

**11 February 2021**

**MHS GENESIS Pharmacy File BDE 2.4  
for the  
MHS Data Repository (MDR)  
(Version 1.01.00)  
  
Current Specification**

## Revision History

Version	Date	Originator	Para/Tbl/Fig	Description of Change
1.00.00	11/30/2020	S. Keane	Initial Document	Baseline
1.01.00	02/11/2021	S. Keane	Sections VII, VIII, IX	Update Sections VII and VIII and add Section IX

## **MHS GENESIS Pharmacy**

### **I. BACKGROUND**

This specification describes the process required to create the Military Health System (MHS) Data Repository (MDR) GENESIS Pharmacy tables based on data received from Cerner PowerInsight Enterprise Data Warehouse (PI-EDW) feeds to the MDR.

### **II. SOURCES**

The source data files used to create the MHS GENESIS Pharmacy tables are extracted from the MHS GENESIS PI-EDW. The transfer of the raw source extracts is handled by the Solution Delivery Division (SDD) for loading into the MDR for further processing according to routine MDR operations. The format of the raw MHS GENESIS feeds to the MDR is described in the Department of Defense Healthcare Management System Modernization (DHMSM®) Program DRAFT Interface Control Document (ICD) for Bulk Data Extract (BDE).

### **III. TRANSMISSION (FILES AND FREQUENCY)**

Source files are provided weekly.

### **IV. ORGANIZATION AND BATCHING**

**Source Data:** The first step in MDR processing is to batch records received from MHS GENESIS. Raw data batches are stored in /mdr/raw/genesis according to routine MDR operating procedures.

**Output Products:** The processor outputs separate SAS data sets for Fiscal Year (FY) of data. The processor performs merges and field derivations, and must incorporate updates to records across raw data extracts. The output data set fyxx.sas7bdat will be stored in /mdr/pub/genesis/pharmacy/fyxx.sas7bdat.

**Archiving (APUB):** Use routine archiving rules and procedures of the MDR.

**Receiving Filters:** There are no receiving filters.

MDR GENESIS Pharmacy tables will contain medications dispensed and/or administered at MHS GENESIS Military Treatment Facilities (MTF). Select result records where Activity Type equals "Pharmacy" and to avoid selecting results for omitted orders, match order records on primary key. All records are provided with the initial batch of data. Thereafter, new and changed records are sent each week.

### **V. UPDATE PROCESSES**

New raw feeds contain either insert or update records. These records shall be used to update the master MDR GENESIS Pharmacy datasets. The primary key for the final dataset is the combination of Encounter

Key, Order SK, Action Sequence, and Ingredient Sequence. The processor shall delete duplicates before updating the table. Duplicate records, defined as those with the same primary key. When choosing among duplicate records, the processor shall select the record with the most recent value for the variable: UPDT\_DT\_TM (update date/time (UPDT\_DT\_TM) for multiple of records with the same primary key.

## VI. FILE MERGES

Table 1 describes the data merges that are necessary to append many of the fields in the MHS GENESIS Pharmacy file.

**Table 1: File Merges**

Merge	Key Matching
MHS GENESIS Orders	order_sk where activity_type = "Pharmacy" and where health_system_source_id=18635.
MHS GENESIS Pharmacy Orders	order_sk where health_system_source_id=18635
MHS GENESIS Pharmacy Dispense History	pharm_dsp_hsit_sk where health_system_source_id=18635.
MHS GENESIS Pharmacy Product Dispense History	pharm_ord_ingred_sk where health_system_source_id=18635
MHS GENESIS Pharmacy Order Ingredient	pharm_ord_ingred_sk where health_system_source_id=18635
MHS GENESIS Pharmacy Order Product	pharm_ord_ingred_sk where health_system_source_id=18635
MHS GENESIS Prescription Claim	pharm_dsp_hsit_sk where health_system_source_id=18635
MHS GENESIS Medication Product Reference	medication_prod_sk where health_system_source_id=18635 and active_ind = 1
MHS GENESIS Encounter	encounter_key where health_system_source_id=18635
MHS GENESIS Encounter History	arent_entity_sk to encounter_sk
MHS GENESIS Location	location_sk where active_ind = 1
MHS GENESIS Service Resource Reference	svc_res_dept_hier_sk where active_ind = 1
MHS GENESIS Person	person_sk
MHS GENESIS Personnel	prsnl_sk where active_ind = 1
MPI	EDIPN
LVM	EDIPN and date_disperse between begin and end dates associated with the segment
DEERS	EDIPN or SSN and date_disperse
DMIS Index	MTF, MTF_ENR
Omni-CAD	zip_d and sponsvc and year and month of CAD in date_disperse

## VII. FILE LAYOUT

Table 2 describes the file layout and derivation rules for the MHS GENESIS Pharmacy file.

Variable Name	SAS Name	Format	Source Field	Business Rule
<b>MHS GENESIS Orders</b>				
<b>WH_CN_ORDER</b>				
Ad Hoc Order Flag	AD_HOC_ORDER_FLG	N(8)		None.
Catalog Type	CATALOG_TYPE	char(34)	CATALOG_TYPE_REF	CATALOG_TYPE = (CATALOG_TYPE_REF, \$discipline_type.)
Completed Date and Time	COMPLETED_DT_TM	DATETIME		None.

