**Cerner Outpatient Orders for Quest**

**Interface Requirements**

**Version 3.0**

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[Document Control 3](#_Toc16762833)

[Resources 3](#_Toc16762834)

[Document Version Control 3](#_Toc16762835)

[1. Introduction 4](#_Toc16762836)

[1.1 Purpose 4](#_Toc16762837)

[1.2 Project Scope 4](#_Toc16762838)

[1.3 Terminology Standards 4](#_Toc16762839)

[1.3.1 Acronyms 4](#_Toc16762840)

[1.3.2 Glossary 5](#_Toc16762841)

[1.4 Document References 5](#_Toc16762842)

[2. Diagram 6](#_Toc16762843)

[3. Requirements 7](#_Toc16762844)

[3.1 Functional Requirements 7](#_Toc16762845)

[3.2 Messaging Protocols 11](#_Toc16762846)

[3.2.1 Inbound to the BayCare Cloverleaf 11](#_Toc16762847)

[3.2.2 Outbound from the BayCare Cloverleaf 12](#_Toc16762848)

[3.2.3 Inbound from the Vendor 12](#_Toc16762849)

[3.2.4 Outbound to the Vendor 12](#_Toc16762850)

[4. HL7 Messaging 12](#_Toc16762851)

[4.1 Messaging Format 12](#_Toc16762852)

[4.1.1 Segments 12](#_Toc16762853)

[4.1.2 Messaging Event Types 13](#_Toc16762854)

[4.1.3 Cloverleaf Configuration Files 14](#_Toc16762855)

[4.1.4 Cloverleaf Site Location 14](#_Toc16762856)

[4.2 Data Transformation Requirements 14](#_Toc16762857)

[4.3 Sample Messages 31](#_Toc16762858)

[5. Alerts 33](#_Toc16762859)

[Appendix A: Issues List 33](#_Toc16762860)

# **Document Control**

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## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 5/17/17 | Hope Kaczmarczyk | Originally Created |
| V2.0 | 6/1/17-8/21/17 | Hope Kaczmarczyk | Cerner Updates and Changes |
| V3.0 | 8/7/19 | Sarah Thies/Hope Kaczmarczyk | Added Pathnet build info needed for FSI to process BH and BV orders outbound and updated collection class information. |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to outline the Orders interface for the reference laboratory, Quest, and BayCare BMG/BUC Patients. On June 18, 2019, the Soarian registered Behavioral Health outpatient and “Between” encounters were added to this interface.

## 1.2 Project Scope

Integration for this project includes a Cerner orders interface to Quest and a solicited/unsolicited results interface from Quest for BayCare BMG/BUC patients, Behavior Health outpatients, and “Between” visits. Both interfaces pass through CloverLeaf and the Cerner Reference Lab Hub. This document is for the ORM Orders portion only.

BayCare is a beta-site for Cerner’s Reference Lab Standardization project. Cerner supplied generic coding requiring site-specific modifications along with update modifications. All coding will be on the BayCare Cerner side and CloverLeaf will be used as a pass-through only.

Laboratory orders for BayCare BMG/BUC patients, Behavior Health outpatients, and “Between” visits are entered in Cerner and the performing location of BMG Quest Lab is chosen based on the patient’s health insurance. The ORM order message is sent electronically to Quest when the order is activated and a Quest requisition prints. Quest requires the ORM order message to contain the same orders as found on the Quest requisition along with the patient demographics, insurance information, diagnosis codes, and collection method of Non-PSC (in-office) or PSC. The patient’s specimen is drawn in-office and sent to Quest with the requisition or the patient is sent to a Quest PSC location with the requisition in hand. Quest will process the order and return the Cerner Order ID in the ORU result message which will automatically complete the order on Cerner.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

**BMG** - BayCare Medical Group

**BUC** - BayCare Urge Care

**CMRN** – Community Medical Record Number

**DOB** - Date of Birth

**DTA** – Discrete Task Assay

**FSI** - Foreign System Interface; used by Cerner Millennium to exchange data with other Health Care Information

Systems.

**NPI** – National Provider ID

**ORM** – a HL7 message order

**ORU** - Observation result / a solicited or unsolicited HL7 message

**POC** – Point of Care

**PSC** – Patient Service Center. Quest has multiple PSCs across the country for specimen collection and delivery to the appropriate Quest Laboratory.

**RLN** - Cerner Reference Lab Network (Hub)

**SSN** - Social Security Number

**TDB** – Cerner Transaction Database

### 1.3.2 Glossary

**Alias** - An identifier used to represent an item, such as a location, order, specimen type, or result.

**Contributor System –** External System that sends to and/or receives data from Cerner Millennium. A “Contributor System” is built on Cerner as part of an interface or data feed.

**Contributor Source –** A source created on Cerner used to identify inbound and/or outbound aliases for data sent to and received from Foreign Systems.

**Quest -** Reference Lab utilized by BayCare Medical Group based on patient’s insurance.

**PowerChart** – Cerner Electronic Medical Record System

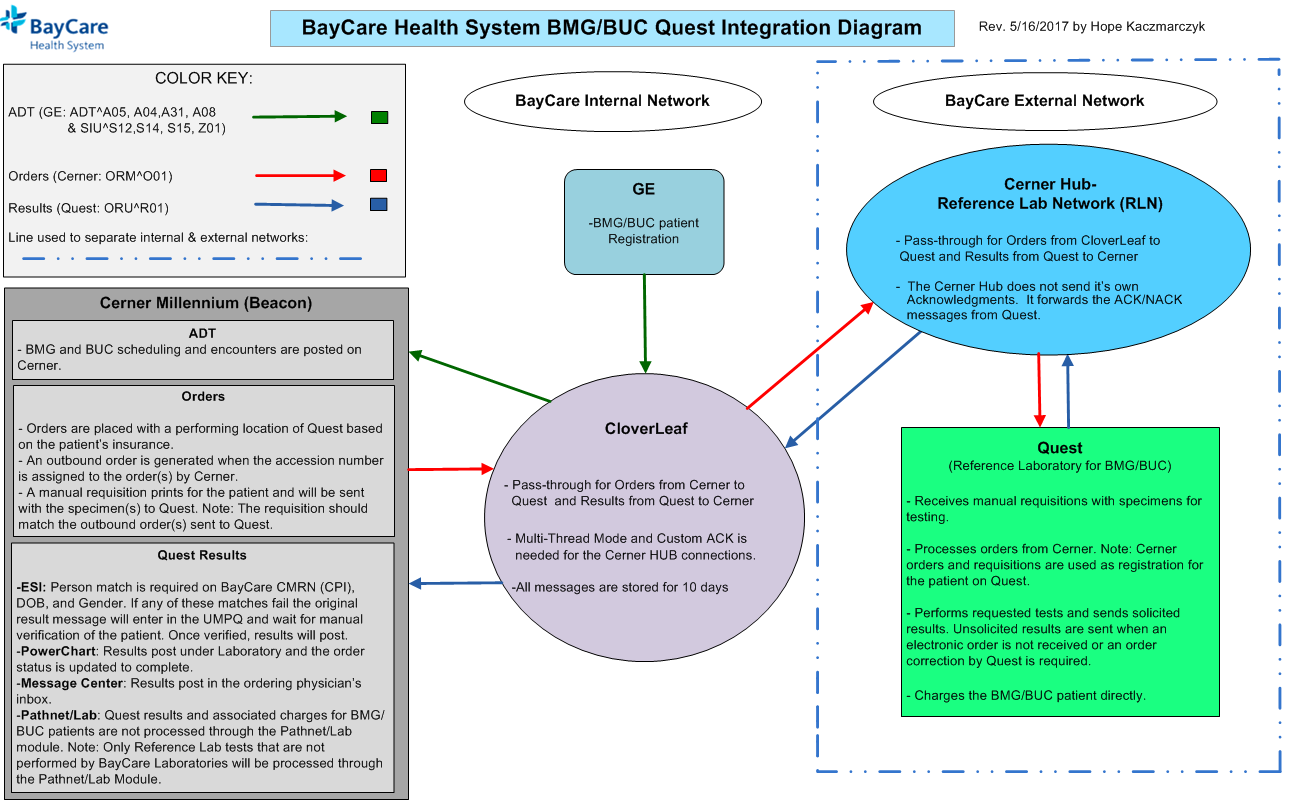
**Scripting –** Custom Cerner programs written to modify, format, and filter message transactions for the interfaces. The types of scripts used by FSI are Suppression, Route, Modify Object, Modify Original, Type, and ACK.

