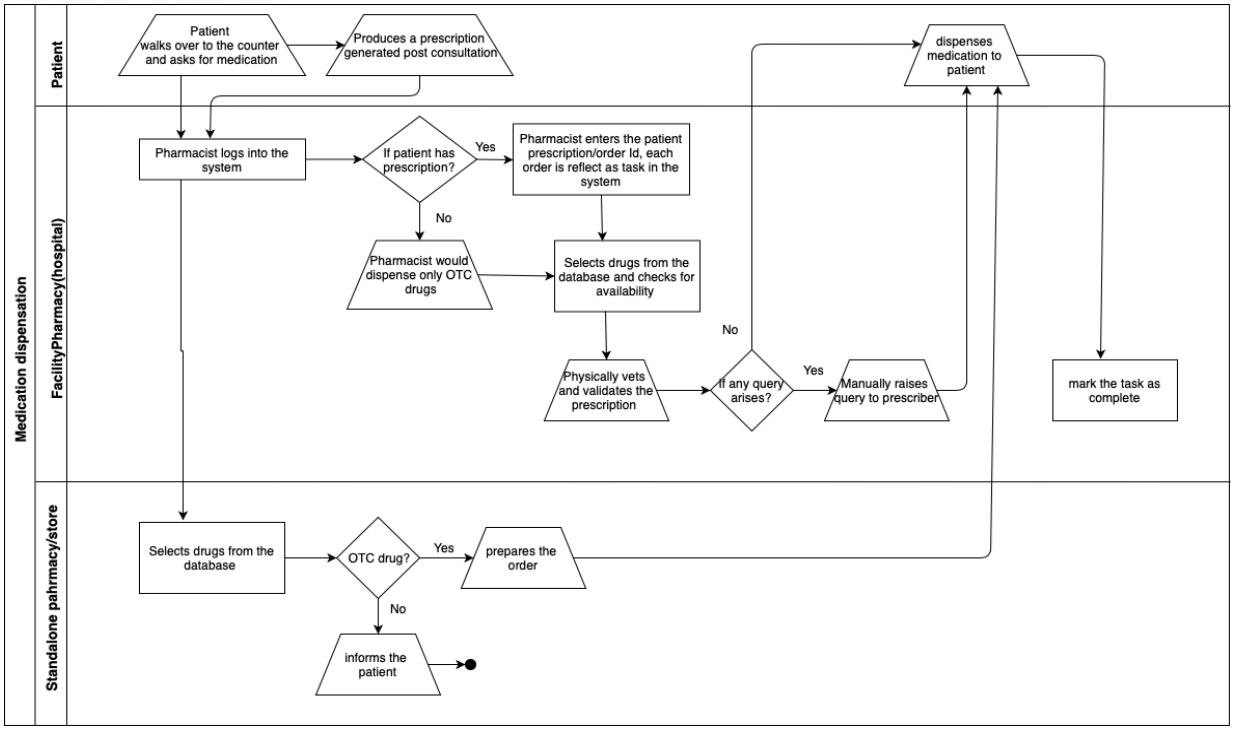
Description	The Medication order/e-Prescription will be covered under the "Plan" part of the SOAP (Subjective, Objective, Assessment, Plan) note and will act as a guiding document for this section of the pharmacy microservice. Doctors/Nurses will use this functionality for prescribing and dispensing medications. The order set will contain all the information pertaining to the patient's medication.
Users	Doctor, Nurse
Pre-requisites	Consultation 'Assessment' and 'Plan' sections of SOAP note are complete
Business Process Details	Based on the assessment i.e., diagnosis, the consulting doctor may prescribe medications, order investigations for confirmation of diagnosis, minor surgical procedures, care services (if needed) etc. This section would serve as a guiding document for the care plan of the patient and will follow the 'Subjective', 'Objective', 'Assessment' and 'Plan' components of the SOAP note.
Steps	**Medication Orders/E-prescription** ● A medication order can be added either by searching each medication from the drug master list or can be pre-configured as part of the order sets for a diagnosis. ● All the active medications should be visible in the UI when the new medication order is prescribed, as it gives the treating doctor visibility of active patient medication. Doctor/nurse can then use checkboxes or other UI attributes to select the same medication if it is to be repeated for a course of treatment using repeat and refill functionality. Similarly attributes to mark whether the active medications need to be stopped.

