**Supplemental Digital Content 1: “IMBUS Certification Areas & Items”**

| Exam Area          | Exam Item                        | Certification Cutpoint | Core Element |
|--------------------|----------------------------------|------------------------|--------------|
| **ABDOMINAL**      | Liver Size                       | 8                      | a            |
|                    | Hepatomegaly                     | 5                      |              |
|                    | Morrison’s                       | 8                      |              |
|                    | Liver Mass                       | 3                      |              |
|                    | Liver Evisceration               | 3                      |              |
|                    | Achill's                         | 5                      |              |
|                    | Spleen Size                      | 8                      |              |
|                    | Spleenomegaly                    | 5                      |              |
|                    | Spleenomegaly                    | 8                      |              |
|                    | Kidney – Normal                  | 12                     |              |
|                    | Kidney – Hydro                   | 8                      |              |
|                    | Kidney - CBD                     | 5                      |              |
|                    | Kidney - Mass                    | 3                      |              |
|                    | Kidney - Cyst                    | 8                      |              |
|                    | Bladder Volume                   | 8                      |              |
|                    | Prostate Normal                  | 6                      |              |
|                    | Prostate Enlarged                | 6                      |              |
|                    | Uterus/Ovaries Normal            | 6                      |              |
|                    | Uterus/Ovaries Abnormal          | 3                      |              |
|                    | GB - Normal                      | 20                     |              |
|                    | GB - Gallstones                  | 8                      |              |
|                    | GB – Cholecystitis               | 6                      |              |
|                    | GB - CBD diabosed                | 6                      |              |
|                    | GB - CBD normal                  | 15                     |              |
|                    | Hernia                           | 5                      |              |
|                    | SBO                               | 5                      |              |
|                    | Ileus                             | 5                      |              |
| **CARDIAC**        | 3-4 Views                        | 50                     | a            |
|                    | IVC Assessment                   | 15                     |              |
|                    | Normal Function                  | 15                     |              |
|                    | Hypodynamic LV                   | 8                      |              |
|                    | Severe Hypo LV                   | 10                     |              |
|                    | M&A/ModHypo LV                   | 18                     |              |
|                    | Segments/WMH                     | 10                     |              |
|                    | Pericardial Effusion             | 8                      |              |
|                    | Temporomandibular                | 5                      |              |
|                    | MI Enlargement                   | 10                     |              |
|                    | Left Pleuraleffusion-Heart       | 5                      |              |
|                    | Right Pleuraleffusion-Heart      | 3                      |              |
|                    | Pleural and PDE                  | 8                      |              |
|                    | LV Wall Thickening               | 8                      |              |
|                    | Mitral Regurg                    | 15                     |              |
|                    | Mitral Valve SAM                 | 5                      |              |
|                    | Mitral Stenosis/MAC              | 3                      |              |
|                    | Tricuspidal Regurg               | 15                     |              |
|                    | Aortic Regurg                    | 15                     |              |
|                    | Aortic Stenosis                  | 15                     |              |
|                    | Ao Root Dilatation               | 10                     |              |
|                    | Diastolic Normal                 | 15                     |              |
|                    | Diastolic Dysfunction            | 15                     |              |
| **HEAD & NECK**    | Sinus _NL                        | 10                     | a            |
|                    | Sinus _ABR                       | 3                      |              |
|                    | Thyroid – Normal                 | 15                     |              |
|                    | Thyroid – Abnormal               | 10                     |              |
|                    | Ocular – Normal                  | 10                     |              |
|                    | Ocular – Abnormal                | 5                      |              |
|                    | Optic Nerve Sheath               | 6                      |              |
| **MUSCULOSKELETAL**| Knee Effusion                    | 5                      | a            |
|                    | Rib Fracture                     | 4                      |              |
|                    | Fracture (non-rib)               | 3                      |              |
|                    | Trischienal Bursa                 | 4                      |              |
|                    | Baker’s Cyst                     | 4                      |              |
|                    | Gout/Pseudo                      | 4                      |              |
|                    | Ganglion Cyst                    | 3                      |              |
|                    | Bursitis                         | 5                      |              |
|                    | Synovitis                        | 5                      |              |
|                    | Tendons/ossis                    | 5                      |              |
|                    | Tear-Uln/Tendon                  | 5                      |              |
|                    | Tear-Muscle                      | 5                      |              |
| **PULMONARY**      | Zonas 1-4                        | 15                     | a            |
|                    | Zonas 5-6                        | 15                     | a            |
|                    | Lung Sliding                     | 10                     | a            |
|                    | Pleural Effusion                 | 10                     | a            |
|                    | Interstitial Pattern             | 15                     | a            |
|                    | Atelectasis                      | 8                      | a            |
|                    | Pneumomediastinal                | 15                     | a            |
|                    | Subpleural Consolidation         | 15                     | a            |
|                    | Pneumothorax                     | 5                      | a            |
| **SOFT TISSUE**    | Cellulitis                       | 5                      | a            |
|                    | Abscess                          | 5                      | a            |
|                    | Lymph N - Normal                 | 8                      | a            |
|                    | Lymph N - Abnormal               | 5                      | a            |
|                    | Lymph N - Malignant              | 8                      | a            |
|                    | Cyst                             | 8                      |              |
|                    | Lipoma                           | 8                      |              |
| **VASCULAR**       | IJV/CVP - Normal                 | 8                      |              |
|                    | IJV/CVP - Elevated               | 8                      |              |
|                    | DVT Screen - Normal              | 15                     |              |
|                    | DVT Screen - Abnormal            | 5                      |              |
|                    | AAA Screen - Normal              | 15                     |              |
|                    | AAA Screen - Abnormal            | 8                      |              |
|                    | Carotid - Normal                 | 15                     |              |
|                    | Carotid - Plaque                 | 8                      |              |
|                    | Carotid - FlowTime               | 10                     |              |

Listing of exam items by area that are tracked within the IMBUS program for certification. Minimum number of exams required to be eligible for certification assessment within each exam item is listed. Achievement of minimum quantities is requisite for but not the only aspect required for certification in the item. Core elements noted are required for residency graduation.