## 1.4 Document References

Ambulatory – Reference Lab Interface (A-RLI) Implementation Guide – Cerner November 2014

Cerner HL7 Specifications: Unit 09o – Order Message Processing Outbound – Cerner Apr 12, 2017

# 2. Diagram



# 3. Requirements

## 3.1 Functional Requirements

|  |  |  |
| --- | --- | --- |
| **Cerner** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| FR.2016.01.1  FR.2016.01.2  FR.2016.01.3  FR.2016.01.4 | **New Cerner Contributor System:**  BMGQUEST  **New Cerner Contributor Source:**  BMGQuest  **ESO Interface Trigger:**  Order Entry/ORM HNA Accessioning (CQM Class: SCS\_NET)  **Table and Scripts:**  **-** cust\_rln\_bundler (Custom RLN Bundler Table)  - route\_out (global route script)  On **ComServer:**  ORM\_QUEST\_OUTPT\_OUT:  - orm\_BMGQuest\_mobj\_out  - mobj\_ambquest\_bndlr\_out  - mobj\_ambquest\_orm\_out  - mobj\_ambquest\_fin\_out  - mobj\_ambquest\_pat\_out  - orm\_BMGQuest\_morg\_out | **BMGQUEST** is a bi-directional contributor system:  - Organization: BayCare Health System  - Contributor Source: BMGQuest  - Alt Contributor Source: Invision  **Outbound Field Processing**- Common MSH Processing:  - MSH-3 Sending App = AMB  - MSH-4 Sending Facility = BayCare  - MSH-6 Receiving Facility = TMP  **Code Set Interface Rules**:  - Alias Required-Send CD for codesets:  40 (Person Relationship) 54 (Units of Measure)  200 (order Catalog) 220 (Location)  263 Alias Pool 319 (encounter Alias Type)  354 (Financial Class) 367 Health Plan Type)  1905 (Reporting Priority) 2054 (Collection Priority)  6003 (Order Action Type) 14003 (Discrete\_Task\_Assay)  16449 (Order Entry Fields)  23549 (Nomenclture Entity Relationship)  - Send Display for codesets:  62 (STATE) and 231 (Collection Class)  - All BayCare BMG orders for Quest in code set 200 are required to have an outbound alias supplied by Quest and assigned to the contributor source of BMGQuest.  - All BayCare AMB locations for Quest orders are required to have their Quest Client Numbers assigned as the outbound alias for the location POC (Nursing Unit) for codeset 220.  Note: All BayCare BMG orders for Quest require a RLN collection class to be assigned in the Pathnet Collections build. The RLN Collection Class is one of the criteria used to group orders onto the same ORM message and specimen requisition. Quest orders without an RLN Collection Class will be skipped by the mobj\_ambquest\_bndlr\_out script.  **Order Entry/ORM HNA Accessioning (CQM Class: SCS\_NET):** This trigger causes the BayCare order to be processed outbound when an accession number is assigned to the specimen. Accession numbers are assigned when an active order is placed or a future order is activated on an ambulatory encounter. Note: Ambulatory locations do not use batch Collection routines; this is limited to in-house patients only.  The following segments are set to be sent outbound by this trigger:   * HL7 MSH * HL7 PID * HL7 PV1 * HL7 IN1 * HL7 IN2 * HL7 IN3 * HL7 GT1 * HL7 ORC/OBR/NTE:   Arguments:   * Send out ZCT segment * Send out DG1 segment * GRP\_BY\_ACCN Used to group orders based on their accession numbers   Troubleshooting Note: If an order message does not have a CQM Class of SCS\_NET when viewing CQM\_FSIESO\_QUE, then the Pathnet orders/collection build is incomplete- inform the Pathnet Team.  - The **Custom RLN Bundler Table** was created by Cerner for Quest and LabCorp. The table is used to bundle orders together so each ORM message will contain the same orders as those found on the corresponding Quest/LabCorp specimen requisition.   * The cust\_rln\_bundler table is required on all four nodes in Prod. * The table design can be viewed in Discern Visual Developer, however, a table query can only be performed on the backend in CCL. * The cust\_rln\_bundler table contains these fields:   - RECEIVING\_SYSTEM VC40 (e.g., BMG Quest Lab)  - REQ\_CON\_NBR VC100 (i.e., build by the  mobj\_ambquest\_bndlr\_out script)  - CONVERSATION\_ID F8 (i.e., assigned at order entry)  - ORDER\_ID F8  - COLL\_CLASS\_CD F8  - NURSE\_COLLECT VC40 (i.e., YES/NO)  - PERFORM\_LAB VC40 (e.g., BMG Quest Lab)  - MSG VC32000 (i.e., HL7 Message)  - DG1\_SEGS VC2000 (i.e., HL7 Diagnosis segments)  - MSG\_STATUS\_FLAG I2 (e.g., 0, 1, or 2)  - CREATE\_DT\_TM DQ8  - UPDT\_DT\_TM DQ8   * A Prod OPS CCL job runs at 0245 using the Purge script, rln\_purge\_bndl\_table 14, from Cerner that looks back 14 days and purges those records to keep the bundler table size down.     - **Scripts for BayCare Lab order messages outbound to Quest:**  - **route\_out** (global script): Logic to route BayCare Ambulatory  Lab orders for Quest to the ORM\_TCP\_BMGQUEST\_OUT  comserver. Logic is based on:   * Message Type = ORM * CQM\_CLASS = SCS\_NET * Performing Location\* = BMG Quest Lab   The route script creates a split count by Order Group size.  This split index will be used by the mobj\_ambquest\_bndlr\_out  script for custom grouping logic.  \*Note: Performing Location is only available as a selection when  Order Entry Format Flexing is applied. This is configured by the  Pathnet Team.  - **orm\_BMGQuest\_mobj\_out, mod object script** has logic to:   * Ignore non-SCS\_NET orders and all message types other than ORM. * Set up MSH Processing * execute mobj\_ambquest\_bndlr\_out script:   - Uses the split index from the route  script to keep the correct ORC/OBR  groupings and to ignore  DONOTSEND orders (i.e., aliased on  codeset 200).  - Sets the global record structure.  - Sets bundle data for each order\_id:   * Conversation\_id * Container\_id * Collection Classes:   -“RLN AP”,  -“RLN Frozen”,  -“RLN Room/ Refrig”  -“RLN Urine”  - The script will ignore (skip) all  order messages without an  RLN collection class.   * Nurse\_coll (i.e., Yes or No)   - The script will ignore (skip) all  order messages without a  Yes/No Nurse Collect attribute.   * Perform\_loc: BMG Quest Lab   - Builds the Requisition Control ID  based on Nurse Collect, “No” (PSC  Hold orders) or “Yes” (Non-PSC Hold  orders). The Requisition Control ID is  the patient’s FIN concatenated to the  Collection Class abbreviation  concatenated to the last 5 digits of the  conversation\_id. The Requisition  Control ID will be copied into  ORC.2, ORC.4, and OBR.2 by the  mobj\_ambquest\_orm\_out script. (See  ORC and OBR Field definitions under  4.2 Data Transformation  Requirements for details)   * execute the mobj\_ambquest\_orm\_out script:   - Set up ORC Processing  - Set up OBR Processing  - Set up OBX Processing  - Removal of ZCT segment   * execute the mobj\_ambquest\_fin\_out script:   - Set up IN1 processing  - Set up GT1 processing     * execute the mobj\_ambquest\_pat\_out script:   - Set up PID Processing  - Removal of unwanted segments at  the patient/encounter level (see 4.1.1  Segments section for details)  - **orm\_BMGQuest\_morg\_out, mod original script** has logic to  verify if the order\_id is on the cust\_rln\_bundler table and to  check the Msg\_status\_flag:   * Msg\_status\_flag = 0; order level data is updated on the bundler table. * Msg\_status\_flag =1; order level data is updated or overwritten on the bundler table. Assume this is a resend of data prior to bundle "finishing". * Msg\_status\_flag NOT EQUAL to 0 or 1; script creates a new 0 row for staging data on all orders that should be grouped together. To group the orders together, they must have the same:   - conversation\_id  - performing location  - nurse collect value  - collection class  The script updates the order information  and sets the msg\_status\_flag = 1.   * Then, the script looks at all orders for the same Quest requisition by req\_con\_nbr/ conversation\_id:   - If msg\_status\_flag = 1, orders are  pulled together to be sent out as a  “bundled” message and the script  builds the out\_msg setting MSH.5  based on Nurse collect Yes/No. The  script also changes the  msg\_status\_flag to 2 for complete on  the appropriate rows of the bundler  table.  - If the msg\_status\_flag = 0, not all of  the orders have a msg\_status\_flag of  1 yet and the script will suppress the  message along with creating a  “OEN\_IGNORE”message for the  ORM\_TCP\_BMGQUEST\_OUT  comserver. |
|  |  |  |

