**ORM\_Cerner\_Answer Excellence Reqs**

**Version 1.7**

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**Date: 7/24/2019**

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# **Document Control**

## Resources

|  |  |  |
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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 8/29/2016 | Daniel Olszewski | Originally Created |
| V1.1 | 04/7/2017 | Daniel Olszewski | Adding script changes |
| V1.2 | 6/12/2017 | Lois Whitley | Updated Cloverleaf site |
| V1.3 | 6/13/2018 | Rich Allison | Added Cloverleaf documentation |
| V1.4 | 9/12/18 | Sailaja Parimi  Levy Lazarre | RFC # 13938 send MS Number in Provider fields instead of PRDOC; Remove the filter on SAH for Psych orders, and allow all Consult orders for SAH |
| V1.5 | 10/1/2018 | Art Schwartz | Add filter to kill Stat orders on SAH only |
| V1.6 | 4/30/2019 | Tiffany Bohall | Added facility route for SJH and SJW to start passing orders for these locations |
| V1.7 | 07/24/2019 | Tiffany Bohall | Updated filter criteria per Cerner Model project and interface consolidation |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to provide the current configuration for the Cerner orders interface outbound to Answer Excellence Information System. The intended audience would be anyone who wishes to know more about the current configurations as established in production.

## 1.2 Project Scope

From Cerner Physician Consultation Orders will be sent to Answer Excellence. They will send us status update order messages (in progress) back when the doctor acknowledges the consult order notification. The doctor then does the consult on the patient’s chart in PowerChart. The nurse then completes the order in PowerChart.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

ORM – HL7 Order message

### 1.3.2 Glossary

## 1.4 Document References

Answer Excellence information:

H:\SHARES\Regional\Integration Team\Interface Walk Through\Cerner Consult Orders to Answer Excell WalkThrough 012810.doc

# 2. Diagram

Physician Consult ORM – status update

Physician Consult ORM – status update

Consult order shows in progress

End User places consult order

Answer Excellence notifies Physician to do a consult

Cloverleaf Engine

Physician Consult Order Message

Physician Consult Order Message

Cerner

# 3. Requirements

## 3.1 Functional Requirements

Cerner FSI and Cloverleaf modifications necessary to send orders outbound to Answer Excellence.

|  |  |  |
| --- | --- | --- |
| **Cerner** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| FR.2016.8.0 | Route Script  Route\_outv47 | Added code to route CQMSubtype: PHYSCONSULT orders to ORM\_TCP\_CONSULT\_OUT interface. |
| FR.2016.8.1 | Mod Object Script  Orm\_ae\_outv12 | Added this script to the interface |
| FR.2016.8.2  FR.2018.8.3  FR.2018.10.1  FR.2019.4.30 | Orders with Subtype of PHYSCONSULT  Facilities using Answer  Excellence  tpsAdvHL7Filter –STAT suppression  tpsAdvHL7Filter -Continue ‘Consult to Physician’  tpsAdvHL7Filter -Continue ‘Consult to Psychiatrist’ | Orders team built orders with CQMSubtype of PHYSCONSULT  MPH, MCS, MDU, BAH, NBY, SAH, SJN, SJS, SJH, SJW  Kill STAT orders for MPH, MCS, MDU, BAH, NBY, SJN, SJS, SJH, and SJW  Allow orders to pass (for all facilities except SAH) where OBR.4= ‘Consult to Physician’  Allow orders to pass (for SAH only) where OBR.4= ‘Consult to Psychiatrist’ |

## 3.2 Non-Functional Requirements-N/A

|  |  |  |
| --- | --- | --- |
| **Cloverleaf** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| NFR.20XX.1.0 | Click here to enter text. | Click here to enter text. |

# 4. HL7 Messaging

## 4.1 Messaging Format

HL7 2.3 cerner\_emr ORM\_O01

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

PID

PV1

PV2

IN1

ORC

OBR

NTE

OBX

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*EVN – Event segment*

*PID – Patient ID segment*

*PV1 – Patient Visit segment*

*ORC – Common Order segment*

*IN1 – Insurance segment*

*[{ – Start of optional, repeatable group*

*}] – End of optional, repeatable group*

### 4.1*.*2 Messaging Event Types

Below are the messages types necessary for this integration

|  |  |
| --- | --- |
| **Event Type** | **Description** |
| ORM | Order message |
|  |  |
|  |  |

