Technical Service Bulletin

PATIENT MONITORS SYSTEMS

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Subject: TSB-CCSS 1.6 MOV SUPPORT USING ACCOUNT NUMBER


Product(s) Referenced: Connex Clinical Surveillance System

Summary:
Connex CS 1.6 offers a replacement for Connex VM. Connex VM supported Multiple Open Visits (MOV) using Account number. This TSB will address Multiple Open Visits in Connex CS 1.6. This document describes the steps required to implement this support MOV support using PID-18 and PV1-19 in the Connex CS 1.6/Corepoint Action Lists.

This TSB will address how to apply the same support in those instances where Connex VM was installed using this Multiple Open Visit support and how Connex CS 1.6 must be configured to support the same configuration.

Service requested that a Connex CS 1.6 Multiple Open Visit configuration is setup and verified to understand the requirements and characteristics of this configuration in Connex CS.

This TSB will cover the changes to support Multiple Open Visits while the appropriate documents are updated.

Issue:
There are a number of scenarios, but a recent customer request from a customer to support Multiple Open visits (MOV) for a patient in Connex VM is outlined below. Connex CS 1.6 shall support MOV similarly to Connex VM.

Example:
A patient has an Account open for reoccurring visits over a 2 month period, where they come in at regular intervals from some lab work. Every time they come in the Hospital uses the same Account number to record their vitals. For the example, let’s use MRN/ACCT#/VISIT# of M1/A1/V1 admit date time of 20140210010101.
During this two week period the patient has another appointment at the hospital, or is possibly admitted via an ER visit or a scheduled procedure. So the patient now would have a newer Account open in Connex. For the example, let’s use MRN/ACCT#/VISIT# of M1/A2/V2 admit date time of 201402100101.

Connex CS will be configured to use Account Number as the Primary Patient Identifier (Barcode ID).

The Admit Message for the reoccurring visit is sent to Connex (below).

```
MSH|\&|WelchAllyn||HIS||2010715092536||ADT^A01|MSG00001|P|2.5|||||WIN
DOWS-1252
EVN|A01|2010715092902
PID||M1||Alpha^Alpha||19100101|M||||AA1|100000001
PV1||I|UNT1^101^A^FAC1^^^BLD1^FL1|||......|V1|......|V2|......|V3|......|V4
```

Patient show on Connex Server with Proview as follows:

![Patient List](image)

Patient A1 shows up on the Patient List of the CVSM.

Vitals are captured selecting A1 from List.

```
MSH|\&|WelchAllyn||HIS||20140211174308||ORU^R01|7884C0AE-CAFC-45C7-969E-
4C3C9BF8120C|P|2.5
PID||M1||Alpha^Alpha||19100101|M|||A1
PV1||I|UNT1^102^A^FAC1^^^BLD1^FL1|||......|V1|......|V2|......|V3|......|V4
```

The Admit message for the hospital visit is sent to Connex (below)

```
MSH|\&|WelchAllyn||HIS||20110715092536||ADT^A01|MSG00001|P|2.5|||||WIN
DOWS-1252
EVN|A01|20110715092902
PID||M1||Alpha^Alpha||19100101|M|||A2|100000001
PV1||I|UNT1^102^A^FAC1^^^BLD1^FL1|||......|V1|......|V2|......|V3|......|V4
```

Patient show on Connex Server with Proview as follows:

Note: Patient A1 room and bed details no longer appear because vitals have been captured for that patient.
The patient list on the CVSM shows both A1 and A2.

Vitals captured using A1 from List.
MSH|~\&|||20140211175034||ORU^R01|0493961F-3352-4B94-A8F8-2DC28E4D257B|P|2.5
PID||M1||Alpha^Alpha||1|1|1
PV1||I
OBR||S||20140211175029||1
OBX|1|ST|TEMPSITE|None|||F||20140211175029|103000334010||Manual
OBX|2|NM|TEMP|310.4|Kelvin|||F||20140211175029|103000334010||Manual

Vitals are captured using A2 from List.
MSH|~\&|||20140211175154||ORU^R01|291A7182-1006-442F-86DB-41CC5D39BA3E|P|2.5
PID||M1||Alpha^Alpha||1|1|1
PV1||I
OBR||S||20140211175152||1
OBX|1|NM|HR|55|BeatsPerMinute||N||F||20140211175152|103000334010||Manual

Rechecking the ProView screen shows that there is now only one Account Open (Both Accounts may have initially showed do to a refresh period that expired between Proview screen refreshes).

Note: ProView shows the patient as Discharged.

Clicking on PreAdmitted, shows patient A1 is in a PreAdmitted status.

Clicking on Discharged shows A2 as discharged.
If the ProView tool is the only means to verify patients are admitted in Connex CS Headless, it may be a little confusing to the end user what is really there. Note this scenario only tracks one reoccurring account and one new account. Sites will have many more Accounts for the same patient.