## 3.2 Messaging Protocols

Below are listed the details for the messaging protocols that will be leveraged for this integration.

### Inbound to the BayCare Cloverleaf

* TCP/IP Protocol
  + HL7 2.3 ORM messages from BayCare Cerner to BayCare Cloverleaf.

### 3.2.2 Outbound from the BayCare Cloverleaf

* TCP/IP Protocol
  + HL7 2.3 ORM messages to the Cerner RLN Hub.
  + HL7 2.3 Acknowledgment Messages returned from CloverLeaf to BayCare Cerner.

### 3.2.3 Inbound from the Vendor

* TCP/IP Protocol
  + HL7 2.3 ACK message from the Cerner RLN Hub to CloverLeaf.
    - The Cerner Hub does not send its own Acknowledgments. It forwards the ACK/NACK

messages from Quest.

* + - This interface is supported by CloverLeaf and Cerner.

### 3.2.4 Outbound to the Vendor

* TCP/IP Protocol
  + HL7 2.3 ORM messages from Cerner RLN Hub to Quest.
    - This interface is supported by Cerner and Quest.

# 4. HL7 Messaging

## 4.1 Messaging Format

Ambulatory Patient ORM order messages are sent from BayCare Cerner to Quest through CloverLeaf and the Cerner RLN Hub using HL7 2.3 message format. The ORM messages are for one or more Quest orders. Each ORM message corresponds with the patient’s manual Quest requisition generated at order activation.

### 4.1.1 Segments

The segments utilized for this interface are:

MSH *Message Header*

[

PID *Patient ID segment*

[PD1]\*\* *Additional Patient Demographics*

[{NTE}]\*\* Patient/*Encounter Level Comments*

PV1\* *Patient Visit segment*

[PV2]\*\* *Patient Visit Additional Segment*

[ZVI]\*\* *Additional Visit Information*

[{OBX}]\* *Observations at Person/Encounter Level*

[{

IN1  *Insurance*

[ IN2\*\*\* ] *Insurane Additional Info*

[{ IN3\*\*\* }] *Insurance Certification/Authorization*

}]

[{GT1}] *Guarantor*

[{

AL1\*\* *Allergy*

ZAL\*\* *Additional allergy info*

[{NTE}]\*\* *Allergy comments*

}]

]

{

ORC *Common Order*

[

OBR *Observation Request*

[{NTE}] Non-specific *Order level comments*

[{DG1}] *Diagnosis*

[{

OBX *Observation / Result segment*

[{NTE}] *Observation / Result-level comments*

}]

[{ZCT\*\*\*\*}] *Cerner defined Z segment for container tracking*

]

}

*Notes: [Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*\* (PVI & OBX-patient/encounter level): These segments are not sent from BayCare Cerner to Quest. The*

*mobj\_ambquest\_pat\_out mod object script removes these segments.*

*\*\* (PD1, PV2, ZVI, AL1, ZAL, & NTE-patient/encounter and allergy level): These segments are not sent from*

*BayCare Cerner to Quest. The ESO triggers are not set for these segments under “ORM HNA Accessioning-*

*Order Entry”. If these triggers are turned on for a different interface, the mobj\_ambquest\_pat\_out, mod object*

*script, would remove them.*

*\*\*\* (IN2 & IN3): These segments are filtered out by CloverLeaf coding before the message is sent to Quest.*

*\*\*\*\* (ZCT): This segment is not sent from BayCare Cerner to Quest. The mobj\_ambquest\_orm\_out mod object script*

*removes this segment from the ORM message*

### 4.1.2 Messaging Event Types

Below are the message types necessary for this integration

|  |  |
| --- | --- |
| **Event Type** | **Description** |
| ORM^O01 | Transmission of a BayCare order to Quest |
| ACK | Custom Acknowledgment messages needed by the Cerner RLN HUB |

### 4.1.3 Cloverleaf Configuration Files

CloverLeaf is only a pass-through for BayCare orders on Ambulatory patients to Quest. The Cloverleaf feed is a raw route except for a proc removing the IN2 and IN3 segments.

