In-Hospital Pharmaceuticals:
Low Stress, Mild Pain

ASA Class I-II

Drug	Dosage recommendations
DEXMEDETOMIDINE (low dose)	• **Dog**: 1.0-3.0 microg/kg IV or 3.0-10.0 microg/kg IM • **Cat**: 1.0-5.0 microg/kg cat IV or 5.0-15.0 microg/kg IM • Low end range: large cats and dogs, older patients, when combined with opioid • High end range: smaller patients, younger patients, if used solo (without opioid)
And/or **ACEPROMAZINE**	• **Dog**: 0.01-0.03 mg/kg IM or IV • **Cat**: 0.03-0.05 mg/kg IM or IV • Not a true anxiolytic so may add a benzodiazepine to the protocol if omitting alpha-2 agonist • ADD if long duration (2-4 hrs) of sedation is desired • Not reversible • Provides no analgesia
+/- **OPIOID OF CHOICE** to provides analgesia, safety (sedative dose can potentially be reduced), & improves sedation quality and duration	• Match the opioid to the degree of pain • Mild to moderate pain: 0.2-0.4 mg/kg butorphanol IM or IV or 0.02-0.03 mg/kg buprenorphine IM or IV, or potent opioid at low to middle dose IM or IV. • Opioids might cause excitement in cats so concurrent administration of a sedative may be necessary.
PVPs recommended to decrease sedative dosages, which improves safety.	

ASA Class III-IV

Drug	Dosage recommendations
MIDAZOLAM	• 0.2-0.4mg/kg IM
And/or **ALFAXALONE**	• 0.5-2.0 mg/kg IM
+ **OPIOID OF CHOICE**	• Same comments as ASA I-II • Midazolam or alfaxalone alone will not likely provide adequate sedation
PVPs highly recommended to decrease sedative dosages, which improves safety.	

In-Hospital Pharmaceuticals:
Moderate Stress/Pain

ASA Class I–II

Drug	Dosage recommendations
DEXMEDETOMIDINE (higher dose)	• **Dog**: 3.0-10.0 microg/kg IM • **Cat**: 5.0-15.0 microg/kg cat IM • Low end range: large cats and dogs, older patients, when combined with an opioid • High end range: smaller patients, younger patients, if used solo (without opioid)
+/- **ACEPROMAZINE**	• **Dog**: 0.01-0.03 mg/kg IM or IV • **Cat**: 0.03-0.05 mg/kg IM or IV • Not a true anxiolytic so may add a benzodiazepine to the protocol if omitting alpha-2 agonist • ADD if long duration (2-4 hrs) of sedation is desired; not reversible • Provides no analgesia
MIDAZOLAM (true anxiolytic)	• **Dog or cat**: 0.1-0.2 mg/kg given IM or IV
+ **OPIOID OF CHOICE**	• Moderate-high pain: morphine, hydromorphone, methadone

Note: PVPs highly recommended! If procedure is painful, use other analgesics as appropriate for the procedure: For example, local anesthetic nerve blocks. Procedure will be easier to safely accomplish and likelihood of pain-induced FAS in recovery is reduced.

ASA Class III–IV

Drug	Dosage recommendations
MIDAZOLAM (for sedation)	• **Dog or cat**: 0.2mg/kg IM
And/or **ALFAXALONE** (for sedation)	• **Cats or small dogs**: 0.5-1.0 mg/kg IM
+ OPIOID OF CHOICE	PLUS Opioid (standard doses – low end of range) Moderate-high pain: morphine, hydromorphone, methadone

Note: **PVPs highly recommended**! This will allow a decreased dose of sedatives in the hospital, which means a decreased likelihood of dose-dependent adverse effects. If procedure is painful, use other analgesics as appropriate for the procedure.

In-Hospital Pharmaceuticals:
Severe FAS/Aggression

Any ASA class

Drug	Dosage recommendations
DEXMEDETOMIDINE (high dose)	• **Dog**: 8.0-28.0 microg/kg IV or 12-40 microg/kg IM • **Cat**: 20.0-40.0 microg/kg IM • Will calm patient in approximately 20 minutes, but may still need IV or IM anesthetic drugs
+ OPIOID OF CHOICE	• Choose opioid and opioid dose based on pain level.
If previous protocol is not effective OR if the patient poses a safety risk: Use an immobilizing dose of ketamine or tiletamine-zolazepam.	
KETAMINE	• **Dogs/Cats**: 1.0-2.0 mg/kg IM may provide dissociation without anesthesia
TILETAMINE-ZOLAZEPAM	• **Dogs/Cats**: 1.0-2.0 mg/kg IM will likely cause a light plane of anesthesia

Note: PVPs critical for safety of patient and veterinary personnel! If IM injection not possible: Place drugs in a syringe and administer OTM if possible. If not, place drugs in a "puddle" within a small amount of food, peanut butter, butter, ice cream etc. The goal is to have the patient lick the drug for OTM uptake. Oral administration (i.e., swallowing the drug) provides less predictable effects. Remember these combinations of drugs can induce general anesthesia so cardiorespiratory monitoring, attention to positioning, delivery of O_2, protection of the airway, warmth, and supportive care may be required.

In-Hospital Pharmaceuticals

Pharmaceutical Use and Owner Consent

Not all of the drugs in these charts are FDA-approved for use in dogs and cats. Drugs like the alpha-2 agonists and acepromazine are often used at **lower** than the FDA-approved dose as profound sedation is not always necessary. However, all of the dosages in this chart are commonly used in practice and are referenced in the veterinary literature.

The AVMA Policy on Owner Consent states that veterinarians or staff should provide sufficient information in a form and manner that enables owners or their authorized agents to make appropriate decisions when choosing the veterinary care provided. An assessment of risks and benefits of recommended treatments should be provided. In response owners or their authorized agents should indicate:

- Their questions have been answered to their satisfaction
- The information received by them has been understood
- They are consenting to the recommended treatments

The consent can be verbal or written and should be documented in the medical record by the veterinarian or staff member.
Taken from the AVMA Policy on Owner Consent in Veterinary Medicine. You should review the complete policy here:
https://www.avma.org/KB/Policies/Pages/Owner-Consent-in-Veterinary-Medicine.aspx