

# IHE Change Proposal

## Tracking information:

|                         |               |
|-------------------------|---------------|
| IHE Domain              | Devices (DEV) |
| Change Proposal ID:     | CP-DEV-020    |
| Change Proposal Status: | Draft         |
| Date of last update:    | 2025-05-15    |
| Person assigned:        | Kurt Eliason  |

## Change Proposal Summary information:

| Examples for Pillar/Rack/Slot                                                                                                                   |                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Submitter's Name(s) and e-mail address(es):                                                                                                     | Kurt Eliason kurt.elliason@icumed.com                  |
| Submission Date:                                                                                                                                | 2025-04-xx                                             |
| Integration Profile(s) affected:                                                                                                                | IPEC/DEC                                               |
| Actor(s) affected:                                                                                                                              | DOR                                                    |
| IHE Technical Framework or Supplement modified:                                                                                                 | IHE_PCDTF Vol 2, dated 2024-11-04                      |
| Volume(s) and Section(s) affected:                                                                                                              | <b>M.1.2.3 Definition of Pillar/Rack/Slot topology</b> |
| Rationale for Change:<br>Clarify which fields are optional or not, add example OBX segments and a sample IPEC message with Pillar/Rack details. |                                                        |

### M.1.2.3 Definition of Pillar/Rack/Slot topology

Remove "Optionality" from the table, inclusion of an OBX with MDC\_ATTR PILLAR ASSEMBLY is optional, but if included all parameters must be provided.

| Parameter                  | Note                                                                                                                                                                                                 |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Pillars          | Optional - If a pump resides in a Pillar, this field may contain the number of Pillars present in the pillar system.                                                                                 |
| Number of Racks In Pillars | Optional – ARRAY of "Number of Pillars" entries<br><br>If a pump resides in a Pillar, this field may contain the number of Racks present in each Pillar in the system.                               |
| Number of Slots in Pillars | Optional – ARRAY of "Number of Pillars" entries<br><br>If a pump resides in a Pillar, this field may contain the number of Pump Slots present in each Pillar in the system.                          |
| Pillar Orientation         | Optional – If a pump is contained within a pillar, this value may be populated with an ENUM value:<br>Vertical <b>pillar-orientation-vertical</b><br>Horizontal <b>pillar-orientation-horizontal</b> |
| Pillar Direction           | Optional – If a pump is contained within a pillar, this value may be populated with an ENUM value:<br>Up... <b>pillar-direction-up</b>                                                               |

*Examples for Pillar/Rack/Slot*

|                     |                                                                                                                                                                                                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | Down <b>pillar-direction-down</b><br>Left <b>pillar-direction-left</b><br>Right <b>pillar-direction-right</b>                                                                                                                                                       |
| Slot-Rack Direction | Optional – If a pump is contained within a pillar, this value may be populated with an ENUM value:<br>Up... <b>slot-rack-direction-up</b><br>Down <b>slot-rack-direction-down</b><br>Left <b>slot-rack-direction-left</b><br>Right <b>slot-rack-direction-right</b> |

***Section M.1.2.3 Specifying a pump location within a Pillar (and Rack)***

Change section numbering from M.1.2.3 to M.1.2.4 to correct duplicate section numbering.

Remove “Optionality” from the table, inclusion of an OBX with MDC\_ATTR\_PUMP\_PILLAR\_DETAILS in the VMD is conditional on inclusion of MDC\_ATTR\_PILLAR\_ASSEMBLY in the MDS, but if included all parameters must be provided.