	● **Order Sets-** A Doctor should also have the authorization to edit any pre-configured order set while ordering for a patient. As, this would allow simple modification of the orders specific to patient requirement and necessity. ● **Drug registry/drug master lookup or search (Dynamic search)**- User should be able to search the relevant drug using a dynamic search. The user upon entering the drug name would be able to fetch data from the backend. The database should store the drug information for each drug parameter. Some of the elements to store a drug includes "Generic Name, Brand name, Strength, Form, Dosage (Configurable from the standard list), frequency, etc. ● **Recent Treatment orders**-The user interface may facilitate single click/tab function to select recent or favorite drug orders for the user to quickly place an order. ● **Repeat orders**-For each drug order, the system should allow the user to repeat one or multiple active or past drug orders. It will reduce the number of clicks a user has to make to place one drug order. ● **Drug Administration**-Application should be capable of **marking the responsibility** of an order placed. E.g.: In case of a government Tuberculosis program the drug administration can be done by the patient himself daily at home or can be an order for an ASHA worker. Depending upon the marking the responsibility against an order or order set, the system can generate a worklist for the responsible user/department/provider. ● **Special Instructions/Notes**- In addition to the basic drug master, user can also choose to add special instructions/notes. The system should be able to handle such case. Each prescription can have a note/special instruction against the drug/drugs ordered. ● **Alerts**- A drug order functionality should support alerts and approval flow for various drug interactions that includes Drug-Drug allergy, Drug-drug (when two drugs cannot be prescribed together as may result in contradiction, Drug-lab (certain lab investigations do not show expected result outcome when a patient is on a certain drug), Drug-Gender, Drug-Age, and drug duplication. *Apart from Drug Allergy interaction rest of the interactions are CDSS dependent. ● **Stop Drug Order**- The treating physician should be provided a feature to stop an active drug order using the same drug Order UI. This is required in cases where a doctor wants to change or stop the usage of a drug/drugs. ● **Active Drug Orders**-All the active drug orders should be always visible in the Treatment order/Rx order UI to enable drug order reconciliation. ● **Past Drug Orders**- The past drug order can be seen in the same UI or can be seen as a part of past prescriptions. ● For creating the Rx order, the doctor/nurse will open the medication tab and based on the diagnosis would look up the respective medication from the **Facility's Drug master / National Formulary of India/Drug Registry** (whenever available) ● Users can add additional instructions as per the facility or Treatment requirements. ● **Sticky Order**- An Rx order that a doctor wants to keep active for a long period of time for treating a patient condition can be marked as sticky. On marking a drug order as sticky, the order will always be seen in the active drug list and refill intervals can be set for the same that will generate notifications for the patient or health worker or pharmacy to refill the active drug. ● **Immunization orders-** In some cases doctor prescribe immunization as a part of care plan. The same screen can be used to place vaccine orders for a patient with marked responsibility for immunization administration.
Outputs	● ePrescription object
Messages & Alerts	● System alerts on any missing fields ● Message on final save and submit of the prescription ● Alert in case of any Drug-Allergy interaction (if supported by the system)

1.4.3. Medication Dispensation

Description	This section mentions the dispensation process of prescribed and non-prescribed drugs. Medication dispensation is a critical process, the pharmacist or the dispenser takes into consideration several factors such as assessing the appropriateness of prescribed doses, potential drug interactions at the time of dispensing.
Users	Patient, Pharmacist, Doctor/Nurse
Pre-requisites	Consultation Plan section of SOAP note is complete Prescription is completed
Business Process Details	**There are different scenarios related to dispensation of drugs** ***1. The medication is dispensed through the facility's pharmacy*** In the process of dispensing a drug, error in medication order may occur resulting in adverse consequences. The medication order created by the doctor reflects on the screen of the pharmacists against a prescription id or order id for the respective patient. Before dispensing the medication, the pharmacist vets and validates the prescription. The pharmacist would manually check for medication errors such as Drug-Drug interaction and raise a manual query to the prescriber (if necessary). ● **Drug-Drug interaction:** This is the change in a drug's effect on the body when the drug is taken together with a second drug. This can decrease or increase the action of either of the drugs or cause adverse effects. ● **Drug-Age interaction:** the drug class and dosage are directly influenced by the age of the patient. Certain drugs cannot be prescribed to certain age groups. ● **Drug-Disease interaction:** Is an event in which a drug that is intended for therapeutic use can cause some detrimental effects in a patient because of a pre-existing disease or condition. ● **Drug-Drug Allergy:** A patient may have an active allergy to a specific drug or drug category. This is important to record as these interactions elicit a harmful or life-threatening effect. ● **Drug-Laboratory Test interactions:** Laboratory tests may be affected by the physiological effects of certain drugs as a result may lead to incorrect diagnosis, incorrect treatment, and unnecessary follow-up. ● **Drug Duplication:** In some cases, a physician may order two drugs of the same therapeutic class or same active salt or same pharmacological action resulting in effects such as overmedication. ● **Drug-Gender interaction:** Certain drugs are exclusively gender specific. ***The above interactions are CDSS dependent and would be useful if the system is using CDSS.** ***2. If the patient procures medicine from an independent pharmacy (pharmacy store)*** An individual can also procure medications from pharmacy stores (e.g., Apollo pharmacy. 98.4 etc.). the individual may or may not produce a prescription**.** Dispensation of over-the-counter drugs do not require any prescription or medication order, but it is mandatory for prescribed drugs. Each order would have a bill no. specific to that order. In an ideal scenario the pharmacist would the pharmacist would manually vet and validate the prescription before dispensation.
Steps	***The medication is dispensed through the facility's pharmacy*** ● After the consultation is complete an e-prescription is generated. The patient may also be given a printed prescription slip. ● The e-prescription is also reflected on the pharmacist screen with a prescription id. This prescription id would be linked to the id of the patient generated as a part of

