**Philips XCELERA Results to Cerner**

**Version 2.4**

**Prepared By: Tiffany Bohall & Sarah Thies**

**Date: 9/30/2019**

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# **Document Control**

## Resources:

Project Distribution List*:* (include Project Team Members, Liaisons, Vendor Contacts, etc.)

|  |  |  |
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| Joyce La Chapelle | BayCare IS Manager: Ancillary Systems | [Joyce.Lachapelle@baycare.org](mailto:Joyce.Lachapelle@baycare.org) |
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| Rana Abishek Singh | Philips: Integration resource | [rana.abhishek@philips.com](mailto:rana.abhishek@philips.com) |
| Lois Whitley | BayCare IS: Systems Analyst | [Lois.Whitley@baycare.org](mailto:Lois.Whitley@baycare.org) |
|  |  |  |

## Document Version Control

| **Version** | **Date** | **Modifier** | **Description** |
| --- | --- | --- | --- |
| V1.0 | 4/23/2015 | Tiffany Bohall | Originally created |
| V1.1 | 10/1/2015 | LeAnn Roberts | Updated with diagrams and FSI detail |
| V1.2 | 2/3/2016 | Tiffany Bohall | Added CVIS interface data flow diagram |
| V2.0 | 3/4/2016 | Tiffany Bohall &  Tony McArtor | Updated Xcelera ORU sections to include changes as a result of the Xcelera IBE upgrade |
| V2.1 | 5/19/2016 | Tony McArtor | Updated Philips contrib systems to use BMGFN in PID 18.4 |
| V2.2 | 6/18/19 | Lois Whitley | Updated Diagram |
| V2.3 | 9/19/19 | Lois Whitley | Transfer to new template |
| V2.4 | 9/27/19 | Tiffany Bohall | Updated to separate from Xper requirements |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

This document outlines the changes required to accommodate the requirements of Philips IBE interface engine via an inbound Xcelera cardiology result message to Cerner for interoperability with Philip’s ISCV solution. All gaps will be identified and mitigated as well as any non-functional requirements needed to support the solution post implementation.

## 1.2 Project Scope

Implementing the foundation for a consolidated ISCV vendor solution. Physician and Clinician satisfaction will be increased and team members will directly benefit as images from Xcelera Echo, Xper Cardiac Cath Labs, Hemodynamics, EKG, Stress and wave form results will become available through an enterprise wide solution known as ISCV. ISCV will encompass patient information, study related data and (clinical) results/reports in one central location.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

CVIS: Cardio Vascular Information Systems

IBE: Intelligent Broker

### 1.3.2 Glossary

Xcelera: Upgraded version of Xcelera application that incorporates PDF documents with textual results