Variable Name	SAS Name	Format	Source Field	Business Rule
Completed Personnel	COMPLETED_PRSNL	char(100)		None.
Constant Indicator	CONSTANT_IND	N(8)		None.
Department Status	DEPT_STATUS	char(29)	DEPT_STATUS_REF	DEPT_STATUS = put(DEPT_STATUS_REF, \$dept_status.) (code set 14281)
Discontinue Date and Time	DISCONTINUE_DT_TM	DATETIME		None.
Discontinue Indicator	DISCONTINUE_IND	N(8)		None.
Discontinue Personnel	DISCONTINUE_PRSNL	char(100)		None.
Frequency Type Flag	FREQ_TYPE_FLAG	char(15)	FREQ_TYPE_FLG	select(FREQ_TYPE_FLG); when (0) FREQ_TYPE_FLAG = '0 None'; when (1) FREQ_TYPE_FLAG = '1 Time of Day'; when (2) FREQ_TYPE_FLAG = '2 Day of Week'; when (3) FREQ_TYPE_FLAG = '3 Interval'; when (4) FREQ_TYPE_FLAG = '4 One Time'; when (5) FREQ_TYPE_FLAG = '5 Unscheduled'; otherwise FREQ_TYPE_FLAG = ' ';
Incomplete Order Indicator	INCOMPLETE_ORDER_IND	N(8)		None.
Last Action Sequence	LAST_ACTION_SEQUENCE	N(8)		None.
Last Order Status	LAST_ORDER_STATUS	char(22)	LAST_ORDER_STATUS_REF	LAST_ORDER_STATUS = put(LAST_ORDER_STATUS_REF, \$LAST_ORDER_STATUS.) (code set 6004).
Last Order Status Date and Time	LAST_ORDER_STATUS_DT_TM	DATETIME		None.
Need Rx Verify Flag	NEED_RX_VERIFY_FLG	N(8)		None.
Order Date and Time	ORDER_DT_TM	DATETIME		None.
Order SK	ORDER_SK	char(100)		None.
Original Communication	ORIG_COMMUNICATION	char(27)	ORIG_COMMUNICATION_REF	ORIG_COMMUNICATION = put(ORIG_COMMUNICATION_REF, \$orig_communication.) (code set 6006).
Original Order Conversation Sequence	ORIG_ORDER_CONVS_SEQUENCE	N(8)		None.
Original Order Flag	ORIG_ORDER_FLAG	char(30)	ORIG_ORDER_FLG	None.
Patient Location Code	PATIENT_LOC	char(40)		None.
Patient Location Bed SK	PATIENT_LOC_BED_SK	char(100)		None.
Patient Location Building SK	PATIENT_LOC_BUILDING_SK	char(100)		None.
Patient Location Facility SK	PATIENT_LOC_FACILITY_SK	char(100)		None.
Patient Location Nurse Unit SK	PATIENT_LOC_NURSE_UNIT_SK	char(100)		None.
Patient Location Room SK	PATIENT_LOC_ROOM_SK	char(100)		None.
PRN Indicator	PRN_IND	N(8)		None.
Projected Stop Date and Time	PROJECTED_STOP_DT_TM	DATETIME		None.
Requested Start Date and Time	REQUESTED_START_DT_TM	DATETIME		None.
Suspend Indicator	SUSPEND_IND	N(8)		None.
Visit Key	VISIT_KEY	N(8)		None.

**MHS GENESIS Pharmacy  
Orders WH\_CLN\_PHARM\_ORDER**

Variable Name	SAS Name	Format	Source Field	Business Rule
Claim Flag	CLAIM_FLG	N(8)	CLAIM_FLG	select(CLAIM_FLG); when (0) CLAIM_FLG = '0 No claim'; when (1) CLAIM_FLG = '1 Claim'; otherwise CLAIM_FLG = ' ';
Coordinate of Benefit Indicator	COORDINATE_OF_BENEFIT_IND	N(8)		None.
Days Supply	DAYS_SUPPLY	N(8)		None.
Dispense as Written (DAW)	DISPENSE_AS_WRITTEN	char(60)	DISPENSE_AS_WRITTEN_REF	DISPENSE_AS_WRITTEN = put(DISPENSE_AS_WRITTEN_REF, \$DISPENSE_AS_WRIT.) (code set 4514).
Dispense Category	DISPENSE_CATEGORY	char(60)	DISPENSE_CATEGORY_REF	DISPENSE_CATEGORY = put(DISPENSE_CATEGORY_REF, \$DISPENSE_CATE.) (code set 4008).
Duration	DURATION	N(8)		None.
Duration Unit	DURATION_UNIT	char(24)	DURATION_UNIT_REF	DURATION_UNIT = put(DURATION_UNIT_REF, \$UNITDISP.) (code set 54).
Expire Date and Time	EXPIRE_DT_TM	DATETIME		None.
Floorstock Indicator	FLOORSTOCK_IND	N(8)		None.
Frequency SK	FREQUENCY_SK	char(200)	FREQUENCY_SK	FREQUENCY_SK = coalesce(FREQUENCY_SK_RX, coalesce(FREQUENCY_SK_ORD))
Infuse Over	INFUSE_OVER	N(8)		None.
Infuse Unit	INFUSE_UNIT	char(24)	INFUSE_UNIT_REF	INFUSE_UNIT = put(k.INFUSE_UNIT_REF, \$UNITDISP.) (code set 54).
IV Indicator	IV_IND	N(8)		None.
Last Clinical Review Action Sequence	LAST_CLIN_REV_ACT_SEQ	N(8)		None.
Last Fill Number	LAST_FILL_NBR	N(8)		rename FILL_NBR = LAST_FILL_NBR;
Last Reference Refill Date and Time	LAST_REFILL_DT_TM	DATETIME		None.
Medication Order Type	MED_ORDER_TYPE	char(13)	MED_ORDER_TYPE_REF	MED_ORDER_TYPE = put(MED_ORDER_TYPE_REF, \$MED2TYPE.) (code set 18309).
Multiple Ingredient Indicator	MULTIPLE_INGREDIENT_IND	N(8)		None.
Order Dispense Indicator	ORDER_DISPENSE_IND	N(8)		None.
Order Healthplan	ORDER_HLTHPLN	char(40)		WH_CLN_Health_Plan_Ref
Order Location Code	ORDER_LOC	char(40)	ORDER_DISPENSE_LOC	scan(ORDER_DISPENSE_LOC,1,'.') as ORDER_LOC.
Order Location Flag	ORDER_TYPE_FLAG	char(15)	ORDER_TYPE_FLAG	select(ORDER_TYPE_FLAG); when (1) ORDER_TYPE_FLAG = '1 med'; when (2) ORDER_TYPE_FLAG = '2 continuous'; when (3) ORDER_TYPE_FLAG = '3 intermittent'; otherwise ORDER_TYPE_FLAG = ' ';
Pharmacy Type	PHARMACY_TYPE	char(14)	PHARM_TYPE_REF	PHARMACY_TYPE = put(PHARM_TYPE_REF, \$PHARMTYP.) (code set 4500).
Remaining Refill Count	REMAINING_REFILL_COUNT	N(8)		None.
Route Type	ROUTE_TYPE	char(45)	ROUTE_TYPE_REF	ROUTE_TYPE = put(ROUTE_TYPE_REF, \$admin_route.) (code set 4001).
Rx Additive Indicator	RX_ADDITIVE_IND	N(8)		None.
Rx Diluent Indicator	RX_DILUENT_IND	N(8)		None.
Rx Mask Detail	RX_MASK_DETAIL	char(20)	RX_MASK	select(RX_MASK); when (1) RX_MASK_DETAIL = '01 Diluent (LVP)'; when (2) RX_MASK_DETAIL = '02 Additive (IVP)'; when (4) RX_MASK_DETAIL = '04 Med'; when (8) RX_MASK_DETAIL = '08 TPN'; when (16) RX_MASK_DETAIL = '16 Sliding Scale';

