

Summary: common products for IV induction of anaesthesia in dogs, cats and pet rabbits

Basic characteristics

DRUG	Formulation	Onset of action	Duration	Respiratory effect	Cardiovascular effects	Muscle relaxation	Half-life	Recovery	Analgesia
Alfaxalone	<ul style="list-style-type: none"> Aqueous solution Neutral pH 	<ul style="list-style-type: none"> Minimal discomfort on administration Rapid onset 	Short: <ul style="list-style-type: none"> Dog: 8-12 minutes Cat: 20-25 minutes Rabbit: 10 minutes 	<ul style="list-style-type: none"> Minimal apnoea (if administered slowly) Requires 2.5x more alfaxalone to cause the same degree of apnoea compared to propofol 	<ul style="list-style-type: none"> Excellent cardiovascular stability Baroreceptor reflex preserved Heart rate maintained or increased 	Good	<ul style="list-style-type: none"> Dog: 25 minutes Cat: 45 minutes Rabbit: 44-46 minutes 	<ul style="list-style-type: none"> Rapid metabolism Rapid recovery Minimal hangover effect 	No
Propofol	<ul style="list-style-type: none"> Lipid emulsion Neutral pH 	<ul style="list-style-type: none"> Discomfort may be observed in some animals Rapid onset 	Short: <ul style="list-style-type: none"> Dog & cat: 5 minutes 	<ul style="list-style-type: none"> Respiratory depression and apnoea may be observed Hypoxia & hypercapnia possible 	<ul style="list-style-type: none"> Depression of the baroreceptor reflex Bradycardia Hypotension may occur 	Some	<ul style="list-style-type: none"> 90-300 minutes 	<ul style="list-style-type: none"> Metabolism variable Rapid recovery Animals may experience a hangover effect 	No
Ketamine	<ul style="list-style-type: none"> Aqueous solution Acidic pH (3.5-5.5) 	<ul style="list-style-type: none"> Pain via the intramuscular route Slower onset than alfaxalone or propofol IV (60-90 seconds) 	Medium: <ul style="list-style-type: none"> 20-45 minutes 	<ul style="list-style-type: none"> Respiratory depression in some animals 	<ul style="list-style-type: none"> Cardiovascular stimulation via increased sympathetic tone Increased blood pressure Care in compromised patients Cardiovascular depression and hypotension at higher doses 	Poor Muscle fasciculation may occur	<ul style="list-style-type: none"> Approx. 1-2 hours 	<ul style="list-style-type: none"> Early antagonism of α_2-agonists (when used in combination) may result in excitable recoveries Abnormal behaviour may persist for approx. 2 hours during recovery 	Yes