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| HL7 Version 2.8.1 Chapter 4 |
| *Change Request ID:* |  |
| *File Name:* | *Order Application Acknowledgement Messages* |
| *Description:* | *This proposal is intended to clarify whether an OBX is used to convey an Ask-at-Order-Entry question.* |
| *Status:* | *New Proposal* |
| *Sponsoring Person* | *Hans Buitendijk* |
| *Sponsoring Business Unit* | *Siemens Healthcare* |
| *Date Originated:* | *5/1/2013* |
| *Date HL7 approved:* |  |
| *Backward Compatible:* | *Yes* |
| *Forward Compatible:* | *Yes* |
| *HL7 Status & Date* |  |

# Justification Detail:

When the ORL\_O22, ORL\_O24, ORL\_O36, and ORL\_40 message structures were created, the patient related segments were made required when the ORC/OBR pair was to be included in the response. However, in the message structure these responses relate to do not have that requirement.

While some in practice “fixed” this to behave as intended, the resulting messages actually do not exist in the formal standard.

Unfortunately we cannot fix the messages as intended using the current message structures as the fix is not considered backwards compatible: changing mandatory segments from required to optional in a message structure.

We have two choices to resolve this,:

1. Keep the existing trigger event and associate an additional new message structure with the trigger event.
2. Create a new trigger event and a new message structure.

Either option assumes that we keep the existing message structures for backwards compatibility and potential future deprecation.

The recommendation in this proposal is to pursue option (1) as it constitutes the least changes and allows organizing the alternate message structures and rational in the same section.

Concerns have been raised that it is easier to maintain a 1:1 relationship between trigger event and message structure, but we note that all of MSH-9 indicates what this message is about, not just the first two components.

# Open Issues

What should the updated name be?

# Change Request Impact:

None known.

# Documentation Changes:

Insert the following message structures into the respective sections for the trigger events referenced. Note that the indentation on the sub-sections is off, but will be fixed in the actual document.

### 4.4.7 ORL – general laboratory order response message to any OML (event O22)

The function of this message is to respond to an OML message. An ORL message is the application acknowledgment to an OML message. See Chapter 2 for a description of the acknowledgment paradigm.

Two message structures are available to acknowledge OML\_O22:

* With patient segments
* Optionally without patient segments

#### 4.4.7.1 Patient Segments Required

Add (Patient Required) to name

Existing message structure

#### 4.4.7.2 Patient Segments Optional

ORL^O22^ORL\_O41: General Laboratory Order Acknowledgment Message (Patient Optional)

| Segments | Description | Status | Chapter |
| --- | --- | --- | --- |
| MSH | Message Header |  | 2 |
| MSA | Message Acknowledgment |  | 2 |
| [{ERR}] | Error |  | 2 |
| [{SFT}] | Software |  | 2 |
| [ UAC ] | User Authentication Credential |  | 2 |
| [{NTE}] | Notes and Comments (for Header) |  | 2 |
| [  | --- RESPONSE begin |  |  |
|  [ | --- PATIENT begin |  |  |
|  PID | Patient Identification |  | 3 |
|  [{PRT}] | Participation (for Patient) |  | 7 |
|  ] | --- PATIENT end |  |  |
|  [{ | --- ORDER begin |  |  |
|  ORC | Common Order |  | 4 |
|  [{PRT}] | Participation (for Common Order) |  | 7 |
|  [{ | --- TIMING begin |  |  |
|  TQ1 | Timing/Quantity |  | 4 |
|  [{TQ2}] | Timing/Quantity Order Sequence |  | 4 |
|  }] | --- TIMING end |  |  |
|  [  | --- OBSERVATION\_REQUEST begin |  |  |
|  OBR | Observation Request |  | 4 |
|  [{PRT}] | Participation (for Observation Request) |  | 7 |
|  [{ | --- SPECIMEN begin |  |  |
|  SPM | Specimen |  | 7 |
|  [{SAC}] | Specimen Container Details |  | 13 |
|  }] | --- SPECIMEN end |  |  |
|  ] | --- OBSERVATION\_REQUEST end |  |  |
|  }] | --- ORDER end |  |  |
| ] | --- RESPONSE end |  |  |

### 4.4.9 ORL – Laboratory order response message to a multiple order related to single specimen OML (event O34)

The function of this message is to respond to an OML message where the original trigger event produced an OML with the Specimen Group segment above the ORC. An ORL message is the application acknowledgment to an OML message. See Chapter 2 for a description of the acknowledgment paradigm.