Variable Name	SAS Name	Format	Source Field	Business Rule
				when (32) RX_MASK_DETAIL = '32 Tapering Dose'; when (64) RX_MASK_DETAIL = '64 PCA'; otherwise RX_MASK_DETAIL = ''; end;
Rx Medication Indicator	RX_MED_IND	N(8)		None.
Rx Transfer Count	RX_TRANSFER_CNT	N(8)		None.
Total Dispense Doses	TOTAL_DISPENSE_DOSES	N(8)		None.
Total Rx Quantity	TOTAL_RX_QTY	N(8)		None.
Total Volume	TOTAL_VOLUME	N(8)		None.
<b>MHS GENESIS Pharmacy Dispense History WH_CLN_PHARM_DSP_HIST</b>				
Action Sequence	ACTION_SEQ	N(8)		None.
Bill Quantity	BILL_QTY	N(8)		None.
Charge Date and Time	CHARGE_DT_TM	DATETIME		None.
Charge Indicator	CHARGE_IND	N(8)		None.
Copay Amount	COPAY_AMT	N(8)		None.
Dispense Date and Time	DISPENSE_DT_TM	DATETIME		None.
Dispense Event Total Price Amount	DISPENSE_EVENT_TOTAL_PRICE_AMT	N(8)		None.
Dispense Event Type	DISPENSE_EVENT_TYPE	char(33)	DISPENSE_EVENT_TYPE_REF	DISPENSE_EVENT_TYPE = put(DISPENSE_EVENT_TYPE_REF, \$DISPENSE_EVENT.) (code set 4032).
Dispense Priority	DISPENSE_PRIORITY	char(34)	DISPENSE_EVENT_TYPE_REF	DISPENSE_EVENT_TYPE = put(DISPENSE_EVENT_TYPE_REF, \$DISPENSE_EVENT.) (code set 4032).
Dispense Healthplan	DISPENSE_HLTHPLN	char(40)		None.
Dispense Location Code	DISPENSE_LOC	char(40)		None.
Dispense Priority Date and Time	DISPENSE_PRIORITY_DT_TM	DATETIME		None.
Dispense Quantity	DISPENSE_QTY	N(8)		None.
Dispense Service Resource Department Hierarchy SK	DISPENSE_SVC_RES_DEPT_HIER_SK	char(100)		WH_CLN_Svc_Res_Dept_Hier_Ref
Fill List Number	FILL_LIST_NBR	N(8)		None.
Next Dispense Date and Time	NEXT_DISPENSE_DT_TM	DATETIME		None.
Original Action Communication Type	ORIG_ACTION_COMMUNICATION_TYPE	char(27)	ORIG_ACTION_COMMUNICATION_TYPE_REF	ORIG_ACTION_COMMUNICATION_TYPE = put(ORIG_ACTION_COMMUNICATION_TYPE_REF, \$orig_communication.) (code set 6006).
Original Action Date and Time	ORIG_ACTION_DT_TM	DATETIME		None.
Previous Dispense Date and Time	PREV_DISPENSE_DT_TM	DATETIME		None.
Reimbursement Amount	REIMBURSEMENT_AMT	N(8)		None.
Remaining Quantity	REMAINING_QTY	N(8)		None.
Remaining Refill Quantity	REMAINING_REFILL_QTY	N(8)		None.
<b>MHS GENESIS Pharmacy Product Dispense History WH_CLN_PHARM_PRD_DSP_HIST</b>				

