Clinical Practice Guideline – Trauma Services

TITLE: Evaluation for Blunt Cardiac Injury

EFFECTIVE: January 30, 2013

PURPOSE: This is a clinical practice guideline for diagnosing blunt cardiac injury. This is a guideline only. This does not constitute a standard of care or hospital policy. Clinicians can deviate from this guideline when clinically appropriate but must document a reason for doing so.

I. Scope

Trauma service

II. Background

A. Blunt cardiac injury (BCI) is difficult to diagnose and a high index of suspicion is needed to identify those at risk.

B. The decision to screen for BCI is clinician dependent because there are no standard criteria defining risk. The only consistent risk factor is significant blunt trauma to the anterior chest. Signs of significant blunt trauma include, but are not limited to: sternal fracture, first rib fracture, flail chest.

III. Procedures

A. A screening 12 lead EKG and serum troponin level should be checked on all patients in whom BCI suspected. Creatine phosphokinase is not needed for the diagnosis of BCI as it has not been shown to be predictive of outcome.

1. BCI can be definitively ruled out in patients with both a normal EKG and normal troponin level
2. Patients with a persistent sinus tachycardia (more than 30 minutes) or new abnormality of any sort on EKG should be admitted for continuous telemetry as this is a risk factor for subsequent dysrhythmia
3. Patients with a troponin level greater than 1 mcg per liter should be admitted for continuous telemetry and serial troponin measurement as this is a risk factor for subsequent dysrhythmia

B. There is no role for screening echocardiography in the diagnosis of BCI

1. Transthoracic echocardiography is indicated for patients with persistent dysrhythmia, including sinus tachycardia that is not secondary to another process. In instances where a transthoracic echocardiogram cannot be obtained, consideration should be given to obtaining a transesophageal echocardiogram.

C. Cardiology consultation should be considered in patients with persistent dysrhythmia, including sinus tachycardia (more than 30 minutes that is not

due to another cause), or hemodynamic derangement that cannot be ascribed to another process, or those with an elevated troponin to discern BCI from myocardial infarction

Approved by MEC January 2013

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Date

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