

In antemortem settings, a mid-stream urine sample is usually collected into a plastic container containing sodium fluoride as preservative. In some settings it may be necessary to take precautions against specimen adulteration. In postmortem settings, urine is collected by insertion using a hypodermic syringe directly into the bladder under visualisation. Puncture of the abdominal wall should be avoided to reduce the possibility of contamination. Urine is a valuable specimen for both antemortem and postmortem drug testing because it is a relatively uncomplicated matrix. However, the multiplicity of factors influencing urine drug concentrations (e.g. urine volume, clearance, metabolism, pH and time of last void) generally means that, in isolation, these results have limited quantitative value. Exceptions to this rule may include ethanol determination in a second void. Care must be exercised when considering the interpretation of urine GHB concentrations as GHB is present as an endogenous compound formed as a by-product of metabolism and may also be produced as a postmortem artefact as a consequence of the breakdown of succinic acid semialdehyde.