Variable Name	SAS Name	Format	Source Field	Business Rule
Charge Quantity	CHARGE_QTY	N(8)		None.
Cost Amount	COST_AMT	N(8)		None.
Ingredient Sequence	INGREDIENT_SEQ	N(8)		None.
Price Amount	PRICE_AMT	N(8)		None.
<b>MHS GENESIS Pharmacy Order Ingredient WH_CLN_PHARM_ ORD_INGRED</b>				
Clinically Significant Flag	CLINICALLY_SIGNIFICANT_FLG	N(8)		None.
Concentration	CONCENTRATION	N(8)		None.
Concentration Unit	CONCENTRATION_UNIT	char(24)	CONCENTRATION_UNIT_REF	CONCENTRATION_UNIT = put(CONCENTRATION_UNIT_REF, \$UNITDISP.) (code set 54).
Dispense Quantity Unit	DISPENSE_QTY_UNIT	char(24)	DOSE_QTY_UNIT_REF	DOSE_QTY_UNIT = put(DOSE_QTY_UNIT_REF, \$UNITDISP.) (code set 54).
Dose Free Text	DOSE_FT	char(255)		None.
Dose Quantity	DOSE_QTY	N(8)		None.
Dose Quantity Unit	DOSE_QTY_UNIT	char(24)	DOSE_QTY_UNIT_REF	DOSE_QTY_UNIT = put(DOSE_QTY_UNIT_REF, \$UNITDISP.) (code set 54).
Include In Total Volume Flag	INCLUDE_IN_TOTAL_VOLUME_FLG	N(8)		None.
Ingredient Type Flag	INGREDIENT_TYPE_FLAG	char(19)		None.
Order Mnemonic	ORDER_MNEMONIC	char(100)		None.
Ordered Dose	ORDERED_DOSE	N(8)		None.
Ordered Dose Unit	ORDERED_DOSE_UNIT	char(24)	ORDERED_DOSE_UNIT_REF	ORDERED_DOSE_UNIT = put(ORDERED_DOSE_UNIT_REF, \$UNITDISP.) (code set 54).
Strength	STRENGTH	N(8)		None.
Strength Unit	STRENGTH_UNIT	char(24)	STRENGTH_UNIT_REF	STRENGTH_UNIT = put(STRENGTH_UNIT_REF, \$UNITDISP.) (code set 54).
Volume	VOLUME	N(8)		None.
<b>MHS GENESIS Pharmacy Order Product WH_CLN_PHARM_ ORD_PRODUCT</b>				
Compound Flag	COMPOUND_FLAG	N(8)		None.
Unrounded Dose Quantity	UNROUNDED_DOSE_QTY	N(8)		None.
<b>MHS GENESIS Prescription Claim WH_CLN_RX_CLAIM</b>				
Claim Status	CLAIM_STATUS	char(16)	CLAIM_STATUS_REF	CLAIM_STATUS = put(CLAIM_STATUS_REF, \$CLAIM_STATUS_REF.) as CLAIM_STATUS (code set 4538).
Claim Transaction	CLAIM_TRANSACTION	char(18)	CLAIM_TRANSACTION_REF	CLAIM_TRANSACTION = put(CLAIM_TRANSACTION_REF, \$CLAIM_TRANSACTION_REF.) (code set 4539).
Reimbursement Amount	REIMBURSEMENT_AMT_CLAIM	N(8)	REIMBURSEMENT_AMT	Rename REIMBURSEMENT_AMT = REIMBURSEMENT_AMT_CLAIM;
Rx Service Resource Department Hierarchy SK	RX_SVC_RES_DEPT_HIER_SK	char(100)		WH_cln_Svc_Res_Dept_Hier_Ref
Transaction Date and Time	TRANS_DT_TM	DATETIME		None.
<b>MHS GENESIS Medication Product Reference WH_CLN_ MEDICATION_PROD_REF</b>				



Variable Name	SAS Name	Format	Source Field	Business Rule
Average Wholesale Price	AVG_WHOLESALE_PRICE	N(8)	AVG_WHOLESALE_PRICE	rename AVG_WHOLESALE_PRICE = AVG_WHOLESALE_PRICE_REF;
Brand Indicator	BRAND_IND	N(8)		None.
Brandname	BRANDNAME	char(100)		None.
Divisible Indicator	DIVISIBLE_IND	N(8)		None.
Form Code	FORM_CODE	char(40)	FORM_REF	FORM_CODE = put(FORM_REF, \$FORM_FMT.) (code set 4002).
Generic Name	GENERIC_NAME	char(100)		None.
Given Strength	GIVEN_STRENGTH	char(50)		None.
Legal Status	LEGAL_STATUS	char(27)	LEGAL_STATUS_REF	LEGAL_STATUS = put(LEGAL_STATUS_REF, \$LEGAL_STATUS.) (code set 4200).
Manufacturer	MANUFACTURER	char(60)	MANUFACTURER_REF	MANUFACTURER = put(MANUFACTURER_REF, \$institution_type.) (code set 221).
NDC	NDC_REF	char(50)		None.
Reusable Indicator	REUSABLE_IND	N(8)		None.
Strength Reference	STRENGTH_REF	N(8)	STRENGTH	rename STRENGTH = STRENGTH_REF;
Volume Reference	VOLUME_REF	N(8)	VOLUME	rename volume = volume_ref
Volume Unit	VOLUME_UNIT	char(24)	VOLUME_UNIT_REF	VOLUME_UNIT = put(VOLUME_UNIT_REF, \$UNITDISP.) (code set 54).
<b>MHS GENESIS Encounter WH_CLN_ENCOUNTER</b>				
Admit Date and Time	ADMIT_DT_TM	DATETIME		None.
Admit Location Code	ADMIT_LOC	char(40)		None.
Admit Type	ADMIT_TYPE	char(32)		ADMIT_TYPE = put(admit_type_REF, \$admit_type.) (code set 3).
Current Location Code	CURRENT_LOC	char(40)		None.
Encounter Disposition Code	DISPCODE	char(60)	DISCHARGE_DISPOSITION_REF	DISPCODE = put(discharge_disposition_ref, \$discharge_disposition.) (code set 19).
Encounter Key	ENCOUNTER_KEY	N(8)		None.
Encounter SK	ENCOUNTER_SK	char(100)		None.
Encounter Status	ENCOUNTER_STATUS	char(25)	ENCOUNTER_STATUS_REF	ENCOUNTER_STATUS = put(encounter_status_REF, \$encounter_status.) (code set 261).
Encounter Type	ENCOUNTER_TYPE	char(22)	PATIENT_TYPE_REF	ENCOUNTER_TYPE = put(patient_type_REF, \$patient_type.) (code set 71).
Encounter Class	ENCOUNTER_CLASS	char(33)	ENCOUNTER_TYPE_CLASS_REF	ENCOUNTER_CLASS = put(encounter_type_class_REF, \$encounter_type_class.) (code set 69).
Financial Number (FIN)	FIN	char(40)	FORMATTED_FINANCIAL_NBR	None.
Medical Service	MEDICAL_SERVICE	char(40)	MEDICAL_SERVICE_REF	MEDICAL_SERVICE = put(medical_service_ref, \$medical_service.) (code set 34).
Person SK	PERSON_SK	char(100)		None.
Reason for Visit	REASON_FOR_VISIT_TXT	char(255)		None.
<b>MHS GENESIS Location LOCATION</b>				
Admit Location MEPRS Code	MEPRS_ADMIT	char(4)		MEPRS_CD; where admit_loc = location_sk.