Two message structures are available to acknowledge OML\_O34:

* With patient segments
* Optionally without patient segments

#### 4.4.9.1 Patient Segments Required

Existing message structure

#### 4.4.9.2 Patient Segments Optional

ORL^O34^ORL\_O42: Laboratory Order Acknowledgment Message – Multiple Order Per Specimen (Patient Optional)

| Segments | Description | Status | Chapter |
| --- | --- | --- | --- |
| MSH | Message Header |  | 2 |
| MSA | Message Acknowledgment |  | 2 |
| [{ERR}] | Error |  | 2 |
| [{SFT}] | Software |  | 2 |
| [ UAC ] | User Authentication Credential |  | 2 |
| [{NTE}] | Notes and Comments (for Header) |  | 2 |
| [  | --- RESPONSE begin |  |  |
|  [ | --- PATIENT begin |  |  |
|  PID | Patient Identification |  | 3 |
|  [{PRT}] | Participation (for Patient) |  | 7 |
|  ] | --- PATIENT end |  |  |
|  {  | --- SPECIMEN begin |  |  |
|  SPM | Specimen |  | 7 |
|  [{ | --- SPECIMEN OBSERVATION begin |  |  |
|  OBX | Observations related to specimen |  | 7 |
|  [{PRT}] | Participation (for Specimen Observation) |  | 7 |
|  }] | --- SPECIMEN OBSERVATION end |  |  |
|  [{SAC}] | Specimen Container |  |  |
|  [{ | --- ORDER begin |  |  |
|  ORC | Common Order |  | 4 |
|  [{PRT}] | Participation (for Order) |  | 7 |
|  [{ | --- TIMING begin |  |  |
|  TQ1 | Timing/Quantity |  | 4 |
|  [{TQ2}] | Timing/Quantity Order Sequence |  | 4 |
|  }] | --- TIMING end |  |  |
|  [  | --- OBSERVATION\_REQUEST begin |  |  |
|  OBR | Observation Request |  | 4 |
|  [{PRT}] | Participation (for Observation) |  | 7 |
|  ] | --- OBSERVATION\_REQUEST end |  |  |
|  }] | --- ORDER end |  |  |
|  } | --- SPECIMEN end |  |  |
| ] | --- RESPONSE end |  |  |

### 4.4.11 ORL – Laboratory order response message to a single container of a specimen OML (event O36)

The function of this message is to respond to an OML message where the original trigger event produced an OML with the Specimen Group segment above the ORC. An ORL message is the application acknowledgment to an OML message. See Chapter 2 for a description of the acknowledgment paradigm.

Two message structures are available to acknowledge OML\_O34:

* With patient segments
* Optionally without patient segments

#### 4.4.11.1 Patient Segments Required

Existing message structure

#### 4.4.11.2 Patient Segments Optional

ORL^O36^ORL\_O43: Laboratory Order Acknowledgment Message – Multiple Order Per Container of Specimen (Patient Optional)

