

# INTRAMUSCULAR ALFAXALONE IN CATS

The following are suggested protocols based on the current literature

| Alfaxalone combination | Peak effect | Duration/ recovery | Clinical notes | References |
|---|---|---|---|---|
| **SEDATION**<br>Suitable for: IV access; diagnostic procedures; echocardiography; blood donation; difficult cats; prior to general anaesthesia | | | | |
| **Alfaxalone 1-3mg/kg**<br>+<br>***Butorphanol 0.2-0.4mg/kg** | **10-15 mins** | To sternal: **32-36 mins**<br><br>To standing: **44-53 mins** | • Minimal cardiovascular impact<br>• No hypotension<br>• No significant change to heart rate<br>• A suitable alternative to dexamedetomidine | Granfone et al., 2017<br>Reader et al., 2018<br>Ribas et al., 2014 |

## IM ALFAXALONE FOLLOWED BY INDUCTION OF GENERAL ANAESTHESIA

If general anaesthesia is required, and the cat is not at stage III anaesthesia following the initial IM alfaxalone and opioid combination, a further *intravenous* dose of alfaxalone may be administered slowly and to effect

- Prepare **2-3mg/kg alfaxalone**
- Administer **0.5mg/kg** of this dose **intravenously**
- Flush the cannula with saline to ensure the 0.5mg/kg dose has been fully administered
- Wait approximately 20 seconds
- Assess depth of anaesthesia
- Should the cat require additional alfaxalone the 0.5mg/kg dose process may be repeated until intubation is possible, or the full 2-3mg/kg dose has been administered

N.B. This dose of alfaxalone (2-3mg/kg) is less than described in the SPC for IV induction of anaesthesia in the cat. This is due to the dose-sparing effects of IM alfaxalone and concomitant sedative agents on the subsequent IV dose (Lagos-Carvajal et al., 2020)

## IM ALFAXALONE FOLLOWING "INEFFECTIVE" SEDATION

IM alfaxalone may be an option to increase sedation to permit IV access in cats that have already received premedication or sedative drugs but have not attained the desired level of sedation

Dependent on the degree of sedation already present it is suggested to administer:

- **Alfaxalone 1-2mg/kg IM**
  - Start at the **lower end of this dose range**
- **Assess quality of sedation after 10-15 minutes**
- Repeat alfaxalone 1mg/kg IM if necessary

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| **HEAVY SEDATION** | | | | |
| **Alfaxalone 1mg/kg**<br>+<br>**Dexmedetomidine 0.005mg/kg**<br>+<br>***Butorphanol 0.2mg/kg** | **15 mins** | Duration: **91 mins (+/- 15)** | • Monitor SpO2<br>• Provide oxygen<br>• A suitable alternative to dexmedetomidine + butorphanol + ketamine | Cremer & Ricco, 2018 |
| **GENERAL ANAESTHESIA for *minor* procedures** | | | | |
| **Alfaxalone 2.5mg/kg**<br>+<br>**Dexmedetomidine 0.014mg/kg**<br>+<br>***Butorphanol 0.3mg/kg** | **5 mins** (range 1-11) | Recovery following IM atipamezole: **9.5 mins** (range 2-35) | • For minor clinical procedures | Adami et al., 2015 |
| **Alfaxalone 3mg/kg**<br>+<br>**Dexmedetomidine 0.01mg/kg**<br>+<br>***Butorphanol 0.2mg/kg** | No data | Recovery following IM atipamezole: **15-30 mins** | • For minor clinical procedures <1 hour duration | Khenissi et al., 2017 |
| **GENERAL ANAESTHESIA for ovariohysterectomy**<br>Suitable for shelter medicine or high-throughput neutering clinics | | | | |
| **#Medetomidine 600mcg/m2**<br>+<br>**#Buprenorphine 180mcg/m2**<br>*or* **methadone 5mg/m2**<br><br>15 minutes later: **alfaxalone 3mg/kg** | Intubation possible **5 mins** after alfaxalone | Surgical time **22-24 mins** | • Stable cardiovascular parameters<br>• Smooth recovey<br>• 90% cats eating 30 minutes after atipamezole | Mahdmina et al., 2020 |

***For painful procedures replace butorphanol with buprenorphine or methadone**

#For conversion to mg/kg please refer to relevant texts e.g. BSAVA Small Animal Formulary (Allerton, 2020)

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