Description

A patient is hospitalized for substance abuse. The physician orders a hepatitis panel through the hospital's EHR system to test for Hepatitis A, B and C antibodies/antigens. The serum specimen is collected the same day at in the morning and submitted to the hospital lab for testing via their LIS right after it was drawn. A few hours later the patient's test results are as follows:

(1)Hepatitis A IgM antibodies (IgM anti-HAV) "Negative"
(2)Hepatitis A antibodies (anti-HAV) "Negative"
(3)Hepatitis B core antibodies (anti-HBVc) "Negative"
(4)Hepatitis B core antibodies (anti-HBVc) quantitative 0.40 IU/mL (reference range: <0.50 IU/mL)
(5)Hepatitis B virus e antibodies (anti-HBVe) "Negative"
(6)Hepatitis B surface antigen (HBVsAg) "Negative"
(7)Hepatitis B surface antibody (anti-HBVs) "Negative"
(8)Hepatitis C antibody screen (anti-HCV) "Positive"
(9)Hepatitis C antibodies Signal to Cut-off Ratio 10.8 s/co (reference range: 0.0-0.9 s/co)

Per CDC recommendations, a confirmatory Hepatitis C RNA PCR test is performed because of the positive Anti-HCV findings. The next day, the Hepatitis C RNA PCR test results confirm the patient is positive for hepatitis, with a value of 761120 IU/ml (reference range: < 43). The Hepatitis C results trigger an Abnormal Flag or "High", as well as the comment:
"Negative: < 0.8, Indeterminate 0.8 - 0.9, Positive: > 0.9. In order to reduce the incidence of a false positive result, the CDC recommends that all s/co ratios between 1.0 and 10.9 be confirmed with additional Verification or PCR testing."
The final report is completed on that day and sent to the ordering provider.

Comments

This is the reflex message.
Special case test aspects include ensuring that the system can correctly process the data elements for linking parent/child results in accordance with the requirements specified in the implementation guide for the FRN and FRU profiles.

PreCondition

Patient information is pre-loaded in the EHR-S.
and Test Case LRI_5.0_1.1-GU_FRN message has been received and incorporated.

PostCondition

The test message information received by the EHR-S has been incorporated with the patient's record.

TestObjectives

- Demonstrate the capability of the EHR-S to import and incorporate Parent-Child Reflex results.
- Tests support for multiple comments for one test result.

Notes to Testers

For display verification focus on these areas:
Proper display of the results (OBX-5) with structured numeric format (#4 and 9) with interpretations (OBX-8)
Comments for result of the lab result identified as "Hepatitis C virus Ab Signal/Cutoff in Serum or Plasma by Immunoassay" is properly grouped with its result.
Results for the Reflex test are properly associated with the result that spawned its creation, which is the detection of Hepatitis C virus Antibody in Serum, as part of the Hepatitis A B C Panel screen.