

Anesthetic recommendations for different animal species

Species	Procedure	Status Desired	Drugs Recommended (mg/Kg)
Horses	Standing Procedures	General Sedation General Analgesia w/out Ataxia	Xylazine + Methadone (0.6+0.1 mg/Kg) Xylazine + Morphine (1+0.1 mg/Kg) Xylazine + Buprenorphine (0.6 + 0.004 mg/Kg) Detomidine + Butorphanol (0.01 + 0.03 mg/Kg)
	Local Analgesia / Nerve Blocks	General Sedation Local Analgesia w/out Ataxia	1% Mepivacaine 0.5% Bupivacaine
	Castration; Standing	General Sedation Local Analgesia w/out Ataxia	2% Lignocaine (20 – 35 ml)
	Caudal Epidural; Standing	General Sedation Local Analgesia w/out Ataxia	2% Lignocaine (10 ml) 2% Mepivacaine (5 ml)
	Epidural Block; Standing		2% Lignocaine (100 - 150 ml)
	General Anaesthesia	Long Recumbency & Unconsciousness. Short Recovery w/out Excitement	Local Analgesia: 1-2 ml over Jugular Premed - IV Ind - Inhalant Maint: Acepromazine – Thiopentone - Halothane Xylazine - Ketamine - Halothane
Cows	Standing Procedures	General Sedation Local Analgesia w/out Ataxia	Detomidine + Local Analgesics Acepromazine + Local Analgesics
	Cranial Nerve Blocks		2% Lignocaine Hydrochloride (5ml x 2-3)
	Digital Nerve Blocks		2% Lignocaine Hydrochloride (20 ml x 2-3)
	Paravertebral Nerve Blocks		2% Lignocaine Hydrochloride (15 – 20 ml per site)
	Castration; Standing		2% Lignocaine Hydrochloride (10 – 25 ml per teste)
	Caudal Epidural; Standing		2% Lignocaine Hydrochloride (5-15 ml)
	Epidural Block; Standing		2% Lignocaine Hydrochloride (100 – 150 ml) + Adrenaline 1:200 000
	General Anaesthesia		Long Recumbency & Unconsciousness. Short Recovery w/out Excitement
Ovine & Caprine	Standing Procedures	General Sedation Local Analgesia w/out Ataxia	Xylazine + Local Analgesics Acepromazine + Local Analgesics
	Cranial Nerve Blocks (Adult) Cornual Nerve Blocks (Young)	General Sedation + Local Analgesia Light General Anaesthesia	2% Lignocaine Hydrochloride (2 – 3 ml per site) Halothane + Oxygen Inhalation
	Paravertebral Nerve Blocks	General Sedation Local Analgesia w/out Ataxia	1% Lignocaine HCl + Adrenaline 1: 100 000
	Castration (Ov > 3mo & Cap > 2mo)		1% Lignocaine Hydrochloride (2 - 10 ml per teste)
	Caudal Epidural; Standing		1% Lignocaine Hydrochloride (0.75 – 1 ml)
	Epidural Block; Standing		1.5% Lignocaine HCl + Adrenaline 1 : 100 000
	Subarachnoid Block, Standing		1.5 – 2 ml Heavy Nupercaine
	General Anaesthesia	Long Recumbency & Unconsciousness. Short Recovery w/out Excitement	Diazepam – Ketamine – Halothane Medetomidine + Ketamine – Halothane Saffan - Saffan
Post Operative Analgesia	Pain Free Recovery	10 mg Morphine IM / 250 mg Pethidine IM	
Pigs	Castration < 5 mo	General Sedation	300 mg/ml Pentobarbitone (20 ml per testicle)
	Epidural Block	Local Analgesia w/out Ataxia	2% Lignocaine (10 - 20 ml) + Adrenaline
	General Anaesthesia	Long Recumbency & Unconsciousness. Short Recovery w/out Excitement	Azaperone - Saffan - Ether Xylazine - Ketamine - Ether Halothane - Halothane

