**Supplementary materials 1:** Victims’ clinical pattern, Dynamic Casualty Cards and FAST ABCDE findigs.

**VICTIM 1. HEMOPERITONEUM**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency | Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign.
 |
| B (breathing) | **Observation** = expands bilaterally, no rib retraction or asymmetry**Palpation** = no pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 20 breaths per minute**Saturation (Oximetry)** = SpO2 97% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral sliding and seashore signs;
* A pattern.
 |
| C (circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 95**Arterial Pressure** = 100/60**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Normally perfused | Thorax, abdominal ad limbs scan* Hyperkinetic atria and ventricles with slightly reduced dimension;
* Collapsibility index (CI) of inferior vena cava (IVC): 80%;
* No pericardial or pleural free fluid;
* Presence of free fluid in Morrison's pouch and perisplenic region;
* Regular aortic shape;
* No evident long bone fractures.
 |
| D (disability) | **A V P U** \*= Alert**GCS\*\*** (E M V) = 15**Pupils size** = isochoric-isocyclic**Photomotor reflex** = bilaterally present**Neurological examination** = moves all 4 limbs without loss of strength or sensitivity  | * Trans eyed-lid scan:
* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = pain on palpation of the left hip, bruises left hip, small left hematoma at transverse umbilical line **SAMPLE\*\*\*** = 45 yo, allergic to pollens and grasses |  |

**VICTIM 2. PNEUMOTHORAX**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency | Cervical scan findings:* Presence of right-lower-latero-cervical E lines;
* Regular larynx and trachea;
* Bilateral sliding sign.
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry, right subclavian excoriations**Palpation** = Clavicular fracture, pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Harsh breath sounds**Count (Respiratory Rate)** = 22 breaths per minute**Saturation (Oximetry)** = SpO2 98% Mask Reservoir (95% FiO2 0.21) | Thorax scan findings:* Presence of E lines;
* Thickened pleural line in right upper anterior hemithorax;
* No lung sliding sign;
* Presence of the stratosphere sign;
* A pattern.
 |
| C (circulation) | **Capillary Refill** = < 2 seconds**Radial Pulse** = Present**Heart Rate** = 90**Arterial Pressure** = 120/80**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Normally perfused | Thorax, abdominal and limb scan:* Normal atria and ventricles;
* CI of IVC: 20%;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* No evident long bone fractures.
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = isochoric-isocyclic**Photomotor reflex** = bilaterally present**Neurological examination** = moves all 4 limbs without loss of strength or sensitivity |  Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Clavicular fracture, right subclavian excoriations. **SAMPLE** = 65 yo, Hypertension in therapy with ACE-I, former smoking, viral influenza in resolution, felt on right shoulder and chest |  |

**VICTIM 3. HEMOTHORAX**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group)Cervical scan findings: |
| A (airways) | **Airway** patency | * No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign.
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = Right scapula excoriation, pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 19 breaths per minute**Saturation (Oximetry)** = SpO2 96% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Intrapleural hypoechoic areas with regular, floating margins, at the base of the right hemithorax.
* B1 pattern on the right lung base
 |
| C (circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 100**Arterial Pressure** = 105/70**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Normally perfused | Thorax, abdominal ad limb scan* Hyperkinetic atria and ventricles with slightly reduced dimension;
* CI of IVC: 70%.
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* No evident long bone fractures.
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Isochoric-isocyclic**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves all 4 limbs without loss of strength or sensitivity | * Trans eyed-lid scan:
* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Right scapula excoriation with pain to digital pressure (felt on his back, no neurological deficit)**SAMPLE** = 25 yo, irritable bowel syndrome |  |

**VICTIM 4. OPEN FRACTURE**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency |  Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign.
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = No pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 24 breaths per minute**Saturation (Oximetry)** = SpO2 99% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral lung sliding and seashore signs;
* A pattern.
 |
| C (circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 110**Arterial Pressure** = 140/80**Jugular Veins** = Normal**Bleeding** = Mild from open fracture**Monitor** = Sinus rhythm**Skin** = Normally perfused | Thorax, abdominal ad limb scan* Normal atria and ventricles;
* CI of IVC: normal;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* Multiple site left tibial-fibular fracture without major hematoma.
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Isochoric-isocyclic**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves 3 limbs without loss of strength or sensitivity, no movement left lower limb (pulsatility, motility, sensitiveness present distally) | Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Open fracture left tibia and fibula, pulsatility, motility, sensitiveness present distally, little bleeding at the fracture site due to damaged skin.**SAMPLE** = 18 yo, foot trapped and then twisted 180 degree. |  |

**VICTIM 5. PREGNANCY**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency | Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign.
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = No pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 24 breaths per minute**Saturation (Oximetry)** = SpO2 98% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral lung sliding and seashore signs;
* A pattern
 |
| C (circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 105**Arterial Pressure** = 100/60**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Normally perfused | Thorax, abdominal ad limb scan* Normal atria and ventricles;
* CI of IVC: normal;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* Single fetus podalic pregnancy with normal heart beat. Posterior placenta with no signs of abruptio.
* No evident long bone fractures
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Isochoric-isocyclic**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves all 4 limbs without loss of strength or sensitivity | Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Normal**SAMPLE** = 24 yo, second pregnancy, 37 gestational weeks, gestational proteinuria, presence of active fetal movements, no contractions, very scared, requires to go to hospital for fetal monitoring. No fall. |  |