	patient's visit to the facility. The medication order would have its own id to maintain the uniqueness of each order created. ● The patient arrives at the pharmacist counter and shares his/her prescription id the printed slip of prescription. ● Pharmacist enters the prescription id and the details (drug name, dosage etc.) are reflected on the screen. ● The pharmacist vets and validates the prescription prior to dispensation of the drugs and raises a manual query to the prescriber (if necessary). ● The pharmacist rechecks the items prepared against the particulars of the patient. ● A bill is generated against the order. Each order has its own specific bill id which will be saved against the order id with date and time stamp. ● Upon completion of a task pharmacists should acknowledge completion of task in the system. **In case of a walk-in patient, the patient may or may not (OTC drugs) share the prescription with the pharmacist. The pharmacist would check the availability of the drug, drug strength and dispense accordingly. Since, a record of such dispensation must be maintained by the system for inventory management and audit trails. Each purchase would be saved against* ● ***If the patient procures medicine from an independent pharmacy (pharmacy store)*** ● Patient will produce a prescription if it is a prescription drug, if it is an OTC drug then no prescription is required. ● Pharmacists would log- in into the system and select the drugs from the drug database and add them to the cart. **If the drug is out of stock, the pharmacist also advises an alternate.* ● Rechecks the prepared items and educates the patient regarding the drug dosage and potential side effects. ● A bill id is generated against each order. After the payment is completed the order status is marked as complete.
Outputs	● Bill is generated
Messages & Alerts	● System alert on any missing fields ● Message if the drug is out of stock

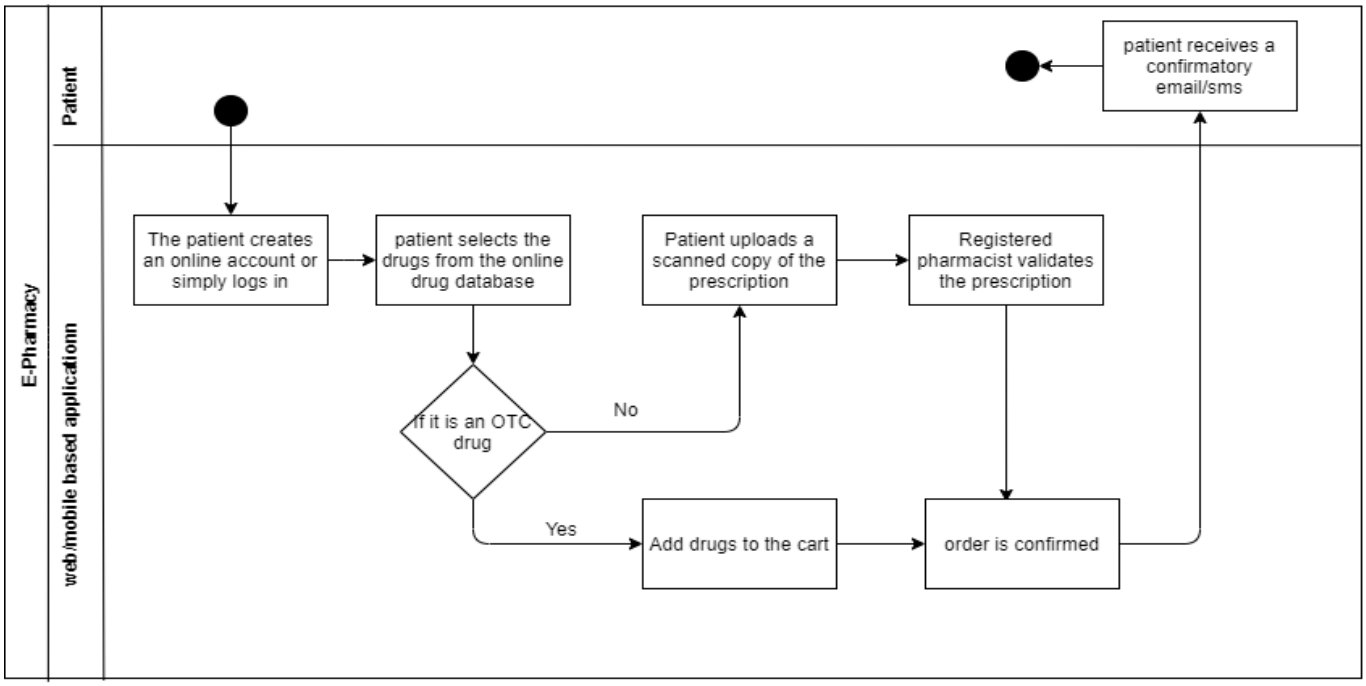


1.4.4. Over the Counter Drugs (OTC Drugs)

Description	OTC drugs or non-prescription drugs such as gum-paints, antacids etc. are medicines that are considered safe and effective for use without a prescription. For minor illnesses, the system enables the pharmacists to dispense over the counter drugs.
Users	Patient/User, Pharmacist
Pre-requisites	Pharmacy Information System
Business Process Details	OTC drugs or non-prescription drugs can be procured by the patients either through a facility pharmacy or standalone pharmacies. The flow is rather and simple and requires the pharmacy to have an information system.
Steps	● The patient walks over to the pharmacist's counter ● Asks for the required medication, the pharmacist logs into the system with his/her id and checks for the availability of drugs, strength, and form from the pharmacy's drug database. The pharmacist also checks whether the drug or not the drug is prescription drug. If yes, then the pharmacist receives a notification stating, 'upload prescription' or manually asks and checks the prescription. ● If the drug is out of stock, the pharmacist also advises an alternate. ● Rechecks the prepared items and educates the patient regarding the drug dosage and potential side effects. ● A bill id is generated against each order. After the payment is completed the order status is marked as complete.
Outputs	● Bill is generated
Messages & Alerts	● System alert on any missing fields ● Message if the drug is not an OTC drug ● Message if the drug is out of stock