	Post Operative Analgesia	Pain Free Recovery	Morphine (0.1 mg / kg up to 20 mg)
Dogs	IV Regional Analgesia	Local Analgesia	1% Lignocaine (2-3 ml IV)
	Cranial Nerve Blocks		1% Lignocaine (1 ml)
	Paravertebral Nerve Blocks	Analgesia in Abdominal Area	1% Lignocaine HCl + Adrenalin 1: 200 000
	Caudal Epidural	General Sedation Local Analgesia w/out Ataxia	2% Lignocaine HCl (1ml)
	Lumbar Epidural Block		2% Lignocaine HCl + Adrenalin 1: 200 000 (2 ml per IV space)
	Castration		General Anaesthesia
	General Anaesthesia	Long Recumbency & Unconsciousness. Short Recovery w/out Excitement	Diazepam – Methohexitone Na – Halothane Atropine + Acepromazine – Thiopentone – N Oxide Atropine + Xylazine – Ketamine - Enflurane
Post Operative Analgesia	Pain-Free Recovery	Bupivacaine / Morphine / Diazepam	
Cats	Diffusion / Nerve Blocks	Regional Analgesia	1% Lignocaine (12 ml MAX)
	Lumbar Epidural Block	Analgesia to L1	2% lignocaine (1 ml / 4.5 kg)
		Analgesia to T5	2% lignocaine (1 ml / 3.4 kg)
	Castration	General Anaesthesia	Acepromazine – Xylazine - Saffan Midazolam – Ketamine - Halothane Atropine – Saffan – Ether
	General Anaesthesia	Long Recumbency & Unconsciousness. Short Recovery w/out Excitement	
Post Operative Analgesia	Pain-Free Recovery	Buprenorphine (0.006 mg/kg) Morphine (0.1 mg/kg)	
Rabbits	General Anaesthesia	Long Recumbency & Unconsciousness. Short Recovery w/out Excitement	Xylazine (3 mg/kg IV) + Ketamine (3 mg/kg IV) Ketamine (20 mg/kg) + Medetomidine (300 µg / kg) + Diazepam (0.75-1.5 mg/kg) Atropine (1 – 2 mg/kg) - Ketamine – Methoxyflurane
	Post Operative Analgesia	Pain Free Recovery	Buprenorphine (0.02 – 0.05 mg/kg SC / 8 hrs.) Pethidine (10 mg/kg SC or IM / 2 hrs.)

Equine anesthesia guideline

Anaesthetics used in Equine for Standing Procedures					
Drug (Group Name)	Activity	Induction (min)	Duration (min)	Dose / Kg	Side Effects
Acepromazine (Phenothiazine Derivative)	Tranquilizer	2-5 I.V Maximum effect 45min	240-300	0.02 mg IV 0.05 mg IM	Vasodilation → ↓ BP. ↑HR. 1° AV Block Flaccid Penis Protrusion
Diazepam (Benzodiazepine)	Ataxia	2-5 i.v	120		Ataxia → Panic
Xylazine (a2 Adrenoreceptor Agonists)	Sedative	5	30 – 60	0.5 – 1 mg IV	Transient ↓ HR in 2 min. ↓ ABP for 1 hr SA & AV Heart Block. Sweating. Hyperglycemia. Diuresis. ↓ Git Motility. 10-15 min ↑ BR. 10% Sol = Mild Tissue Rn.
		20	30 – 60	2 - 3 mg IM	
Detomidine (a2 AA)	Sedative + Analgesic	10-15	60	10 - 20 µg IV or > 20 µg IM	As in Xylazine. No Tissue Rn..
Morphine (Opioid)	Analgesic	5-10	> 120	0.05 – 0.1 mg IV or < 0.25 mg IM	↓ BR. ↑HR. ↑ ABP. It may cause excitement.
Methadone (Opioid)	Analgesic	5-10	> 120	0.05 – 0.1 mg IV or IM	Ataxia + Incoordination
Pethidine (Opioid)	GIT Antispasmodic	5-10	> 120	1 – 2 mg/kg IM	Excitement. Anaphylaxis
Butorphanol (Opioid)	Pre & Post Op Analgesic	5-10	120	> 0.1 mg/kg IV or IM	Ataxia + Crate-Walking
Buprenorphine (Opioid)	Analgesic	15	480	0.006 mg/kg IV or IM	-

