IHE Change Proposal

Tracking information:

IHE Domain	Devices (DEV)
Change Proposal ID:	CP-DEV-003
Change Proposal Status:	SUbmitted
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Person assigned:	Monroe Pattillo

Change Proposal Summary information:

MEM DMC Trigger and Template	
Submitter's Name(s) and e-mail address(es):	Monroe Pattillo, monroe.pattillo@gmail.com
Submission Date:	2024-05-03
Integration Profile(s) affected:	Medical Equipment Management Device Management Communication (MEM DMC)
Actor(s) affected:	DMIR and DMIC
IHE Technical Framework or Supplement modified:	MEM DMC profile TI revision 1.4, dated 2023-04-07
Volume(s) and Section(s) affected:	Changes to sections X.2, 3.15.4.1.1, 3.15.4.1.2, Appendix A, A.1

Rationale for Change:

In order for the event reporting actor to not be required to communicate the HL7 v2 Patient Identification (PID) segment and Patient Visit (PV1) segment the profile needs a new trigger (other than R01) so as to be able to define a new message structure (other than ORU_R01) which allows for the PID and PV1 segments to be optionally communicated using the optional PRT segment. The changes result in the elimination of the PATIENT RESULT message content grouping of the PCD-15 transaction.

Additionally, as the message structure flexibility would now exist, the profile actor ePHI communication options are no longer needed which simplifies IHE Connectathon system actor testing and reporting.

This Change Proposal (CP) proposes text to make use of an HL7 v2 Orders and Observations (O&O) Working Group (WG) to be assigned event type and message structure.

HL7 v2 InM and O&O WGs have scheduled this as R44 queued up for HL7 v2.9.

In section ***X.2 Trigger Events****, change* ***Table X.2-1 MEMDMC Actor Options*** *to remove the options ePHI communication options from the DMIR and DMIC actors, on page 14, line 280:*

Table row and column previous content

Actor	Option name	Reference
DMIR	Doesn't send ePHI	PCD TF-2: X.2
DMIC	Doesn't process ePHI	PCD TF-2: X.2

Table row and column replacement content

Actor	Option name	Reference
DMIR	No options defined	--
DMIC	No options defined	--

In section ***3.15.4.1.1 Trigger Events**, change ORU R01 to ORU R44 on page 19, line 393:*

Previous

The HL7 trigger event is currently an ORU^R01^ORU_R01. This is expected to change once Hl7 v2 Orders and Observations allocates and assigns the requested unique trigger for the profile

Replacement

The HL7® message type is ORU^R44^ORU_R44
The HL7® accept acknowledgement message type is ACK^R44^ACK

In section ***3.15.4.1.2 Message Semantics**, add the following tables on page 20, after line 441:*

Table 3.15.4.1.2-1 PCD-15 Transaction Conformance

ORU^R44^ORU_R44	ORU Message	Usage	Card.	Section Ref
MSH	Message Header Segment	R	[1..1]	2.15.9
[SFT]	Software segment	O	[0..1]	HL7 2.14.12
[UAC]	User Authentication Credential	O	[0..1]	HL7 2.14.13
PID	Patient Identification Segment	X	[0]	3.4.2
PV1	Patient Visit Segment	X	[0]	3.4.3
ORC	Common Order Segment	X	[0]	4.5.1
OBR	Observation Request Segment	R	[1..1]	7.4.1
{OBX}	Observation Result Segment	R	[1..n]	7.4.2
[{PRT}]	Participation Information Segment	O	[0..n] Note 1	HL7 2.7 7.4.4
[{NTE}]	Notes and Comments Segment	O	[0..n]	HL7 2.5.10

Note 1: If operating in a backward compatible manner for equipment observations this can be accomplished using OBX-18 Equipment Instance Identifier instead of the PRT segment.

Table 3.15.4.1.2-2. ORU^R44^ORU_R44 HL7 Attribute table

ORU^R44^ORU_R44	Device Management Information Observation (DMIO) [PCD-15] Message
MSH	Message Header
[SFT]	Software Segment
[UAC]	User authentication credential
{	--- EQUIPMENT_OBSERVATION_EVENT begin
OBR	Equipment Event Identification
{	--- OBSERVATION begin
{OBX}	Observation relative to OBR
[{PRT}]	Participating equipment and/or people
[{NTE}]	Notes and Comments
}	--- OBSERVATION end
}	--- EQUIPMENT_OBSERVATION_EVENT end

In appendix ***A.1 Device Management Information Observation****, replace lines on page 22, starting with line 377:*

Previous

The PCD Technical Framework requires the presence of PID and PV1 segments. For communication of these segments to a CMMS they should not pass ePHI and so are required to be indicated accordingly.

PID-31 Identity Unknown Indicator equals Y indicates the patient's/person's identity is unknown (in this case meaning not passed).

PV1-2 Patient Class equals N indicates patient assigned location information is Not Applicable

Replacement

The observation events associated with this profile are equipment related, not related to a patient or patient assigned location. There is the possibility that the equipment reporting the observation has no patient currently associated with it, equipment prepared for use with no patient association, or equipment between patient associations. There is the possibility that the equipment reporting the observation has no currently active order, equipment prepared for use with no order yet received, or equipment between orders. The equipment may therefore have no patient or assigned location information available, or it may have access to patient and assigned location last usage historical values, potentially for retrospective analysis.

The profile has a unique trigger which allows for a unique template. The profile associated template indicates usage of the PID and PV1 segments shall not be permitted, and that there shall be no PATIENT RESULT grouping. Patient information and/or assigned patient location information shall be communicated using occurrences of the optional PRT segment

Communication of patient identification and/or patient assigned location information shall be communicated, presuming that information is available, only with deployment awareness and consent by the administrators of the communication reporting and consuming systems. Absent that agreement, communication of patient identification and/or assigned patient location shall not be communicated by the reporting system, and this shall be the default communication mode.

This permits the consuming system, typically an equipment Computerized Maintenance Management System (CMMS) to be operating such that it never receives and so is abstracted from electronic patient healthcare information (ePHI). This also avoids any expectation of resolution of unknown to known patient identification or unknown to known patient assigned location identification. This also avoids any expectation of a Health Insurance Portability and Accountability Act (HIPAA) business agreement for receiving ePHI.

In appendix ***A.1 Device Management Information Observation****, replace text in example message on page 22, starting with line 490, only the portion of the message that is changing is in the replacement text, the remainder of the example message is as-is in the profile, with the exception that the 15.1 at the ends of the OIDs in the message profile of the MSH segment might need to be changed to 15.2 for example:*

Previous

MSH|^~\&|Smiths Medical^001A010000000001^EUI-64||Smiths Customer||20150119221713-0000||ORU^R01^ORU_R01|1421727433|P|2.6|||AL|NE||UNICODE UTF8|en^English^ISO639||IHE_PCD_015^IHE PCD^1.3.6.1.4.1.19376.1.6.1.15.1^ISO
PID|1||||||||||||||||||||||||||||||Y
PV1|1|N

Replacement

MSH|^~\&|Smiths Medical^001A010000000001^EUI-64||Smiths Customer||20150119221713-0000||ORU^R44^ORU_R44|1421727433|P|2.6|||AL|NE||UNICODE UTF8|en^English^ISO639||IHE_PCD_015^IHE PCD^1.3.6.1.4.1.19376.1.6.1.15.1^ISO