



A

B1

B2

C

D

The length of each stage tends to shorten as the disease progresses

**At Risk
for Developing
Cardiomyopathy**



Staging guides clinical management. Not every dog progresses through all stages.

**Subclinical
Disease,
Lower risk
of CHF/SCD
No medication
indicated**

**Subclinical
DCM Phenotype*
or Arrhythmias**
Increased risk
of CHF/SCD**

**THRESHOLD TO
START MEDICATION**

**Clinical Signs
of Congestion
or Collapse**

**Escalating
Treatment
and
Recurrent
Clinical Signs**



- Screening echocardiogram and Holter ECG for predisposed breeds
- Genetic tests available for some breeds
- Dobermans: NT-proBNP >500 warrants further investigation
- Annual reevaluation
- Client education

- History, including diet
- Physical examination
- Echocardiogram to screen for ventricular dilation, reduced systolic function, or both
- ECG or Holter ECG to diagnose and assess severity of arrhythmias
- Blood pressure
- Other tests may be indicated in some dogs
- Recheck every 6 to 12 months or sooner if signs consistent with progressive cardiomyopathy develop

- History, including diet
- Physical examination
- Echocardiogram to screen for ventricular dilation, reduced systolic function, or both
- ECG or Holter ECG to diagnose and assess severity of arrhythmias
- Blood pressure
- Baseline thoracic radiographs and labwork
- Other tests may be indicated in some dogs
- Pimobendan
- Antiarrhythmics as indicated
- Monitor sleeping respiratory rate (weekly) to detect subtle increases
- Client education regarding clinical signs of progression
- Recheck every 4 to 8 months or sooner if signs consistent with disease progression
- Consultation with a cardiologist is recommended

- History, including diet
- Physical examination
- POCUS
- Radiographs
- Labwork
- Echocardiogram
- ECG or Holter ECG as indicated
- Blood pressure
- Furosemide
- Pimobendan
- ACE inhibitor
- Spironolactone
- Antiarrhythmics as indicated
- Monitor sleeping respiratory rate (daily)
- Centesis for large-volume effusions
- Discuss nutrition and exercise considerations
- Initial recheck in 7 to 14 days
- Recheck every 3 to 4 months or sooner if signs consistent with progressive heart disease develop
- Consultation with a cardiologist is recommended

- History with emphasis on quality of life
- Physical examination
- POCUS
- Radiographs
- Labwork
- Echocardiogram
- ECG or Holter ECG as indicated
- Blood pressure
- Furosemide ↑ (or switch to torsemide)
- Pimobendan ↑ q8h
- ACE inhibitor
- Spironolactone
- Antiarrhythmics as indicated
- Management goals should emphasize quality of life and include end-of-life discussions
- Recommendations are individualized and symptom specific
- Doses of recommended standard **CHF** medications can be modified (increased, decreased, or discontinued)
- Additional therapies may be helpful
- Consultation with a cardiologist is strongly recommended

- **Diagnostics**
- **Medications**
- **Management**

ACE, angiotensin-converting enzyme; CHF, congestive heart failure; DCM, dilated cardiomyopathy; ECG, electrocardiogram; NT-proBNP, N-terminal pro B-type natriuretic peptide; POCUS, point-of-care ultrasound; SCD, sudden cardiac death.

*With echocardiographic confirmation.

**Severe arrhythmias may increase the risk of sudden death.

Dukes-McEwan J, et al. Proposed guidelines for the diagnosis of canine idiopathic dilated cardiomyopathy. J Vet Cardiol. 2003;5(2):7-19.

Wess G, et al. European Society of Veterinary Cardiology screening guidelines for dilated cardiomyopathy in Doberman Pinschers. 2017;19(5):405-415.