Premedication used in Equine for General Anaesthesia						
Drug (Group Name)	Activity	Indications	Application Time Pre Ind	Induction (min)	Dose / Kg	Side Effects
Atropine (Anticholinergic)	↓ Vagal Reflexes	Bradycardia	15-30 min	120	0.02-0.04 mg s.c	↓ Vision. Airway obstruction. ↓ Intestinal Motility
Glycopyrrolate (Anticholinergic)			0.01mg s.c im			
Acepromazine	↓ Recovery Excitement ↑ other drugs Duration	Use of Barbiturates	1 hr	5 – 20	0.03 – 0.05 mg IV or 0.02 – 0.04 mg IM	Reluctance to walk
10 % Xylazine	↓ other drugs Dose		15 – 20 min	120	2 mg IM	
			2 – 4 min	120	1 mg IV	
10 % Detomidine	↓ other drugs Dose		15 – 20 min	120	20 – 40 µg IM	
			2 – 4 min	120	10 – 20 µg IV	

Induction Agents used in Equine for General Anaesthesia					
Drug (Group Name)	Premedication	Dose / Kg	Induction (min)	Duration (min)	Side Effects
Thiopentone (Barbiturate)	Acepromazine	10 mg IV	0.5	15-20	Padding Movements for 30 sec
	Xylazine	5.5 mg IV			
Thiopentone + Guaiphenesin	Acepromazine	5 mg IV	1-2	30-45	
Methohexitone	Xylazine	2.8 mg IV	0.5	25	Transient Abnormal BR
Ketamine	Xylazine	2.2 mg IV	2	10 - 30	Very abrupt end
Etorphine in Immobilon		0.5 / 50 IV 0.5 / 50 IM		45	IM use → Excitement. ↓ BR. ↓HR. Priapism. 7 dy meat withdrawal.
Metomidate	Detomidine	2.25 mg IV			
Halothane (Foals)					

Maintenance Agents used in Equine for General Anaesthesia					
Drug	Indications	Induction Agent	Dose / Kg	Duration (min)	Side Effects

Thiopentone Sodium (Barbiturate)	Unforeseen Halothane Maintenance	Xylazine - Ketamine	0.5 – 1.0 mg IV over 20-30 secs	10	It can't be repeated
Methohexitone Na	Large Equine only	Xylazine - Ketamine	100 mg IV	20	↓ BR
Propofol		Xylazine	2 mg IV	15	
50 mg Guaiphenesin + 1 mg Ketamine + 0.5 mg Xylazine	Amounts/ml of a 5% Dextrose Sol. in H2O	Xylazine - Ketamine	2.75 ml/hr	90	
Halothane		Xylazine - Ketamine	W/ O2: 0.7–1.1% ETV W/ NO2: 0.9-1% ETV	30 minutes post-termination	↓ BR. ↓ APB. Acidosis. Hypoxia → Movement Recovery → Ataxia + Shivering
Enflurane		Xylazine - Ketamine	2.3% ETV		↓ APB. ↓ BR. Resp Arrest @ 4.5% ETV
Isoflurane	With IPPV	Xylazine - Ketamine	1.5% ETV		↓ BR. ↓ APB. ↓ Peripheral Resistance

Bovine anesthesia guideline

General Anaesthetics Used in Bovine for Standing Procedures					
Drug (Group Name)	Activity	Induction (min)	Duration (min)	Dose / Kg	Side Effects
Detomidine	Head lowered but standing	1-2 i.v	Dose-Dependent	10 µg IV	↓HR. ↑ Blood Sugar. ↑Salivation. ↑Urination.
Medetomidine	Deep Standing Sedation	1-2 i.v	Dose-Dependent	5 µg IV	EXPENSIVE
Acepromazine	Prepares for Local Anaesthetic	3-5 i.v	180	0.1 mg 1 hour previous	Higher doses will cause recumbency With General Anaest will cause delayed recovery ↑ Chance of rumen content aspiration
20% Pentobarbitone Na	Restraint of Nervous Cattle			1 – 2 g Pro Toto IV	

Premedication used in Bovine for General Anaesthesia						
Drug (Group Name)	Activity	Indications	Application Time Pre Ind	Induction (min)	Dose / Kg	Side Effects
Atropine	↓ Vagal Reflexes	Bradycardia	20		0.02-0.04mg	↓ Vision. Airway obstruction. ↓ Intestinal Motility

