IHE Change Proposal

Tracking information:

IHE Domain	Devices (DEV)
Change Proposal ID:	CP-DEV-xxx
Change Proposal Status:	Draft
Date of last update:	2025-04-xx
Person assigned:	Kurt Elliason

Change Proposal Summary information:

Update Infusion Event Parameters and Example	
Submitter's Name(s) and e-mail address(es):	Kurt.elliason@icumed.com
Submission Date:	2025-04-xx
Integration Profile(s) affected:	Infusion Pump Event Communication (IPEC)
Actor(s) affected:	DOR
IHE Technical Framework or Supplement modified:	IHE_PCDTF Vol 2, dated 2024-11-04
Volume(s) and Section(s) affected:	Changes to sections Appendix M, M.1.2
Rationale for Change: Multiple tables in section **M.1.2.1 Infusion Event Parameters** can be combined to improve readability of this section. Some MDC terms are out of date and others are missing, the new combined table needs to be updated to align with IEEE 11073-10101b. After updating the tables, the example message in **M.1.2.2 Infusion Event Sample Message** must also be updated to match.	

In ***Table M.1.2.1-1 – Mapping of Infusion Pump Event Parameters to MDC Codes****, add the Notes column from* ***Table M.1.2.1-2*** *and delete* ***Table M.1.2.1-2***

Remove the following text at line 5520

> For IPEC delivery events, the DOR should send all parameters that are known for the infusion.
> The following table outlines the parameters that are typically sent with each Delivery Start, Stop, and Complete event, with additional constraints as noted. Refer to the Infusion Pump Model and Infusion Pump Terms documents for the other parameters that may be reported with each event.

Update the text at line 5516 from:

> The names of the infusion pump event parameters that are used in subsequent tables correspond to MDC codes as shown in Table M.1.2.1-1 below:

To:

> For IPEC delivery events, the DOR should send all parameters that are known for the infusion.
> The names of the infusion pump event parameters that are typically sent with each Delivery Start, Stop, and Complete event, along with their corresponding to MDC codes and additional

constraints as noted are shown in Table M.1.2.1-1 below. Refer to the Infusion Pump Model and Infusion Pump Terms documents for the other parameters that may be reported with each event.

In **Table M.1.2.1-1 – Mapping of Infusion Pump Event Parameters to MDC Codes**, change the following parameters

~~Current Pump Fluid Flow~~ MDC_FLOW_FLUID_PUMP~~_CURRENT~~

Fluid delivery rate

In **Table M.1.2.1-1 – Mapping of Infusion Pump Event Parameters to MDC Codes**, add the following parameters to Pump Delivery Info:

Pump enabled Sources	MDC_PUMP_ENABLED_SOURCES	Required for Delivery Start, Stop, and Complete.
Total Pump Volume Delivered, all Sources	MDC_VOL_FLUID_DELIV_PUMP_TOTAL	Required for Delivery Start, Stop, and Complete.

In **Table M.1.2.1-1 – Mapping of Infusion Pump Event Parameters to MDC Codes**, add the following parameters to Active Source Parameters:

Program Status	MDC_PUMP_PROGRAM_STATUS	Required for Delivery Start, Stop, and Complete.
Program Completion Mode	MDC_PUMP_PROGRAM_COMPLETION_MODE	Required for Delivery Complete.
Rate	MDC_FLOW_FLUID_PUMP_SETTING	Required for Delivery Start, Stop, and Complete.
Dose Rate	MDC_RATE_DOSE	Required for Delivery Start, Stop, and Complete.
Volume Programmed	MDC_VOL_FLUID_TBI	Required for Delivery Start, Stop, and Complete.
Current Segment Volume Delivered	MDC_VOL_FLUID_DELIV_SEGMENT	Required for Delivery Start, Stop, and Complete.
Cumulative Volume Delivered	MDC_VOL_FLUID_DELIV_TOTAL	Required for Delivery Start, Stop, and Complete.
Volume Remaining	MDC_VOL_FLUID_TBI_REMAIN	Required for Delivery Start, Stop, and Complete.
Time Remaining	MDC_TIME_PD_REMAIN or MDC_TIME_PD_REMAIN_CONTAINER	Required for Delivery Start, Stop, and Complete.

Renumber Table M.1.2.1-3: Infusion Pump Communication Status Change Event Parameters to:

Table M.1.2.1-2: Infusion Pump Communication Status Change Event Parameters

Add column for MDC REFID to new Table M.1.2.1-2: Infusion Pump Communication Status Change Event Parameters

MDC_COMM_STATUS

Renumber Table M.1.2.1-4: Clinical Scenarios describes the mapping of clinical scenarios to pump events.to:

Table M.1.2.1-3: Clinical Scenarios describes the mapping of clinical scenarios to pump events.

Update reference on line 5546 to:

Table M.1.2.1-3: Clinical Scenarios describes the mapping of clinical scenarios to pump events.