### 4.1.4 Cloverleaf Site Location

bmg\_1\_p

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N**  **And C for Conditional** | **Data Type** | **Length** | **Cerner Table (T) and/or Code Set (CS)** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- |
| Message Header – Field Separator | MSH.1 | Y | ST | 01 |  | A Pipe (|) is used as the field separator and cannot be included in the transmitted data. |
| Encoding Characters | MSH.2 | Y | ST | 04 |  | “^~\&” These characters cannot be included in the transmitted data:  ^ used to separate components in a field  ~ used as a repetition separator  \ used as an escape delimiter  & used to separate sub-components |
| Sending Application | MSH.3 | Y | HD | 227 |  | The contributor system, BMGQUEST,  Outbound Field Processing for MSH.3 and the orm\_BMGQuest\_mobj\_out script, have this field set to “AMB”. |
| Sending Facility | MSH.4 | Y | HD | 227 |  | The orm\_BMGQuest\_mobj\_out script copies the Nursing Unit alias from PV1.3.1 to MSH.4. This alias is the location’s Quest Client Account Number. |
| Receiving Application | MSH.5 | N | HD | 227 |  | The orm\_BMGQuest\_morg\_out, mod original script, populates MSH.5 with the PSC\_IND based on the Nurse Collect Yes/No status from the bundler table:  Yes = “” (Null)  No = “PSC” |
| Receiving Facility | MSH.6 | Y | HD | 227 |  | The orm\_BMGQuest\_mobj\_out script populates MSH.5 with “TMP” per Quest. |
| Date / Time of Message | MSH.7 | N | TS | 26 |  | YYYYMMDDHHMM |
| Message Type | MSH.9 | Y | MSG | 15 |  | HL7 message type and event triggering the message. |
| Type | MSH.9.1 | Y |  |  |  | “ORM” |
| Event | MSH.9.2 | Y |  |  |  | “O01” |
| Message Control ID | MSH.10 | Y | PT | 20 |  | Unique, generated ID from Cerner to be returned in MSA-2 of the ACK message.  Note: Cerner’s Message Control ID consists of the CQM Queue\_ID following a Q and the Trigger\_ID following a T.  Example:  Q3742634530T4788842613 |
| Processing ID | MSH.11 | Y | ID | 01 |  | The orm\_BMGQuest\_mobj\_out script, populates MSH.11 with “P” (for Production) when the Environment = P30. Otherwise, the field is populated with “D” (for Delete). |
| Version ID | MSH.12 | Y | ID | 08 |  | 2.3.1 (HL7 version) |
| Character Set | MSH.18 | N | ID | 16 |  | Field is valued with 8859/1 which means "8-bit ASCII" is being used in the message. |
| Set ID | PID.1 | N | SI | 04 |  | 1 |
| Patient ID (External ID) | PID.2 |  | CX | 20 |  |  |
| Patient ID | PID.2.1 | N | ST |  | T Person\_Alias | The mobj\_ambquest\_pat\_out script copies the Patient’s CMRN (CPI) from PID.3.1 to PID.2.1. |
| Assigning  Authority | PID.2.4 | N | HD |  | T Person\_Alias CS 263 | The mobj\_ambquest\_pat\_out script sets PID.2.4 to “BayCareCMRN”, the alias pool associated with the patient’s CPI in PID.2.1. |
| Patient ID (Internal ID) | PID.3 |  | CX | 20 |  |  |
| Patient ID | PID.3.1 | R | ST |  | T Person\_Alias | Patient’s CMRN (CPI):  The mobj\_ambquest\_pat\_out script filters out all patient identifiers except for the Patient CMRN (CPI). |
| Assigning  Authority | PID.3.4 | N | HD |  | T Person\_Alias  CS 263 | The mobj\_ambquest\_pat\_out script sets PID.2.4 to “BayCareCMRN” |
| Alternate Patient ID | PID.4 | N | CX | 20 |  | BayCare sends this field blank. |
| Patient Name | PID.5 | Y | XPN | 250 | T Person\_Name | Components: <Last Name>^<First Name>^<Middle Initial or Name>^<Suffix>^<Prefix>^ <Degree>^<Type> |
| Birth Date | PID.7 | Y | TS | 8 | T Person | YYYYMMDD |
| Sex | PID.8 | Y | ID | 1 | T Person  CS 57 | Patient’s Sex |
| Patient Address | PID.11 | N | XAD | 106 | T Address | Mailing Address of Patient  Components: <street address>^<other>^<city>^<state>^<zip code>.  The mobj\_ambquest\_pat\_out script expects a valid address of city, state, and zip code. Otherwise, the Patient Address fields are sent blank. |
| Phone Number | PID.13 | N | XTN | 25 | T Phone | Patient’s home phone number in the expected format (XXX) XXX-XXXX. No phone type is sent to Quest. |
| Patient Account Number | PID.18 |  |  |  | T Enctr\_ALias |  |
| Patient  Account # | PID.18.1 | C | CX | 20 |  | Patient’s FIN:  The mobj\_ambquest\_pat\_out script filters out all account number types except for “FIN”. |
| Assigning  Authority | PID.18.4 | C | HD |  | CS 263 | The alias pool associated with the patient’s FIN sent in PID.18.1. Example: “BMGFN” |
| Assigning  Facility | PID.18.6 | N | HD |  |  | The orm\_BMGQuest\_mobj\_out script populates PID.18.6 with "BAYC\_FL.AMB.QUEST.RLN" per Quest. |
| SSN - Patient | PID.19 | N | ST | 16 | T Person\_Alias | The patient’s SSN:  The mobj\_ambquest\_pat\_out script will blank out the SSN if it is "999999999". |
|  | PV1 |  |  |  |  | The PV1 segment is removed by the mobj\_ambquest\_pat\_out script. |
|  | IN1 |  |  |  |  | No charging is done on the BayCare Cerner side. Quest requires the patient billing information be sent with the orders and will charge the Insurance Companies/Patients directly.  The mobj\_ambquest\_fin\_out script clears all IN1 fields except IN1.1,4,5,8, 11, 16, 17, and 47 when the coverage type is T for Insurance. When the coverage type is P for “Self Pay”, no fields are cleared by the mod object script. |
| Set ID Insurance | IN1.1 | Y | SI | 4 |  | Starts with 1 and increments sequentially.  This field is set to “1” by the mobj\_ambquest\_fin\_out script when the coverage type is “Self Pay”. |
| Insurance Plan ID | IN1.2 | Y | CE | 60 |  | Not used when coverage type is T for Insurance. |
| Identifier | IN1.2.1 | C |  |  | T Health\_Plan | Unique Identifier for the Insurance Plan. |
| Text | IN1.2.2 | C |  |  | T Health\_Plan | Insurance Plan Name (e.g., BCBS Blue Card- Local Plan). |
| Alt. Text | IN1.2.5 | N |  |  | T Health\_Plan | Insurance Plan Description; may be the same as the Insurance Plan Name in IN1.2.2. |
| Insurance Company ID | IN1.3 | Y | CX | 59 | T Person\_Plan\_Reltn | Unique Identifier for the Insurance Company.  Not used when coverage type is T for Insurance. |
| Insurance Company Name | IN1.4 | N | XON | 130 | T Organization |  |
| Insurance Company Address | IN1.5 | C | xad | 106 | T Address | Insurance Company’s Mailing Address  Components: <street address>^<other>^<city>^<state>^<zip code>^<country>^<address type>    The mobj\_ambquest\_pat\_out script expects a valid address of city, state, and zip code. Otherwise, the Insurance Company’s Address fields are sent blank. |
| Insurance Company Phone Number | IN1.7 | C | xtn | 40 | T Phone | Insurance Company phone number in IN1.7.1 with the expected format (XXX) XXX-XXXX and “WPN” in IN1.7.2 for Phone\_Type of Business. |
| Insurance Group Number | IN1.8 | C | ST | 12 | T Person\_Plan\_Reltn | Group number associated with the Health Plan.  IN1.8, IN1.9, or both can be used. |
| Insurance Group Nane | IN1.9 | C | XON | 130 | T Person\_Plan\_Reltn | Group associated with the Health Plan.  IN1.8, IN1.9, or both can be used. |
| Name of Insured | IN1.16 | C | XPN | 48 | T Person  T Person\_Name | Components: <Last Name>^<First Name>^<Middle Initial or Name>^<Suffix>^<Prefix>^ <Degree>^<Type> |
| Insured’s Relationship to Patient | IN1.17 | C | IS | 2 | T Person\_Plan\_Reltn CS 40 | Insured’s Relationship to Patient:  1 = SELF  2 = Spouse, Husband, or Wife  3 = All Others (e.g., Brother, Grandmother, Donor, Friend, Employer) |
| Insured’s Address | IN1.19 | C | XAD | 106 | T Address | Components: <street address>^<other>^<city>^<state>^<zip code>. |