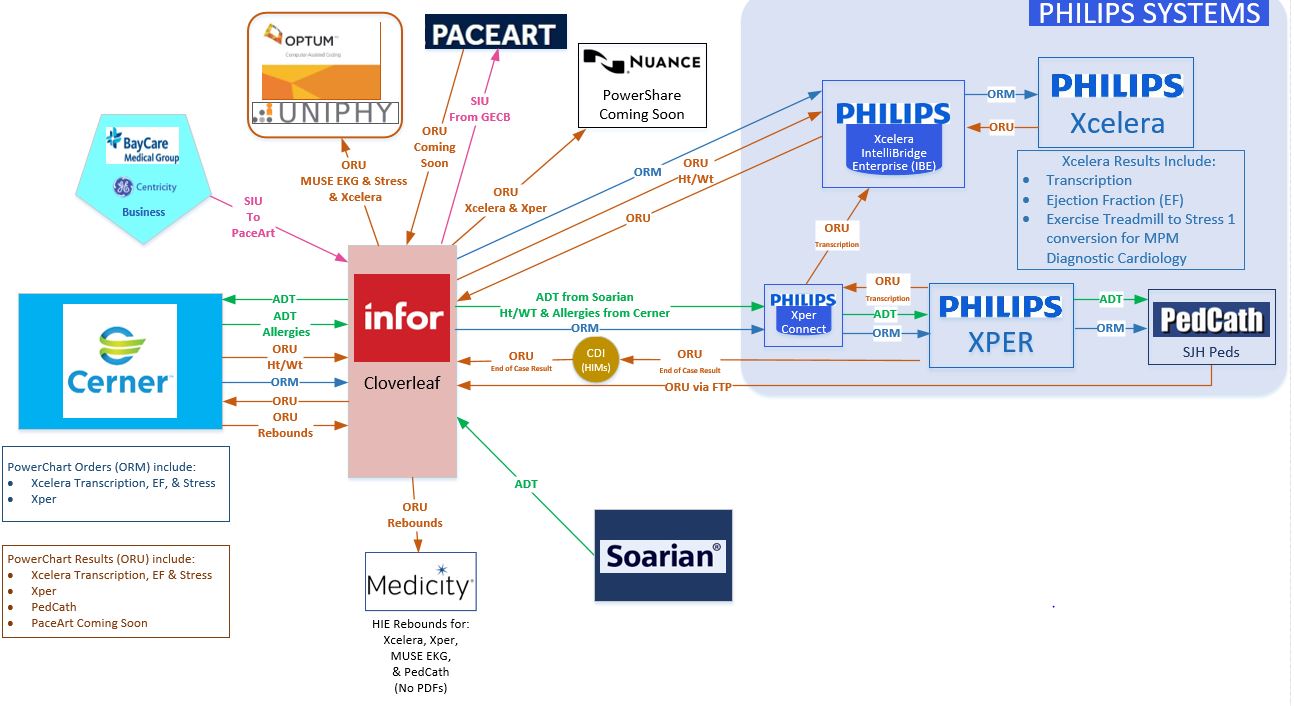
Xper Flex Cardio: Cardiology application

## 1.4 Document References

**Philips Specifications: located on the Integration SharePoint site, under the Philips ISCV folders**

* XceleraConnect R2.1L1\_HL7CC\_V3(2)
* Xcelera IBE HL7 PDF Specification R1.1

# 2. Diagram



# 3. Core Requirements

## 3.1 Cloverleaf 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** | **Description** |
| FR.2016.5.1 | Added BMG processing in PID 18.4 | Added encounter BMGFN to pass to Cerner |
|  |  |  |
|  |  |  |
|  |  |  |

## 3.2 Cerner FSI Functional Requirements

| **Cerner FSI** | | |
| --- | --- | --- |
| **Number** | **Requirement Name** | **Description** |
| FR.2013.1.1 | Complete the order in Cerner | The result will complete the order in Cerner. |
| FR.2015.5.1 | Identify Xcelera Pediatric Report Types | There is a custom mod object script that takes the pediatric type result reports, queries the database to identify the specific order descriptions for the order\_id sent in the inbound ORU message so we can identify what order was placed originally. Then we use that as the report title text so that it is unique within Cerner in Powerchart clinical notes. Xcelera was not able to keep the pedi study types unique on their side and they only send out 1 report type called "Pediatric" while in Cerner we have 8-12 different Pediatric orders. It was confusing for clinical users without knowing exactly which Pedi study they were about to look at by the report title. |
|  |  |  |

## 3.3 Non-Functional Requirements

Provide concise detail for the below non-functional requirements. This would include external table ownership, hours of support, etc. The below requirements must be evaluated for every project.

|  |  |  |
| --- | --- | --- |
| **Number** | **Requirement Name** | **Description** |
| NFR.2015.4.1 | Replacing Mac Lab and Merge Vericis | Various facilities have been using Xcelera, Mac Lab, Merge Vericis to complete cardiology related procedures and reporting. This ISCV project will take all users over to Philips Xcelera or Xper for these procedures. |
| NFR.2015.3.1 | Removing images from results | Xcelera sends images on its HL7 result messages which results in large blank boxes on the results. The vendor has hard coded “start image” and “end image” tags so that within Cloverleaf, we can remove the blank images from appearing in the PDF results. |
|  |  |  |
|  |  |  |
|  |  |  |

## 3.4 Messaging Protocols

Below are listed the details for the messaging protocols that will be leveraged for this integration. This includes: TCP/IP, FTP, Web Services, etc.

