**ADT Requirements for**

**Soarian to GlucoStablizer**

**Version 1.0**

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**Date: 5/11/2016**

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# **Document Control**

## Resources

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|  |  |  |

## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 5/11/2016 | Lois Whitley | Originally Created |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to outline the Admission, Discharge and Transfer (ADT) interface requirements for the GlucoStabilizer application.

GlucoStabilizer is an FDA cleared IV insulin dosing software. It is used in combination with, but independently of an IV infusion pump/IV insulin infusion and a blood glucose meter. It provides audible and visual prompts.

Features and benefits of GlucoStabilizer include:

* + Manages blood glucose toward the target range with less glucose variability
  + Reduces time to achieve target range
  + Reduces incidence for hypoglycemic events

## 1.2 Project Scope

Integration for this application includes an ADT interface from Soarian. Project Scope Includes:

* Add additional sites making this an enterprise system
* Upgrade existing sites from version 2.2 to 3.5
* Increase memory and CPU's on current virtual servers
* Interfaces/Integration
  + Develop, Test, Deploy Soarian ADT to GlucoStabilizer
* Create AD groups based on role in application to be shared across facilities
* Provision appropriate team members to use GlucoStabilizer
* Training – Train the Trainer approach

## 1.3 Terminology Standards

### 1.3.1 Acronyms

ADT - Admission, Discharge and Transfer

### 1.3.2 Glossary

**GlucoStabilizer** is the application name**.**

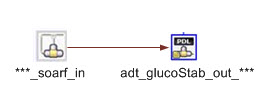
**Medical Decision Network** is the name of the vendor.

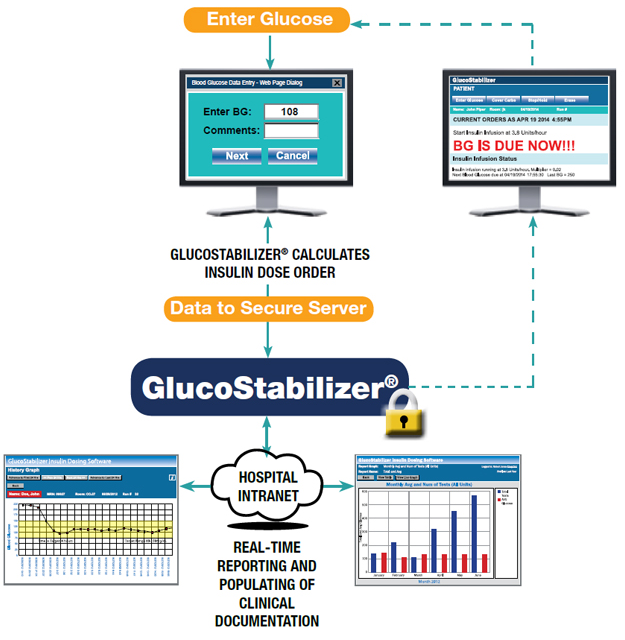
## 1.4 Document References

1. MDN-GlucoStabilizer-HL7.pdf (3/23/15)
2. GlucoStabilizer Interfaces

# *2.* Diagram

HL7 ADT feed is one inbound connection from Soarian for each facility to GlucoStabilizer (adt\_glucoStab\_out\_\*\*\*)





# 3. Requirements

## 3.1 Functional Requirements

Provide detail for the below functional requirements. The message transformation requirements for the components defined in this specification should be specified in section 4.2 of this document.

|  |  |  |
| --- | --- | --- |
| **Cloverleaf** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| FR.2016.1.0 | Send all inpatients and outpatients to GlucoStabilizer | No patients are filtered from the Soarian ADT feed |
| FR.2016.2.0 | ADT messages sent to GS are A01, A02, A03, A04, A06, A08, A09, A11, A13 | These are the event types necessary for the proper functioning of the ADT interface and maintenance of the patient population in the SQL databases. |

|  |  |  |
| --- | --- | --- |
| FR.2016.3.0 | Separate outbound connection to GS for each hospital | GS keeps a separate SQL database for each hospital and so requires separate feeds through separate TCP ports. |

## 3.2 Non-Functional Requirements

None related to interfacing.