| Insurance Company’s Plan Code | IN1.35 | C | IS | 8 | T Health Plan  T Person\_Plan\_Reltn  CS 354 | Quest expects “Self Pay” when applicable. |
| Insurance Policy Number | IN1.36 | C |  |  | T Person\_Plan\_Reltn | Insured’s Insurance Policy Number |
| Insured’s Sex | IN1.43 | N |  |  | T Person  CS 57 | F = Female  M = Male  U = Unknown or Ambiguous |
| Coverage Type | IN1.47 | Y | 3 | IS | T Person\_Plan\_Reltn | This field provides Quest with the patient’s type of coverage for billing purposes.  The coverage type aliases expected by Quest are added by the mobj\_ambquest\_fin\_out script:  P= “Self Pay” and is added to this field by the script when the PV1 [1]->fin\_class [1]->fin\_class\_id =  “Self Pay”  T= Insurance coverage and is added to this field by the script when the IN1 [1]->insured\_id\_nbr is populated.  C is for Client Billing and is currently not being used by BayCare |
| Insured’s ID Number | IN1.49 | N | CX | 12 |  | Unique Identifier for the insured. |
|  | IN2 |  |  |  |  | This segment is removed by CloverLeaf prior to sending the message to RLN Hub/Quest. |
|  | IN3 |  |  |  |  | This segment is removed by CloverLeaf prior to sending the message to RLN Hub/Quest. |
| Set ID- Guarantor | GT1.1 | Y | SI | 4 |  | Starts with 1 and increments sequentially. |
| Guarantor Name | GT1.3 | Y | xpn | 48 | T Person\_Name  or  Encntr\_Org\_Reltn | Components: <Last Name>^<First Name>^<Middle Initial or Name>^<Suffix>^<Prefix>^ <Degree> |
| Guarantor Address | GT1.5 | N | XAD | 106 | T Address | Guarantor’s Address  Components: <street address>^<other>^<city>^<state>^<zip code>^<country>^<address type>    The mobj\_ambquest\_fin\_out script expects a valid address of city, state, and zip code. Otherwise, the Insurance Company’s Address fields are sent blank. |
| Guarantor Phone Number-Home | GT1.6 | N | xtn | 40 |  | If guarantor is a person, this field is his/her home phone number. Field is not valued if Guarantor is organization. |
| Guarantor Date of Birth | GT1.8 |  |  |  |  | Field is not valued if Guarantor is organization. |
| Guarantor’s Sex | GT1.9 |  |  |  |  | Field is not valued if Guarantor is organization. |
| Guarantor’s SSN | GT1.12 |  |  |  |  | Guarantor’s SSN; this field is not valued if Guarantor is an organization. |
|  | ORC |  |  |  |  | BayCare Cerner sends an ORC segment for every order in the message. The mobj\_ambquest\_orm\_out script clears all ORC fields except for the ones listed below. |
| Order Control ID | ORC.1 | Y | ID | 02 | T Order\_Action  CS 6003 | The mobj\_ambquest\_orm\_out script populates ORC.1 with “NW” for New Order. |
| Placer Order Number | ORC.2 | N | CM | 75 |  | The mobj\_ambquest\_orm\_out script populates ORC.2 with the Requisition Control ID created by the mobj\_ambquest\_bndlr\_out script.  The Requisition Control ID is the patient’s FIN concatenated to the  Collection Class abbreviation\* concatenated to the last 5 digits of the order conversation\_id.  \*Collection Class abbreviations used by the mobj\_ambquest\_bndlr\_out script:  For Nurse collect “No”  L = frozen, room temp, refrigerated,  or urine  APL =Pathology specimen    For Nurse collect “Yes”:  FR = Frozen  RR = room temp, refrigerated, or  urine  AP =Pathology specimen |
| Placer Group Number | ORC.4 | N | CM | 75 |  | The mobj\_ambquest\_orm\_out script populates ORC.4 with the Requisition Control ID created by the mobj\_ambquest\_bndlr\_out script.  (See the ORC.2 field for details) |
| Entered By | ORC.10 | N | XCN | 80 | T Order\_Action | User who entered the order in Cerner.  Components: <ID Number>^<Last Name>^<First Name>^<Middle Name or Initial>^^^^^<Assigning Authority> |
| ID  Number | ORC.10.1 | N |  |  |  | NPI Number when available-  The mobj\_ambquest\_orm\_out script filters for NPI number only. |
| Last  Name | ORC.10.2 | N |  |  |  | User last name |
| First  Name | ORC.10.3 | N |  |  |  | User first name |
| Middle  Initial or  Name | ORC.10.4 | N |  |  |  | User middle name or initial |
| Assigning  Authority | ORC.10.9 | N |  |  | CS 263 | The mobj\_ambquest\_orm\_out script populates ORC.10.9 with “NPI” when ORC.10.1 has been populated. |
| Verified By | ORC.11 |  | XCN | 80 | T Order\_Action | User who verified the order in Cerner.  Components: <ID Number>^<Last Name>^<First Name>^<Middle Name or Initial>^^^^^<Assigning Authority> |
| ID  Number | ORC.11.1 | N |  |  |  | NPI Number when available-  The mobj\_ambquest\_orm\_out script filters for NPI number only. |
| Last  Name | ORC.11.2 | N |  |  |  | User last name |
| First  Name | ORC.11.3 | N |  |  |  | User first name |
| Middle  Initial or  Name | ORC.11.4 |  |  |  |  | User middle name or initial |
| Assigning  Authority | ORC.11.9 | N |  |  | CS 263 | The mobj\_ambquest\_orm\_out script populates ORC.11.9 with “NPI” when ORC.11.1 has been populated. |
| Ordering Provider | ORC.12 |  | XCN | 80 | T Order\_Action | Provider who ordered or had the order placed in Cerner.  Components: <ID Number>^<Last Name>^<First Name>^<Middle Name or Initial>^^^^^<Assigning Authority> |
| ID  Number | ORC.12.1 | N |  |  |  | Provider NPI Number-  The mobj\_ambquest\_orm\_out script filters for NPI number only. |
| Last  Name | ORC.12.2 | N |  |  |  | Provider last name |
| First  Name | ORC.12.3 | N |  |  |  | Provider first name |
| Middle  Initial or  Name | ORC.12.4 | N |  |  |  | Provider middle name or initial |
| Assigning  Authority | ORC.12.9 | N |  |  | CS 263 | The mobj\_ambquest\_orm\_out script populates ORC.12.9 with “NPI” when ORC.12.1 has been populated. |
|  | OBR |  |  |  |  | BayCare Cerner sends an OBR segment for every order in the message. Some of the OBR fields are not used by Cerner and other fields are cleared by the mobj\_ambquest\_orm\_out script. The OBR fields in use are listed below. |
| Set ID - OBR | OBR.1 | Y | SI | 04 |  | Always 1 even with multiple OBRs in the ORM message. |
| Placer Order Number | OBR.2 | Y | CM | 75 |  | The mobj\_ambquest\_orm\_out script moves the unique Cerner placer order id number to OBR.18, then, populates OBR.2 with the Requisition Control ID created by the mobj\_ambquest\_bndlr\_out script.  The Requisition Control ID is the patient’s FIN concatenated to the  Collection Class abbreviation\* concatenated to the last 5 digits of the order conversation\_id.  \*Collection Class abbreviations used by the mobj\_ambquest\_bndlr\_out script:  For Nurse collect “No”  L = frozen, room temp, refrigerated,  or urine  APL =Pathology specimen    For Nurse collect “Yes”:  FR = Frozen  RR = room temp, refrigerated, or  urine  AP =Pathology specimen |
| Universal Service ID | OBR.4 |  | CE | 200 | T Orders | Quest Order Information |
| Test Code | OBR.4.1 | Y\* |  |  | CS 200 | Quest Order Alias for contributor source BMGQuest-  The mobj\_ambquest\_orm\_out script moves the Order Alias to OBR.4.4, then, clears this field.\* |
| Test  Description | OBR.4.2 | Y\* |  |  |  | Quest Order Description (e.g., Basic Metabolic Panel)-  The mobj\_ambquest\_orm\_out script moves the Order Description to OBR.4.5, then, clears this field.\* |
| Alternate  Test Code | OBR.4.4 | Y |  |  |  | Quest Order Alias for contributor source BMGQuest-  The mobj\_ambquest\_orm\_out script moves the Order Alias from OBR.4.1 to this field.  Note: Cerner recommends aliases be limited to 10-12 characters since functional size is limited for clinical event processing. |
| Alternate  Test  Description | OBR.4.5 | Y |  |  |  | Quest Order Description (e.g., Basic Metabolic Panel)-  The mobj\_ambquest\_orm\_out script moves the Order Description from OBR.4.2 to this field. |
