

Consider false-positives when test results don't add up

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(HealthDay)—Physicians should weigh patient history and include the possibility of false-positive test results when considering differential diagnoses, according to a perspective piece published online Dec. 15 in *JAMA Internal Medicine*.

Simina R. Luca, M.D., of the University of Toronto, and colleagues published a case report describing a married man in his early 50s with severe hepatitis who was initially misdiagnosed because of false-positive test results.

According to the researchers, the patient presented with a one-week history of epigastric pain, jaundice, dark urine, and pale stools. Lab test results showed severe hepatitis with elevated aminotransferase levels (aspartate aminotransferase, 3,948 U/L; [alanine aminotransferase](#), 6,502 U/L), early hepatic dysfunction (bilirubin, 11.11 mg/dL; international

normalized ratio, 1.62), and a slightly elevated acetaminophen level (9.53 $\mu\text{g/mL}$). The patient denied ingestion of acetaminophen or any attempt to overdose, but a delayed ingestion N-acetylcysteine protocol was initiated. Several hours later, lab tests showed a positive result for hepatitis B infection. The patient denied any risk factors for hepatitis B infection, such as risky sexual activity or illicit drug use. Public health officials were notified and the patient's wife was contacted regarding potential risk for hepatitis B infection. On the second day of hospitalization, further investigation revealed that the correct diagnosis was an acute hepatitis A infection. False-positive [test results](#) for the acetaminophen assay and the serologic test for [hepatitis B](#) contributed to diagnostic errors. As a result, the patient was exposed to potential physical harms from unnecessary treatment with N-acetylcysteine as well as psychological harms from misdiagnosis with an infectious disease attributed to high-risk behavior.

"The possibility of a false-positive test result should always be in the physician's differential diagnosis, especially when there are other signals pointing toward an alternate diagnosis," the authors write.

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