Incorporating an Advanced Physical Examination Skills Series into Conference

Jeff Siegelman, MD
Emory University
jsiegelman@emory.edu

Setting the Stage

Abraham Verghese TED Talk: A Doctor's Touch (http://go.ted.com/CSqi)
Stanford 25: http://stanfordmedicine25.stanford.edu/

1. Kumar K, Thompson WR. Evaluation of cardiac auscultation skills in pediatric residents. Clin Pediatr (Phila). 2013;52(1):66-73. doi:10.1177/0009922812466584.
2. Oliver CM, Hunter SA, Ikeda T, Galletly DC. Junior doctor skill in the art of physical examination: a retrospective study of the medical admission note over four decades. BMJ Open. 2013;3(4). doi:10.1136/bmjopen-2012-002257.
3. Sarko J. Emergency medicine residents do not document detailed neurologic examinations. Acad Emerg Med. 2009;16(12):1371-1373. doi:10.1111/j.1553-2712.2009.00572.x.
4. Verghese A, Brady E, Kapur CC, Horwitz RI. The bedside evaluation: ritual and reason. Ann Intern Med. 2011;155(8):550-553. doi:10.7326/0003-4819-155-8-201110180-00013.

Overview

This series uses content experts to teach and practice the hands on exam in small groups during conference time. Example topics include neurology, orthopedics, and cardiology.

Structure

Divide learners into small groups (8-10 preferably)
45-60min rotations
Short didactic portion and demo followed by skill practice and immediate feedback by faculty
Faculty: We have been fortunate to engage faculty and fellows from other departments, both for their expertise, and to increase inter-departmental communication and collaboration. This could easily be carried out with faculty from within EM who have topical expertise as well.

Learning Objectives

Neurology Skills Day

1. Stroke
    a. Correctly perform and score the NIHSS
    b. Localize a stroke based on clinical presentation
    c. Describe in the EMR the NIHSS obtained on a patient
2. Myasthenia Gravis/Multiple Sclerosis
    a. Perform a focused neurological exam on a myasthenia patient
    b. Perform a focused neurological exam on a multiple sclerosis patient
    c. Evaluate and treat a myasthenia patient in the emergency department
    d. Evaluate and treat a multiple sclerosis patient in the emergency department
3. Headache/Seizure
    a. Perform a focused neurological exam on a headache patient
    b. Perform a focused neurological exam on a seizing patient
    c. Differentiate epileptic from non-epileptic seizure.
    d. Determine the type of headache a patient has based on presentation and neurological exam
4. Dizziness
    a. Perform a focused neurological exam on a dizzy patient
    b. Differentiate between central and peripheral vertigo based on history and physical exam
    c. Correctly perform an Epley maneuver and the HINTS exam.

MSK Skills Day

1. Reductions
    a. Describe and perform various maneuvers to reduce a dislocated shoulder.
    b. Describe and perform various maneuvers to reduce a dislocated hip.
    c. Describe and perform a maneuver to reduce a dislocated knee.

2. Shoulder
    a. Examine an injured shoulder.
    b. Describe the examination findings in various shoulder injuries.
    c. Localize an injury based on the physical exam findings.

3. Knee
    a. Examine an injured knee.
    b. Describe the examination findings in various knee injuries.
    c. Localize an injury based on the physical exam findings.

4. Hand
    a. Examine an injured hand.
    b. Describe the examination findings in various hand injuries.
    c. Localize an injury based on the physical exam findings.

Cardiovascular Skills Day

1. CHF
    a. Assess JVP
    b. Describe physical examination findings in patients with CHF
    c. Diagnose cardiogenic shock
2. Valvular disease
    a. Describe auscultory findings of common murmurs
    b. Identify common murmurs on examination
    c. Describe clinical presentation of acute valvular pathology.
3. Pericardial disease
    a. Describe the physiologic effects of cardiac tamponade.
    b. Describe physical examination findings of a patient with tamponade physiology.
    c. Perform and interpret an examination for pulsus paradoxicus.
4. ED Echo
    a. Discuss probe locations for an echocardiogram
    b. Obtain and interpret images for a bedside echocardiogram
    c. Evaluate cardiac function and presence of pericardial effusion using echocardiography.