| Observation (Collection) Date / Time | OBR.7 | Y | TS | 26 | T Orders  Current\_start\_dt\_tm  *PathNet* script- path\_get\_eso\_fields) | Quest required field -  Specimen Collection Date/Time: YYYYMMDDHHMM  If this field is blank, the mobj\_ambquest\_orm\_out script copies the status change date/time from OBR.22 to this field. |
| Specimen Action Code | OBR.11 | N | ID | 1 | T Order\_Detail  *PathNet* script- path\_get\_eso\_fields) | For Nurse collect “No” (PSC Hold orders):  L = Lab to obtain Specimen    For Nurse collect “Yes” (Non-PSC Hold orders):  P = Pending specimen. Order sent prior to specimen delivery |
| Specimen Source | OBR.15 | N | CM | 300 |  | Quest requested this field to be cleared; it is not needed for 2.3.1 and creates a format error on the Quest side which causes the order message to be NAK’d.  The mobj\_ambquest\_orm\_out script clears this field. |
| Ordering Provider | OBR.16 |  | XCN | 60 | T Order\_Action | Provider who ordered or had the order placed in Cerner.  Components: <ID Number>^<Last Name>^<First Name>^<Middle Name or Initial>^^^^^<Assigning Authority> |
| ID  Number | OBR.16.1 | Y |  |  |  | Providers NPI number –  The mobj\_ambquest\_orm\_out script filters for NPI number only. |
| Last  Name | OBR.16.2 | Y |  |  |  | Provider last name |
| First  Name | OBR.16.3 | Y |  |  |  | Provider first name |
| Middle  Initial or  Name | OBR.16.4 | N |  |  |  | Provider middle name or initial |
| Assigning  Authority | OBR.16.9 | Y |  |  |  | The mobj\_ambquest\_orm\_out script populates ORC.16.9 with “NPI” when ORC.16.1 has been populated. |
| Placer Field 1 | OBR.18 | Y | ST | 60 | T Orders | BayCare unique Cerner Order ID-  The mobj\_ambquest\_orm\_out script moves the unique Cerner placer order id number from OBR.2 to OBR.18. Quest is expected to return this value in the result message. |
| Placer Field 2 | OBR.19 | Y | ST | 60 |  | The mobj\_ambquest\_orm\_out script populates OBR.19 with the Requisition Control ID created by the mobj\_ambquest\_bndlr\_out script.  (See the ORC.2 field for details) |
| Results Report / Status Change – Date / Time | OBR.22 | C | TS | 26 | T Order\_Action | Format: YYYYMMDDHHMM  Most recent date/time for order status change.  The mobj\_ambquest\_orm\_out script will copy this field to OBR.7 when OBR.7 is blank. |
| Diagnostic Service Section ID | OBR.24 | N |  |  | T Orders  T Order Catalog  CS 106 | This field is populated with the alias for the activity type assigned to the order. Examples:  - Lab (General Lab)  - Micro (Microbiology)  - AP (Anatomic Pathology) |
| Quantity Timing | OBR.27 |  | TQ | 200 |  |  |
| Quantity | OBR.27.1 | N |  |  |  | Quantity of service; default is 1. |
| Duration | OBR.27.3 | N |  |  |  | The Frequency used for these orders should only be ONCE. The field will be empty or populated with “0”. |
| Start Date/Time | OBR.27.4 | Y |  |  | T Order\_Detail | Format: YYYYMMDDHHMM  The requested start date and time for this order. |
| Priority | OBR.27.6 | N |  |  | CS 2054 | Collection Priority:  R Routine  S Stat |
| Result Copies To | OBR.28 | N |  |  | T Order\_Detail | The mobj\_ambquest\_orm\_out script clears this field. **The Pathnet and Ambulatory Office Teams decided to not use this field.** |
| Sched Date/Time | OBR.36 | N |  |  | T Order\_Detail | Format: YYYYMMDDHHMM  Scheduled date and time; sane as OBR.27.4 |
|  | DG1 |  |  |  |  | The mobj\_ambquest\_orm\_out script removes the DG1 segment when the diagnosis type is not aliased as “SEND\_OUT” (See DG1.6 for details). |
| Set ID - Diagnosis | DG1.1 | Y | SI | 04 |  | Starts at 1 and is incremented by 1. |
| Diagnosis Coding Method | DG1.2 | Y | ID | 02 | T Nomenclature  CS 400 | Diagnosis Coding Method being used. (e.g., ICD10) |
| Diagnosis Code | DG1.3 | Y | CE | 60 | T Nomenclature  T Order\_Detail  T Nomen\_Entitiy\_  Reltn  CS 400 | When diagnosis is free text*,* DG1-3.1 and DG1.3.3 are empty. |
| Source  Identifier | DG1.3.1 |  |  |  |  | Diagnosis Code (e.g., 177.1) |
| Source  String | DG1.3.2 |  |  |  |  | Diagnosis Code Description |
| Source | DG1.3.3 |  |  |  |  | The diagnosis coding system used. (e.g., ICD10) |
| Diagnosis Description | DG1.4 | N | ST | 40 | T Nomenclature  T Order\_Detail  T Diagnosis | DG1-4 is derived by concatenating source\_identifier (DG1.3.1) and source\_string (DG1.3.2). |
| Diagnosis Type (DRG\_TYPE) | DG1.6 | Y | CE | 40 | T Order\_Detail  CS 23549 | The DRG\_TYPE needs to be “Diagnosis to Order” and aliased as “SEND\_OUT” on Code Set 23549 for contributor source BMGQuest. Otherwise, the mobj\_ambquest\_orm\_out script will remove the DG1 segment.  If the DRG\_TYPE alias is SEND\_OUT, the mobj\_ambquest\_orm\_out script will clear this field. |
|  | OBX |  |  |  |  | OBX segments are used to send order entry field results and order prompt questions/answers to Quest such as Fasting (Y/N). |
| Set ID – OBX (may be multiple segments) | OBX.1 | Y | SI | 10 |  | Starts at 1 and is incremented by 1; sequential under each OBR. |
| Value Type | OBX.2 | Y | ID | 02 |  | The value type of the result sent in OBX.5:  ST = String  NM = Number  TX = Text  TS = Time Stamp  ID = Coded Value  Value is determined by ESO processing based on the given order detail. |
| Observation Identifier | OBX.3 |  | CE | 80 |  | Order Detail Information |
| Procedure  ID | OBX.3.1 | Y | ID |  | T Order\_Detail  T Prompt\_Result  CS 16449  CS14003 | Alias to an order entry field or Pathnet prompt test (Code Set 14003).  The mobj\_ambquest\_orm\_out script moves this data to OBX.3.4 in accordance with Quest specs. Then, the script clears this field. |
| Procedure  Description | OBX.3.2 | N | ST |  | T Code\_Value | Code Value Display  The mobj\_ambquest\_orm\_out script moves this data to OBX.3.5 in accordance with Quest specs. Then, the script clears this field. |
| Coding  scheme | OBX.3.3 | N | ID |  | Conntributor\_  source\_cd from T Code\_Value\_  Outbound | Not Used |
| Alternate  Procedure  ID | OBX.3.4 | Y | ID |  | T Order\_Detail  T Prompt\_Result  CS 16449  CS14003 | Alias to an order entry field (Code Set 16449) or a Pathnet prompt test (Code Set 14003).  The mobj\_ambquest\_orm\_out script moved this data from OBX.3.1 in accordance with Quest specs. |
| Alternate  Procedure  Description | OBX.3.5 | N | ST |  | T Code\_Value | Code Value Display  The mobj\_ambquest\_orm\_out script moved this data from OBX.3.2 in accordance with Quest specs. |
| Observation Value | OBX.5 | Y | R | 64k | T Order\_Detail  T Prompt\_Result  T Server Request | The actual result value or prompt answer for the order detail identified in OBX.3. |
|  | ZCT |  |  |  |  | The ZCT (Container Tracking) segment is not used by Quest and is removed by the mobj\_ambquest\_orm\_out script. |
|  | NTE |  |  |  |  | The NTE segment is used to send comments related to the OBR or OBX segments and will directly follow the segment it is referencing. |
| Set ID – NET (may be multiple segments) | NTE.1 | C | SI | 4 |  | Starts at 1 and is incremented by 1 for all of comments associated with the OBR or OBX segment preceding it. |
| Source of Comment | NTE.2 | C | ID | 8 | T Order\_Comment  T CE\_Event\_Note  CS 14  CS 13 | The mobj\_ambquest\_orm\_out script changes this field value to “I” as per Quest for “Internal Notes” for NTE segments following OBR segments. |
| Comment | NTE.3 | C | FT | 64k | T CE\_EVENT\_  NOTE  T LONG\_TEXT  T LONG\_BLOB | The NTE comment associated with the OBR or OBX segment.  2nd - The |

