

Therapeutic Drug Concentration Ranges

Digoxin

Therapeutic Range

Serum or plasma concentrations, established for steady state **trough** samples:

| | |
|--------|------------------|
| Canine | 1.2 – 3.8 nmol/L |
| Feline | 1.2 – 2.6 nmol/L |
| Equine | 0.6 – 2.6 nmol/L |

Gentamicin

Measurement of both peak and trough serum or plasma concentrations of gentamicin provides the best assessment of drug efficacy and nephrotoxic potential.

Therapeutic Range

Serum or plasma concentrations:

| | <u>Peak</u> | <u>Trough</u> |
|--------|----------------|------------------|
| Canine | 11 – 18 µmol/L | 1.1 – 3.3 µmol/L |

Toxic Concentrations

Serum or plasma concentrations:

| | <u>Peak</u> | <u>Trough</u> |
|--------|------------------|---------------|
| Canine | > 27 – 33 µmol/L | > 4.4 µmol/L |
| Equine | > 27 µmol/L | > 4.4 µmol/L |

Phenobarbital

Therapeutic Range

Serum or plasma concentrations:

| | |
|--------|-----------------|
| Canine | 54 - 190 µmol/L |
| Feline | 65 - 130 µmol/L |

Potassium Bromide

Therapeutic Range

Serum or plasma concentrations:

| | |
|--------------------|--------------------|
| Monotherapy | 12.5 – 37.5 mmol/L |
| With Phenobarbital | 12.5 – 31.3 mmol/L |

Cyclosporine A

Therapeutic Range

Therapeutic concentrations for cyclosporine A in dogs and cats have not been firmly established. The range depends on the type of sample being submitted, assay being used for analysis and the therapeutic use. Based on analysis of EDTA whole blood using our methodology and current knowledge, the following therapeutic ranges are recommended for trough samples collected just prior to the next dose:

Immunosuppression (dogs and cats): 200-400 ng/ml
Perianal fistulas (dogs): 100-300 ng/ml

Toxic Concentrations

> 1000 ng/ml may cause sufficient immunosuppression to predispose to secondary infections.

Procainamide

Therapeutic Range

Serum or plasma concentrations:
Canine 85 – 125 µmol/L

Toxic Concentrations

Serum or plasma concentrations:
Canine > 125 µmol/L

Quinidine

Therapeutic Range

Serum or plasma concentrations:
Canine 9 – 24 µmol/L
Equine 1.5 – 9.3 µmol/L

Toxic Concentrations

Serum or plasma concentrations:
Canine > 30 µmol/L

Theophylline

Therapeutic Range

Serum or plasma concentrations:
Canine 55 – 165 µmol/L
Equine 55 – 85 µmol/L

Toxic Concentrations

Serum or plasma concentrations:
Canine > 165 µmol/L
Equine > 110 µmol/L