



Talks by
William Knight
@waknight4

TEN THINGS YOU NEED TO KNOW ABOUT TRAUMATIC brain injury

Infographic by
Tommaso Scquizzato
@tscquizzato

Tommaso Scquizzato

• about 2 million TBIs every year in the US •



REVERSE ANTICOAGULATION

reverse it? do it quickly.

aspirin/plavix → platelets, desmopressin, rFVIIa
coumadin → Vit K, FFP, PCC, Cryoprecipitate, rFVIIa
TSOACs → PCC, Antidotes
Heparin → Protamine
NSAIDS → Platelets, DDAVP

SURGICAL MANAGEMENT

Too often, too small, too late.



Early decompressive craniotomy

Patient with poor
GCS on admission

→ 25% good outcome
on discharge

EARLY AGGRESSIVE CARE

Don't inappropriately prognosticate.



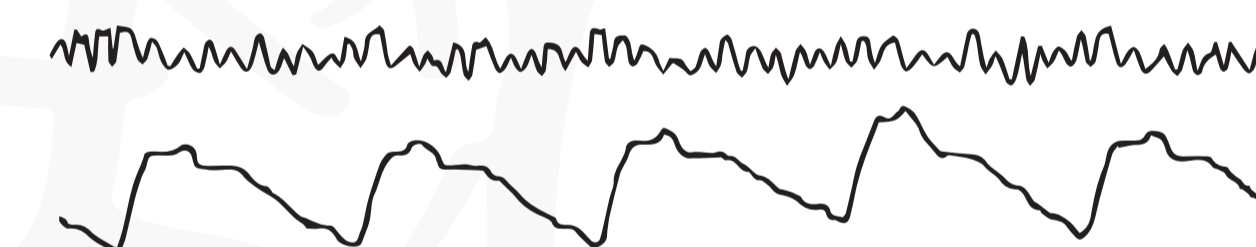
All deserve aggressive care for the first 24 hours
because of limitations in prognosis.

PATIENT MONITORING

Intelligent use of multi-parameter monitor.



Monitor what we need to use to provide best
outcomes. Monitoring doesn't save lives, it's the
reaction to it that does so learn how to read the
data (EEG, ICP, CPP).



MECHANICAL SUPPORTS

Treatment tailored to patient physiology



keep collars loose
have head up to support their needs
keep them comfortable

AVOID EXTREMES

Keep physiology range



fall back in the ABCs and target normality
preventing extremes in temperature, sodium,
PaCO2 and head of bed



SECONDARY INJURY

Minimising the secondary injury

Inflammatory Cytokines	Excitotoxic cascade
Receptor activation	Free radical and lipid peroxidation
Vasogenic edema	Mitochondrial uncoupling
Cerebral edema	Apoptosis
Cytotoxic edema	Pro Apoptotic cascade
Reduced GABA	Demyelination



ANALGOSEDATION

First things first: treat pain.

Minimize stimulations
Ketamine is safe in appropriate patients



EARLY INTERVENTIONS

Provide early interventions.

DVT Prophylaxis
Nutrition
Glucose monitoring
Mobility
Traquetomia



MECHANICAL VENTILATION

Neuroprotective ventilation

Ventilation can kill → Lung protect ventilation