Additional files 1- Traumatic cardiac arrest treatment: example of procedure of the Northern French Alp Emergency Network

Standard operating procedures were recommended in prehospital setting, in presence of TCA for emergency medical team: after deciding to start or continue advanced life support, it proposes simultaneously.

-To treat hypovolemia:

* control external catastrophic hemorrhage by providing compression in an attempt to gain control and stem a bleed and to use tourniquets to control exsanguinating limb hemorrhage.
* realize external fixation with pelvic stabilization in patients suspected of high-energy pelvic fractures and to splint long bone fractures
* gain large bore intravenous access and initiate rapid crystalloid infusion

-To decompress a potential tension pneumothorax

* perform a systematic bilateral thoracostomy after tracheal intubation, by making a skin incision followed by blunt dissection with forceps or finger through the intercostal muscles and pleura in the fourth intercostal space, in the mid-axillary line. Audible release of air or appreciation that the lung is not adjacent to the thoracic wall allow the diagnosis.
* protect the skin incisions with chest seal with unique one-way valve

- To treat a penetrating trauma to the chest or epigastrium

* immediate transport for emergency thoracotomy of patients with loss of cardiac output and possibility of possible admission under 10 minutes
* inform the resuscitation team of the estimated time of arrival at the emergency room

(When a Return of Spontaneous Circulation has occurred, it proposed to transport rapidly in trauma center. Emergency physicians are trained in this procedure, such as performing a trauma thoracostomy on-scene).