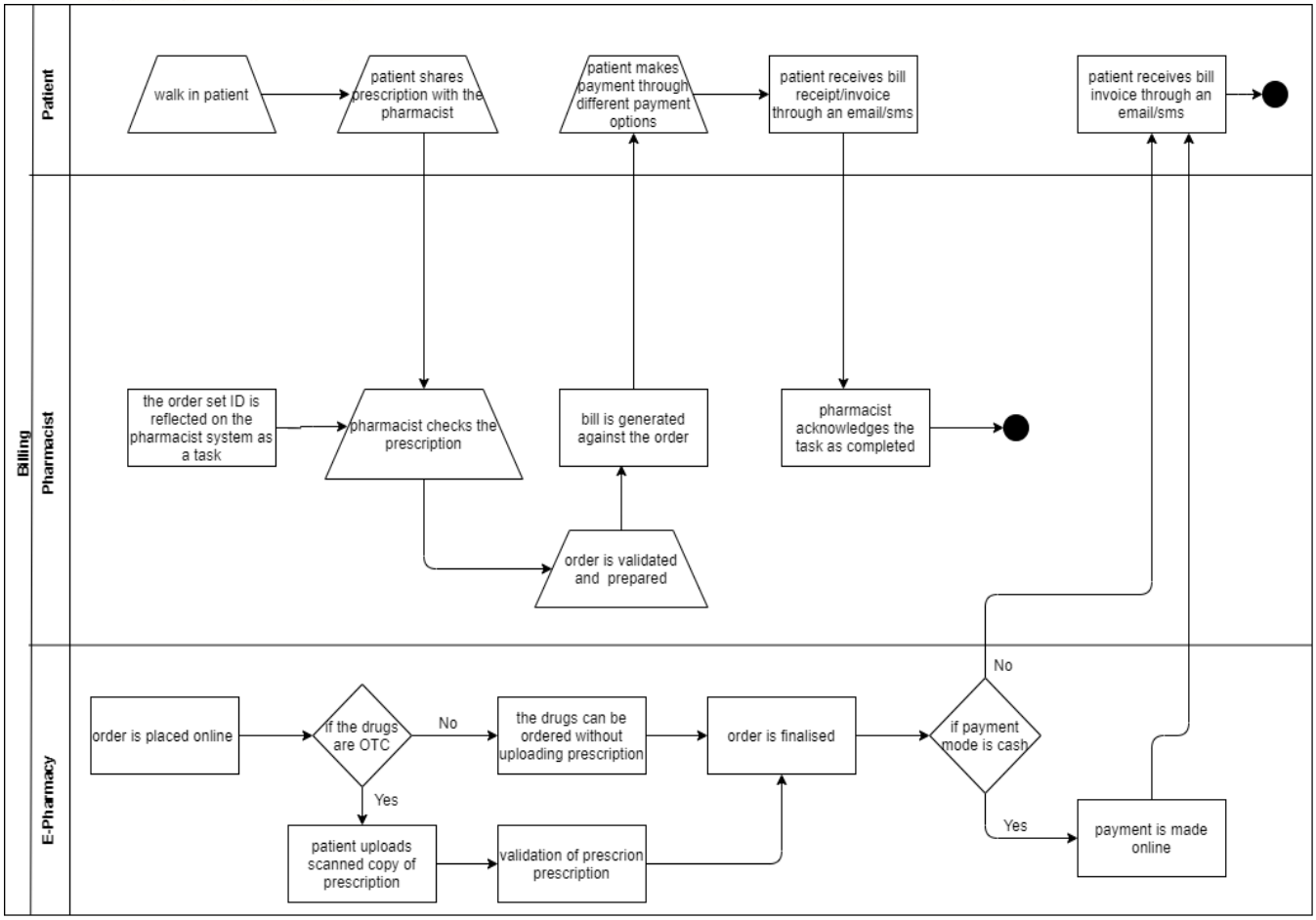
1.4.5 ePharmacy

Description	An ePharmacy or online pharmacy takes the order of medicines over the internet and delivers these medicines to the respective patients/users through mail services or dedicated courier services.
Users	Patient/Users, Sellers using online pharmacy
Pre-requisites	Web based/mobile based application, Registered Sellers
Business Process Details	ePharmacies have made the process of ordering and receiving medications convenient for the patients. Patients can easily procure the OTC as well as prescribed drugs through these pharmacies.
Steps	• The patient creates an account on the web/mobile based e-pharmacy. Enters the relevant demographic and contact details. • The patient can search for drugs in the drug database available on the e-pharmacy. • In case of prescribed drugs, ♦ The patient uploads the prescription on the portal. (This prescription is verified by the registered pharmacist). ♦ The medicines are added to the cart and the patient selects the payment option (cash on delivery, credit/debit card, net banking, wallet) ♦ Medicines are dispensed and couriered to the patient with an invoice of batch number and expiry date. • In case of OTC drugs, ♦ The patient selects the medicines from the drug database. ♦ The medicines are added to the cart and the patient selects the payment option (cash on delivery, credit/debit card, net banking, wallet) ♦ Medicines are dispensed and couriered to the patient with an invoice of batch number and expiry date. *The billing part has been discussed in the pharmacy billing section
Outputs	• Bill and invoice are generated
Messages & Alerts	• System alert on any missing fields • Message if the drug is out of stock