**Prod Cerner**

Port Number: 14003

IP Address: 159.140.43.191

### 3.4.1 Protocol From or to Vendor

|  |  |
| --- | --- |
| FTP |  |
| MLLP Socket Connection (TCP/IP) |  |
| Local File Drop by Midrange Team |  |
| Other | Click here to enter text. |

### 3.4.2 FSI Comm Server Names

|  |  |
| --- | --- |
|  |  |
| |  |  |  | | --- | --- | --- | | **Cloverleaf (10.100.128.64)** |  | **Cerner - ORU\_PHILIPS\_IN (P30:14003)** | |  |

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

{

[

PID

[ORC]

OBR

[{ZDS}]

[OBX]

}

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*PID – Patient ID segment*

*ORC – Common Order segment*

*OBR – Observation Request segment*

*OBX – Observation Result segment*

*ZDS – vendor or site defined 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** |
| ORU^R01 | Unsolicited Transmission of an observation/result |
|  |  |

### 4.1*.*3 Cloverleaf Configuration Files

For each interface specified in Section 2 of this document, identify the Cloverleaf Configuration Files: Variants, TCL Scripts, Xlates, etc.

* Translation: xcelera\_cer\_oru\_pdf\_1

### 4.1.4 Cloverleaf Site Location

Cardiology

### 4.1.5 Cerner FSI Impacted Scripts

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required R/O/C** | **Notes** | **Middleware (CL / FSI / Mule)** |
| --- | --- | --- | --- | --- |
| Message Header segment | MSH | Y | Path copy the entire MSH segment | CL |
| Sending Application | MSH.3 | Y | Hard coding “PHILIPS” | CL |
| Sending Facility | MSH.4 | N | Hard coding “XCELERA” | CL |
| Receiving Application | MSH.5 | Y | Hard coding “POSTIMAGE” | CL |
| Receiving Facility | MSH.6 | Y | Copy | CL |
| Version ID | MSH.12 | Y | Hard code “2.3” | CL |
| Patient ID (Internal) | PID.3.0 | Y | Copy | CL |
| ID type code | PID.3.4 | Y | Hard coding “BCCPI” | CL |
| Patient Name: Last, First, Middle | PID.5.0 | Y | Copy | CL |
| Date/Time of Birth | PID.7 | Y | Copy with TCL pre-proc that trims the seconds off the time | CL |
| Patient Sex | PID.8 | Y | Copy | CL |
| Patient Account Number | PID.18.0 | Y | Copy | CL |
| ID Type code | PID.18.4 | Y | If PID.18.4 =BMGFN, copy tag outbound. Otherwise, hard code “BCFN” | CL |
| Order Control | ORC.1 | Y | Hard coding “RE” | CL |
| Unique Placer ID | ORC.2 | Y | Copy from ORC.3 | CL |
| Unique Filler ID | ORC.3 | Y | Copy | CL |
| Set ID | OBR.1 | Y | Copy | CL |
| Placer Order number | OBR.2 | Y | Copy | CL |
| Filler Order number | OBR.3 | Y | Copy from OBR.2 | CL |
| Universal Service ID text | OBR.4.0 | Y | Cloverleaf: Copy from OBR.4.1  Cerner: Custom mod obj script to grab order\_id from OBR;2, query orders table and identify the description of the orderable this report is about to match up to. Then we input that description into OBR;4.2 and OBX;.3.2 which functions as our report title in Powerchart within clinical notes. | CL  Cerner |
| Observation Date/Time | OBR.7 | Y | Copy with TCL pre-proc that trims the seconds off the time | CL |
| Result report status/change | OBR.22 | Y | Copy with TCL pre-proc that trims the seconds off the time | CL |