### 4.1*.*3 Cloverleaf Configuration Files

orm\_cer\_in\_consult

orm\_ans\_out

### 4.1.4 Cloverleaf Site Location

cerner\_orders\_6\_p

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Change Location** | **Notes** |
| --- | --- | --- | --- | --- |
| MSH Segment |  | Y |  | PATHCOPY the MSH segment |
| Encoding Characters | MSH.2 |  |  | COPY “=^~\&” to MSH.2 |
| Sending Application | MSH.3 |  |  | COPY “HNAM” to MSH.3 |
| Sending Facility | MSH.4 |  |  | COPY “BAYCARE” to MSH.4 |
| Receiving Application | MSH.5 |  |  | PV1.3.6 Patient Location Building is “BAH”, If so, copy “BAH” to MSH.5 Receiving Application…  IF PV1.3.6 eq “BAH”  COPY “BAH” to MSH.5  COPY MSH.5 to @fac  COPY “ANSWER” to MSH.5 |
| Facility code in MSH:5 | MSH:5 | Y | Cerner | EXECUTE OP\_MSH\_FAC\_MODOBJ\_OUT  Script to do so |
| Receiving Facility | MSH.6 |  |  | COPY @fac to MSH.6 |
|  |  |  |  | Added BAH “IF” statement to populate MDU Dr numbers outbound…  IF @fac eq “BAH”  COPY “MDU” to @fac |
| Put Domain in MSH:9 | MSH 9 | Y | Cerner | Sending P for production or T for test domain in this field. |
| Processing ID | MSH.11 |  |  | COPY “P” to MSH.11 |
| PID Segment |  | Y |  |  |
| Patient ID (External)  Patient ID (Internal) | PID.2  PID.3 |  |  | COPY PID.2.0 to PID.3.0 |
| Patient Name – Last  Patient Name – First  Patient Name – Middle  Patient Name – Suffix | PID.5.0  PID.5.1  PID.5.2  PID.5.3 |  |  | COPY PID.5.0 to PID.5.0  COPY PID.5.1 to PID.5.1  COPY PID.5.2 to PID.5.2  COPY PID.5.3 to PID.5.3 |
| Date/Time of Birth | PID.7 |  |  | COPY PID.7 to PID.7 |
| Sex | PID.8 |  |  | COPY PID.8 to PID.8 |
| Patient Account Number | PID.18 |  |  | COPY PID.18.0 to PID.18.0 |
| SSN Number – Patient | PID.19 |  |  | IF PID.19 eq “999999999”  COPY “” to PID.19  ELSE  COPY PID.19 to PID.19 |
| PV1 Segment |  | Y |  |  |
| Adding logic to call doctor filter script  The following code is to send only the organization doctor for the correct facility | PV1 | Y | Cerner | execute op\_doc\_filter\_gen\_out |
| Patient Class | PV1.2 |  |  | COPY PV1.2 to PV1.2 |
| Assigned Patient Location | PV1.3 |  |  | PATHCOPY PV1.3 to PV1.3 |
| Attending Doctor – Assigning Authority  Attending Doctor – ID  Attending Doctor – Last  Attending Doctor – First  Attending Doctor – Middle | PV1.7.8  PV1.7.0  PV1.7.1  PV1.7.2  PV1.7.3 |  |  | Cerner Mod object script is used to send MS Number from Cerner using BAYCAREDRUMBER instead of DRNUMBER alias pool code. Cloverleaf had logic to trim the letter MS in the number before sending to Answer Excellence.  COPY PV1.7.0 🡪 xlateStrTrimLeft MS 🡪 PV1.7.0  COPY PV1.7.1 to PV1.7.1  COPY PV1.7.2 to PV1.7.2  COPY PV1.7.3 to PV1.7.3 |
| Referring Doctor – Assigning Authority  Referring Doctor – ID  Reffering Doctor – Last  Referring Doctor – First  Referring Doctor – Middle | PV1.8.8  PV1.8.0  PV1.8.1  PV1.8.2  PV1.8.3 |  |  | COPY PV1.8.0 🡪 xlateStrTrimLeft MS 🡪 PV1.8.0  COPY PV1.8.1 to PV1.8.1  COPY PV1.8.2 to PV1.8.2  COPY PV1.8.3 to PV1.8.3 |
| Other Healthcare Provider – Assigning Authority  Other Healthcare Provider – ID  Other Healthcare Provider – last  Other Healthcare Provider – first  Other Healthcare Provider – middle  \*NOTE - PV1.52 from Cerner contains the facility provider information that the consult notification is to be sent to. This data is copied into PV1.9. In most circumstances this number is the MS# without the MS characters and leading zeros. | PV1.52.8  PV1.52.0  PV1.52.1  PV1.52.2  PV1.52.3 |  |  | Cerner Mod object script is used to send MS Number from Cerner using BAYCAREDRUMBER instead of DRNUMBER alias pool code. Cloverleaf had logic to trim the letter MS in the number before sending to Answer Excellence.  Cerner does special processing to pull the current consulting doc from the order detail (PV1 52)…  COPY “HMO CONSULT ORDER” TO @hemo\_order  IF PV1.52.8 eq @fac  HEMO Orders…  IF OBR.4.0 eq @hemo\_order  COPY PV1.52.0 🡪 xlateStrTrimLeft MS 🡪 PV1.8.0  COPY PV1.52.1 to PV1.8.1  COPY PV1.52.2 to PV1.8.2  COPY PV1.52.3 to PV1.8.3  ELSE  NON HEMO Orders…  COPY PV1.52.0 🡪 xlateStrTrimLeft MS 🡪 PV1.9.0  COPY PV1.52.1 to PV1.9.1  COPY PV1.52.2 to PV1.9.2  COPY PV1.52.3 to PV1.9.3 |
