

## **PROGNOSIS UNIT**

### **Acute Pericarditis: “Doc, will this kill me?”**

#### **Objectives:**

To assess the validity and applicability of an article attempting to predict the prognosis associated with a given condition. These include:

- Acquire the skills necessary to appraise the methodology of a cohort study examining an issue of prognosis.
- Explore how information from a prognosis study can be framed for use in clinical reasoning and patient education.

#### **Assignment:**

1. Read the clinical scenario.
2. Read the attached guidelines for reading articles concerning prognosis.
3. Critically appraise the attached article using the accompanying worksheet.
4. Describe how you would address the patient’s questions about prognosis taking into account your review of the article.

#### **Clinical Scenario:**

Mrs. Landry is a 65y/o immunosuppressed woman (chronic prednisone 15mg qd) with a 6yr history of rheumatoid arthritis admitted with onset of severe substernal chest pain radiating to her left shoulder upon awakening. Her Emergency Room evaluation revealed stuttering chest discomforts over past 2wks. No recent flare of her rheumatoid disease nor antecedent illness, and her chest pain wasn’t positional. On exam, Afebrile, BP 100/60, HR 80. Her lungs had diffuse Velcro crackles in lower 2/3 fields bilat (consistent with her known pulmonary fibrosis); she had no cardiac murmur or rub, and no evidence for active synovitis.

She had partial response to SL nitro, and her EKG showed new 2mm ST elevations anteriorly. She was rushed into cardiac cath lab for emergent catheterization. It revealed no evidence for obstructive coronary artery disease. Later that day, she developed diffuse ST elevations on repeat EKG and an echocardiogram demonstrated a small pericardial effusion. She achieved better pain relief with institution of ibuprofen.

She was transferred out of the Cardiac ICU to your general medical ward service. You share that it is unclear if her predicament is from her rheumatoid disease or a prior viral illness, and that

fortunately so far there is no evidence of a bacterial infection around her heart. She voices understanding of her predicament of acute pericarditis and then describes how terrifying her chest pain was yesterday. She asks if it will recur, and more importantly to her, will this heart sack inflammation kill her.

You empathize with her fear and acknowledge that most often pericarditis will resolve, and you offer to seek out the best recent research information to share with her about how likely she may be to suffer any complications. She appreciates your thoroughness and willingness to investigate the answer to her question.

Later that day, you turn to electronic texts in hopes that specific prognostic information will be available. **UpToDate** states generally, “Patients with acute pericarditis have a good long-term prognosis”, and then specifically, “Constrictive pericarditis may occur in about 1% of patients”. Glancing quickly at references reveals no recent dates (some back to 1991). You also consult **DynaMed** and are immediately disheartened when you see: “Recurring pericarditis reported to occur in 8-80% of patients.”

You open **PubMed** and create a quick search in *Clinical Queries*, entering ‘acute pericarditis’ and choose the study category of ‘prognosis’ with a ‘narrow scope’ search. You are surprised to get 200 hits and start scrolling through those most recent. Initial citations are either not on target or are non-english. Fortunately, the 20<sup>th</sup> citation appears very promising; the abstract clarifies that over 400 patients with pericarditis syndromes were followed for a median of 3yrs. You download it to read this evening.

### **Enclosed Materials:**

1. Guyatt G, Rennie D, Meade M, and Cook D, Editors, The Evidence-Based Medicine Working Group. Users’ Guides to the Medical Literature. A manual for evidence-based clinical practice. 3<sup>rd</sup> Edition. McGraw Hill. 2015, pg 421-429..
2. Imazio M, Brucato A, et al. Good Prognosis for Pericarditis With and Without Myocardial Involvement: Results from a Multicenter, Prospective Cohort Study. *Circulation* 2013; 128: 42-49.
3. Worksheet for evaluating an article on prognosis.