

False positive urine pregnancy test with methadone

Dr Himanshu Gul Mirani, Specialty Doctor, A&E, QMC

CASE PRESENTATION - 25 year old female, known epileptic and ex-IVDU, on carbamazepine, lamotrigine and methadone was brought to ED in post ictal state, post termination of seizures with diazepam by EMAS crew. Once back to her senses, she mentioned she was pregnant since her urine pregnancy test was positive on two occasions, a few days ago. She normally had irregular periods and thought her gestation to be approximately 10 weeks. There was no history of vaginal bleeding or abdominal pain. She was not on any contraceptives and asked for advice on her anti-epileptics.



MANAGEMENT AND OUTCOME -

Interestingly her β HCG blood test was negative. Literature search revealed that methadone can give false positive urine pregnancy tests. Case was discussed with OBGYN registrar and since there was no suspicion of ectopic from her history; the likely cause being a false positive test; she was discharged to her primary care physician.

KEY LEARNING ISSUES – Urine pregnancy test is a very common test in ED and it's essential to know its limitations.

False negative urine pregnancy test causes –

- Diluted sample
- Hook effect in molar pregnancy/ trophoblastic disease
- Malfunction of kit from improper storage or broken seal
- Test taken too early in pregnancy

False positive urine pregnancy test causes –

- Patient on HCG for fertility treatment
- Medicines -
 - ❖ Barbiturates
 - ❖ Antihistamines (antihistamines in general test false positive for methadone on drug assays)
 - ❖ Methadone
 - ❖ Antipsychotics like clozapine
- Recent miscarriage
- Ectopic pregnancy
- Ovarian Cancer
- User error from misinterpretation of evaporation lines