Page 272, section M.1.2.2 Infusion Event Sample Message

Replace the current example message with the following:

```
MSH|^~\&|DEVICE_PUMPVENDOR^9999990000000000^EUI-64|PUMPVENDOR|DOC_VENDOR|DOC_VE
NDOR|20151015132107-0500||ORU^R42^ORU_R01|6358051206735492253|P|2.6|||AL|NE||AS
CII|en^English^ISO639||IHE_PCD_010^IHE PCD^ 1.3.6.1.4.1.19376.1.6.4.10^ISO

PID|||HO2009002^^^IHE^PI||Hon^Charles^^^^^L|Brooks^^^^^^L|19610201000000-0600|M
|||||||||||||||||||||N

PV1||I|3 West ICU^3002^1

OBR|1|PlacerOrderNumber^PCD-03|CD12345^HL7^ACDE48234567ABCD^EUI-64|2222^Dopamin
e|||20151015132106-0500

OBX|1||70049^MDC_DEV_PUMP_INFUS_LVP_MDS^MDC|1.0.0.0|||||||X|||||N0002||E0002^^0
012210000000000^EUI-64

OBX|2|ST|184517^MDC_PUMP_DRUG_LIBRARY_VERSION^MDC|1.0.0.1|DL1||||||R

OBX|3|CWE|68487^MDC_ATTR_EVT_COND^MDC|1.0.0.2|197288^MDC_EVT_PUMP_DELIV_START^M
DC||||||R

OBX|4|CWE|68488^MDC_ATTR_EVT_SOURCE^MDC|1.0.0.3|
70071^MDC_DEV_PUMP_INFUSATE_SOURCE_PRIMARY_CHAN^MDC||||||R

OBX|5||70050^MDC_DEV_PUMP_INFUS_LVP_VMD^MDC|1.1.0.0|||||||X

OBX|6||70067^MDC_DEV_PUMP_DELIVERY_INFO^MDC|1.1.1.0|||||||X

OBX|7|CWE|184519^MDC_PUMP_INFUSING_STATUS^MDC|1.1.1.1|^pump-status-infusing||||
||R

OBX|8|NM|158784^MDC_FLOW_FLUID_PUMP^MDC|1.1.1.2|15.4|265266^MDC_DIM_MILLI_L_PER
_HR^MDC^mL/h^mL/h^UCUM|||||R

OBX|9|CWE|158015^MDC_PUMP_ENABLED_SOURCES^MDC|1.1.1.3|^pump-source-info-primary
||||||R

OBX|10|CWE|158016^MDC_PUMP_ACTIVE_SOURCES^MDC|1.1.1.4|^pump-source-info-primary
||||||R
```

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OBX|11|NM|158080^MDC_VOL_FLUID_DELIV_PUMP_TOTAL^MDC|1.1.1.3|0|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||R

OBX|12||70071^MDC_DEV_PUMP_INFUSATE_SOURCE_PRIMARY_CHAN^MDC|1.1.2.0|||||||X

OBX|13|CWE|158005^MDC_DEV_PUMP_CURRENT_DELIVERY_STATUS^MDC|1.1.2.1|^pump-delivery-status-delivering|||||R

OBX|14|CWE|158008^MDC_DEV_PUMP_PROGRAM_DELIVERY_MODE^MDC|1.1.2.2|^pump-program-delivery-mode-continuous|||||R

OBX|15|ST|158012^MDC_DEV_PUMP_SOURCE_CHANNEL_LABEL^MDC|1.1.2.3|Primary||||||R

OBX|16|NM|157784^MDC_FLOW_FLUID_PUMP^MDC|1.1.2.4|15.4|265266^MDC_DIM_MILLI_L_PER_HR^MDC^mL/h^mL/h^UCUM|||||R

OBX|17|NM|157924^MDC_RATE_DOSE^MDC|1.1.2.5|5.00|265619^MDC_DIM_MICRO_G_PER_KG_PERIN^MDC^ug/kg/min^ug/kg/min^UCUM|||||R

OBX|18|NM|157884^MDC_VOL_FLUID_TBI^MDC|1.1.2.6|250.0|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||R

OBX|19|NM|157993^MDC_VOL_FLUID_DELIV_TOTAL^MDC|1.1.2.7|0.0|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||R

OBX|20|NM|157872^MDC_VOL_FLUID_TBI_REMAIN^MDC|1.1.2.8|250.0|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||R