Data Type Acronyms:

CE - CODED ENTRY

CM - COMPOSITE

CWE- CODED WITH EXCEPTIONS

CX - EXTENDED COMPOSITE ID WITH CHECK DIGIT

DT - DATE

DTM - DATE/TIME

FT - FORMATTED TEXT DATA

HD - HIERARCHIC DESIGNATOR

ID - CODED VALUE FOR HL7 DEFINED TABLES

MSG - MESSAGE TYPE

PT - PROCESSING TYPE

R - WIDE VARIETY OF DATA TYPES

SI - SEQUENCE ID

ST - STRING DATA

TS - TIME STAMP

XAD - EXTENDED ADDRESS

XCN - EXTENDED COMPOSITE ID NUMBER AND NAME FOR PERSONS

XPN - EXTENDED PERSON NAME

XTN - EXTENDED TELECOMMUNICATION NUMBER

## 4.3 Sample Messages

**Sample Message # 1:**

MSH|^~\&|AMB|107057||TMP|20170622065248||ORM^O01|Q3745046760T4792365187|D|2.3.1||||||8859/1

PID|1|100170000^^^BayCareCMRN|100170000^^^BayCareCMRN||TEST^SANDRA^S||19540916|F|||2000 VILLAGE GREEN BLVD^^PLANT CITY^FL^33566||8139270000|||||3925000^^^BMGFN^^BAYC\_FL.AMB.QUEST.RLN|999999999

IN1|1|||BCBS FL PREFERRED PATIENT CARE|PO BOX 2896^^JACKSONVILLE^ FL^32203-3357|||69973||||||||TEST^SANDRA^S|1||2000 VILLAGE GREEN BLVD^^PLANT CITY^FL^33566||||||||||||||||F|XJGH97129990|||||||||||T

GT1|1||TEST^SANDRA^S||2000 VILLAGE GREEN BLVD^^PLANT CITY^FL^33566|8139270000||19640916|F|||999999999

ORC|NW|3925550RR60893||3925550RR60893||||||^Murray^Evonne^E||1407929599^Hopkins^Sheyla^N^^^^^NPI

OBR|1|3925550RR60893||^^^17306^VIT D25 OH|||201706220652||||P|||||1407929599^Hopkins^Sheyla^N^^^^^NPI||11654829903|3925550RR60893|||20170622065244||Lab|||1^^0^20170622073000^^R|||||||||20170622073000

DG1|1|ICD10|M81.0^Age-related osteoporosis without current pathologi^ICD10|M81.0Age-related osteoporosis without current pathologi

DG1|2|ICD10|I10^Essential (primary) hypertension^ICD10|I10Essential (primary) hypertension

DG1|3|ICD10|E78.5^Hyperlipidemia, unspecified^ICD10|E78.5Hyperlipidemia, unspecified

DG1|4|ICD10|D64.9^Anemia, unspecified^ICD10|D64.9Anemia, unspecified

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||Y

ORC|NW|3925550RR60893||3925550RR60893||||||^Murray^Evonne^E||1407929599^Hopkins^Sheyla^N^^^^^NPI

OBR|1|3925550RR60893||^^^622^MAG LEVEL|||201706220652||||P|||||1407929599^Hopkins^Sheyla^N^^^^^NPI||11654830595|3925550RR60893|||20170622065244||Lab|||1^^0^20170622073000^^R|||||||||20170622073000

DG1|1|ICD10|M81.0^Age-related osteoporosis without current pathologi^ICD10|M81.0Age-related osteoporosis without current pathologi

DG1|2|ICD10|I10^Essential (primary) hypertension^ICD10|I10Essential (primary) hypertension

DG1|3|ICD10|E78.5^Hyperlipidemia, unspecified^ICD10|E78.5Hyperlipidemia, unspecified

DG1|4|ICD10|D64.9^Anemia, unspecified^ICD10|D64.9Anemia, unspecified

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||Y

ORC|NW|3925550RR60893||3925550RR60893||||||^Murray^Evonne^E||1407929599^Hopkins^Sheyla^N^^^^^NPI

OBR|1|3925550RR60893||^^^10231^CMP|||201706220652||||P|||||1407929599^Hopkins^Sheyla^N^^^^^NPI||11654831051|3925550RR60893|||20170622065245||Lab|||1^^0^20170622073000^^R|||||||||20170622073000

DG1|1|ICD10|M81.0^Age-related osteoporosis without current pathologi^ICD10|M81.0Age-related osteoporosis without current pathologi

DG1|2|ICD10|I10^Essential (primary) hypertension^ICD10|I10Essential (primary) hypertension

DG1|3|ICD10|E78.5^Hyperlipidemia, unspecified^ICD10|E78.5Hyperlipidemia, unspecified

DG1|4|ICD10|D64.9^Anemia, unspecified^ICD10|D64.9Anemia, unspecified

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||Y

ORC|NW|3925550RR60893||3925550RR60893||||||^Murray^Evonne^E||1407929599^Hopkins^Sheyla^N^^^^^NPI