Induction Agents used in Bovine for General Anaesthesia					
Drug (Group Name)	Premedication	Dose / Kg	Induction (min)	Duration (min)	Side Effects
Chloral Hydrate (1:20 in H2O) 10% Chloral Hydrate		30 – 60 g Pr. To. PO 80 – 90 mg/kg IV	10 - 20		
Xylazine		0.005 – 0.2 mg IV	10 - 20	30 - 35	Recovery = 7 hr. ↑ Blood Sugar. ↑ Urination. Relapse. Tympany. ↓HR. ↑Salivation.
Medetomidine		10 µg IV			EXPENSIVE
Pentobarbitone Na		1 – 1.45 g / 50 Kg IV		30	Unsuitable for Calves < 1 mo
Thiopentone Na	None	11 mg/ kg IV	0.5	5-10	Apnoea for 20 sec. Unsuitable for Calves < 2 wk
	Xylazine	5-6 mg/kg IV			
Methohexitone Na		2.5 g Pro Toto IV	0.5-1	3-5	Recovery: Muscle Tremors
Ketamine	Xylazine	2 mg IV (Cow) 10 mg IV (Calf)	1-3	35	Excess Salivation
5% Guaiphenesin	Xylazine	80 – 100 mg			↓ ABP. ↑ BR + HR

Maintenance Agents used in Bovine for General Anaesthesia					
Drug	Indications	Induction Agent	Dose / Kg	Duration (min)	Side Effects

6.5% Pentobarbitone Na		Chloral Hydrate	1 – 1.25 g / 500 IV	15-20	May be repeated
2 mg/ml Ketamine		Xylazine	10 ml/ min	45 mins after the stop	
Halothane		Thiopentone Na	25 - 30 ml Pro Toto	60 min or 10 min after stop	Rumen torchers are needed for long periods.
Ether	With a closed system	Thiopentone Na			Excess Saliva and Mucous

A2 Adrenoreceptor Antagonists used in Bovine

Drug (Group Name)	Activity	Dose / Kg	Side Effects
Yohimbine (A2 Adrenoreceptor Antagonist)	Awakens Bovine under Xylazine	0,2 – 0,3 mg / kg	
Tolazoline	↑ Ruminal Motility after Xylazine	0.2 mg	
Idazoxan	Awakens Calves after Xylazine	0.01 – 0.1 mg	
Atipamezole	Awakens Bovine & ↑ Ruminal Motility	25 µg IV / 50 µg IM	Relapsed into stupor 2 hours later if given IV Excess may cause controlled hyperactivity

Ovine and Caprine anesthesia guideline

Premedication used in Ovine & Caprine for General Anaesthesia

Drug (Group Name)	Activity	Indications	Time Pre Ind	Induction (min)	Dose / Kg	Side Effects
Atropine	↓ Vagal Reflexes ↑ Saliva Viscosity	Bradycardia	15-30	15-20 s.c 2-3 i.v	0.6 – 1.2 mg	↓ Vision. Airway obstruction. ↓ Intestinal Motility. ↑ HR
Diazepam	↓ Ketamine Side Effects		5-10	1-2 i.v	1 mg IV / 2 mg IM	

Anaesthetics Used in Ovine & Caprine for Standing Procedures

Drug (Group Name)	Activity	Induction (min)	Duration (min)	Dose / Kg	Side Effects
Xylazine	Sedative	1-2 i.v	45 mins 12 hrs +	Ov: 0.1 - 0.15 mg IV Cap: 0.01 mg IV	Pulmonary Edema
Medetomidine	Deep Sedation	1-2 i.v	60	Ov: 10-20 µg IV	↑ Blood Sugar. ↑Salivation. ↑Urination.
Diazepam (Benzodiazepine)	Sedation: No Analgesia	1-2 i.v	30-45	15mg PO / 2mg IM	IM injection painful
Midazolam		5	30-60	4 mg	
Acepromazine (Phenothiazine Der)	Tranquilizer	3-5 i.v	60-120	OV: 0.05-0.1mg IM Cap: 0.1 IM	↑ Chance of rumen content aspiration

Induction Agents used in Particularly Wild Ovine & Caprine for General Anaesthesia

