## **Projet 8**

## **Traumabase**

Le groupe *Traumabase*® est un observatoire de traumatologie lourd français créé en 2012. Il a pour but de colliger les données des patients traumatisés graves dans une optique à la fois sanitaire et scientifique pour répondre à l'enjeu que les traumatismes graves représentent. Cet enjeu demande de disposer de données fiables pour décrire l'épidémiologie des traumatismes graves en France.

Le groupe *Traumabase*® rassemble des acteurs médicaux français conscients de l'importance de ces enjeux et du relatif manque de données structurées disponibles en France concernant la traumatologie. Le groupe *Traumabase*® place la traumatologie lourde au centre de ses préoccupations et travaux.

Actuellement le groupe *Traumabase*® est constitué d'un réseau de centres français de traumatologie lourde et recense les données de plus de 35000 admissions pour traumatisme grave de la prise en charge hospitalière jusqu'à la sortie de réanimation. Ce réseau a obtenu le soutien de plusieurs Agences Régionales de Santé et dispose de nombreuses coopérations en France et en Europe.

Here we provide the names and short descriptions of the variables that are contained in the Traumabase.

The moment at which the variable is \_rst available is given in parentheses ( $ph = pre-hos-pital\ phase$ ),  $h = hospital\ phase$ ).

- Trauma.center (categorical): name of the trauma center. (ph/h)
- SBP.ph, DBP.ph, HR.ph (continuous): systolic and diastolic arterial pressure and heart rate during pre-hospital phase (SBP.ph = min(SBP.min, SBP.MICU), etc.); MICU = mobile intensive care unit. (ph)
- Cardiac.arrest.ph (categorical): cardiac arrest during pre-hospital phase. (ph)
- HemoCue.init (continuous): prehospital capillary hemoglobin concentration (the lower, the more the patient is probably bleeding and in shock); hemoglobin is an oxygen carrier molecule in the blood. (ph)
- SpO2.min (continuous): peripheral oxygen saturation, measured by pulse oxymetry, to estimate oxygen content in the blood (95 © 100%: considered normal;
  90% critical and associated with considerable trauma, danger and mortality). (ph)
- Vasopressor.therapy (continuous): treatment with catecholamines in case of physical or emotional stress increasing heart rate, blood pressure, breathing rate, muscle strength and mental alertness. (ph)
- Cristalloid.volume (continuous): total amount of prehospital administered crystalloid uid resuscitation (volume expansion). (ph)
- Colloid.volume (continuous): total amount of prehospital administered colloiduid resuscitation (volume expansion). (ph)
- Shock.index.ph (continuous): ratio of heart rate and systolic arterial pressure during pre-hospital phase. (ph)

- AIS.external (discrete, range: [0; 6]): Abbreviated Injury Score for external injuries, here it is assumed to be a proxy of information available/visible during pre-hospital phase. (ph/h)
- Delta.shock.index (continuous): Difference of shock index between arrival at the hospital and arrival on the scene. (h)
- Delta.hemoCue (continuous): Difference of hemoglobin level between arrival at the hospital and arrival on the scene. (h)
- Anticoagulant.therapy (categorical): oral anticoagulant therapy before the accident.
  (ph)
- Antiplatelet.therapy (categorical): anti-platelet therapy before the accident. (ph)
- GCS(.init) (discrete, range: [3; 15]): Initial Glasgow Coma Scale (GCS) on arrival on scene of hanced care team and on arrival at the hospital (GCS = 3: deep coma; GCS = 15: conscious and alert). (ph & h)
- GCS.motor(.init) (discrete, range: [1; 6]): Initial Glasgow Coma Scale motor score (GCS:motor = 1: no response; GCS:motor = 6: obeys command/purposeful movement). (ph & h)
  - Pupil.anomaly (categorical): pupil dilation indicating brain herniation. (ph & h)
  - Osmotherapy (categorical): administration of osmotherapy to alleviate compression of the brain (either Mannitol or hypertonic saline solution). (ph & h)
  - Improv.anomaly.osmo (categorical): change of pupil anomaly after administration of osmotherapy. (ph)
  - Medcare.time.ph (continuous): total duration of prehospital care team engaged (arrival on scene to arrival at hospital). (h)
  - FiO2 (discrete, range: [0; 5]): inspired concentration of oxygen on ventilatory support (the higher the more critical; Ventilation = 0: no ventilatory support). (h)
  - Temperature.min (continuous): Minimal body temperature. (h)
  - TCD.PI.max (continuous): pulsatility index (PI) measured by echodoppler sonographic examen of blood velocity in cerebral arteries (PI > 1:2: indicates altered blood ow maybe due to traumatic brain injury). (h)
  - 7-day mortality (categorical): is the patient alive 7 days after its arrival at hospital.
  - 7-day Glasgow Coma Scale : measure of the patient Glasgow score (GCS) 7 days after its arrival at hospital.