

Case Comparisons

Welcome! These cases are designed to be reviewed side by side. We hope these cases spark conversation at your tables during the “Case Comparisons” portion of this session.

Case Comparison #1

Patient A: 34-year-old male is prescribed buprenorphine for Opioid Use Disorder

Initial Results:

Component	Result	Reference Range
Buprenorphine, screening	Positive	Not Detected

Diagnostic Considerations:

- You are reviewing the results of this case.
- What are your initial impressions?
- Would you want additional information?

Secondary Results:

Lab’s protocol is to perform reflex confirmation tests.

Component	Result	Reference Range
Buprenorphine, Quantitative	>4,000 ng/mL	Not Detected
Norbuprenorphine, Quantitative	16 ng/mL	Not Detected
Naloxone, Quantitative	2,500 ng/mL	Not Detected

Diagnostic Considerations:

- What is your interpretation of these results?

Case Comparison #1

Patient B: 43-year-old female is prescribed buprenorphine for Opioid Use Disorder

Initial Results:

Component	Result	Reference Range
Buprenorphine, screening	Positive	Not Detected

Diagnostic Considerations:

- You are reviewing the results of this case.
- What are your initial impressions?
- Would you want additional information?

Secondary Results:

Lab's protocol is to perform reflex confirmation tests.

Component	Result	Reference Range
Buprenorphine, Quantitative	2,500 ng/mL	Not Detected
Norbuprenorphine, Quantitative	700 ng/mL	Not Detected
Naloxone, Quantitative	120 ng/mL	Not Detected

Diagnostic Considerations:

- What is your interpretation of these results?

Case Comparison #2: READ THIS SIDE FIRST

Patient A: 60-year-old female prescribed codeine 60 mg / acetaminophen 300 mg up to four times per day for chronic pain and headache post traumatic brain injury.

Initial Mass Spectrometry Results:

	February 2017	March 2017	Cutoff
Codeine	Present	Present	25 ng/mL
Codeine-6- β -glucuronide	Present	Present	100 ng/mL
Morphine	Not detected	Present	25 ng/mL
Morphine-6- β -glucuronide	Present	Present	100 ng/mL
6-monoacetylmorphine	Not detected	Not detected	25 ng/mL
Hydrocodone	Present	Present	25 ng/mL
Norhydrocodone	Present	Present	25 ng/mL
Dihydrocodeine	Not detected	Present	25 ng/mL
Hydromorphone	Not detected	Not detected	25 ng/mL
Hydromorphone-3- β -glucuronide	Not detected	Present	100 ng/mL
Oxycodone	Not detected	Not detected	25 ng/mL
Noroxycodone	Not detected	Not detected	25 ng/mL

Patient B: 37-year-old female prescribed amphetamine 20 mg/day with no previous history of Substance Use Disorder undergoes routine military urine drug testing

Initial Results:

Drug class	Immunoassay result
Amphetamines	Detected
Benzodiazepines	Not Detected
Barbiturates	Not Detected
Cocaine	Not Detected
Fentanyl	Not Detected
Opiates	Not Detected
Oxycodone	Not Detected
THC	Not Detected

AMP Confirmation	Result	Cut-off
Amphetamine	98,000 ng/mL	< 25 ng/mL
Methamphetamine	275 ng/mL	< 25 ng/mL
Phentermine	negative	< 25 ng/mL
MDA	negative	< 25 ng/mL
MDMA	negative	< 25 ng/mL

Diagnostic Considerations:

- What are your initial impressions of both cases?
- Is there any additional testing that might help explain what's going on?

Patient A: Additional testing

Quantitative mass spectrometry testing is performed:

- Codeine: >100,000 ng/mL
- Morphine: 25,992 ng/mL
- Hydrocodone: 605 ng/mL
- Norhydrocodone: 359 ng/mL
- Hydromorphone: 330 ng/mL

Diagnostic Considerations:

- What is your interpretation of these results?

Patient B: Additional testing

Quantitative mass spectrometry with chiral separation was performed:

- Urine (d)-amphetamine: 75% of total amphetamine
- Urine (d)-methamphetamine: 83% of total methamphetamine

Diagnostic Considerations:

- What are the implications of these results?
- Does this change your initial interpretation?