Drug (Group Name)	Premedication	Dose / Kg	Induction (min)	Duration (min)	Side Effects
Pentobarbitone Na		Ov: 28-33 mg IV Cap: 30 mg IV	1-2	15 20 - 60	Propylene Glycol: Haemolysis & Haematuria
2.5 % Thiopentone Na		10 mg IV	0.5-1	5	Apnoe: 30-50 sec. Defecation. Regurgitation
2.5% Methohexitone Na	Diazepam	2 mg	1-2	5 – 7	
Ketamine	Diazepam	OV: 20 mg IM	3-5	15-30	↓ BR. ↓ ABP Dose Dependant on IV inj
Saffan (steroid)		2.2 mg IV	2	10	Transient ↓ HR. ↓BR

Medetomidine + Ketamine		25 µg + 1 mg IM	5-10 l,v 15-30 i.m	Repeatable	EXPENSIVE
3-4 % Halothane + O2 / NO2			3 - 4		EXPENSIVE

Maintenance Agents used in Ovine & Caprine for General Anaesthesia					
Drug	Indications	Induction Agent	Dose / Kg	Duration (min)	Side Effects
Nitrous Oxide + O2	Semi-closed System	IV Agent	4 l / min + 2 l / min		Tympany may cause Apnoea
Ether + O2 / NO2	Low-flow System	IV Agent			Profuse Salivation in Conscious animal
1-1.5% Halothane + O2 / NO2	Low-flow System	IV Agent / 3-4% Halothane	1 – 1.5% in air		↓ ABP. Dyspnoea.
Saffan (steroid)	Infusion	Saffan	0.23 mg / kg / min	30 mins after Stop	Transient ↓ HR. ↓BR

A2 Adrenoreceptor Antagonists used in Ovine & Caprine			
Drug (Group Name)	Activity	Dose / Kg	Side Effects
Atipamezole	Awakens & ↑ Ru Motility	25 µg IV / 50 µg IM	Relapses into stupor 2 hours later if given IV

Pigs anesthesia guideline

Anaesthetics Used in Pigs for Short Procedures					
Drug (Group Name)	Activity	Induction (min)	Duration (min)	Dose / Kg	Side Effects
Azaperone (Butyrophenone)	Sedative	20	20-45	1 – 8 mg IM	Penal Protrusion > 1 mg/kg, ↓ ABP. ↑ BR. ↓ Temp
Droperidol (Butyrophenone)		10	15	0.1 – 0.4 mg IM	Disruption during induction causes panic.
Droperidol + Midazolam				0.5 + 0.3 mg IM	
Acepromazine	Sedative for IV Injection	10-15	45-60	0.03 – 0.1 mg IM	

Premedication used in Pigs for General Anaesthesia						
Drug (Group Name)	Activity	Indications	Time Pre Ind	Induction (min)	Dose / Kg	Side Effects
Atropine	↓ Vagal Reflexes	General Anaesthesia	15-20	30-60	0.3 – 2.4 mg	↓ Vision. Airway obstruction. ↓ Intestinal Motility. ↑ HR
Glycopyrrolate	↑ Saliva Viscosity		15-20	30-60	0.2 – 2.0 mg	
Dantrolene Na	↓ PMH risk	Halothane Use	Few min		2 – 10 mg	
Azaperone	Sedative	Wild Pigs	20		1 – 8 mg IM	Penal Protrusion > 1 mg/kg, ↓ ABP. ↑ BR. ↓ Temp

Induction Agents used in Pigs for General Anaesthesia					
Drug (Group Name)	Premedication	Dose / Kg	Induction (min)	Duration (min)	Side Effects
Saffan (Steroid)	None	6 mg IV	0.5-1	10 - 15	↓ PMH risk. ↓ BR
	Azaperone	2 mg IV			
Metomidate	Azaperone	3.3 mg IV	1-2 i.v	10 - 20	Painful Stimuli cause Panic.
2.5 % Thiopentone Na	Azaperone	5 – 10 mg IV	1-2	5 – 10	↓ BR. Apnoea.
2.5 % Methohexitone Na		5 – 6 mg IV	1-2	5 – 10	
Pentobarbitone Na		30 mg IV		10 - 15	
Ketamine	Xylazine	2 - 5 mg IM	2-3 i.v 10-20 I,m	10 - 15	EXPENSIVE. Abrupt Wakening.