| Diagnostic Serv Sect ID | OBR.24 | Y | Hard coding “MDOC” | CL |
| Result status | OBR.25 | Y | Copy | CL |
| Principal Result Interpreter: Number, last name, first name middle initial | OBR.32.0 | Y | If OBR.32.0.1 does not = null, copy OBR.32.0.0 outbound.  \*\*\*Populating primary result interpreter as the verified provider going to Cerner.\*\*\* | CL |
| Action Code  Clinical Staff: ID, last name, first name, text  Action Date/Time  Action status code | ZDS.1.0  ZDS.2.0  ZDS.2.1  ZDS.2.2  ZDS.2.12  ZDS.3.0  ZDS.4.0 | Y | If OBR.16.1 does not = null, hard code “R” in ZDS.1.0.  Copy OBR.16.0 into ZDS.2.0,  OBR.16.1 into ZDS.2.1,  OBR.16.2 into ZDS.2.2,  hard code “BayCare Dr Number” into ZDS.2.12,  copy output of OBR.22 into ZDS.3.0 and hard code “E” into ZDS.4.0 outbound.  \*\*\*Populating the ordering provider into ZDS segment which will route to the physician’s message center in Cerner.\*\*\* | CL |
| Observation Value:  Start and End image tag variable(s) | OBX.5.0 | Y | Setting @startimage tag variable to an “N”.  If OBX.5.0 = “STARTIMAGE”, pathcopy the entire OBX segment. Hard code “Images have been removed” into OBX.5, hard code “TX” into OBX.2, copy OBR.4.1 into OBX.3.0, copy OBX.4 outbound, copy output of OBR.25 into OBX.11 and output of OBR.22 into OBX.14. Hard code @startimage tag variable to a “Y”.  If @startimage does not = “Y”, hard code “TX” into OBX.2, copy OBR.4.1 into OBX.3 and copy OBX.4 into OBX.4, OBX.11 into OBX.11 and output of OBR.22 into OBX.14 outbound.  If OBX.3.1 does not = “FINDINGS”, copy OBX.5 to OBX.5 outbound.  If OBX.5.0 = "ENDIMAGE", hard code @startimage tag variable to an "N".  \*\*\*If startimage switch is not Y, perform normal processing. If startimage switch is Y, skip normal processing and send no OBX segment. Check for end image obx segment. If end image, send no obx segment and reset the startimage switch to N to resume normal processing.\*\*\* | CL |
| Observation Value:  PDF processing | OBX.5.0 | Y | If OBX.3.1 = “FINDINGS”, hard code “ED” into OBX.2, copy OBR.4.1 into OBX.3 and copy OBX.4 into OBX.4, @null OBX.5.0, hard code “APPLICATION” into OBX.5.1, “PDF” into OBX.5.2 and “BASE64” into OBX.5.3, copy OBX.5.4 and OBX.11 outbound, hard code “Philips\_ISCV.pdf” into OBX.13, copy output of OBR.22 into OBX.14. |  |

## 4.3 Sample Message

### 4.3.1 Inbound to Cloverleaf

A majority of the PDF encoding characters have been removed….

MSH|^~\&|XCELERA|XCELERA|MCS|MCS|20190924153253||ORU^R01|7ab70fc0201909241532|P|2.3||||||8859/1

PID|||810120441^^^MCS||TEST^ACE||19800101000000|F|||12 TAMPA RD^^TAMPA^FL^33607|||||||6000145061

PV1||E|ERDCH^^^MCS||||||||||||||||||||||||||||||||||||MCS

ORC|RE|18852634997|18852634997||CM||||20190924153102|||MS006716^Beattie^Martin^C

OBR|1|18852634997|1054401|ADULT^Adult^Adult|||20190924153102|20190924153236||||||||MS006716^Beattie^Martin^C||18852634997||1||20190924153232||CUS|F||||||^testing|^Hart IV^Spencer|^20190924153102^20190924153236|&Operators&Name