The ORU messages seem to have the correct data (corresponding Account/Visit # combinations).

**Action:** Distribute TSB

**Reference to Standards:**

- 21 CFR Part 820, ISO 13485, MPD SOP-0002

**Updates:**

- Technical Manual
- Service Plan
- Procedures [x]
- Training Material
- Repair Tool
- Internet/Intranet
- Price List
- Other

**Procedure:**

**Step 1: Information Gathering**

1. Determine what field is the unique Identifier for Multiple Open Visits.
2. Two possible known Fields are PV1-19 and PID-18. Have the default NIX file updated by a qualified Interface Engineer.

   Note: Interface Engineers are familiar with the ADT requirements and how to properly apply **PID-18 MOV** or **PV1-19 MOV** changes by copying the right fields to the required locations and/or adjusting the Action Lists to properly pass a required field check, such as **PV1-19** when using **PID-18** as the MOV Identifier.

**Step 2: Manufacturing**

In the Example Instruction below, example MOV Support will be **PV1-19**. It is possible to replace **PV1-19** with **PID-18** for MOV support. **PV1-19** and **PID-18** are interchangeable in the example below.

To support Multiple Open Visits, the following changes must be made to the default Connex CS 1.6 NIX file.

**Changes in Connex CS 1.6 Corepoint Configuration File**

1. **WA_ADVT_IB_CHILD**
   Following mentioned changes should be applied to the following sections of the AL
   - Section #8.A.9
   - Section #8.C.4.4
• Section #8.C.5.4
1. Copy PV1-19-1 (Id Number) to ZEP-1 (Level-3 MRN (PID-3))
2. Copy PV1-19-1 (Id Number) to ZEP-4 (Patient Barcode Identifier)
   Note: If the customer wishes to retain the original Patient ID in PID-3, additional Copy PID-3 (Id Number) to ZEP-5 (EPID Formation)

2. WA_AD_T_IB_PARENT
   Following mentioned changes should be applied to section # 4:
   1. Add new codes to AL between line 382 and 383

   Line 382
   ElseIf (%in_Customer_AD_T/MSH-9-2 (Trigger Event) Match "A34|A47|A49|A40|A41|A42|A50") Then /*A40 message template*/
   a. Line1-New 383
      - Copy “true” value to “$HasError” variable
   b. Line2-New 384
      - MsgAddHistory %in_RAW "Unsupported message type : %s", %in_Customer_AD_T/MSH-9-2 (Message Code) /*Log error message in History for unsupported message type*/

   2. Disable section of code following below line 382

   Line 382
   ElseIf (%in_Customer_AD_T/MSH-9-2 (Trigger Event) Match "A34|A47|A49|A40|A41|A42|A50") Then /*A40 message template*/
   a. Disable section #4.B (starting at line 386)
   b. Disable section #5.B (starting at line 388)
   c. Disable section #10.B (starting at line 392)
   d. Disable section #11.B (starting at line 394)
e. Disable all lines from 470 to 541
   i. Disable line 477 (Disables multiple lines of code)
   ii. Disable line 541 (Disables multiple lines of code)

Example:

3. Modify Correlation Table
   1. Set the Correlation Table Value of Inbound-PatientID to “VisitNo” or “AccountNo” as appropriate. If using PV1-19, use “VisitNo” or PID-18 use “AccountNo”.

Step 3: Installation
   1. Apply changes to Corepoint Installation.

Step 4: Verification
   1. Create 2 ADT Messages with SAME MRN and Unique variable for MOV identifier (in this example, PV1-19)
   2. Send both ADT messages to Connex CS 1.6 Server.
   3. Verify the MOV identifier is populated in the proper fields
      a. Example: PID-18 Processed ADT message (PID-18 is A7)
b. Example: PV1-19 Processed ADT message (PV1-19 is V1)

4. Capture Vitals for V1 (Save not Send)
5. Send Vitals from Review tab on CVSM
6. Capture Vitals for V2 (Save not Send)
7. Send Vitals from Review tab on CVSM
8. Verify both sets of Vitals in Connex CS application or ProView Application

Notes:
1. Contact the Welch Allyn Complaints Department to initiate or process a medical device complaint resulting from this or other issues.
2. Drawings, illustrations, and part numbers in this document are for reference purposes only and subject to change.

End of Bulletin

Revision History

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<tr>
<td>A</td>
<td>Initial Release</td>
<td>D*</td>
<td>DLL</td>
<td>D*</td>
<td>D*</td>
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<td>B</td>
<td>Clarified MOV setup and testing for PID-18 and PV1-19 based on initial feedback from Testing.</td>
<td>D*</td>
<td>DLL</td>
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*D* SEE SAP DIR FOR CHANGE NUMBER, APPROVER NAME AND DATE OF APPROVAL