Variable Name	SAS Name	Format	Source Field	Business Rule
Current Location MEPRS Code	MEPRS_CURRENT	char(4)		MEPRS_CD; where current_loc = location_sk.
Dispense Location MEPRS Code	MEPRS_DISPENSE	char(4)		MEPRS_CD; where dispense_loc = location_sk.
Order Location MEPRS Code	MEPRS_ORDER	char(4)		MEPRS_CD; where order_loc = location_sk.
Patient Location MEPRS Code	MEPRS_PATIENT	char(4)		MEPRS_CD; where patient_loc = location_sk.
Admit Test Location Flag	LOC_TEST_FLAG_ADMI T	N(8)		TEST_LOCATION_FLAG; where admit_loc = location_sk.
Current Test Location Flag	LOC_TEST_FLAG_CURRE NT	N(8)		TEST_LOCATION_FLAG; where current_loc = location_sk.
Dispense Test Location Flag	LOC_TEST_FLAG_DISPE NSE	N(8)		TEST_LOCATION_FLAG; where dispense_loc = location_sk.
Order Test Location Flag	LOC_TEST_FLAG_ORDE R	N(8)		TEST_LOCATION_FLAG; where order_loc = location_sk.
Patient Test Location Flag	LOC_TEST_FLAG_PATIE NT	N(8)		TEST_LOCATION_FLAG; where patient_loc = location_sk.
Admit Location Nurse Unit Display	LOC_UNIT_DISP_ADMI T	char(60)		UNIT_DISPLAY; where admit_loc = location_sk.
Current Location Nurse Unit Display	LOC_UNIT_DISP_CURRE NT	char(60)		UNIT_DISPLAY; where current_loc = location_sk.
Dispense Location Nurse Unit Display	LOC_UNIT_DISP_DISPE NSE	char(60)		UNIT_DISPLAY; where dispense_loc = location_sk.
Order Location Nurse Unit Display	LOC_UNIT_DISP_ORDER	char(60)		UNIT_DISPLAY; where order_loc = location_sk.
Patient Location Nurse Unit Display	LOC_UNIT_DISP_PATIE NT	char(60)		UNIT_DISPLAY; where patient_loc = location_sk.
Admit Location Nurse Unit Name	LOC_UNIT_NAME_ADMI T	char(60)		UNIT_NAME; where admit_loc = location_sk.
Current Location Nurse Unit Name	LOC_UNIT_NAME_CUR RENT	char(60)		UNIT_NAME; where current_loc = location_sk.
Dispense Location Nurse Unit Name	LOC_UNIT_NAME_DISP ENSE	char(60)		UNIT_NAME; where dispense_loc = location_sk.
Order Location Nurse Unit Name	LOC_UNIT_NAME_ORD ER	char(60)		UNIT_NAME; where order_loc = location_sk.
Patient Location Nurse Unit Name	LOC_UNIT_NAME_PATI ENT	char(60)		UNIT_NAME; where patient_loc = location_sk.
<b>MHS GENESIS Service Resource Reference SERVICE RESOURCE REFERENCE FILE(S)</b>				
MTF Service Resource Dispense	SR_DISPENSE_MTF	char(4)	inst_ref	put(inst_ref, \$mtf_ref.) as &pref.MTF
Service Resource Dispense Subsection Description	SR_DISPENSE_SUBSECT _DESC	char(100)	SUBSECT_DESCRIPTION	SUBSECT_DESCRIPTION, where DISPENSE_SVC_RES_DEPT_HIER_SK eq SVC_RES_DEPT_HIER_SK;
Service Resource Dispense Resource Description	SR_DISPENSE_RESOURCE _DESC	char(100)	RESOURCE_DESCRIPTION	RESOURCE_DESCRIPTION, where DISPENSE_SVC_RES_DEPT_HIER_SK eq SVC_RES_DEPT_HIER_SK;
<b>MHS GENESIS Person PERSON</b>				
Patient EDIPN	EDIPN	char(10)		EDIPN; where person_sk = person_sk.
Patient MRN	MRN	char(40)		MRN; where person_sk = person_sk.
Patient First Name	PATFN	char(100)	FIRST_NAME	FIRST_NAME; where person_sk = person_sk. Rename FIRST_NAME = PATFN;
Patient Test Record Indicator	PATIENT_TEST_FLAG	N(8)	TEST_RECORD_IND	TEST_RECORD_IND; where person_sk = person_sk. rename TEST_RECORD_IND = PATIENT_TEST_FLAG;
Patient Last Name	PATLN	char(100)	LAST_NAME	LAST_NAME; where person_sk = person_sk. Rename LAST_NAME = PATLN;
Patient SSN	SSN	char(9)		SSN; where person_sk = person_sk.