| Segments | Description | Status | Chapter |
| --- | --- | --- | --- |
| MSH | Message Header |  | 2 |
| MSA | Message Acknowledgment |  | 2 |
| [{ERR}] | Error |  | 2 |
| [{SFT}] | Software |  | 2 |
| [ UAC ] | User Authentication Credential |  | 2 |
| [{NTE}] | Notes and Comments (for Header) |  | 2 |
| [  | --- RESPONSE begin |  |  |
| [ | --- PATIENT begin |  |  |
|  PID | Patient Identification |  | 3 |
|  [{PRT}] | Participation (for Patient) |  |  |
| ] | --- PATIENT end |  |  |
|  {  | --- SPECIMEN begin |  |  |
|  SPM | Specimen |  | 7 |
|  [{ | --- SPECIMEN OBSERVATION begin |  |  |
|  OBX | Observations related to specimen |  | 7 |
|  [{PRT}] | Participation (for Specimen Related Observation) |  | 7 |
|  }] | --- SPECIMEN OBSERVATION end |  |  |
|  [{NTE}] | Notes and Comments (for specimen) |  | 2 |
|  {  | --- SPECIMEN\_CONTAINER begin |  |  |
|  SAC | Specimen Container |  | 13 |
|  [{ | --- ORDER begin |  |  |
|  ORC | Common Order |  | 4 |
|  [{PRT}] | Participation (for Order) |  | 7 |
|  [{ | --- TIMING begin |  |  |
|  TQ1 | Timing/Quantity |  | 4 |
|  [{TQ2}] | Timing/Quantity Order Sequence |  | 4 |
|  }] | --- TIMING end |  |  |
|  [  | --- OBSERVATION\_REQUEST begin |  |  |
|  OBR | Observation Request |  | 4 |
|  [{PRT}] | Participation (for Observation Request) |  | 7 |
|  ] | --- OBSERVATION\_REQUEST end |  |  |
|  }] | --- ORDER end |  |  |
|  } | --- SPECIMEN\_CONTAINER end |  |  |
|  } | --- SPECIMEN end |  |  |
| ] | --- RESPONSE end |  |  |

### Specimen shipment centric laboratory order response message to specimen shipment OML (event O40)

The function of this message is to respond to an OML message. An ORL message is the application acknowledgment to an OML message. See Chapter 2 for a description of the acknowledgment paradigm.

Two message structures are available to acknowledge OML\_O40:

* With patient segments
* Optionally without patient segments

#### 4.4.13.1 Patient Segments Required

Existing message structure

#### 4.4.13.2 Patient Segments Optional

ORL^O40^ORL\_O44: Specimen Shipment Centric Laboratory Order Acknowledgment Message (Patient Optional)

| Segments | Description | Status | Chapter |
| --- | --- | --- | --- |
| MSH | Message Header |  | 2 |
| MSA | Message Acknowledgment |  | 2 |
| [{ERR}] | Error |  | 2 |
| [{SFT}] | Software |  | 2 |
| [ UAC ] | User Authentication Credential |  | 2 |
| [{NTE}] | Notes and Comments (for Header) |  | 2 |
| [  | --- RESPONSE begin |  |  |
|  [  | --- PATIENT begin |  |  |
|  PID | Patient Identification |  | 3 |
|  [{PRT}] | Participation (for Patient) |  |  |
|  |  |  |  |
|  ] |  |  |  |
|  [{ | --- ORDER begin |  |  |
|  ORC | Common Order |  | 4 |
|  [{PRT}] | Participation (for Order) |  | 7 |
|  [{ | --- TIMING begin |  |  |
|  TQ1 | Timing/Quantity |  | 4 |
|  [{TQ2}] | Timing/Quantity Order Sequence |  | 4 |
|  }] | --- TIMING end |  |  |
|  [  | --- OBSERVATION\_REQUEST begin |  |  |
|  OBR | Observation Request |  | 4 |
|  [{PRT}] | Participation (for Observation Request) |  | 7 |
|  [{ | --- SPECIMEN\_SHIPMENT begin |  |  |
|  SHP | Shipment Segment |  |  |
|  { | --- PACKAGE Begin |  |  |
|  PAC | Shipping Package Segment |  |  |
|  [{ | --- SPECIMEN\_IN\_PACKAGE begin |  |  |
|  SPM | Specimen Information |  | 13.4.3 |
|  [{ | --- SPECIMEN\_CONTAINER\_IN\_PACKAGE begin |  |  |
|  SAC | Container Information |  | 7.4.3 |
|  }] | --- SPECIMEN\_CONTAINER\_IN\_PACKAGE end |  |  |
|  }] | --- SPECIMEN\_IN\_PACKAGE end |  |  |
|  } | --- PACKAGEend |  |  |
|  }] | --- SPECIMEN\_SHIPMENT end |  |  |
|  ] | --- OBSERVATION\_REQUEST end |  |  |
|  }] | --- ORDER end |  |  |
|  |  |  |  |
| ] | --- RESPONSE end |  |  |