**VICTIM 6. SCREAMING/SHOUTING**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency | Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = No pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 26 breaths per minute**Saturation (Oximetry)** = SpO2 100% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral lung sliding and seashore signs;
* A pattern
 |
| C (circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 120**Arterial Pressure** = 115/55**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Normally perfused | Thorax, abdominal ad limb scan* Normal atria and ventricles;
* CI of IVC: normal;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* No evident long bone fractures
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Isochoric-isocyclic**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves all 4 limbs without loss of strength or sensitivity | Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Arms with bruises from falling.**SAMPLE** = 30 yo, anxiety and panic attacks, now scared, hyperventilation with crying, he wants to go home and not to hospital. |  |

**VICTIM 7. VAGAL RESPONSE**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(nly intervention group) |
| A (airways) |  **Airway** patency | Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign
 |
| B(breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = No pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 14 breaths per minute**Saturation (Oximetry)** = SpO2 95% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral lung sliding and seashore signs;
* A pattern
 |
| C(circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 65**Arterial Pressure** = 90/60**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Pale, Cold, Sweat | Thorax, abdominal ad limb scan* Normal atria and ventricles;
* CI of IVC: normal;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* No evident long bone fractures.
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Isochoric-isocyclic**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves all 4 limbs without loss of strength or sensitivity | Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Normal.**SAMPLE** = 28 yo, pelvic pain, day 1 of the menstrual cycle (discomfort at the sight of the blood of others), ankle sprain. |  |

**VICTIM 8. SYMPATHETIC RESPONSE**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency | Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = No pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 20 breaths per minute**Saturation (Oximetry)** = SpO2 99% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral lung sliding and seashore signs;
* A pattern
 |
| C (circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 108**Arterial Pressure** = 160/100**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Normal perfused | Thorax, abdominal ad limb scan* Normal atria and ventricles;
* CI of IVC: normal;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* No evident long bone fractures.
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Isochoric-isocyclic, bilateral mydriasis**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves 3 limbs without loss of strength or sensitivity. Presence of a plaster for a previous (10 days before) right forearm fracture | Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Headache for 3 hours, already present before the event but rising after event. No signs of head trauma. Fallen on his knees (bruises), but no deficits.**SAMPLE** = 36 yo, allergic to eggs and nuts. Chronic headache. |  |

**VICTIM 9. CARDIOPATHY WITH BETA BLOCKERS**

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|  |  **Dynamic Casualty Card** (Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency | Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = No pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds**Count (Respiratory Rate)** = 20 breaths per minute**Saturation (Oximetry)** = SpO2 97% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral lung sliding and seashore signs;
* A pattern
 |
| C (circulation) | **Capillary Refill** = 3 seconds**Radial Pulse** = Present**Heart Rate** = 60**Arterial Pressure** = 95/60**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Atrial Fibrillation (medium heart rate)**Skin** = Pale | Thorax, abdominal ad limb scan* Left atrial enlargement with slightly dilated left ventricle.
* CI of IVC: normal;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* No evident long bone fractures.
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Isochoric-isocyclic**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves all 4 limbs without loss of strength or sensitivity | Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Thoracic pain.**SAMPLE** = 72 yo, atrial fibrillation in therapy with beta blockers, previous electrical cardioversion, he feels fatigue after the event. |  |

**VICTIM 10. PERIORBITAL HEMATOMA**

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|  | **Dynamic Casualty Card**(Intervention and control group) | **FAST-ABCDE**(Only intervention group) |
| A (airways) | **Airway** patency | Cervical scan findings:* No E lines;
* Regular larynx and trachea;
* Bilateral sliding sign
 |
| B (breathing) | **Observation** = Expands bilaterally, no rib retraction or asymmetry**Palpation** = No pain to digital pressure, not palpable subcutaneous emphysema**Auscultation** = Normal breath sounds with wheezing.**Count (Respiratory Rate)** = 18 breaths per minute**Saturation (Oximetry)** = SpO2 94% (FiO2 0.21) | Thorax scan findings:* No E lines;
* Regular pleural line;
* Bilateral lung sliding and seashore signs;
* A pattern
 |
| C(circulation) | **Capillary Refill** = 2 seconds**Radial Pulse** = Present**Heart Rate** = 90**Arterial Pressure** = 130/70**Jugular Veins** = Normal**Bleeding** = Not evident**Monitor** = Sinus rhythm**Skin** = Normally perfused | Thorax, abdominal ad limb scan* Biatrial and biventricular enlargement.
* CI of IVC: normal;
* No pericardiac or intra abdominal free fluid;
* Regular aortic shape;
* No evident long bone fractures.
 |
| D (disability) | **A V P U** = Alert**GCS** (E M V) = 15**Pupils size** = Right mydriasis, left pupil unassessable.**Photomotor reflex** = Bilaterally present**Neurological examination** = Moves all 4 limbs without loss of strength or sensitivity | Trans eyed-lid scan:* Normal optic nerve diameter;
* No papilledema;
* No emphysema.
 |
| E (exposure) | **HEAD TO TOE** = Left periorbital hematoma from a nudge from crowd in panic, nasal pyramid fractured, epistaxis. No fall.**SAMPLE** = 80 yo, COPD in therapy with beta agonists.  |  |

**\***Alert, Verbal, Pain, Unresponsive scale

\*\* Glasgow Coma Score

\*\*\*Symptoms, Allergies, Medication, past medical history, Last oral intake, Events leading to the illness or injury.