| Parameter         | Note                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pillar Index      | Optional<br><br>If a pump resides in a Pillar, this field must contain which pillar the pump is located in.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Rack Index        | Optional – If a pump resides in a Pillar, it must also be contained within a Rack, since Pillars consist of one or more Racks. If this field is populated, “Rack Slot Index” must also be populated to specify a unique location within the entire Pillar topology. It indicates which Rack within the specified Pillar that the pump is located in. If rack position is not tracked, this field may be NA.<br><br>If this field is specified, “Pillar Slot Index” must be NA.<br><br>Only one of the two ways to indicate pump position within a Pillar can be populated with non-NA values:<br>Both “Rack Index” and “Rack Slot Index” or<br>“Pillar Slot Index”    |
| Rack Slot Index   | Optional – If a pump resides in a Pillar, it must also be contained within a Rack since Pillars consist of one or more Racks. If this field is populated, “Rack Index” must also be populated to specify a unique location within the entire Pillar topology. It indicates which position within the specified Rack and Pillar the pump is located in. If “Rack Index” is NA, this field must also be NA.<br><br>If this field is specified, “Pillar Slot Index” must also be NA.<br><br>Only one of the two ways to indicate pump position within a Pillar can be populated with non-NA values:<br>Both “Rack Index” and “Rack Slot Index” or<br>“Pillar Slot Index” |
| Pillar Slot Index | Optional – If a pump is contained within a Pillar, this field indicates which position it is located in within that Pillar.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Examples for Pillar/Rack/Slot

| Parameter | Note                                                                                                                                                                                                                                                                   |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | <p>If this field is specified, "Rack Index" and "Rack Slot Index" must be NA.</p> <p>Only one of the two ways to indicate pump position within a Pillar can be populated with non-NA values:</p> <p>Both "Rack Index" and "Rack Slot Index" or "Pillar Slot Index"</p> |

*On line 5702 add the following example OBX*

*Starting on line 5705 add the following text and example OBX*

**MDC\_ATTR\_PUMP\_PILLAR\_DETAILS (2, 2, 3, NA)**  
Pillar 2, Rack 2, Rack Slot 3, Pillar Slot - NA

*Starting on line 5709 add the following text and example OBX*

**MDC\_ATTR\_PUMP\_PILLAR\_DETAILS (2, NA, NA, 7)**  
Pillar 2, Rack NA, Rack Slot NA, Pillar Slot - 7

*On line 5722 add the following example OBX*

*Starting on line 5728 add the following text and example OBX*

**MDC\_ATTR\_PUMP\_PILLAR\_DETAILS (2, 1, 2, NA)**  
Pillar 2, Rack 1, Rack Slot 2, Pillar Slot - NA

*Starting on line 5731 add the following text and example OBX*

**MDC\_ATTR\_PUMP\_PILLAR\_DETAILS (2, NA, NA, 2)**  
Pillar 2, Rack NA, Rack Slot NA, Pillar Slot - 2

*On line 5746 add the following example OBX*

*Starting on line 5752 add the following text and example OBX*

**MDC\_ATTR\_PUMP\_PILLAR\_DETAILS (2, 2, 3, NA)**  
Pillar 2, Rack 2, Rack Slot 3, Pillar Slot - NA

*Starting on line 5756 add the following text and example OBX*

**MDC\_ATTR\_PUMP\_PILLAR\_DETAILS (2, NA, NA, 7)**  
Pillar 2, Rack NA, Rack Slot NA, Pillar Slot - 7

After line 5783 add a new section with an example HL7 message.

**Section M.1.2.5 Infusion event sample message for a single Rack in a Pillar**

```
MSH|^~\&|DEVICE_PUMPVENDOR^9999990000000000^EUI-64|PUMPVENDOR|DOC_VENDOR|DOC_VENDOR|20250515202812+0000||ORU^R42^ORU_R01|980|P|2.6||AL|NE||UNICODE UTF-8|en^English^ISO639||IHE_PCD_010^IHEPCD^1.3.6.1.4.1.19376.1.6.4.10^ISO
PID||2010005^^^ICUPGI24^U||Doe^Baby^^^^^L|Smith^^^^^^L|20220702|F||100 Main St^^Irving^TX^75063^^MPV1||I|Newborn Nursery^^
OBR|1|2012061^Pump Model^9999990000000000^EUI-64|2012061^Pump
Model^9999990000000000^EUI-64|DOPamine^DOPamine||20250515202812+0000
OBX|1||70101^MDC_DEV_PUMP_INFUS_RACK_MDS^MDC|1.0.0.0||||X||||100256^Rack
Model^9999990000000000^EUI-64
OBX|2|ST|67880^MDC_ATTR_ID_MODEL^MDC|1.0.0.1|manufacturer="PumpVendor" model="Rack
Model"||||R||20250515202812+0000||||20250515202812+0000
OBX|3|CWE|67972^MDC_ATTR_SYS_ID^MDC|1.0.0.2|100256^9999990000000000^EUI-64||||R||20250515202812+0000||||20250515202812+0000
```