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

## 3.3 Messaging Protocols

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

### 3.3.1 Inbound to the BayCare Cloverleaf

* No inbound since this is a one-way outbound interface from Cloverleaf to GlucoStabilizer

### 3.3.2 Outbound to the BayCare Cloverleaf

### 3.3.3 Inbound to the Vendor

### 3.3.4 Outbound to the Vendor

* TCP/IP MLLP
* TEST IP 10.44.100.73 Ports 30080 (MPH) 30083 (NBY) 30077 (SJH) 30055 (SJS) 30060 (SJN)
* IP 10.44.111.89 Ports 30082 (MCS) 30081 (MDU) 30083 (SAH) 30084 (SFB)
* 30085 (WHH) 30086 (BRM)
* PROD IP 10.44.100.73 Ports 1779 (MPH) 1780 (NBY) 1778 (SJH) 1776 (SJS) 1777 (SJN)
* IP 10.44.111.89 Ports 1791 (MCS) 1790 (MDU) 1794 (SAH) 1793 (SFB)
* 1792 (WHH) 1795 (BRM)

### 

### 3.3.5 Inbound to the BayCare Cerner – N/A

### 3.3.6 Outbound to the BayCare Cerner

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

EVN

PID

PV1

*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** |
| ADT^A01 | Admit a Patient |
| ADT^A02 | Transfer a Patient |
| ADT^A03 | Discharge a Patient |
| ADT^A04 | Register a Patient |
| ADT^A06 | Transfer an Outpatient to Inpatient |
| ADT^A08 | Update Patient Information |
| ADT^A09 | Patient Departing -tracking |
| ADT^A11 | Cancel Admit |
| ADT^A13 | Cancel Discharge |

### 4.1*.*3 Cloverleaf Configuration Files

The following Cloverleaf configuration files were used:

Xlate: soarf\_glucoStab\_adt.xlt

Variants: HL7 2.6 Soarian

TCL filters: filterHL7MessageNew.tcl

### 4.1.4 Cloverleaf Site Location

Cloverleaf site locations for the GlucoStabilizer interfaces:

TEST: soarf\_adt\_fac\_19

PROD: soarf\_adt\_fac

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data Type** | **Length** | | **Notes** |
| --- | --- | --- | --- | --- | --- | --- |
| Message Header Segment | MSH | Y | Misc | | Varies | PathCopy the entire **segment** |
| Event Type Segment | EVN | Y | Misc | | Varies | PathCopy the entire **segment** |
| Patient Identifier List | PID.3 | Y | Misc | | Varies | PathCopy the entire **field** |
| Patient Name | PID.5 | Y | XPN | | Varies | Copy the entire **field** |
| Date of Birth | PID.7 | Y | DTM | | 8 | Copy the entire **field** |
| Gender | PID.8 | Y | IS | | 1 | Copy the entire **field** |
| Race | PID.10 | N | CWE | | Varies | Copy the entire **field** |
| Patient Account Number | PID.18 | Y | CX | | Varies | PathCopy the entire **field** |
| Patient Location | PV1.3 | N | PL | | Varies | Copy the entire **field** |
| Attending Physician | PV1.7 | N | XCN | | Varies | Copy the entire **field** |
| Discharge Disposition | PV1.36 | N | IS | | Varies | Copy the entire **field** |
| Admit Date/Time | PV1.44 | N | DTM | | 12 | Copy the entire **field** |
| Discharge Date/Time | PV1.45 | N | DTM | | 12 | Copy the entire **field** |

## 4.3 Sample Message

Sample messages to GlucoStabilizer for MPH, BRM, and SJH are included below:

MSH|^~\&|SOARF|**MPH**|||201605180932||ADT^A04|e083adae-9490-4bf6-a05f-3aa9936826b3|P|2.7||1

