**EVALUATION OF THE HAND AND WRIST IN THE EMERGENCY DEPARTMENT**

**INSTRUCTOR’S GUIDE**

**BACKGROUND:**

Musculoskeletal injuries are commonly seen in the Emergency Department and are an important subject matter relevant to all physicians.

**PURPOSE & GOALS:**

To provide a general overview of hand and wrist anatomy, radiography, physical examination, and common exam topics with cases to prompt discussion and discuss management of frequently encountered injuries.

**EDUCATIONAL OBJECTIVES:**

by the end of this didactic session, the learner will be able to:

* Identify anatomic structures of the hand and wrist
* Interpret radiographic structures of the hand and wrist
* Perform physical examinations of the hand and wrist
* Diagnose and manage commonly encountered pathological conditions involving the hand and wrist

**RESOURCE FILES:**

1. Evaluation of the hand and wrist in the Emergency Department didactic (filename: Evaluation of the hand and wrist in the Emergency Department.pptx)

* This didactic provides an overview of hand and wrist evaluation for Emergency Physicians
* Estimated time: 60 minutes

2. Summary Handout (filename: Evaluation of the hand and wrist in the Emergency Department Summary.docx)

* This document provides a summary of the teaching points for the module

**TOTAL MODULE DURATION:** 60 minutes

**REQUIRED RESOURCES:**

* Computer with capability of running PowerPoint

**DESCRIPTION OF MODULE:**

Intended Audience

* This module was developed for medical students, EM residents at any level of training, and attending physicians

Recommended implementation/timeline

* During the module
  + This didactic session can be delivered to any size group. Participants may be divided into small groups by level of training to further facilitate discussion.
* **Evaluation of the hand and wrist in the Emergency Department** Didactic presented by a senior resident or faculty member (60 minutes)
* Optional ultrasound practice: The learners may participate in a short session to practice ultrasound (self/partner/model) of the hand and wrist to identify the bony anatomy as well as reviewing forearm ultrasound-guided nerve blocks of the radial, ulnar, and median nerves (15 minutes)
* Optional durable medical equipment demonstration: The learners may participate in a brief demonstration of how to size and apply braces and splints involving the hand and wrist including volar splint, thumb spica splint, ulnar gutter splint, radial gutter splint, sugar tong splint, aluminum U-shaped finger splint, and buddy taping (15 minutes)

**CONCLUSIONS:**

Care of musculoskeletal disorders is part of the ABEM Model of Clinical Practice, which is designed for use as the core document for our specialty, and a foundation for developing residency curricula. This module was developed to train medical students and residents in the basic concepts of emergency care for hand and wrist disorders. After completion of this curricular module, learners will better understand the hand and wrist and its application of musculoskeletal medicine.

**REFERENCES:**

1. Cleland J, Koppenhaver S, Su J, Netter F. *Netter's Orthopaedic Clinical Examination*. 4th ed. Elsevier; 2021.
2. Tintinalli J, Ma O, Yealy D et al. *Tintinalli's Emergency Medicine*. 9th ed. New York: McGraw-Hill Education; 2019.