Variable Name	SAS Name	Format	Source Field	Business Rule
<b>MHS GENESIS Personnel PERSONNEL</b>				
Ordering Physician DEA	PHYSICIAN_ORDER_DEA	char(30)	ORDER_DOC_PRSNL	DEA_NBR; Match on ORDER_DOC_PRSNL = PRSNL_SK.
Ordering Physician EDIPN	PHYSICIAN_ORDER_EDIPN	char(10)	ORDER_DOC_PRSNL	EDIPN; Match on ORDER_DOC_PRSNL = PRSNL_SK.
Ordering Physician MD Flag	PHYSICIAN_ORDER_FLAG	N(8)	ORDER_DOC_PRSNL	PHYSICIAN_IND; Match on ORDER_DOC_PRSNL = PRSNL_SK.
Ordering Physician HIPAA Taxonomy	PHYSICIAN_ORDER_HIPAA	char(10)	ORDER_DOC_PRSNL	HIPAA1; Match on ORDER_DOC_PRSNL = PRSNL_SK.
Ordering Physician Name	PHYSICIAN_ORDER_NAME	char(100)	ORDER_DOC_PRSNL	Full_Name; Match on ORDER_DOC_PRSNL = PRSNL_SK.
Ordering Physician NPI	PHYSICIAN_ORDER_NPI	char(30)	ORDER_DOC_PRSNL	NPI; Match on ORDER_DOC_PRSNL = PRSNL_SK.
Ordering Physician Test Record Indicator	PHYSICIAN_ORDER_TEST	N(8)	ORDER_DOC_PRSNL	TEST_RECORD_IND; Match on ORDER_DOC_PRSNL = PRSNL_SK.
Dispensing Personnel DEA	PRSNL_DISPENSE_DEA	char(30)	DISPENSE_EVENT_PRSNL	DEA_NBR; Match on DISPENSE_EVENT_PRSNL = PRSNL_SK.
Dispensing Personnel EDIPN	PRSNL_DISPENSE_EDIPN	char(10)	DISPENSE_EVENT_PRSNL	EDIPN; Match on DISPENSE_EVENT_PRSNL = PRSNL_SK.
Dispensing Personnel MD Flag	PRSNL_DISPENSE_FLAG	N(8)	DISPENSE_EVENT_PRSNL	PHYSICIAN_IND; Match on DISPENSE_EVENT_PRSNL = PRSNL_SK.
Dispensing Personnel HIPAA Taxonomy	PRSNL_DISPENSE_HIPAA	char(10)	DISPENSE_EVENT_PRSNL	HIPAA1; Match on DISPENSE_EVENT_PRSNL = PRSNL_SK.
Dispensing Personnel Name	PRSNL_DISPENSE_NAME	char(100)	DISPENSE_EVENT_PRSNL	Full_Name; Match on DISPENSE_EVENT_PRSNL = PRSNL_SK.
Dispensing Personnel NPI	PRSNL_DISPENSE_NPI	char(30)	DISPENSE_EVENT_PRSNL	NPI; Match on DISPENSE_EVENT_PRSNL = PRSNL_SK.
Dispensing Personnel Test Record Indicator	PRSNL_DISPENSE_TEST	N(8)	DISPENSE_EVENT_PRSNL	TEST_RECORD_IND; Match on DISPENSE_EVENT_PRSNL = PRSNL_SK.
Last Order Status Personnel DEA	PRSNL_LAST_ORD_STAT_DEA	char(30)	LAST_ORDER_STATUS_PRSNL	DEA_NBR; Match on LAST_ORDER_STATUS_PRSNL = PRSNL_SK.
Last Order Status Personnel EDIPN	PRSNL_LAST_ORD_STAT_EDIPN	char(10)	LAST_ORDER_STATUS_PRSNL	EDIPN; Match on LAST_ORDER_STATUS_PRSNL = PRSNL_SK.
Last Order Status Personnel MD Flag	PRSNL_LAST_ORD_STAT_FLAG	N(8)	LAST_ORDER_STATUS_PRSNL	PHYSICIAN_IND; Match on LAST_ORDER_STATUS_PRSNL = PRSNL_SK.
Last Order Status Personnel HIPAA Taxonomy	PRSNL_LAST_ORD_STAT_HIPAA	char(10)	LAST_ORDER_STATUS_PRSNL	HIPAA1; Match on LAST_ORDER_STATUS_PRSNL = PRSNL_SK.
Last Order Status Personnel Name	PRSNL_LAST_ORD_STAT_NAME	char(100)	LAST_ORDER_STATUS_PRSNL	Full_Name; Match on LAST_ORDER_STATUS_PRSNL = PRSNL_SK.
Last Order Status Personnel NPI	PRSNL_LAST_ORD_STAT_NPI	char(30)	LAST_ORDER_STATUS_PRSNL	NPI; Match on LAST_ORDER_STATUS_PRSNL = PRSNL_SK.
Last Order Status Personnel Test Record Indicator	PRSNL_LAST_ORD_STAT_TEST	N(8)	LAST_ORDER_STATUS_PRSNL	TEST_RECORD_IND; Match on LAST_ORDER_STATUS_PRSNL = PRSNL_SK.
Last Clinical Review Personnel DEA	PRSNL_LAST_REV_DEA	char(30)	LAST_CLIN_REV_PRSNL	DEA_NBR; Match on LAST_CLIN_REV_PRSNL = PRSNL_SK.
Last Clinical Review Personnel EDIPN	PRSNL_LAST_REV_EDIPN	char(10)	LAST_CLIN_REV_PRSNL	EDIPN; Match on LAST_CLIN_REV_PRSNL = PRSNL_SK.
Last Clinical Review Personnel MD Flag	PRSNL_LAST_REV_FLAG	N(8)	LAST_CLIN_REV_PRSNL	PHYSICIAN_IND; Match on LAST_CLIN_REV_PRSNL = PRSNL_SK.
Last Clinical Review Personnel HIPAA Taxonomy	PRSNL_LAST_REV_HIPAA	char(10)	LAST_CLIN_REV_PRSNL	HIPAA1; Match on LAST_CLIN_REV_PRSNL = PRSNL_SK.
Last Clinical Review Personnel Name	PRSNL_LAST_REV_NAME	char(100)	LAST_CLIN_REV_PRSNL	Full_Name; Match on LAST_CLIN_REV_PRSNL = PRSNL_SK.
Last Clinical Review Personnel NPI	PRSNL_LAST_REV_NPI	char(30)	LAST_CLIN_REV_PRSNL	NPI; Match on LAST_CLIN_REV_PRSNL = PRSNL_SK.
Last Clinical Review Personnel Test Record Indicator	PRSNL_LAST_REV_TEST	N(8)	LAST_CLIN_REV_PRSNL	TEST_RECORD_IND; Match on LAST_CLIN_REV_PRSNL = PRSNL_SK.
Last Update Personnel DEA	PRSNL_LAST_UPDT_DEA	char(30)	LAST_UPDT_PROVIDER_PRSNL	DEA_NBR; Match on LAST_UPDT_PROVIDER_PRSNL = PRSNL_SK.
Last Update Personnel EDIPN	PRSNL_LAST_UPDT_EDIPN	char(10)	LAST_UPDT_PROVIDER_PRSNL	EDIPN; Match on LAST_UPDT_PROVIDER_PRSNL = PRSNL_SK.