EVN|A04|201605180932||CI|sxs49494|201605180930|16401

PID|||2104700636^^^BCHS^MR||OUTREACH^SCOTT^S^^^^L^^^20150121||19550101|M||||||||||6000014396^^^BCHS^VCD^^20160518

PV1||||||AHR|005312^Wyko^Robert^B^^PRN^1891730685^NPI^01186^PRDOC^MPH^^^^onecall|||||||||||||||||||||||||||||||||||||201605180930

MSH|^~\&|SOARF|**BRM**|||201605180748||ADT^A03|382aff39-6324-46cb-94dc-83952e3e22c9|P|2.7||1

EVN|A03|201605180748||CO|b088604|201605180748|19679

PID|||7000001262^^^BCHS^MR||HIMOPTUMTEST^TAMMYTEST^^^^^L^^^20160517||19490303|M||Black||||||||6000014389^^^BCHS^VCD^^20160517

PV1|||ACB^0223^01^BRM|||AHR|053550^Fisher^Maury^Lind^^PRN^1851389936^NPI^053550^PRDOC^BRM|||||||||||||||||||||||||||||||||||||201605130630|201605180748

MSH|^~\&|SOARF|**SJH**|||201605180934||ADT^A04|19010d84-2ec4-4b52-85eb-6baf2fffedc2|P|2.7||1

EVN|A04|201605180934||CI|sxs49494|201605180933|16399

PID|||2104700589^^^BCHS^MR||OUTREACH^TIMOTHY^^^^^L^^^20140911||19340615|M||PcfIs||||||||6000014397^^^BCHS^VCD^^20160518

PV1||||||AHR|005312^Wyko^Robert^B^^PRN^1891730685^NPI^06450^PRDOC^SJH^^^^onecall|||||||||||||||||||||||||||||||||||||201605180933

# **5. Testing**

## 5.1. Unit Testing Scenarios

Perform various ADT activities in Soarian and verify that the information is correctly reflected in the application.

Test results for MDH is included, as an example (**Pass MDHGlucotest.xlx**)

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
| Admit a patient in Soarian Financials | Patient is found in GS with the proper demographics |
| Transfer the patient to a different location within the hospital | Transfer is correctly reflected in GS |
| Modify the patient’s demographic information in Soarian | All changes are seen in GS |
| Discharge the patient in Soarian | The patient is discharged in GS |
| Cancel the discharge in Soarian | The discharge is cancelled in GS and the patient is placed in his /her previous location |

## 5.2 Integrated Testing Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## 5.3 Testing Approvals

|  |  |  |  |
| --- | --- | --- | --- |
| **Testing Phase** | **Date** | **Department** | **Team Member** |
| PH1.UNIT | 3/17/2016 | APPS-DOCUMENTATION | Edward Holden |
| PH1.INTEGRATED |  |  |  |

### 

## 5.4 Piloting

List the facilities and associated networks in scope for pilot testing.

## 5.5 Approvals

|  |  |  |  |
| --- | --- | --- | --- |
| **Testing Phase** | **Date** | **Department** | **Team Member** |
| PH1.0 |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 6. Deployment / Implementation Model

Go-live dates for the updated version of GlucoStabilizer (3.5):

SJS 1/13/2016

SJN 1/20/2016

SJH 2/3/2016

MPH 2/9/2016

MDH 3/29/2016

MCH 4/5/2016

SAH 4/122016

WHH 4/19/2016

NBH 5/9/2016

SFB 5/17/2016

BRM Projected August 2016

## 6.1 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** |
|  |  |  |  |
| misc3\_prod | 7:00 am – 7:00 pm | [gssupport@mdnllc.net](mailto:gssupport@mdnllc.net)  edward.holden@baycare.org | Vendor support via email alert  Systems Analyst - Apps |

# Appendix A: Risks and Concerns

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

# Appendix B: Issues List

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