

POTASSIUM BROMIDE MONITORING

SAMPLE REQUIRED:

Serum (0.5 mL) or
Clotted blood (1.5 mL)

BLOOD TUBE REQUIRED:

Plain (red top) tube

Indications:

Monitoring of serum potassium bromide concentration in dogs being managed for seizures.

Protocol:

- Fast the patient for 12 hours (overnight).
- Collect blood sample within one hour of the next scheduled dose (trough concentration). Once steady-state concentration has been reached, the timing of the sample throughout the day is less important.
- Store sample at 4°C. If transport to the laboratory will be delayed (> 12 hours), the sample should be centrifuged and the serum separated.

Notes:

- Gel/serum separator tubes are not recommended as the gel may absorb some of the drug, artificially lowering the serum concentration.
- The half-life of bromide is approximately 21 days in dogs, although variability among animals may be marked. Bromide concentrations may be influenced by dietary chloride intake.
- Steady-state serum bromide concentrations are achieved after approximately 2.5-3 months of therapy.

Recommendations for when to assess potassium bromide concentration:

- 4 weeks after starting therapy or changing dose.
- 3-4 months after starting therapy or changing dose to assess the new 'steady-state' concentration.
- When seizures aren't well controlled.
- When signs of dose-related toxicity develop, such as ataxia or sedation.
- Every 6-12 months when seizures are well controlled.