Variable Name	SAS Name	Format	Source Field	Business Rule
Last Update Personnel MD Flag	PRSNL_LAST_UPDT_FLAG	N(8)	LAST_UPDT_PROVIDER_PRSNL	PHYSICIAN_IND; Match on LAST_UPDT_PROVIDER_PRSNL = PRSNL_SK.
Last Update Personnel HIPAA Taxonomy	PRSNL_LAST_UPDT_HIPAA	char(10)	LAST_UPDT_PROVIDER_PRSNL	HIPAA1; Match on LAST_UPDT_PROVIDER_PRSNL = PRSNL_SK.
Last Update Personnel Name	PRSNL_LAST_UPDT_NAME	char(100)	LAST_UPDT_PROVIDER_PRSNL	Full_Name; Match on LAST_UPDT_PROVIDER_PRSNL = PRSNL_SK.
Last Update Personnel NPI	PRSNL_LAST_UPDT_NPI	char(30)	LAST_UPDT_PROVIDER_PRSNL	NPI; Match on LAST_UPDT_PROVIDER_PRSNL = PRSNL_SK.
Last Update Personnel Test Record Indicator	PRSNL_LAST_UPDT_TEST	N(8)	LAST_UPDT_PROVIDER_PRSNL	TEST_RECORD_IND; Match on LAST_UPDT_PROVIDER_PRSNL = PRSNL_SK.
Original Action Personnel DEA	PRSNL_ORIG_ACTION_DEA	char(30)	ORIG_ACTION_PRSNL	DEA_NBR; Match on ORIG_ACTION_PRSNL = PRSNL_SK.
Original Action Personnel EDIPN	PRSNL_ORIG_ACTION_EDIPN	char(10)	ORIG_ACTION_PRSNL	EDIPN; Match on ORIG_ACTION_PRSNL = PRSNL_SK.
Original Action Personnel MD Flag	PRSNL_ORIG_ACTION_FLAG	N(8)	ORIG_ACTION_PRSNL	PHYSICIAN_IND; Match on ORIG_ACTION_PRSNL = PRSNL_SK.
Original Action Personnel HIPAA Taxonomy	PRSNL_ORIG_ACTION_HIPAA	char(10)	ORIG_ACTION_PRSNL	HIPAA1; Match on ORIG_ACTION_PRSNL = PRSNL_SK.
Original Action Personnel Name	PRSNL_ORIG_ACTION_NAME	char(100)	ORIG_ACTION_PRSNL	Full_Name; Match on ORIG_ACTION_PRSNL = PRSNL_SK.
Original Action Personnel NPI	PRSNL_ORIG_ACTION_NPI	char(30)	ORIG_ACTION_PRSNL	NPI; Match on ORIG_ACTION_PRSNL = PRSNL_SK.
Original Action Personnel Test Record Indicator	PRSNL_ORIG_ACTION_TEST	N(8)	ORIG_ACTION_PRSNL	TEST_RECORD_IND; Match on ORIG_ACTION_PRSNL = PRSNL_SK.
<b>Master Person Index (MPI)</b>				
Person Association Reason Code	PARC	char(2)	PARC	None.
Patient Date of Birth DEERS	PATDOB	char(8)	dob	dob=dob_deers; patdob = input(dob_deers,yymmdd8.);
Sponsor ID	SPONSSN	char(9)	SPSSN	None.
<b>LVM</b>				
Alternate Care Value	ACV_D	char(1)	ACV	None.
ACV Group	ACVGROUP	char(2)	ACVGRP	In MDR, when preparing the M2 feed map "PR" to "Prime" "DP" to "Designated Provider" "OP" to "Overseas Prime" "PL" to "Plus" "O" to "Other" "R" to "Reliant".
Beneficiary Category	BENCAT_D	char(3)	BEN	None.
Common Beneficiary Category	COMBEN_D	char(1)	CBEN	None.
Eligibility Group	ELG_GRP	char(1)	ELGGRP	None.
Enrollment Group	ENR_GRP	char(1)	ENRGRP	None.
Ethnicity Code	ETHNIC	char(1)	ETHNIC	None.
Gender	GENDER_D	char(1)	SEX	None.
Health Care Delivery Program Code	HCDP	char(3)	HCDP	None.
Assigned Health Care Delivery Program Code	HCDP_ASGN	char(3)	ASGHCDP	None.
LVM4 Match Indicator	LVM_MATCH	N(3)	MATCH	None.
Marital Status Code	MARITAL	char(1)	MS	None.
Medicare Flag	MEDICARE_FLAG	char(1)	MF	None.
Enrollment DMIS ID	MTF_ENR	char(4)	ENR	None.
Zip Code	PATZIP	char(5)	ZIP	None.
PCM ID	PCM_ID	char(18)	PCM	None.

