# SOFSONO ULTRASOUND SERIES

## An Ongoing Series

### **Ultrasound-Guided Triage**

Christopher Dare, SOIDC; Katarzyna (Kasia) Hampton, MD

During a Partner Nation Force (PNF) field training exercise, you are called to a scene of a motor vehicle accident. Two all-terrain vehicles, carrying a total of five US and PNF Servicemembers, crashed into each other. As you triage the victims, you realize that all five potentially need further medical care. The closest hospital is 90 minutes away, and your local ambulance service is capable of transporting only two patients at a time.

- Patient 1: 35-Year-old man, heart rate (HR) 95 beats/minutes (bpm), blood pressure (BP) 105/65mmHg, respiratory rate (RR) 16/min, Spo<sub>2</sub> 98% on room air, temperature (T) 36.6°C (97.8°F); reporting deep right flank pain; has a large right flank contusion and tenderness
- Patient 2: 40-Year-old man, HR 98 bpm, BP 100/55mmHg, RR 19/min, Spo<sub>2</sub> 98% on room air, T 36.5°C (97.7°F); reporting generalized abdominal pain; has multiple abdominal wall abrasions and diffuse abdominal tenderness
- Patient 3: 21-Year-old man, HR 101 bpm, BP 105/75mmHg, RR 12/min, Spo<sub>2</sub> 100% on room air, T 36.7°C (98°F); reporting pain in his abdomen and left forearm; has diffuse abdominal tenderness and left distal forearm swelling with intact neurovascular examination
- Patient 4: 32-Year-old man, HR 85 bpm, BP 100/60mmHg, RR 20/min, Spo<sub>2</sub> 99% on room air, T 36.0°C (96.8°F), Glasgow Coma Scale score 15; complains of a frontal headache centered around a 4-cm forehead laceration.
- Patient 5: 25-Year-old man, HR 104 bpm, BP 99/50mmHg, RR 25/min, Spo<sub>2</sub> 97% on room air, T 36.2°C (97°F); reporting right-sided pain in his ribs, it "hurts to breath." He has notable shallow respirations and a moderate-size chest wall contusion without crepitus.

To get a more precise idea about the extent of your patients' injuries and to establish the priority of transfer, you perform focused ultrasound studies on patients 1, 2, 3, and 5 (Figure 1).

**Figure 1** *Pertinent ultrasound images for patients* 1, 2, 3 *and* 5 *as indicated respectively.* 



- 1. What are their respective ultrasound findings?
- 2. How would your prioritize transfer before and after the ultrasound evaluations?

Join us at SOFsono.org for further case discussion.

CPO Dare is a Special Operations Independent Duty Corpsman (SOIDC) at 3D Marine Raider Battalion and is currently assigned as the Senior Enlisted Medical Advisor (SEMA) for Special Operations Command & Control Element–Sahel and Maghreb Regions.

Dr Hampton is an emergency physician and a volunteer subject matter expert ultrasound instructor for the military medical community. She is currently practicing at the Landstuhl Regional Medical Center, Germany (US Army Medical Department). E-mail: katarzyna.hampton@gmail.com.

### Disclosures

The authors have nothing to disclose

KEYWORDS: ultrasound; transfer; triage

# JOURNAL of SPECIAL OPERATIONS MEDICINE<sup>TM</sup>



THE JOURNAL FOR OPERATIONAL MEDICINE AND TACTICAL CASUALTY CARE



- > Case Report: Unilateral Renal Cystic Disease
- > Learning Curves of Emergency Tourniquet Use
- > Tourniquet Pressure Loss
- > SWCC Postural Stability With Gear
- > Trigger-Point Dry Needling
- > Physiological Effects of Kettlebell Swing Training
- > Rice-Based Rehydration Drink
- > Comparison of Red-Green Versus Blue Tactical Light
- > Editorial: Pretrauma Interventions: Preventing Battlefield Injuries
- > Ongoing Series: Human Performance Optimization, Infectious Diseases, Injury Prevention, Picture This, Preventive Medicine, Prolonged Field Care, SOFsono Ultrasound Series, Special Talk, The World of Special Operations Medicine, Book Reviews, From the NATO Surgeon, TCCC Updates, TacMed Updates, and more!

Dedicated to the Indomitable Spirit and Sacrifices of the SOF Medic