

### **Sleeping Respiratory Rate (SRR): (NB - not a Resting RR [RRR])**

When presented with a dog with an enlarged heart on x-ray or with an audible heart murmur [be it soft moderate or loud], veterinarians and clients alike are equally frustrated in their desire to “do something” to these patients identified with possible early or mild disease in an attempt to affect outcome (either slow or stop disease progression). But, in rigorous clinical trials, there is NO current therapy shown to benefit these patients. Despite this published research, many people invoke the “it can’t hurt and might help” mantra and treat in the hope of some benefit.

At JSVC, we believe that in these situations, (as well as with controlled congestive heart failure [CHF]), home-monitoring is recommended to diagnose the onset of heart failure and allow immediate, early medical therapy as well as an adjunct to medical therapy to allow owners to monitor response to therapy.

The earliest detectable clinical sign of CHF appears to be mild faster breathing [tachypnoea] in dogs [and in certain forms of heart failure in the cat. It often precedes coughing or struggling to breathe [dyspnoea], especially when heart disease progresses slowly. Thus, owners of dogs with sub-clinical heart disease, or medically controlled CHF should be taught to monitor their pet’s SRR. This allows the timeliest intervention by the clinician when CHF occurs, and provides the clients with “something to do” – reducing the feeling of helplessness experienced by many clients. A diary is kept by the owners with instructions to notify the clinician when SRR is consistently elevated above baseline, or an upward trend in SRR is detected. At that point additional diagnostics (either radiographs, or diuretic trial) can be instituted to confirm the diagnosis.

**Normal dogs** have a SRR < 30 breaths/min (usually <20) in a normal/cool environment. Owners should be instructed to count SRR several times per day [NB – patient must be asleep not just lying down] for 3-4 days to familiarize themselves with the procedure, and to establish and record a baseline for their pet. Once this baseline is established, once- or twice-weekly monitoring is done.

If an increase in SRR is detected at any time, the owner should perform additional recording of SRR over the next 48 hours to confirm the initial observation. If the SRR is persistently elevated, or demonstrates an upward trend, and no simple explanation is identified, the clinician should be contacted.

This monitoring technique is also used to monitor dogs in CHF that are already stabilized. With successful resolution of CHF, SRR should return to <30 breaths/min.