

# Pericarditis: Diagnosis and Treatment

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Imazio M, et al. *New Engl J Med* 2013. [PMID:23992557](#) Imazio M, et al. *Arch Intern Med* 2005. [PMID:16186468](#) Imazio M, et al. *Circ* 2007. [PMID:17502574](#)

## Diagnosis – 2 of 4 criteria required

1. Classic chest pain history – Sharp, pleuritic, and positional (improved by sitting up and leaning forward), radiating to trapezius ridge
2. Pericardial friction rub
3. Pericardial effusion on echocardiogram or ED bedside ultrasound
4. Characteristic ECG changes

## 3-Part Treatment

### 1. NSAID or Aspirin (ASA)

- Taper dose over 3-4 weeks
- No definite correct medication or dosing regimen has been established.

I use ibuprofen as follows:

600 mg po tid x 10 days, then  
400 mg po tid x 10 days, then  
200 mg po tid x 10 days

For ASA, Imazio's study used 800 mg tid for 7-10 days, followed by taper over 3-4 weeks. Suggestion is 2-4 g of ASA per day, and will vary based on tablet size in each country. For Canada (325 mg tabs) a possible regimen is:

975 mg po tid x 10 days, then  
650 mg po tid x 10 days, then  
325 mg po tid x 10 days

### 2. Colchicine

- If >70 kg, 0.6 mg po BID x 3 months
- If <70 kg, 0.6 mg po daily x 3 months
- If diarrhea intractable, decrease dose to once daily for >70 kg or stop for <70 kg
- Note: Some countries have 0.5 mg tabs only (Canada is 0.6 mg)

### 3. Proton pump inhibitor (PPI) once daily x 3 months

Note: **Steroids should be avoided** in all cases except refractory cases and neoplastic/autoimmune causes. Steroids are an independent risk for increased recurrence of pericarditis. Expert consultation strongly recommended if prescribing.

## Cost of Colchicine per Pill

- Canada/ Europe: ~\$0.50-1
- USA: Up to \$5 per pill

## Contraindications to Colchicine

- Tuberculous, purulent or neoplastic pericarditis
- Severe liver disease or aminotransferase levels  $\geq 1.5x$  upper limits of normal
- Serum creatinine >2.5 mg/dL (>221  $\mu\text{mol/L}$ )
- Skeletal myopathy or CK > upper limits of normal
- Blood dyscrasia
- Inflammatory bowel disease
- Life expectancy  $\leq 18$  months
- Pregnancy or lactation
- Women of childbearing potential not using contraception
- Hypersensitivity to colchicine or other contraindication to its use

## Predictors of poor outcome – Recurrence, tamponade, and constriction

Predictor	Hazard Ratio	95% confidence interval
Female gender	1.67	1.03 to 2.70
Fever >38°C	3.56	1.82 to 6.95
Subacute course	3.97	1.66 to 9.50
Large effusion (>2 cm) or tamponade	2.15	1.09 to 4.23
ASA or NSAID failure	2.50	1.28 to 4.91