## Examples for Pillar/Rack/Slot

OBX|4|ST|68549^MDC\_ATTR\_PILLAR\_ASSEMBLY^MDC|1.0.0.3|^1^6^pillar-orientation-vertical^^slot-rack-direction-down|  
 ||||F|  
 OBX|5|70054^MDC\_DEV\_PUMP\_INFUS\_SYRINGE\_VMD^MDC|1.1.0.0||||X||||2012061^Pump  
 Model^9999990000000000^EUI-64  
 OBX|6|ST|67880^MDC\_ATTR\_ID\_MODEL^MDC|1.0.0.1|manufacturer="PumpVendor" model="Pump  
 Model"||||R||20250515202812+0000||||20250515202812+0000  
 OBX|7|CWE|67972^MDC\_ATTR\_SYS\_ID^MDC|1.0.0.2|2012061^9999990000000000^EUI-64||||R||20250515202812+0000||||  
 20250515202812+0000  
 OBX|8|CWE|68487^MDC\_ATTR\_EVT\_COND^MDC|1.1.0.6|197288^MDC\_EVT\_PUMP\_DELIV\_START^MDC||||R||20250  
 515202812+0000||||20250515202812+0000  
 OBX|9|CWE|68488^MDC\_ATTR\_EVT\_SOURCE^MDC|1.1.0.4|70071^MDC\_DEV\_PUMP\_INFUSATE\_SOURCE\_PRIMAR  
 Y\_CHAN^MDC||||R||20250515202812+0000||||20250515202812+0000  
 OBX|10|ST|68550^MDC\_ATTR\_PUMP\_PILLAR\_DETAILS^MDC|1.1.0.5|^1^4^||||F  
 OBX|11|70067^MDC\_DEV\_PUMP\_DELIVERY\_INFO^MDC|1.1.1.0||||X  
 OBX|12|CWE|184519^MDC\_PUMP\_INFUSING\_STATUS^MDC|1.1.1.1|^pump-status-infusing||||R||20250515202812+0000||||  
 |20250515202812+0000  
 OBX|13|CWE|158015^MDC\_PUMP\_ENABLED\_SOURCES^MDC|1.1.1.2|^pump-source-info-primary||||R||20250515202812  
 +0000||||20250515202812+0000  
 OBX|14|CWE|158016^MDC\_PUMP\_ACTIVE\_SOURCES^MDC|1.1.1.3|^pump-source-info-primary||||R||20250515202812+0  
 000||||20250515202812+0000  
 OBX|15|NM|157784^MDC\_FLOW\_FLUID\_PUMP^MDC|1.1.1.4|0.7500|265266^MDC\_DIM\_MILLI\_L\_PER\_HR^MDC^mL/  
 h^mL/h^UCUM||||R||20250515202812+0000||||20250515202812+0000  
 OBX|16|NM|158080^MDC\_VOL\_FLUID\_DELIV\_PUMP\_TOTAL^MDC|1.1.1.5|0.0000|263762^MDC\_DIM\_MILLI\_L^MDC  
 ^mL^mL^UCUM||||R||20250515202812+0000||||20250515202812+0000  
 OBX|17|70071^MDC\_DEV\_PUMP\_INFUSATE\_SOURCE\_PRIMARY\_CHAN^MDC|1.1.2.0||||X  
 OBX|18|CWE|158005^MDC\_PUMP\_CURRENT\_DELIVERY\_STATUS^MDC|1.1.2.1|^pump-delivery-status-delivering||||R||2  
 0250515202812+0000||||20250515202812+0000  
 OBX|19|CWE|158008^MDC\_PUMP\_PROGRAM\_DELIVERY\_MODE^MDC|1.1.2.2|^pump-program-delivery-mode-continuo  
 us||||R||20250515202812+0000||||20250515202812+0000  
 OBX|20|CWE|158009^MDC\_PUMP\_PROGRAM\_STATUS^MDC|1.1.2.3|^pump-program-status-active||||R||20250515202812  
 +0000||||20250515202812+0000  