| Hospital Service | PV1.10 |  |  | COPY PV1.10 to PV1.10 |
| Patient Type | PV1.18 |  |  | COPY PV1.18 to PV1.18 |
| MS# in PV1.51 to fulfill Uniphy’s project needs. | PV1 51 | Y | Cerner | Populating field with MS#. Answer Excellence ignores this addition. |
| PV2 Segment | PV2.3 | Y |  | COPY PV2.3 to PV2.3 |
| INS Segment |  | Y |  |  |
| Set ID | IN1.1 |  |  | COPY IN1.1 to IN1.1 |
| Insurance Plan ID | IN1.2 |  |  | COPY IN1.2 to IN1.2 |
| Insurance Company ID | IN1.3 |  |  | COPY IN1.3 to IN1.3 |
| ORC Segment |  | Y |  |  |
| Order Control | ORC.1 |  |  | COPY ORC.1 To ORC.1 |
| Placer Order Number | ORC.2 |  |  | COPY ORC.2 To ORC.2 |
| Date/Time of Transaction | ORC.9 |  |  | COPY ORC.9 To ORC.9 |
| Entered By | ORC.10 |  |  | COPY ORC.10 To ORC.10 |
| Order Control  Order Status | ORC.1  ORC.5 |  |  | If ORC.5 Order Status is “77”, set ORC.1 Order Control to “CA” and set ORC.5 Order Status to “85”…  IF ORC.5.0 = “77”  COPY “CA” to ORC.1.0  COPY “85” to ORC.5.0 |
| Ordering Provider – assigning authority  Ordering Provider – ID  Ordering Provider – last  Ordering Provider – first  Ordering Provider – middle | ORC.12.8  ORC.12.0  ORC.12.1  ORC.12.2  ORC.12.3 |  |  | Cerner Mod object script is used to send MS Number from Cerner using BAYCAREDRUMBER instead of DRNUMBER alias pool code. Cloverleaf had logic to trim the letter MS in the number before sending to Answer Excellence.  COPY ORC.12.0 🡪 xlateStrTrimLeft MS 🡪 ORC.12.0  COPY ORC.12.1 to ORC.12.1  COPY ORC.12.2 to ORC.12.2  COPY ORC.12.3 to ORC.12.3 |
| Enterer’s Location | ORC.13 |  |  | COPY ORC.13 to ORC.13 |
| Order Effective Date/Time | ORC.15 |  |  | COPY ORC.15 to ORC.15 |
| Order Control Code Reason | ORC.16 |  |  | COPY ORC.16 to ORC.16 |
| Action By | ORC.19 |  |  | COPY ORC.19 to ORC.19 |
| OBR Segment |  | Y |  |  |
| Set ID - OBR | OBR.1 |  |  | COPY OBR.1 to OBR.1 |
| Placer Order Number | OBR.2 |  |  | COPY OBR.2 to OBR.2 |
| Universal Service Identifier | OBR.4 |  |  | COPY OBR.4 to OBR.4 |
| Observation Date/Time | OBR.7 |  |  | COPY OBR.7 to OBR.7 |
| Observation End Date/Time | OBR.8 |  |  | COPY OBR.8 to OBR.8 |
| Relevant Clinical Info. | OBR.13 |  |  | COPY OBR.13 to OBR.13 |
| MS# in OBR15 to fulfill Uniphy’s project needs. | OBR15 | Y | Cerner |  |
| Ordering Provider – assigning authority  Ordering Provider – ID  Ordering Provider – last  Ordering Provider – first  Ordering Provider – middle | OBR.16.8  OBR.16.0  OBR.16.1  OBR.16.2  OBR.16.3 |  |  | Send MS Number from Cerner using BAYCAREDRUMBER instead of DRNUMBER alias pool code. Cloverleaf had logic to trim the letter MS in the number before sending to Answer Excellence.  COPY OBR.16.0🡪 xlateStrTrimLeft MS🡪 OBR.16.0  COPY OBR.16.1 to ORC.16.1  COPY OBR.16.2 to ORC.16.2  COPY OBR.16.3 to ORC.16.3 |
| Order Callback Phone Number | OBR.17 |  |  | COPY OBR.17 to OBR.17 |
| NTE Segment |  | Y |  | PATHCOPY the NTE Segment |
| OBX Segment |  | Y |  |  |
|  |  |  |  | COPY “Reason for Consult-Freetext” to @consultreason  COPY “Callback Phone Number” to @consultcallback |
| Observation Identifier – ID  Set ID – Sequence |  |  |  | ITERATE  IF OBX.3.0 eq @consultreason  PATHCOPY OBX to OBX  COPY “1” to OBX.1 |
| Observation Identifier – ID  Observation Identifier – Text  Observation Value  Order Callback Phone Number | OBX.3.0  OBX.3.1  OBX.5  OBR.17.0 |  |  | If OBX.3.0 Observation Identifier ID is “Callback Phone Number” or OBX.3.1 Observation Identifier Text is “Callback Phone Number”  Set OBR.17.0 Phone Number to OBX.5 Observation Value…  IF OBX.#3.[0] eq @consultcallback or OBX.#3.[1] eq @consultcallback  COPY OBX.5 to OBR.17.0 |
|  |  |  |  |  |

