

# ICU Ultrasound Program

# Overview

## **Program Goals (Appendix)**

1. The fellows will gain experience and competency in the following areas
  - 1.1. FAST
  - 1.2. Cardiac/IVC
  - 1.3. Abdominal
  - 1.4. Lung
  - 1.5. DVT
2. The fellows will complete a minimum of 25 scans per category and will require 250 scans during their fellowship.
  - 2.1. All scans will be logged in a database
    - All scans will undergo quality review for educational purposes

# Fellow Responsibilities

- BWH Pulmonary/CCM Requirements
  - MICU F1 fellows will undergo a two-day US introduction training course in July
    - The MICU fellows are required to perform an Ultrasound scan shift once a month
    - The MICU fellows will continue to scan during their ICU rotations
    - Fellows during scan shifts will submit form to ED/MICU designee for tracking

# Longitudinal Program

US fellows are required to complete a minimum 25 scans per organ during their fellowship.  
Total of 250 scans for completion letter

## Requirements for Portfolio Image Collection

### Cardiac Study (10 studies with the following images per study)

#### Total: 50 images

1. Parasternal long axis view
2. Parasternal short axis view
3. Apical four-chamber view
4. Subcostal long axis view
5. Inferior vena cava longitudinal view

### Lung/Pleural Study

#### Total: 50 images

- 1) Pleural effusion (any size) (12.5)
- 2) Sliding lung (12.5)
- 3) Consolidation (25)

### FAST Study 25 images

- Article I. Left kidney longitudinal view with splenorenal space  
Article II. Right kidney longitudinal view with hepatorenal recess  
Article III. Abdominal aorta longitudinal view  
Article IV. Bladder transverse view

### Vascular Diagnostic DVT Study (3 studies with the following images per study - include right and left legs)

#### Total: 25 images

- Right common femoral vein with compression
  - Left common femoral vein with compression
  - Right common femoral vein at saphenous intake with compression
  - Left common femoral vein at saphenous intake with compression
  - Right superficial femoral vein with compression
  - Left superficial femoral vein with compression
  - Right popliteal vein with compression
1. Left popliteal vein with compression

# Introduction

- Orientation
  - 2 day July Introduction
- Didactics
  - On-line reading curriculum

# Training

- BWH ED Scan Shifts
  - Read only access to scan calendar
  - Select days open with no more than 3 persons per shift
  - Communicate shift request with Rick Vanrooyen
  - Complete scan paperwork for tracking
    - Submit to Rick Vanrooyen
  - Minimum 1 shift per month goal of 10/first year

# Procedure Logs

- Database
  - Maintain database utilizing EM Database
  - Rick will be contact person
  - May keep New Innov log as well

# Training

- Longitudinal Training Assessment
  - MICU scanning (2-4/day)
  - Scan review per BWH US division faculty
  - Attend QA US conference with ED Faculty
    - Thursday afternoon



# US Assessment Form



PLACE STICKER HERE

Name:  
MRN#  
Date:

Sonographer(s)

Supervising Attending



## CARDIAC



LV Function       Hyperdynamic       Normal  
                           Decreased  
 Effusion             Yes                             No  
 RV Strain           Yes                             No  
 Activity              Yes                             No

**Q/A**

TP TN FP FN TLS  
 TP TN FP FN TLS  
 TP TN FP FN TLS

Comments

## THORACIC



Pneumothorax     Yes (L)  Yes (R)     No  
 Effusion             Yes (L)  Yes (R)     No  
 B-Lines             Yes (L)  Yes (R)     No  
 Consolidation     Yes (L)  Yes (R)     No

TP TN FP FN TLS  
 TP TN FP FN TLS  
 TP TN FP FN TLS

Comments

## FAST



RUQ                  Yes                             No  
 LUQ                  Yes                             No  
 Pelvis               Yes                             No

TP TN FP FN TLS

Comments

## AORTA



AAA                  Yes                             No

TP TN FP FN TLS

Comments

## PELVIS-TA



IUP                  Yes                             No  
 FHR                  Yes: \_\_\_\_\_ bpm     No  
 Free Fluid          Yes                             No

TP TN FP FN TLS

Comments