1.4.6. Pharmacy Billing

Description	This includes the billing of medication received by the patients through different
Users	Patient, Pharmacist
Pre-requisites	Pharmacy information system, web/mobile applications, Registered pharmacist
Business Process Details	• The pharmacy billing would include the billing for drugs procured through the healthcare facilities, independent pharmacies, and e-pharmacies.
Steps	• ***The medication is procured from the facility's pharmacy as per the consultation*** ♦ The pharmacist enters the patient id/prescription id/order id. This id reflects as a task on the pharmacist's screen. ♦ Selects the medication and validates the prescription (if the system has a built in CDSS it is done automatically) ♦ Rechecks the items prepared, and a bill is generated against the order id. ♦ Patients can make the payment either in cash/credit card/debit card/or through a wallet (such as Paytm, mobiwik etc.) ♦ A bill receipt is given to the patient and simultaneously one is saved in the system. ♦ The pharmacist then marks the task completed. • ***The medication is procured from independent pharmacies*** ♦ The pharmacist selects the medication asked by the patients. For OTC drugs no prescription is required but for prescription drugs a valid prescription is mandatory. ♦ Selects the medication and gives instructions to patients regarding the dosage etc. ♦ Rechecks the items prepared, and a bill is generated against the order. ♦ Patients can make the payment either in cash/credit card/debit card/or through a wallet (such as Paytm, mobiwik etc.) ♦ A bill receipt is given to the patient and simultaneously one is saved in the system. • ***If the patient orders drugs through an e-pharmacy*** ➢ After creating an account/or logging in the patient selects the drugs from the online drug database, in case of prescription drugs the patient uploads a scanned copy of the prescription ➢ Adds drugs to the cart and selects the payment option. (Cash on delivery, credit/debit card, net banking, wallet. ➢ The patient is guided to the payment gateway ➢ Post payment the patient receives an order confirmation email/SMS and a bill invoice on the registered email id and contact number.
Outputs	• Bill receipt • Invoice • Order confirmation
Messages & Alerts	• System alert on any missing fields • Message if the drug is out of stock



1.4.7. Telemedicine

Description	Providing in-person healthcare is challenged by many factors such as disasters and pandemic. The present scenario of COVID 19 has posed a unique challenge. Telemedicine is well suited for such situations for providing quality healthcare services. As per the Telemedicine Guidelines given by the Government of India, prescribing medications is subjected to strict guidelines and the Registered Medical Professional (RMP) has been entailed with the complete authority and accountability of e-prescriptions.
Users	Patient, RMP
Pre-requisites	Telemedicine guidelines
Business Process Details	• As stated in the telemedicine guidelines the RMP can prescribe medicine only when an appropriate diagnosis has been established. The medicines have been listed under different categories based on the type of consultation and mode of consultation. • ***List-O***: Common over the counter medications which can be prescribed through any mode of teleconsultation. • ***List-A***: Drugs which can be prescribed during the first consult which is a video consultation and are prescribed as re-fill in case of follow-up • ***List-B***: Drugs which can be prescribed to patients undergoing follow-up consultation in addition to those which have been prescribed during in person consult • ***Prohibited list***: Drugs listed in Schedule X of Drugs & Cosmetics Acts and Rules, 1945 or any Narcotic and Psychotropic substance listed in Narcotic Drugs and Psychotropic Substances Act,1985. (For more details kindly refer to Telemedicine Practice Guidelines)

Steps	● The RMP after the consultation either video or audio prescribes the patient medication as per the Indian Medical Council (Professional Conduct, Etiquette & Ethics) Regulation ● The RMP provides a photo, scan, digital copy of prescription or e-prescription to patient via email or any messaging platform ● In case RMP is transmitting prescription directly to a pharmacy he/she must ensure explicit consent of the patient to get the medicines dispensed from any pharmacy.
Outputs	Prescription or e-prescription
Messages & Alerts	● System alerts on missing information ● Message to relevant provider/pharmacy store/pharmacist

1.1. Required MDDS Data Elements

1.1.1. Entity: Generic

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Time	05.001.0001	HH:MM:SS	8	
Date	G00.01	dd/mm/yyyy	10	
Alternate Identifier Type	05.001.0003	Integer	2	CD05.053
Alternate Identifier	05.001.0004	Varchar	254	
Unit of Measurement	05.001.0018	Varchar	25	CD05.025
Code System Qualifier	05.001.0021	Varchar	15	CD05.032
System of Medicine	05.001.0022	Integer	2	CD05.030
Document ID	05.001.0023	Varchar	50	
Reference Document ID	05.001.0024	Varchar	50	

1.1.2. Entity: Person

Data Elements	MDDS Codes	Data Format	Maximum Sze	Code Directory
Unique Health Identification Number	G01.01	Integer	12	
Alternate Unique Identification Number (UID) Type	05.002.0001	Integer	2	CD05.007
Alternate Unique Identification Number (UID)	05.002.0002	Varchar	Max. Size =18 10 - PAN Card 08 - Passp ort No. 18 - Voter ID 18 - Any other Identi fier	
Author ID	05.002.0032	Varchar	8	
Author Name	05.002.0017	Varchar	99	G01.02
Author Email Address/URL	05.002.0020	Varchar	254	G00.09

1.1.3. Entity: Patient

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Provider's Patient ID	05.003.0001	Varchar	18	
Patient Name	05.003.0002	Varchar	99	G01.02