Variable Name	SAS Name	Format	Source Field	Business Rule
PCM Name	PCM_NAME	char(40)		None.
PCM Type	PCM_TYPE	char(1)	PCMTYP	None.
Medical Privilege Code	PRIVILEGE	char(1)	PRIV	None.
Race Code	RACE	char(1)	RACE	If RACE is blank, then RACE = 'Z'.
Relationship To Sponsor	REL	char(1)	rel	None.
Sponsor Service	SPONSVC	char(1)	SVC	None.
Sponsor Service Aggregate	SVCAGG	char(1)	AGGSVC	None.
TPR Eligibility Code	TPR	char(1)	TPR	None.
<b>DMIS Index</b>				
Performing CMAC Locality Code	CMACCD	char(3)	LOCALITY	Convert 2 digit "Locality" to 3 digit (e.g. add leading zero).
MHS GENESIS Start Date	GENESIS_BEGIN	YYMMDDN	GENESIS_START_DATE	rename GENESIS_START_DATE=GENESIS_BEGIN;
MHS GENESIS Time Zone	GENESIS_TM_ZN	char(2)	GENESIS_TIME_ZONE	rename GENESIS_TIME_ZONE=GENESIS_TM_ZN;
MHS GENESIS Time Zone Offset	GENESIS_TM_ZN_OFFS ET	N(8)		apply time zone offset formats
MTF MEPRS Parent	MEPRS_PARENT	char(4)	MEPR_PAR	rename MEPR_PAR=MEPRS_PARENT;
MTF Major Command	MTF_CMD	char(8)	MAJCMND	None.
MTF Enrollment Parent	MTF_ENR_PARENT	char(4)	MTF_PARENT_REC	None.
MTF Enrollment Facility Branch Of Service	MTF_ENR_SVC	char(1)	MTF_SVC	None.
MTF Enrollment T17 Region	MTF_ENR_T17_REG	char(2)	MTF_T17_REG	None.
MTF Enrollment T3 Region	MTF_ENR_T3_REG	char(2)	MTF_T3_REG	None.
MTF Facility Name	MTF_FAC_NAME	char(42)	facnme	rename facnme=MTF_FAC_NAME;
MTF MSMA	MTF_MSMA	char(3)	MSM_ID	None.
MTF Parent	MTF_PARENT	char(4)	MTF_PARENT_REC	None.
MTF Facility Branch Of Service	MTF_SVC	char(1)	UBU_SVC	None.
MTF T17 Region	MTF_T17_REG	char(2)	T17_REG	None.
MTF T3 Region	MTF_T3_REG	char(2)	T3_REG	None.
<b>Omni-CAD</b>				
Beneficiary T17 Region	BEN_T17_REG	char(2)	T17REG	None.
Beneficiary T3 Region	BEN_T3_REG	char(2)	REGION	None.
Catchment Area ID	CATCH	char(4)	WORLD	None.
Beneficiary MTF Service Area	MTFSVCAREA	char(4)	BPA	None.
PRISM Area ID	PRISM	char(4)	PRISM	None.
Tricare Prime Remote Flag	TPRFLAG	char(1)	TPRFLAG	TPRFLAG = Obtain from Omni-cad. TPR Flag (TPRFLAG), based on matching FY, FM, and Beneficiary Zip Code (PATZIP).
<b>Derived</b>				
Age Group Common	AGEGRP	char(1)	PATAGE	If 0 le patage2 le 4 then agegrp = 'A'; else if 5 le patage2 le 14 then agegrp = 'B'; else if 15 le patage2 le 17 then agegrp = 'C'; else if 18 le patage2 le 24 then agegrp = 'D'; else if 25 le patage2 le 34 then agegrp = 'E'; else if 35 le

Variable Name	SAS Name	Format	Source Field	Business Rule
				patage2 le 44 then agegrp = 'F'; else if 45 le patage2 le 64 then agegrp = 'G'; else if 65 le patage2 le 69 then agegrp = 'H'; else if 70 le patage2 le 74 then agegrp = 'I'; else if 75 le patage2 le 79 then agegrp = 'J'; else if 80 le patage2 le 84 then agegrp = 'K'; else if patage2 ge 85 then agegrp = 'L'; else agegrp = 'Z';
Calendar Month	CM	char(2)	DATE_DISPENSE	CM of DATE_DISPENSE.
Calendar Year	CY	char(4)	DATE_DISPENSE	CY of DATE_DISPENSE.
Date Dispensed	DATE_DISPENSE	char(8)		DATE_DISPENSE = (coalesce(DISPENSE_DT_TM, ORIG_ACTION_DT_TM));
Fiscal Month	FM	N(8)		FM of DATE_DISPENSE.
Fiscal Year	FY	N(8)		FY of DATE_DISPENSE.
MHS GENESIS Flag	GENESIS_FLAG	char(1)		set to Y.
MEPRS Code	MEPRS_CD	char(4)		if pharmacy_type='Retail' then coalesce(meprs_current, meprs_admit, 'DAAA'); else MEPRS_CD = 'coalesce(meprs_current, meprs_admit, meprs_patient, meprs_dispense, mtf_order)
MTF Treatment DMISID	MTF	char(4)		if pharmacy_type='Retail' then coalesce(mtf_patient, sr_dispense_mtf, mtf_current, mtf_admit); else MEPRS_CD = 'coalesce(mtf_current, mtf_admit, mtf_patient, mtf_dispense, mtf_order, sr_dispense_mtf)
Patient Age	PATAGE	N(8)		Use DOB_P, PATDOB to calculate age.
Patient Category	PATCAT	char(40)		Match on encounter_sk = parent_entity_sk and parent_entity_name = 'ENCOUNTER' and user_defined_type_REF = '109901051' as patcat_e; then apply PATCAT format. Match on person_sk = parent_entity_sk and parent_entity_name = 'PERSON' and user_defined_type_REF = '114540103' as patcat_p; then apply PATCAT format. patcat = ifc(patcat_p not in ('', '0'), patcat_p, patcat_e);
Service Line	SVCLINE	char(5)		SVCLINE= put(substr(MEPRS_CD,1,3), \$slfmt.);

### VIII. EXCLUSIONS

Here are the conditions required to exclude and/or remove records from the MHS GENESIS Pharmacy file. If any of the following conditions are met, either delete the record or output to an error file.

If the primary key is missing or zero.

If patient test flag is missing or one.

If charge indicator is missing.

If service resource dispense MTF is either NONE, TEST, or VA.

If last order status not in ('Completed', 'Discontinued', 'Ordered').

### IX. DATA CONSIDERATIONS

This dataset combines inpatient and ambulatory pharmacy orders in the same file. While many data elements are applicable to both types. Many are not. For instance, Days Supply is only applicable for ambulatory prescripts and will be missing for all inpatient records. For complete list of data elements that populated based on pharmacy\_type, refer to the MHS GENESIS Pharmacy tab of the MDR Data Dictionary.

In the MHS GENESIS Bulk Data Extract (BDE), retail pharmacy prescriptions are assigned to the generic location 'Ambulatory Pharmacy'. As such, most location information is either missing or appears as 'Ambulatory Pharmacy' when the pharmacy\_type is 'Retail' and/or encounter\_type is 'Lifetime Pharmacy'.

Millennium maintains the link between the originating encounter and the lifetime pharmacy encounter, so the location information is available there.