Hook Like Phenomenon can render POC – Pregnancy test negative later in pregnancy

Introduction:
The current era in healthcare heavily relies on lab tests, imaging and technology to help solve medical mysteries of patients. The latest technologies have been a great help in improving the health of people and it is inconceivable to imagine a day without them. However, we tend to lose our skepticism that these tests can sometimes be wrong and rate them above a well performed history and physical examination. This abstract aims to highlight a case which evaded diagnosis at multiple checkpoints, creating a false sense of security leading to an adverse health care event.

Case:
33 years old Caucasian woman presented to Emergency Room with severe low back pain, aggravated with minimal exertion. She had generalized limited range of movement and was unable to lie flat on her back. She had past medical history of Intravenous drug abuse, tricuspid valve regurgitation, MRSA endocarditis with valve replacement. She had two prior normal deliveries, BMI of 21 and reported recent irregular menstruation (oligomenorrhea). She recently started using IV heroin and methamphetamine again. She was tachycardic but afebrile. On examination, she had severe tenderness on lumbar spine, had suprapubic fullness but no abdominal/costovertebral angle tenderness without guarding. Labs showed elevated inflammatory markers (ESR, CRP), normal amylase, unremarkable point of care Urine pregnancy test (POC UPT). With concern for lumbar osteomyelitis and abscess in the setting of IVDU she underwent CT abdomen pelvis with contrast that showed L1-L2 acute discitis/osteomyelitis. In addition, 18 weeks of intrauterine pregnancy was found as well. Patient was unaware about the pregnancy.

References:
"Hook-like effect" causes false-negative point-of-care urine pregnancy testing in emergency patients. PMID: 21835572. DOI: 10.1016/j.jemermed.2011.05.032