Patient Age	05.003.0003	Age-year(s)(yyy)Integer(3) Age-Month(s) (mm) Integer(2) Age-Day(s)(dd)Integer(2) DefaultValue:999,99,99 no preceding zero[years,monthsdays]	7	
Patient Gender Code	05.003.0021	Char	1	G01.03
Patient Mobile Number	05.003.0012	Char	10	G00.06- 02-05
Patient Arrival Time	05.003.0014	HH:MM:SS	8	
Patient Arrival Date	05.003.0015	dd/mm/yyyy	10	G00.01

1.1.4. Entity: Employee

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Employee ID	05.004.0053	Varchar	18	
Employee Name	05.004.0001	Varchar	99	G01.02
Employee Mobile Number	05.004.0007	Char	10	G00.06- 02-05

1.1.5. Entity: Provider

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Unique Individual Health Care Provider Number	05.005.0001	Varchar	18	
Unique Individual Health Care Provider Number Type	05.005.0002	Integer	2	CD05.008
Health Care Provider Role Code	05.005.0010	Integer	2	CD05.009
Health Care Provider Type	05.005.0012	Integer	2	CD05.010
Registration Authority Number	05.005.0003	Integer	3	CD05.012

1.1.6. Entity: Bill

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Bill ID	05.007.0001	Varchar	50	
Bill Date	05.007.0002	dd/mm/yyyy	10	
Payment Type	05.007.0009	Integer	1	Values: 1.Cash 2.Credit
Total Billed Amount	05.007.0024	Decimal (10, 2)	10	
Transaction ID	05.007.0036	Varchar	50	

1.1.7. Entity: Facility

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Facility National Identification Number	05.008.0001	Integer	10	CD05.001
Facility Global Unique Identifier (GUID)	05.008.0025	Bits	16	
Facility Type Code	05.008.0002	Integer	2	CD05.002
Referral Facility Identification Number	05.008.0019	Integer	10	CD05.001
Referral Facility Type Code	05.008.0020	Integer	2	CD05.002

1.1.8. Entity: Episode

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Episode ID	05.009.0001	Varchar	50	

1.1.9. Entity: Encounter

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Encounter ID	05.010.0001	Varchar	18	
Encounter Type	05.010.0002	Integer	2	CD05.047

1.1.10. Clinical Orders Entity

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Order ID	05.025.0004	Varchar	12	
Order Verifying Care Provider ID	05.025.0006	Varchar	18	
Order Status	05.025.000	Char	2	CD05.121
Placer Order ID	05.025.0013	Varchar	10	
Filler Order ID	05.025.0014	Varchar	10	

1.1.11. Entity: Pharmacy

Data Elements	MDDS Codes	Data Format	Maximum Size	Code Directory
Drug Classification Code	05.023.0001	Integer	2	CD05.106
Route of Administration	05.023.0002	Varchar	6	CD05.111
Medication Frequency	05.023.0003	Varchar	5	CD05.023
Medication Administration Interval	05.023.0004	Varchar	40	
Dose	05.023.0005	Varchar	60	
Medication Stopped Indicator	05.023.0006	Integer	1	
Body Site	05.023.0007	Integer	3	CD05.026
Dose Restriction	05.023.0008	Varchar	60	

Medication Status	05.023.0010	Integer	2	CD05.123
Patient Instructions	05.023.0011	Varchar	254	
Prescription ID	05.023.0012	Varchar	20	
Order Date	05.023.0013	dd/mm/yyyy	10	G00.01
Order Time	05.023.0014	HH:MM:SS	8	
Medication Fills	05.023.0019	Integer	3	
Pharmacy Units	05.023.0021	Varchar	24	CD05.109
Medication Instructions	05.023.0024	Varchar	254	
Fill Status	05.023.0028	Integer	2	

E-Prescription Object

Data Elements Labels	Field Type	Data Format String, Varchar, Integer, Value set	Maximum Size	Applicable code directory/value set	MDDS Label	Remark
Header (To be encrypted and store)						
Unique Health Identification Number (UHID)	Optional	Bits	16	G01.01	05.008.0025	India still doesnt have a PatientMaterIndex, hence this field can be kept optional for now. But for vendors who handle Ayushman Bharat patients or any state health scheme or a state which has identified each patient uniquely (Kerala) the member ID/State allocated patient ID can be utilized for such patients. Eg: PMJAY ID, BHAMASHA ID, Kerala Patient Health ID=ADHAAR
Unique identification (UID)	Optional	Integer	12		G01.01	To be used for ADHHAR (UIDAI) if authorized, This is used for person identification.
Alternate Unique Identification Number (UID) Type	Optional	Integer	12	CD05.007	05.002.0001	Till the time the UHId is unavailable, patient alternate id can used in place of a unique identifier. For a hospital setting it can be the patient's AADHAR number. and for those enrolled in vertical programs, the IDs alotted to each patient under that program can be utilized for example, NIKSHAY ID.

