

Med Inf 405

Session 7 - Study Questions and Answers

1. What is the definition of HL7 version 2.x?

A standard series of predefined logical formats for packaging healthcare data in the form of messages to be transmitted among computer systems.

2. What is definition of a segment in relation to the HL7 2.x standard?

A collection of data elements relating to one particular aspect of a message. In the default encoding, it is represented by one “line” or “record”.

3. What is definition of a message type in relation to the HL7 2.x standard?

The general category into which a message falls. For example, The ADT message type deals with patient registration.

4. What is definition of a trigger event in relation to the HL7 2.x standard?

Specifies exactly what happened that caused a message to be generated. For example, trigger event A01 is used for “admit/visit notification”

5. What trigger events and event names are associated with the ADT message type in relation to the HL7 2.x standard?

A01 = Admit/Visit notification

A02 = Transfer a patient

A03 = Discharge/end visit

A04 = Register a patient

A05 = Pre-admit a patient

A06 = Change an outpatient to an inpatient

A07 = Change an inpatient to an outpatient

A08 = Update patient information

A11 = Cancel admit/visit notification

A12 = Cancel transfer

A13 = Cancel discharge

A38 = Cancel pre-admin

A40 = Merge patient-patient identifier list

6. What is definition of a data type in relation to the HL7 2.x standard?

A data type of an element governs the following attributes: The format of information in the element; the number of sub-elements that the element may contain if any; whether the element’s content may be restricted to a controlled vocabulary.

7. Which letter is used to begin a locally defined message types and event types in relation to the HL7 2.x standard?

The letter Z.

8. What is the PID segment is used for in relation to the HL7 2.x standard?

Allows for unambiguous identification of a patient using one or more identifiers. It also allows such data as name, address, sex, and account number to be transmitted as part of a core package of patient information. Data must be safeguarded according to the

regulations of the jurisdiction(s) in which the information is being communicated. USA applies HIPAA.

9. What is the PV1 segment used for in relation to the HL7 2.x standard?

Contains the most commonly used location, practitioner, and accounting information for a patient visit. PV2 contains supplementary visit information.

10. What is the OBX segment used for in relation to the HL7 2.x standard?

Arguably the most powerful segment. Can accommodate any single piece of information that can be expressed in text or binary format. Uses might include vital signs, laboratory results, or line of report text. . Can be used to send binary data. A way to do this is to use the ED (encapsulated data) type and Base64 encoding (sometimes referred to as MIME encoding). OBX can repeat, so that complete sets of data can be sent in a group of OBX segments. OBX-2 is the field that gives the OBX segment its power

11. What is a general acknowledgement message used for in relation to the HL7 2.x standard?

In a two-way dialogue, the acknowledgment serves as the response and contains information to tell the sender that the receiver was able to accept the message and tell the sender that it was accepted. Two types of acknowledgement are supported. (1) Original mode and (2) enhanced mode. In original mode, two messages are exchanged. The first comes from the sending system, making a request or order, or sending information. The second comes from the receiver, stating whether it was able to process the request or order. This completes the dialogue. In enhanced mode acknowledgement, two distinct acknowledgments are sent by the receiving system. The first, a commit or accept acknowledgment, states whether the receiving system was able to take custody of the message, without respect to whether it was able actually to process the information in it. The second, an application acknowledgment, states whether the receiving system was able to process the information inside the message.

12. What general format is almost always used for encoding HL7 3.x messages?

XML

13. Is the HL7 version 3.0 standard backwards compatible?

No

14. Does the HL7 standard allow for customization?

Yes, The standard is a “framework for negotiation.” You can be compliant, obey the rules of the standard, while still customize and negotiate with the opposing vendor.

15. What is implied by stating that an interface is compliant with the HL7 standard?

Conforms to HL7 message format, no customization; Proper use of encoding characters; Two HL7 2.3-compliant applications will need to make customizations to successfully interface. Followed base standards with proper use of all encoding characters (CR is used as a segment separator, if sending via TCP/IP the MLP must be used).

16. Is 100% compliance with the HL7 standard likely?

No. Are all required fields and segments present?; Is the order of segments covered/correct? Field/segment cardinality?; Field data correct? Compliance varies based on message type & complexity.

17. What are the two general approaches to interfacing? How is conformance achieved with each approach?

Point to point interfacing (one or both vendors make modifications to their software to conform to the other vendors specifications); Interfacing with an interface engine (conformance happens in the interface engine, not in the application).