Maintenance Agents used in Pigs for General Anaesthesia					
Drug	Indications	Induction Agent	Dose / Kg	Duration (min)	Side Effects
Halothane	Low-Flow System	Not Necessary	1 – 1.5% in air		Porcine Malignant Hyperthermia ↓ BR. ↓ HR. Motor responses.
Ether	Good Premed & Induction Low-Flow System	IV Agent	1 – 1.5% in air		

Canine anesthesia guideline

Analgesics Used in Dogs for Short Procedures					
Drug (Group Name)	Activity	Induction (min)	Duration (min)	Dose / Kg	Side Effects
Morphine (Opioid)	Analgesic	5-10	4 hrs	0.1 – 0.2 mg IM	Vomiting. Defecation.
Pethidine		5-10	2 – 4 hrs	1 – 2 mg IM	Hypotension if given IV
Methadone		5-10	4 hrs	0.1 mg IM / IV	Vomiting. Defecation.
Fentanyl		5-10	20 – 30	0.001 – 0.007 mg IV	Vomiting. Defecation.
Buprenorphine		5	6 – 8 hrs	0.006 mg IM / IV	Vomiting. Defecation.
2% Acepromazine	Sedative	20 60	4 – 24 hrs	0.03 - 0.05 mg IM 1- 3 mg PO	↓ ABP
Xylazine	Sedative / Hypnotic ↓ other drugs dose	10-15	30-60	1 – 3 mg IM	Vomiting. ↑ABP. ↓ BR.
Medetomidine		10	45-60	40 µg IM 30 – 80 µg PO	↓ HR. ↑ Blood Sugar. ↑Salivation. ↑Urination.
Combelen: Methadone + Proionylpromazine	Sedative + Opioid				
Acepromazine + Buprenorphine				0.07 mg + 9 µg	
Methadone + Xylazine				(0.5 mg+0.5 mg kg	

Premedication used in Dogs for General Anaesthesia

Drug (Group Name)	Activity	Indications	Time Pre Ind	Induction (min)	Dose / Kg	Side Effects
Diazepam	↓ Induction dose	↓ Excitability in Methohexitone Use	5	1-2 i.v	0.25 mg IV 0.5 – 1 mg IM	Painful on IV Injection
Midazolam	↓ other drugs dose		5	1-2 i.v	0.2 – 0.5 mg IV	
Atropine Sulphate	↓ Vagal Reflexes ↑ Saliva Viscosity	Volatile Anaesthetics	15-30	15-20 i.m	0.02 – 0.1 mg IM / IV	Overdose causes Convulsions.
Acepromazine	↓ other drugs dose		5-10	10-15	0.03 – 0.05 mg IM	
Medetomidine	↓ other drugs dose		3-5	1-2	5 – 10 µg IM	
Alfentanil			3-5	0.5-2	5 µg IV	

Induction Agents used in Dogs for General Anaesthesia

Drug (Group Name)	Premedication	Dose / Kg	Induction (min)	Duration (min)	Side Effects
2.5% Thiopentone Na	Acepromazine	7 - 8 mg IV	0.5-1	15-30	↓ BR. Apnoea.
	Medetomidine	7 - 8 mg IV	0.5-1	10-20	
	Alfentanil	3 – 5 mg IV	0.5-1	15-20	
Propofol	Acepromazine	4 mg	1-2	10-20	EXPENSIVE
	Medetomidine	1 – 1.5 mg	1-2	10-15	
	Alfentanil	3 – 4 mg	1-2	10-15	
2% Thiamylal Na	Acepromazine	7 - 8 mg IV	1-2	10-15	EXPENSIVE
1 – 2 % Methohexitone Na	Alfentanil	2 - 3 mg IV / IM	1-2	30	Apnoea with high doses.
Ketamine	Atropine + Xylazine	5.5 mg IV	1-3	30	Convulsions

Maintenance Agents used in Dogs for General Anaesthesia

Drug	Indications	Induction Agent	Dose / Kg	Duration (min)	Side Effects
66% Nitrous Oxide	Low-Flow System	Thiopentone Na / Alfentanil	50-70% in oxygen		Inadequate Alone.
Enflurane	With Analgesics		1 – 1.5% in air		Dose Dependent ↓ BR. ↓ APB
Halothane	With NO ₂ / O ₂	Thiopentone	1 – 1.5% in air		Dose Dependent ↓ BR. ↓ APB
Isoflurane	Low Flow Systems	IV drugs	1.5 – 2%		Expensive. ↓ BR. ↓ APB
Methoxyflurane	With NO ₂ / O ₂	IV drugs	1.5 – 2%		Prolonged Recovery Period