OBX|21|NM|157916^MDC_TIME_PD_REMAIN^MDC|1.1.2.9|974|264352^MDC_DIM_MIN^MDC^min^min^UCUM|||||R

OBX|22|ST|184514^MDC_DRUG_NAME_LABEL^MDC|1.1.2.10|Dopamine||||||R

OBX|23|NM|157760^MDC_CONC_DRUG^MDC|1.1.2.11|1.6|264306^MDC_DIM_MILLI_G_PER_ML^MDC^mg/mL^mg/mL^UCUM|||||R

OBX|24|ST|184516^MDC_PUMP_DRUG_LIBRARY_CARE_AREA^MDC|1.1.2.12|Crit Care||||||R

OBX|25|NM|68063^MDC_ATTR_PT_WEIGHT^MDC|1.1.2.13|82.0|263875^MDC_DIM_KILO_G^MDC^kg^kg^UCUM|||||R
```

MSH|^~\&|SendingApplication|SendingFacility|ReceivingApplication|ReceivingFacility|20121205155333-0500||ORU^R42^ORU_R01|6349031961347688231|P|2.6|||AL|NE||ASCII|||IHE_PCD_010^IHEPCD^1.3.6.1.4.1.19376.1.6.1.10.1^ISO
PID|||HO2009001^^^AA1^PI||Hon^Albert^^^^^L|Adams^^^^^^L|19610101000000-0600|M
PV1||I|HOSurgery^OR^1
OBR|1|6349031961349588 23^DEVICE^0012211839000001^EUI-64|6349031961349588 23^DEVICE^0012211839000001^EUI-64|Sodiumchloride0.9%^Sodiumchloride0.9%|||20121205155333-0600
OBX|1||70049^MDC_DEV_PUMP_INFUS_LVP_MDS^MDC|1.0.0.0||||||X|||||N0001||E0001^^0012210000000000^EUI-64
OBX|2|ST|67880^MDC_ATTR_ID_MODEL^MDC|1.0.0.1|manufacturer="PumpVendor" model="Pump Model"||||||R
OBX|3|CWE|67972^MDC_ATTR_SYS_ID^MDC|1.0.0.2|E0001^0012210000000000^EUI-64||||||R
OBX|4|ST|67886^MDC_ATTR_ID_SOFT^MDC|1.0.0.3|47282||||||R
OBX|1||70050^MDC_DEV_PUMP_INFUS_LVP_VMD^MDC|1.1.0.0||||||X|||||N0001||E0001^^0012210000000000^EUI-64
OBX|6|CWE|68487^MDC_ATTR_EVT_COND^MDC|1.1.0.1|197288^MDC_EVT_PUMP_DELIV_START^MDC||||||R
OBX|7|ST|68488^MDC_ATTR_EVT_SOURCE^MDC|1.1.0.2|Primary||||||R
OBX|8||70067^MDC_DEV_PUMP_DELIVERY_INFO^MDC|1.1.1.0|||||||X
OBX|9|CWE|184519^MDC_PUMP_INFUSING_STATUS^MDC|1.1.1.1|^pump-status-infusing||||||R
OBX|10|NM|157784^MDC_FLOW_FLUID_PUMP^MDC|1.1.1.2|16.0000|265266^MDC_DIM_MILLI_L_PER_HR^MDC^mL/h^mL/h^UCUM|||||R
OBX|11|NM|158080^MDC_VOL_FLUID_DELIV_PUMP_TOTAL^MDC|1.1.1.3|0|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||R
OBX|12|CWE|158015^MDC_PUMP_ENABLED_SOURCES^MDC|1.1.1.4|^pump-source-info-primary||||||R
OBX|13|CWE|158016^MDC_PUMP_ACTIVE_SOURCES^MDC|1.1.1.5|^pump-source-info-primary||||||R
OBX|14||70071^MDC_DEV_PUMP_INFUSATE_SOURCE_PRIMARY_CHAN^MDC|1.1.2.0|||||||X

OBX|15|CWE|158005^MDC_PUMP_CURRENT_DELIVERY_STATUS^MDC|1.1.2.1|^pump-delivery-status-delivering||||||R
OBX|16|CWE|158008^MDC_PUMP_PROGRAM_DELIVERY_MODE^MDC|1.1.2.2|^pump-program-delivery-mode-continuous|||||R
OBX|17|CWE|158009^MDC_PUMP_PROGRAM_STATUS^MDC|1.1.2.3|^pump-program-status-active||||||R
OBX|18|ST|158012^MDC_PUMP_SOURCE_CHANNEL_LABEL^MDC|1.1.2.4|Primary||||||R
OBX|19|NM|157993^MDC_VOL_FLUID_DELIV_TOTAL^MDC|1.1.2.5|0|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||R
OBX|20|ST|184516^MDC_PUMP_DRUG_LIBRARY_CARE_AREA^MDC|1.1.2.6|Acute Care Conti.||||||R
OBX|22|ST|184514^MDC_DRUG_NAME_LABEL^MDC|1.1.2.8|Sodiumchloride0.9%||||||R
OBX|23|NM|16935000^MDC_FLOW_FLUID_PUMP_SETTING^MDC|1.1.2.9|16.0000|265266^MDC_DIM_MILLI_L_PER_HR^MDC^mL/h^mL/h^UCUM|||||R
OBX|24|NM|158100^MDC_VOL_FLUID_DELIV_LIMIT^MDC|1.1.2.10|1.000|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||R