

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, samples can be collected at any time point >2 hours after dosing.
- 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:

- 1 and 3 months after commencement of therapy
- 1 month after a change in dose
- Every 12 months for long-term therapy
- When signs of dose-related toxicity develop, such as ataxia or sedation.
- If > 3 seizures occur between these times