ZDS|1.3.46.670589.52.2.540275.20190924.5152942.4840.16818

OBX|1|TX|DefaultObservationID|1|||||||F

OBX|2|TX|DefaultObservationID|1|||||||F

OBX|3|TX|DefaultObservationID|1|||||||F

OBX|4|TX|DefaultObservationID|1|||||||F

OBX|5|TX|DefaultObservationID|1|||||||F

OBX|6|TX|DefaultObservationID|1|||||||F

OBX|7|TX|DefaultObservationID|1| 3231 McMullen Booth Road||||||F

OBX|8|TX|DefaultObservationID|1| Safety Harbor, FL 34695||||||F

OBX|9|TX|DefaultObservationID|1| Phone: (727)725-6201||||||F

OBX|10|TX|DefaultObservationID|1|||||||F

OBX|11|TX|DefaultObservationID|1|||||||F

OBX|12|TX|DefaultObservationID|1|||||||F

OBX|13|TX|DefaultObservationID|1|||||||F

OBX|14|TX|DefaultObservationID|1|||||||F

OBX|15|TX|DefaultObservationID|1| Echocardiogram||||||F

OBX|16|TX|DefaultObservationID|1|Name: TEST, ACE Age: 39 yrs Patient Location:ERDCH\S\\S\\S\MCS||||||F

OBX|17|TX|DefaultObservationID|1|Study Date: 09/24/2019 03:31 PM DOB: 01/01/1980 Height:75 in||||||F

OBX|18|TX|DefaultObservationID|1|MRN:810120441 Gender:Female Weight:165 lb||||||F

OBX|19|TX|DefaultObservationID|1|Reason For Study: testing bpm||||||F

OBX|20|TX|DefaultObservationID|1| BSA: 2.0 m2||||||F

OBX|21|TX|DefaultObservationID|1|||||||F

OBX|22|TX|DefaultObservationID|1|Performed By:Operators\S\Name||||||F

OBX|23|TX|DefaultObservationID|1|||||||F

OBX|24|TX|DefaultObservationID|1|Measurements with Normals||||||F

OBX|25|TX|DefaultObservationID|1| AoRootDiam: (2.0-3.7 cm) IVSd: (0.7-1.1 cm)||||||F

OBX|26|TX|DefaultObservationID|1| ACS: (1.6-2.6 cm) LVIDd:(3.5-5.6 cm)||||||F

OBX|27|TX|DefaultObservationID|1| LA dimension: (1.9-4.0 cm) LVIDs:(3.5-5.6 cm)||||||F

OBX|28|TX|DefaultObservationID|1| LVPWd:(0.7-1.1 cm)||||||F

OBX|29|TX|DefaultObservationID|1|||||||F

OBX|30|TX|DefaultObservationID|1|||||||F

OBX|31|TX|DefaultObservationID|1|||||||F

OBX|32|TX|DefaultObservationID|1|Left Ventricle The left ventricle is normal in size. There is normal left ventricular wall thickness. No||||||F

OBX|33|TX|DefaultObservationID|1|regional wall motion abnormalities noted. Left ventricular size and function appears normal.||||||F

OBX|34|TX|DefaultObservationID|1|Right Ventricle The right ventricle is normal size. There is normal right ventricular wall thickness. The||||||F

OBX|35|TX|DefaultObservationID|1|right ventricular systolic function is normal.||||||F

OBX|36|TX|DefaultObservationID|1|Atria The left atrial size is normal. Right atrial size is normal. The interatrial septum is intact with no||||||F

OBX|37|TX|DefaultObservationID|1|evidence for an atrial septal defect. The inferior vena cava appeared normal.||||||F

OBX|38|TX|DefaultObservationID|1|Mitral Valve The mitral valve is normal in structure and function. There is no evidence of mitral valve||||||F

OBX|39|TX|DefaultObservationID|1|prolapse. There is no mitral valve stenosis. There is trace mitral regurgitation.||||||F

OBX|40|TX|DefaultObservationID|1|Tricuspid Valve The tricuspid valve is normal. There is no tricuspid stenosis. There is trace tricuspid||||||F

OBX|41|TX|DefaultObservationID|1|regurgitation.||||||F

OBX|42|TX|DefaultObservationID|1|Aortic Valve The aortic valve is trileaflet. The aortic valve is grossly normal.||||||F