OBR|1|3925550RR60893||^^^457^FERRITIN|||201706220652||||P|||||1407929599^Hopkins^Sheyla^N^^^^^NPI||11654831899|3925550RR60893|||20170622065245||Lab|||1^^0^20170622073000^^R|||||||||20170622073000

DG1|1|ICD10|M81.0^Age-related osteoporosis without current pathologi^ICD10|M81.0Age-related osteoporosis without current pathologi

DG1|2|ICD10|I10^Essential (primary) hypertension^ICD10|I10Essential (primary) hypertension

DG1|3|ICD10|E78.5^Hyperlipidemia, unspecified^ICD10|E78.5Hyperlipidemia, unspecified

DG1|4|ICD10|D64.9^Anemia, unspecified^ICD10|D64.9Anemia, unspecified

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||Y

ORC|NW|3925550RR60893||3925550RR60893||||||^Murray^Evonne^E||1407929599^Hopkins^Sheyla^N^^^^^NPI

OBR|1|3925550RR60893||^^^7573^IRON+TIBC|||201706220652||||P|||||1407929599^Hopkins^Sheyla^N^^^^^NPI||11654832835|3925550RR60893|||20170622065245||Lab|||1^^0^20170622073000^^R|||||||||20170622073000

DG1|1|ICD10|M81.0^Age-related osteoporosis without current pathologi^ICD10|M81.0Age-related osteoporosis without current pathologi

DG1|2|ICD10|I10^Essential (primary) hypertension^ICD10|I10Essential (primary) hypertension

DG1|3|ICD10|E78.5^Hyperlipidemia, unspecified^ICD10|E78.5Hyperlipidemia, unspecified

DG1|4|ICD10|D64.9^Anemia, unspecified^ICD10|D64.9Anemia, unspecified

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||Y

ORC|NW|3925550RR60893||3925550RR60893||||||^Murray^Evonne^E||1407929599^Hopkins^Sheyla^N^^^^^NPI

OBR|1|3925550RR60893||^^^7065^VIT B12/FOLATE|||201706220652||||P|||||1407929599^Hopkins^Sheyla^N^^^^^NPI||11654833737|3925550RR60893|||20170622065245||Lab|||1^^0^20170622073000^^R|||||||||20170622073000

DG1|1|ICD10|M81.0^Age-related osteoporosis without current pathologi^ICD10|M81.0Age-related osteoporosis without current pathologi

DG1|2|ICD10|I10^Essential (primary) hypertension^ICD10|I10Essential (primary) hypertension

DG1|3|ICD10|E78.5^Hyperlipidemia, unspecified^ICD10|E78.5Hyperlipidemia, unspecified

DG1|4|ICD10|D64.9^Anemia, unspecified^ICD10|D64.9Anemia, unspecified

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||Y

**Sample Message # 2:**

MSH|^~\&|AMB|120299|PSC|TMP|20170821080748||ORM^O01|Q3873446415T4979707319|D|2.3.1||||||8859/1

PID|1|102002379^^^BayCareCMRN|102002379^^^BayCareCMRN||TEST^CHRISTINA||19600919|F|||PO BOX 30^^TARPON SPRINGS^FL^34688||7274818000|||||4135899^^^BMGFN^^BAYC\_FL.AMB.QUEST.RLN|999999999

IN1|1|||HUMANA HMO PREMIER|PO BOX 14601^^LEXINGTON^KY^40512-4610|||548085||||||||TEST^CHRISTINA|1||PO BOX 30^^TARPON SPRINGS^FL^34688|||||||||||||||||999999999|||||||||||T

GT1|1||TEST^CHRISTINA||PO BOX 30^^TARPON SPRINGS^FL^34688|7274818000||19600919|F|||999999999

ORC|NW|4135827L87841||4135827L87841||||||^Filipponi^Jacqueline^B||1952404824^Kleinbart^Jennifer^M^^^^^NPI

OBR|1|4135827L87841||^^^927^VIT B12 LEVEL|||201708210807||||L|||||1952404824^Kleinbart^Jennifer^M^^^^^NPI||12166576143|4135827L87841|||20170821080747||Lab|||1^^0^20171231080600^^R|||||||||20171231080600

NTE|1|I|Patient can get labs drawn prior to date listed.

DG1|1|ICD10|E53.8^Deficiency of other specified B group vitamins^ICD10|E53.8Deficiency of other specified B group vitamins

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||N

ORC|NW|4135827L87841||4135827L87841||||||^Filipponi^Jacqueline^B||1952404824^Kleinbart^Jennifer^M^^^^^NPI

OBR|1|4135827L87841||^^^17306^VIT D25 OH|||201708210807||||L|||||1952404824^Kleinbart^Jennifer^M^^^^^NPI||12166577353|4135827L87841|||20170821080747||Lab|||1^^0^20171231080600^^R|||||||||20171231080600

NTE|1|I|Patient can get labs drawn prior to date listed.

DG1|1|ICD10|E55.9^Vitamin D deficiency, unspecified^ICD10|E55.9Vitamin D deficiency, unspecified

OBX|1|ID|^^^Fasting (Y/N)^Fasting (Y/N)||N

# 5. Alerts

Are you going to need alerting on this connection?

|  |  |
| --- | --- |
| Yes | ☐ |
| No | X |

# Appendix A: Issues List

**Project: Quest Ambulatory Orders Interface**

| Issue # | Issue | Cause/Assigned To | Resolution/Date Resolved | Comments |
| --- | --- | --- | --- | --- |
| 1 | Some order messages are being rejected on the Quest side. | Quest identified the issue as a problem on their side when OBR.15 is populated. This field is not needed for HL7 2.3.1 and creates a format error for Quest and Quest NAK’s the order message. Assigned to Cerner. | Prior to Go-Live:  mobj\_ambquest\_orm\_out script was modified to clear the OBR.15 field. Testing passed. |  |
| 2 | BMG Quest orders are being placed on Historical encounters instead of the correct BMG/BUC encounters | Historical encounters were created for “Review Only” during the registration conversion to BMG-GE. When users place BMG Quest orders on these locations, the Quest account number aliased to the proper BMG encounter is not being sent in MSH.4, instead the historical location alias is sent (e.g., Historical or JIM) | Cheri Krampert, Cerner associates- Kevin Brimer, Viet Cao, and Quest associates- John Gorman and Christopher Harrison notified on 1/4/17 of the cause. Cheri Krampert to forward the workflow issue to the appropriate personnel. This is not an FSI issue. |  |
| 3 | Some orders, UA w/Microscopic and Urine Culture orders, are not being sent to Quest from BayCare Cerner. | Order messages that do not have a RLN Collection Class assigned are rejected by the mobj\_ambquest\_bndlr\_out script written by Cerner as requested by Quest.  Issue assigned to Linda Lefebvre and a footprint ticket # 231288 assigned to the Pathnet Team on 8/17/17. | Hope made a suggestion to Linda to talk with her supervisor and Jeff Jung about adding an RLN collection class for Urines so the specimens will no longer get assigned to the same requisition as the blood and the mobj\_ambquest\_bndlr\_out script can be changed to accommodate the new RLN collection class since they are labelled as site-specific on the script.  5/21/2018, in script, mobj\_ambquest\_bndlr\_out, a new collection class for Urines, RLN Urine, was added to resolve issue. | The RLN collection class was changed on Urine cultures because the physician offices did not want the urine specimen on the same requisition and bag as the blood samples so the Pathnet Team made a collections change without full testing and the orders are no longer being sent outbound from Cerner. |
| 4 |  |  |  |  |

* End of document