

## **CLINICAL MANIFESTATIONS OF DISEASE**

### **Understanding and Using an Article**

#### **Objectives:**

After working through this package, you should be able to:

1. Ask an answerable foreground question about the frequency of clinical manifestations of disease.
2. Appraise an article about the frequency of clinical manifestations of disease for risk of bias, importance, and applicability.
3. Apply the appraised evidence to a clinical decision.

#### **Assignment:**

1. Read the clinical scenario, and frame an answerable foreground question about the frequency of clinical manifestations of disease as it applies to this clinical topic.
2. Read the enclosed article by C Templin *et al.*
3. Read the enclosed Users' Guides article: Richardson WS, Wilson MC, Williams JW, Jr, Moyer VA, Naylor CD, for the Evidence-Based Medicine Working Group. Users' guides to the medical literature. XXIV. How to use and article on the clinical manifestations of disease. JAMA 2000; 284: 869 – 875.
4. Complete your appraisal of the Templin *et al* article using the structured worksheet provided.

#### **Clinical Scenario:**

At a recent quality improvement rounds, a discussion of a patient's received care has led to the formation of a quality improvement team. The patient is a 76-year-old woman of northern European-American background who was brought to the hospital in the ambulance along with her husband. They had been sitting together when he suddenly collapsed; she found no breathing and no pulse, so she called 911 and initiated CPR. When the EMTs arrived the husband was revived and transported to the hospital. During the ambulance ride, the wife reported feeling anxious and short of breath and she was noted to be tachypenic, so she was given a bag to breathe into. Once her husband was stabilized in the emergency department, the wife reported she was still anxious and short of breath, so a pastoral care worker sat with her to provide reassurance. An hour later she was still anxious and short of breath, and had now developed chest discomfort, so she underwent emergency department evaluation. She was found to have Takotsubo cardiomyopathy with apical ballooning, reduced ejection fraction, and pulmonary

edema. After hospital treatment she was able to recover and return home, although her husband remained hospitalized with complications after CPR. During the quality improvement rounds, the case was presented and discussed as providing some signals for quality improvement, particularly related to the delay in diagnosis of Takotsubo cardiomyopathy and whether this was preventable.

You have been asked to join the quality improvement team that has been formed to address whether your clinical service should adopt a policy of searching for Takotsubo cardiomyopathy in every older adult patient with new dyspnea in the setting of a physical or emotional stressor. During the first meeting, a disagreement breaks out about whether anyone could be expected to diagnose this patient's illness, for as one person stated, "This is an atypical presentation finding of a rare disease." You ask team members to estimate, based on what they know now BEFORE looking it up, how frequently dyspnea occurs in patients with Takotsubo cardiomyopathy.

On the 10 cm line below, please estimate how often adult patients with proved Takotsubo can present with dyspnea on a scale of frequency from 0 to 100%.

0 100%

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The team leader asks you to work with the librarian to find the answer to this question for the next meeting, to inform the group's deliberations. The team's librarian asks you to frame the foreground question about the frequency of clinical manifestations of disease.

Your question:

Armed with your question, you and the librarian find a citation that appears to address your question, so you retrieve that for your review.

**Enclosed Materials:**

1. Templin C, Ghadri JR, Diekmann J, Napp LC, Bataiosu DR, Jaguszewski M, *et al.* Clinical features and outcomes of Takotsubo (stress) cardiomyopathy. *N Engl J Med* 2015; 373: 929 – 938.
2. Richardson WS, Wilson MC, Williams JW, Jr, Moyer VA, Naylor CD, for the Evidence-Based Medicine Working Group. Users' guides to the medical literature. XXIV. How to use and article on the clinical manifestations of disease. *JAMA* 2000; 284: 869 – 875.
3. Worksheet for the evaluation of an article on the clinical manifestations of disease.