Sedation Protocols for Echocardiography

**INTRODUCTION**

**Sedating patients for echocardiography**

This page describes most of what you want to know about sedating patients for echocardiographic examinations.

Please note: these protocols are guidelines only. Clinicians are advised to use their clinical judgment in determining the best options for their patients.

**Clinical Use Information**

**Sedation Protocols**

- Should I sedate my patient for echocardiography?
- Where did these protocols come from?
- Feline Sedation protocols
- Canine Sedation protocols

**Should I sedate my patient for echocardiography?**

In most cases, sedation is not necessary for echocardiographic examination. Since the procedure is painless, quiet and peaceful, most patients, once positioned on the echo table will relax and lie still with minimal restraint. A technician gently restraining the forelimb (lower) and neck, and sandbags over the caudal limbs often suffice. However, in some cases, animals require sedation, especially juvenile or aggressive animals.

**Where did these protocols come from?**

Most of them came from cardiologists, who have used them over the years as necessary. We have provided the source of the protocol in each case. They are not guaranteed, and caution should be used in compromised patients. If you have a protocol you would like to share with us, please email VIN by clicking on the FEEDBACK bar at the top of this page.

If you have any concerns about sedating your patient, please consult with a specialist in the cardiology or anesthesia message boards.

**Feline Sedation protocols:**

(A) 0.1 mg/kg acepromazine and 0.1 mg/kg hydromorphone SQ. Effect lasts approx 20-30 min *(Kittleson MD)*

(B) In a rare case of echoing 8-12 week old kittens I may use a small dose, 0.05-0.1 mg of medetomidine *(Tidholm A)*

(C) 0.05 mg/kg acepromazine and 0.05 mg/kg butorphanol tartrate both given SQ, wait 15 min for effect. *(Amberger C)*

(D) 0.05mg/kg acepromazine and 0.01mg/kg buprenorphine (Temgesic) SQ, wait 15 min for effect *(Amberger C)*

(E) 0.2-0.4 mg/kg midazolam and 0.1 mg/kg hydromorphone IM in the same syringe. *(Huston S)*

(F) 2-4 mg/Kg IV Ketamine and 0.4 mg/Kg IV Diazepam *(Braz-Ruivo, L)*
Canine Sedation protocols:

(A) 0.3 mg/kg Butorphanol and 0.3 mg/kg Valium IV. Don’t mix them as you get a whitish precipitate. Place a butterfly needle, give valium first then flush with saline, then butorphanol. Effect lasts 20-30 mins. (Edwards J)

(B) 0.005 mg/kg acepromazine and 0.01mg/kg buprenorphine IV. Effect lasts approx 20-30min. Useful in puppies. (Rishniw M)

(C) I dilute acepromazine to 1 mg/ml and butorphanol to 2 mg/ml in the same bottle, which allows me to give tiny, but accurate doses. It's essentially a 1:10 dilution of the acepromazine and 1:5 of the Torbutrol manufacturer's concentration. I then administer it according to a chart that is somewhat body surface area related. I copied it from a pain management/anesthesia symposium. For example, a 10 pound animal gets 0.3 ml SQ (i.e. 0.3 mg ace, 0.6 mg butorphanol). A 60 pound animal gets 1.2 ml (1.2 mg ace, 2.4 mg butorphanol). Sometimes I start with less in compromised patients, but have found it very safe and effective. I also avoid the ace in Boxers. (Wood, G)

(D) 0.3 mg/Kg IV Butorphanol and 0.15 mg/Kg IV Midazolam (Braz-Ruivo, L)

(E) 0.05 mg/kg acepromazine and 0.05 mg/kg butorphanol tartrate both given SQ, wait 15 min for effect (avoid it in Boxers, really sensitive to acepromazine). Alternative to butorphanol tartrate is buprenorphine (0.01 mg/kg) (Amberger C)