Alternate Unique Identification Number (UID)	Mandatory	Varchar		Max.Size=18 10-PAN Card08 - 08-PassportNo. 18 -VoterID 18 -Any other Identifier	05.002.0002	This can be extended to accomodate identifiers from various vertical programs for the same patient untill we have UHID and a National Patient Master Index
Unique Facility Identification Number (Generating)	Mandatory	Integer	10	CD05.001	05.008.0001	If the prescription was generated by a healthcare facility, its ID from facility registry is to be captured
Unique Facility Identification Number (Receiving pharmacy)	Mandatory	Integer	10	CD05.002	05.008.0001	Facility receiving the prescription. ID captured from facility registry.
Order Verifying Care Provider ID	Optional	Varchar	18		05.025.0006	The identity of the person (Unique Individual Care provider ID) who verified the accuracy of the entered request If Individual Care provider ID is not available; the Order Verified by person UID can be used in Alternate UID data element.
Clinical Document Type Code	Optional	Integer	2	CD05.046	05.019.0006	Type of clinical document e.g. Progress Note - Subjective, Objective, Assessment, Protocol
Prescription ID	Optional	Varchar	20		05.023.0012	The prescription identifier assigned by the pharmacy.
Order Date	Optional	dd/mm/yyyy	10		05.023.0013	Date on which prescription was created
Order Time	Optional	HH:MM:SS	8		05.023.0014	Time on which prescription was created
Encounter ID	Mandatory	Varchar	18		05.010.0001	It is essential to retain permanent records of all patient encounters. Unique ID to be assigned for each patient encounter.
Episode ID	Optional	Varchar	50		05.009.0001	Identifier assigned to patient episode.
Title (To be printed)						

Prescription Information						
Prescription ID	Optional	Varchar	20		05.023.0012	The prescription identifier assigned by the pharmacy.
Unique Individual Health Care Provider Number	Optional	Varchar	18		05.005.0001	Unique ID assigned to a person who is providing healthcare directly to the patient. This ID can be assigned by a central or state level Health Registration Authority e.g. Medical Registration number assigned to every health provider by Indian Medical Council.
Health Care Provider Mobile Number	Optional	Char	10	Refer to Mobile Number (G00.06-02-05)	05.005.0007	Mobile number of care provider
Unique Health Identification Number (UHID)	Optional	Bits	16	CD05.001	05.008.0025	India still doesnt have a PatientMaterIndex, hence this field can be kept optional for now. But for vendors who handle Ayushman Bharat patients or any state health scheme or a state which has identified each patient uniquely (Kerala) the member ID/State allocated patient ID can be utilized for such patients. Eg: PMJAY ID, BHAMASHA ID, Kerala Patient Health ID=ADHAAR
Patient's Information						
Provider's Patient ID	Optional	Varchar	18		05.003.0001	The identifier used by a care provider (Individual or facility) to uniquely identify the patient.
Patient Name	Mandatory	Varchar	99	Refer to Name of the Person (G01.02)	05.003.0002	Patient Name
Patient Age	Mandatory	Age-year(s) (yyy) Integer(3) Age-Month(s) (mm)	7		05.003.0003	This data element is to be used when patient DOB is not known or in addition to DOB.

		Integer(2) Age-Day(s) (dd) Integer (2) Default Value: 999,99,99 no preceding zero [years, months, days]				
Patient Class	Mandatory	Integer	2	CD05.047	05.003.0013	This is used to categorize patients by the site where the encounter occurred, such as Emergency patients, Inpatients, Outpatients etc.
Patient Address (05.003.0009)						
Patient Address Type	Optional	Char	1	CD05.120	05.003.0010	This data element is extended in health domain to include more address type values. The value list has been coded using a character code to identify the address type.
Premises Identifier	Mandatory	Varchar	60		G02.03-00-02	House Number./DoorNumber/House Identifier/Flat Number l Building Number./Plot Number l Building Name/BuildingIdentifier
Sub Locality-1	Optional	Varchar	60		G02.03-01-03	Block Name/Number or any other qualifier l Street Number /Name/Mohalla/ Sector Number/any other qualifier
Locality	Optional	Varchar	60		G02.03-03-03	Area Number/ Area Name / Suburb / Sub district in case of Village/ any other qualifier

Country Code	Optional	Integer	State - 2 District - 3 Sub-District - 5 Village - 6 Town - 6		G02.01	A unique code allocated by Office of RGI at National level, for administrative units like State/ District / Sub District /Rural Region (Revenue Village) / Urban Region (Town) / any other Land identifier, to be used by domain applications for the purpose of interoperability among e- Governance applications, while exchanging Land region data
District	Mandatory	Integer		CD02.03	G02.01	
Sub-District	Mandatory	Integer		CD02.04		
Village	Optional	Integer				
Town	Optional	Integer				
State	Mandatory	Integer		CD02.02		
Pin	Mandatory	Integer	6		G02.04-01	Postal Index Number
Name of country in English	Mandatory	Varchar	50		G02.02-01	Name of: Country / State / District / Sub District / Rural Land region (Revenue Village) / Urban Land region (Town) / any other Land identifier preferably in CAPITAL Letters

Patient's email Address	Optional	Varchar	254		05.003.0024	Email of patient
Patient Mobile Number	Mandatory	Char	10		05.003.0012	Patient's contact number
Patient Drug Allergies						
Allergy Product Code	Optional	Integer	5	CD05.018	05.018.0001	This is the code of the product or agent that causes the intolerance (Allergy, sensitivity or Intolerance)
Allergy Reaction Code	Optional	Varchar	10	CD05.019	05.018.0003	This value is a code describing the reaction. Allergic reactions are sensitivities to allergens that come into contact with the skin, nose, eyes, respiratory tract, and gastrointestinal tract e.g. Allergic Rhinitis, Allergic Sinusitis, Allergic Conjunctivitis, Bronchoconstriction, wheezing and dyspnea, Ear Infection etc.
Allergy Severity Code	Optional	Integer	2	CD05.020	05.018.0006	This value is a code describing the level of severity of the allergy or intolerance. e.g. Mild, Moderate, Severe etc.
Allergy Status	Optional	Integer	2	CD05.021	05.018.0008	The status of the allergy intolerance such as Active, Inactive, Remitted etc.
Active Conditions						
Health Condition Code (Diagnosis)	Optional	Varchar	10	CD05.019/ICD10	05.020.0003	This value is an ICD-10 code describing the condition according to a specific vocabulary of conditions.
Comorbidity Indicator	Optional	Integer	1		05.020.0008	Data element indicates whether comorbidity exists or not.
Comorbidity Health Condition Code	Optional	Varchar	10	CD05.019/ICD10	05.020.0009	This data element indicates two or more coexisting medical conditions or disease processes that are additional to an initial diagnosis. The simultaneous presence of two or more conditions or diseases may complicate a patient's stay at the healthcare facility, and may have effect on clinical implications, diagnosis, prognosis and therapy.
Pregnancy Indicator	Optional	Integer	1		05.003.0017	Indicates whether a woman is pregnant or not