A2 Adrenoreceptor Antagonists used in Dogs

Drug (Group Name)	Activity	Induction (min)	Duration (min)	Dose / Kg	Side Effects
Yohimbine	Vs Xylazine			0.1 mg IV	
Atipamezole	Vs Medetomidine	5 min		0.5 mg IM	Over alertness. Avoid Skin Contact

Feline anesthesia guideline

Analgesics used in Cats for Short Procedures

Drug (Group Name)	Activity	Induction (min)	Duration (min)	Dose / Kg	Side Effects
Pethidine	Analgesic	5	90	10 – 20 mg Pro Toto IM	Excitement in Healthy Animals
Morphine	Analgesic	3-5	120	0.1 – 0.15 mg IM	
Butorphanol	Analgesic	5	360-480	0.05 – 0.1 mg IM	
Acepromazine	Sedative	15-30	180-360	0.03 – 0.05 mg IM	
Xylazine	Sedative-Hypnotic	2-5 i.v 10-15 i.m	30-60	1 – 3 mg IM	Vomiting & Retching. ↑ABP. ↓ BR.
Medetomidine	Sedative-Hypnotic	10 - 15	60	80 µg IM	↓ HR. ↓ BR. Hypothermia.

Premedication used in Cats for General Anaesthesia

Drug (Group Name)	Activity	Indications	Time Pre Ind	Induction (min)	Dose / Kg	Side Effects
Acepromazine	Sedative	Saffan Use	5-10	15-20	0.03 – 0.05 mg IM	
Promethazine	↓ Anaphylaxis	Saffan Use	30-60	10-20	2-4mg	
Xylazine	↓ Other Drug Doses	Saffan / Barbiturates	1-2	10	1-2 mg IM	
Atropine		Bradycardia	10-20	20	0.3 mg IM / SC	Interferes with Vision.
Diazepam	Muscle Relaxant		1-2	5-10	0.5 mg IM	Painful on injection
Midazolam	Muscle Relaxant	Ketamine Use	1-5	5-10	0.2 mg IM	

Induction Agents used in Cats for General Anaesthesia

Drug (Group Name)	Premedication	Dose / Kg	Induction (min)	Duration (min)	Side Effects
1.25% Thiopentone Na		10 mg/kg IV	0.25-0.5	20-30	
0.5 % Methohexitone Na	Acepromazine	5 mg/ kg	0.5	20-30	Excitement on Recovery.
Pentobarbitone Na		25 mg IV	0.5	120	↓ BR
12 mg/ml Saffan	Acepromazine	3 mg IV	0.5	Few mins	Twitching on recovery
Propofol	Acepromazine	6 – 7 mg IV	0.5-1	15-30	
Ketamine	Midazolam	10 – 20 mg IM	3 – 5	30 - 50	Pain on IM / SC Injection. Muscle Tone. Eyes open. OD → Apnoe.
Zolazepam - Tiletamine	Atropine	15 mg IV or IM	2 – 5	20 – 60	

Maintenance Agents used in Cats for General Anaesthesia

Drug	Indications	Induction Agent	Dose / Kg	Duration (min)	Side Effects
1.25% Thiopentone Na		Thiopentone Na	< 20 mg/kg IV		Prolonged Recovery. Hypothermia.
Saffan		Xylazine	18 mg/kg IM	10 – 20	
Propofol		Propofol	0.5 mg / kg / min	15-20	Retching, Sneezing on recovery.
Nitrous Oxide / O2 (3:2)	Volatile Agent Delivery	Saffan	50-70%		
Ether	Safe, Slow Induction	Atropine - Saffan			12 – 24 hrs nausea. Explosive.
Halothane	Nonbreathing System	Propofol	1-2%		Arrythmias treated with IPPV
Methoxyflurane	With NO2 / O2	Propofol	1-2%		
Enflurane		Propofol	1-2%		Myotonia during recovery
Isoflurane	Cardiac Disease	Propofol	2-3%		EXPENSIVE