OBX|43|TX|DefaultObservationID|1|Pulmonic Valve The pulmonic valve leaflets are thin and pliable; valve motion is normal. There is no pulmonic||||||F

OBX|44|TX|DefaultObservationID|1|valvular stenosis. Trace pulmonic valvular regurgitation.||||||F

OBX|45|TX|DefaultObservationID|1|Great Vessels The aortic root is normal size. The pulmonary artery is not well visualized, but is probably||||||F

OBX|46|TX|DefaultObservationID|1|normal size.||||||F

OBX|47|TX|DefaultObservationID|1|Pericardium/Pleural There is no pericardial effusion. There is no pleural effusion.||||||F

OBX|48|TX|DefaultObservationID|1|||||||F

OBX|49|TX|DefaultObservationID|1|Interpretation Summary||||||F

OBX|50|TX|DefaultObservationID|1|||||||F

OBX|51|TX|DefaultObservationID|1|||||||F

OBX|52|TX|DefaultObservationID|1|Electronically signed by:Spencer Hart IV 09/24/2019 03:32 PM||||||F

OBX|52|ED|FIND^FINDINGS^L|2|DOC^Application^PDF^Base64^JVBER

### 4.3.2 Outbound from Cloverleaf

A majority of the PDF encoding characters have been removed….

MSH|^~\&|PHILIPS|XCELERA|POSTIMAGE|MCS|20190924153253||ORU^R01|7ab70fc0201909241532|P|2.3||||||8859/1

PID|||810120441^^^^BCCPI||TEST^ACE||19800101|F||||||||||6000145061^^^^BCFN

ORC|RE|18852634997|18852634997

OBR|1|18852634997|18852634997|Adult|||201909241531|||||||||||||||201909241532||MDOC|F

ZDS|R|MS006716^Beattie^Martin^^^^^^^^^^BayCare Dr Number|201909241532|E

OBX|1|TX|Adult|1|||||||F|||201909241532

OBX|2|TX|Adult|1|||||||F|||201909241532

OBX|3|TX|Adult|1|||||||F|||201909241532

OBX|4|TX|Adult|1|||||||F|||201909241532

OBX|5|TX|Adult|1|||||||F|||201909241532

OBX|6|TX|Adult|1|||||||F|||201909241532

OBX|7|TX|Adult|1| 3231 McMullen Booth Road||||||F|||201909241532

OBX|8|TX|Adult|1| Safety Harbor, FL 34695||||||F|||201909241532

OBX|9|TX|Adult|1| Phone: (727)725-6201||||||F|||201909241532

OBX|10|TX|Adult|1|||||||F|||201909241532

OBX|11|TX|Adult|1|||||||F|||201909241532

OBX|12|TX|Adult|1|||||||F|||201909241532

OBX|13|TX|Adult|1|||||||F|||201909241532

OBX|14|TX|Adult|1|||||||F|||201909241532

OBX|15|TX|Adult|1| Echocardiogram||||||F|||201909241532

OBX|16|TX|Adult|1|Name: TEST, ACE Age: 39 yrs Patient Location:ERDCH\S\\S\\S\MCS||||||F|||201909241532

OBX|17|TX|Adult|1|Study Date: 09/24/2019 03:31 PM DOB: 01/01/1980 Height:75 in||||||F|||201909241532

OBX|18|TX|Adult|1|MRN:810120441 Gender:Female Weight:165 lb||||||F|||201909241532

OBX|19|TX|Adult|1|Reason For Study: testing bpm||||||F|||201909241532

OBX|20|TX|Adult|1| BSA: 2.0 m2||||||F|||201909241532

OBX|21|TX|Adult|1|||||||F|||201909241532

OBX|22|TX|Adult|1|Performed By:Operators\S\Name||||||F|||201909241532

OBX|23|TX|Adult|1|||||||F|||201909241532

OBX|24|TX|Adult|1|Measurements with Normals||||||F|||201909241532

OBX|25|TX|Adult|1| AoRootDiam: (2.0-3.7 cm) IVSd: (0.7-1.1 cm)||||||F|||201909241532