## 4.3 Sample Message

**Cerner Inbound:**

MSH|^~\&|HNAM|CERNER|MDU|BAYCARE|20180606082944||ORM^O01|Q4157574138T5400114090|T|2.3||||||8859/1

PID|1|2006001800^^^BayCare MRN^MRN|2006001800^^^BayCare MRN^MRN||DDCENTRAL^REPORT^^^^^Current||19920919|F||||||||||1006006727^^^BayCare FIN^FIN NBR|192191992||||||0

PV1|1|I|CCUD^CC02^P^MDU^^Bed(s)^MDU||||823^Tqzmlg^Zgvziw^T^^^^^MDU||||||||||823^Tqzmlg^Zgvziw^T^^^^^MDU|I||CD:2122980935|||||||||||||||||||MDU||Active|||20180410155000||||||||^PCportal^System^^^^^^MDU

PV2||||||||||0||||||||||||CONFID|^^589744

ORC|SN|13481555887^HNAM\_ORDERID|||20||||20180606082350|SMM75629^Jidditez^Yqygz^J^^^^^External Id^Personnel^^^External Identifier|||||20180606082924|||Electronic^Electronic Order|SMM75629^Jidditez^Yqygz^J^^^^^External Id^Personnel^^^External Identifier

OBR|1|13481555887^HNAM\_ORDERID||Consult to Physician^Consult to Physician||||||||||||||||||20180606082924||Physician Consult|||1^^0^20180606082100^^Routine

OBX|1|ST|Callback Phone Number^Callback Phone Number||1223

OBX|2|ST|Reason for Consult-Freetext^Reason for Consult-Freetext||adasd

**Answer Excellence Outbound:**

MSH|^~\&|HNAM|BAYCARE|ANSWER|MDU|20180606082944||ORM^O01|Q4157574138T54001140|T|2.3||||||8859/1

PID|||2006001800||DDCENTRAL^REPORT||19920919|F||||||||||1006006727|192-19-1992

PV1||I|CCUD^CC02^P^MDU^^Bed(s)^MDU||||00823^Tqzmlg^Zgvziw^T||^PCportal^System|||||||||I

ORC|SN|13481555887^HNAM\_ORDERID|||||||20180606082350|SMM75629^Jidditez^Yqygz^J^^^^^External Id^Personnel^^^External Identifier|||||20180606082924||||SMM75629^Jidditez^Yqygz^J^^^^^External Id^Personnel^^^External Identifier

OBR|1|13481555887^HNAM\_ORDERID||Consult to Physician^Consult to Physician|||||||||||||1223||||||||||^^^^^Routine

OBX|1|ST|Reason for Consult-Freetext^Reason for Consult-Freetext||adasd

# *5*.0 Alerts

Are you going to need alerting on this connection?

|  |  |
| --- | --- |
| Yes |  |
| No |  |

If the answer is yes, please complete the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Site Name** | **Hours of Support** | **Distribution Group** | **Comments** |
|  |  |  |  |
| cerner\_orders\_6\_p | SUPPORT HOURS: 24/7 | Primary: Cerner Interface on call | Dedicated orders feed from Cerner to Answer Excellence and Uniphy. |

# Appendix A: Risks and Concerns –N/A

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** |  |  | | |  |  |  |  |
| **Number** | **Risk / Concern** | **Comment** | **Mitigation** | | |  |  |  |
| RC.2013.1.0 |  |  | |  | |  |  |  |

# Appendix B: Issues List –N/A

This is a dynamic list of the open issues related to the IDBB that remain to be solved, including but not limited to TBDs, pending decisions, information needed, conflict awaiting resolution, and the like.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** |  |  | | |  |  |  |  |
| **Number** | **Issue** | **Comment** | **Fix** | | |  |  |  |
| I.2013.1.0 |  |  | |  | |  |  |  |

* End of document