Active Lab Orders						
Lab Order Code	Optional	Varchar	10	CD05.024	05.021.0022	The order code for the requested observation, test, and/or battery.
Lab Order Description	Optional	Varchar	50	NA		Description of the Lab order
Rx Details - M						
Drug Classification Code	Optional	Integer	2	CD05.106	05.023.0001	Drug classification according to nature of the Drug such as Antipyretics,Analgesics etc.
Generic Drug Code	Optional	Integer	5	NFI	05.031.0004	A code describing the prescription or non- prescription generic drug product from a controlled vocabulary.
Brand Drug Code	Optional	Integer	10	Hospital specific	05.031.0006	A drug that has a trade name and is protected by a patent (can be produced and sold only by the company holding the patent)
Brand Drug Name	Optional	Varchar	99	Hospital specific	05.031.0005	The branded or trademarked name of a generic drug. This may include additional information such as strength, dose form, etc.
Strength Value	Mandatory	Varchar	25		05.031.0011.	The numeric value of the dose strength of the active ingredient as specified in the medicinal product labeling should be indicated in this field. For numeric values with decimal fractions, a full stop should be used.
Physical Form of Drug	Mandatory	Varchar	6	CD05.108	05.031.0010	Physical form is in which a drug is produced and dispensed, such as a tablet, a capsule, or an injectable etc.
Dose	Mandatory	Varchar	60		05.023.0005	The amount of the product to be given. This may be a known, measurable unit (e.g. milliliters), an administration unit (e.g. tablet), or an amount of active ingredient (e.g., 250 mg). May define a variable dose, dose range or dose options based upon identified criteria.
Route of Administration	Mandatory	Varchar	6	CD05.111	05.023.0002	A route of administration is a way of administering a drug to a site in a patient such as: Oral, Intra- venous, Intra-muscular etc.

Medication Frequency	Mandatory	Varchar	5	CD05.023	05.023.0003	Defines how often the medication is to be administered as events per unit of time. Often expressed as the number of times per day (e.g. four times a day), but may also include event-related information (E.g. 1 hour before meals, in the morning, at bedtime). Complimentary to Interval, although equivalent expressions may have different implications (E.g. every 8 hours versus 3 Times a day)
Medication Administration Interval	Optional	Varchar	40		05.023.0004	Defines how the product is to be administered as an interval of Time. For example, every 8 hours. Complimentary to Frequency, although equivalent expressions may have different implications (e.g., If a person is taking 3 medicines at a time, then he has to maintain a certain interval between the three of them like 1 hour, 15 minutes etc.)
Body Site	Optional	Integer	3	CD05.026	05.023.0007	The anatomic site where the medication is administered. Usually applicable to injected or topical products
Contraindication	Optional	Varchar	10	CD05.019	05.023.0018	It is defined as the reason that makes it inadvisable to prescribe a particular drug or treatment. E.g. An allergic reaction to penicillin is a contraindication to the future use of the drug.
Medication Instructions	optional	Varchar	254		05.023.0024	The instructions, typically from the ordering provider, to the patient on the proper means and timing for the use of the product. A criteria that specifies when an action is, or is not, to be taken. For example, “if blood sugar is above 250 mg/dl”
Medication Fills	Optional	Integer	3		05.023.0019	The number of times that the ordering provider has authorized the pharmacy to dispense this medication

Fill No.	Optional	Varchar	20		05.023.0027	The fill number for the history entry. Identifies this dispense as a distinct event of the prescription
Quantity Ordered Value	Optional	Integer	10		05.023.0020	The amount of product indicated by the ordering provider to be dispensed. E.g. number of dosage units or volume of a liquid substance. Note: This is comprised of both a numeric value and a unit of measure is captured in "Pharmacy Units"
Pharmacy Units	Optional	Varchar	25	CD05.109	05.023.0021	The unit value of the ordered quantity.
Immunization Order (If applicable)						
Immunization Performer Identification Number	Optional	Varchar	18		05.024.0004	The person that administered the immunization to the patient (may include both a name and an identifier)
Immunization Product Code	Optional	Integer	3	CD05.036	05.024.0005	A code describing the immunization product from a controlled vocabulary.
Author's Detail (Prescriber details)						
Author Date	Mandatory	dd/mm/yyyy	10		05.019.0002	Autocaptured with role based access control/ Doctor's digital signature who created the encounter note
Author Time	Mandatory	HH:MM:SS	8		05.019.0001	
Author's Digital Signature	Mandatory					