 OBX|21|CWE|158007^MDC\_PUMP\_PROGRAM\_COMPLETION\_MODE^MDC|1.1.2.4|^pump-program-completion-mode-sto  
 p||||R||20250515202812+0000||||20250515202812+0000  
 OBX|22|ST|158012^MDC\_PUMP\_SOURCE\_CHANNEL\_LABEL^MDC|1.1.2.5|Primary||||R||20250515202812+0000||||20250  
 515202812+0000  
 OBX|23|NM|157993^MDC\_VOL\_FLUID\_DELIV\_TOTAL^MDC|1.1.2.6|0.0000|263762^MDC\_DIM\_MILLI\_L^MDC^mL^m  
 L^UCUM||||R||20250515202812+0000||||20250515202812+0000  
 OBX|24|ST|184516^MDC\_PUMP\_DRUG\_LIBRARY\_CARE\_AREA^MDC|1.1.2.7|Connectathon||||R||20250515202800+0000  
 ||||20250515202800+0000  
 OBX|25|ST|184514^MDC\_DRUG\_NAME\_LABEL^MDC|1.1.2.8|DOPamine||||R||20250515202800+0000||||20250515202800  
 +0000  
 OBX|26|NM|157760^MDC\_CONC\_DRUG^MDC|1.1.2.9|1.6000|264306^MDC\_DIM\_MILLI\_G\_PER\_ML^MDC^mg/mL^mg/  
 mL^UCUM||||R||20250515202811+0000||||20250515202811+0000  
 OBX|27|NM|68063^MDC\_ATTR\_PT\_WEIGHT^MDC|1.1.2.10|4.0000|263875^MDC\_DIM\_KILO\_G^MDC^kg^kg^UCUM||||  
 R||20250515202811+0000||||20250515202811+0000  
 OBX|28|NM|158084^MDC\_VOL\_FLUID\_DELIV\_METHOD\_TOTAL^MDC|1.1.2.11|0.0000|263762^MDC\_DIM\_MILLI\_L^  
 MDC^mL^mL^UCUM||||R||20250515202812+0000||||20250515202812+0000  
 OBX|29|NM|157924^MDC\_RATE\_DOSE^MDC|1.1.2.12|5.0000|265619^MDC\_DIM\_MICRO\_G\_PER\_KG\_PER\_MIN^MDC^  
 ug/kg/min^ug/kg/min^UCUM||||R||20250515202812+0000||||20250515202812+0000  
 OBX|30|NM|16935000^MDC\_FLOW\_FLUID\_PUMP\_SETTING^MDC|1.1.2.13|0.7500|265266^MDC\_DIM\_MILLI\_L\_PER\_  
 HR^MDC^mL/h^mL/h^UCUM||||R||20250515202812+0000||||20250515202812+0000  
 OBX|31|NM|157997^MDC\_TIME\_PD\_REMAIN\_CONTAINER^MDC|1.1.2.14|41386|264320^MDC\_DIM\_X\_SEC^MDC^s^  
 ^UCUM||||R||20250515202812+0000||||20250515202812+0000  
 OBX|32|70091^MDC\_DEV\_PUMP\_SYRINGE\_INFO^MDC|1.1.7.0||||X  
 OBX|33|ST|184476^MDC\_SYRINGE\_TYPE^MDC|1.1.7.1|B-D 10||||R||20250515202811+0000||||20250515202811+0000  
 OBX|34|ST|184488^MDC\_SYRINGE\_MANUFACTURER^MDC|1.1.7.2|B-D||||R||20250515202811+0000||||20250515202811  
 +0000  
 OBX|35|NM|157880^MDC\_VOL\_SYRINGE^MDC|1.1.7.3|10|263762^MDC\_DIM\_MILLI\_L^MDC^mL^mL^UCUM||||R||202  
 50515202811+0000||||20250515202811+0000  
 OBX|36|NM|157984^MDC\_VOL\_SYRINGE\_REMAIN^MDC|1.1.7.4|8.6220|263762^MDC\_DIM\_MILLI\_L^MDC^mL^mL^U  
 CUM||||R||20250515202812+0000||||20250515202812+0000