OBX|26|TX|Adult|1| ACS: (1.6-2.6 cm) LVIDd:(3.5-5.6 cm)||||||F|||201909241532

OBX|27|TX|Adult|1| LA dimension: (1.9-4.0 cm) LVIDs:(3.5-5.6 cm)||||||F|||201909241532

OBX|28|TX|Adult|1| LVPWd:(0.7-1.1 cm)||||||F|||201909241532

OBX|29|TX|Adult|1|||||||F|||201909241532

OBX|30|TX|Adult|1|||||||F|||201909241532

OBX|31|TX|Adult|1|||||||F|||201909241532

OBX|32|TX|Adult|1|Left Ventricle The left ventricle is normal in size. There is normal left ventricular wall thickness. No||||||F|||201909241532

OBX|33|TX|Adult|1|regional wall motion abnormalities noted. Left ventricular size and function appears normal.||||||F|||201909241532

OBX|34|TX|Adult|1|Right Ventricle The right ventricle is normal size. There is normal right ventricular wall thickness. The||||||F|||201909241532

OBX|35|TX|Adult|1|right ventricular systolic function is normal.||||||F|||201909241532

OBX|36|TX|Adult|1|Atria The left atrial size is normal. Right atrial size is normal. The interatrial septum is intact with no||||||F|||201909241532

OBX|37|TX|Adult|1|evidence for an atrial septal defect. The inferior vena cava appeared normal.||||||F|||201909241532

OBX|38|TX|Adult|1|Mitral Valve The mitral valve is normal in structure and function. There is no evidence of mitral valve||||||F|||201909241532

OBX|39|TX|Adult|1|prolapse. There is no mitral valve stenosis. There is trace mitral regurgitation.||||||F|||201909241532

OBX|40|TX|Adult|1|Tricuspid Valve The tricuspid valve is normal. There is no tricuspid stenosis. There is trace tricuspid||||||F|||201909241532

OBX|41|TX|Adult|1|regurgitation.||||||F|||201909241532

OBX|42|TX|Adult|1|Aortic Valve The aortic valve is trileaflet. The aortic valve is grossly normal.||||||F|||201909241532

OBX|43|TX|Adult|1|Pulmonic Valve The pulmonic valve leaflets are thin and pliable; valve motion is normal. There is no pulmonic||||||F|||201909241532

OBX|44|TX|Adult|1|valvular stenosis. Trace pulmonic valvular regurgitation.||||||F|||201909241532

OBX|45|TX|Adult|1|Great Vessels The aortic root is normal size. The pulmonary artery is not well visualized, but is probably||||||F|||201909241532

OBX|46|TX|Adult|1|normal size.||||||F|||201909241532

OBX|47|TX|Adult|1|Pericardium/Pleural There is no pericardial effusion. There is no pleural effusion.||||||F|||201909241532

OBX|48|TX|Adult|1|||||||F|||201909241532

OBX|49|TX|Adult|1|Interpretation Summary||||||F|||201909241532

OBX|50|TX|Adult|1|||||||F|||201909241532

OBX|51|TX|Adult|1|||||||F|||201909241532

OBX|52|TX|Adult|1|Electronically signed by:Spencer Hart IV 09/24/2019 03:32 PM||||||F|||201909241532

OBX|53|ED|Adult|2|^APPLICATION^PDF^BASE64^JVBER

# 5. 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** |
|  |  |  |  |
| Cardiology\_3\_p | 24/7/365 | ISEnterpriseIntegrationServices@baycare.org  [DiagnosticClinicalApplications@baycare.org](mailto:DiagnosticClinicalApplications@baycare.org) | If there are no results sent inbound to BayCare in more than 4 hours, trigger an alert.  If there is a high outbound queue depth of 10 message or more, longer than 10 minutes, trigger alert and repeat every 20 minutes up to 3 times. |

# Appendix A: Risks, Concerns & Issues

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Name** | |  | |
| **Number** | **Risk/Concern/Issue** | **Comment** | **Mitigation** |
|  |  |  |  |
| RCI.2019.1.0 |  |  |  |
|  |  |  |  |
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