

War wounded pain management : the French connection



20th october 2022



No ties of interest

Why treat pain on the battlefield ?



Malchow Crit Care Med 2008

Three levels of care : the French TCCC



Level 1 : every soldier (SC 1)
Stop the bleeding and extraction



Level 2 : health-qualified operators (SC 2)
Early life-saving procedures



Level 3 : physician and nurse (SC 3)
Damage control resuscitation

Pasquier Injury 2014



War wounded management mnemonic device

S	Stop the burning process	<i>Répliquer par les armes</i>
A	Assess the scene	<i>Analyser ce qu'il se passe</i>
F	Free of danger	<i>De la fumée pour Extraire le blessé et des soins sans danger</i>
E	Evaluate the casualties	<i>Evaluer le blessé par la méthode START</i>
M	Massive bleeding control	Garrots, compressifs, packing, hémostatiques, stab. pelvienne
A	Airway	Subluxation, guêdel, crico-thyroïdectomie, intubation
R	Respiration	Oxygène, exsufflation, ventilation, intubation
C	Choc	Abord vasculaire, remplissage, adrénaline titrée
H	Head / Hypothermia	Conscience, protection VAS, perfusion cérébrale, hypothermie
E	Evacuate	9 line CASEVAC/MEDEVAC Request
R	Réévaluer	
Y	Les yeux	
A	Analgesie	
N	Nettoyer et panser les plaies	

Pasquier Injury 2014

Where, how and who treats pain ?

Tactical Casualty Collection Point	SC Morphine administration*	SC1, SC2, SC3
	Immobilizations of fractures	SC1, SC2, SC3
Casualty Collection Point	SampSplint®, CT-6®	SC2, SC3
	IV Morphine	SC3
	Orodispersible Oxycodone	SC3
	Methoxyflurane	SC3
	Procedural sedation analgesia	SC3
	Fascia iliaca compartment block	Physician

Forward combat casualty care guidelines 2022 – Val de Grace Academy

** Pasquier Br J Pain 2016*

In real life ?



Travers Transfusion 2019

In real life ?

82 French war wounded in Sahel

IV Paracetamol : 30%
SC Morphine : 19.5%
IV Morphine : 19.7%
SAP : 7%
IV Ketamine : 4.6%
Block : 1%

Pain monitoring : 0

Unpublished datas, acknowledgements: Dr. N. Cazes

In real life ?



*Montagnon J Spec Oper Med 2021
Chiniard Ann Fr Med Urg 2017*

And at your friends ?



- 8,576 patients, **12.3% treated with an analgesic** in prehospital setting
- 74.7% Morphine / 13.6% Fentanyl / 9.6% Ketamine

Benov J Trauma 2017



- 8,913 patients, **15% treated with an analgesic** in prehospital setting
- Pain monitoring : 7%
- 65% Morphine / 24% Fentanyl

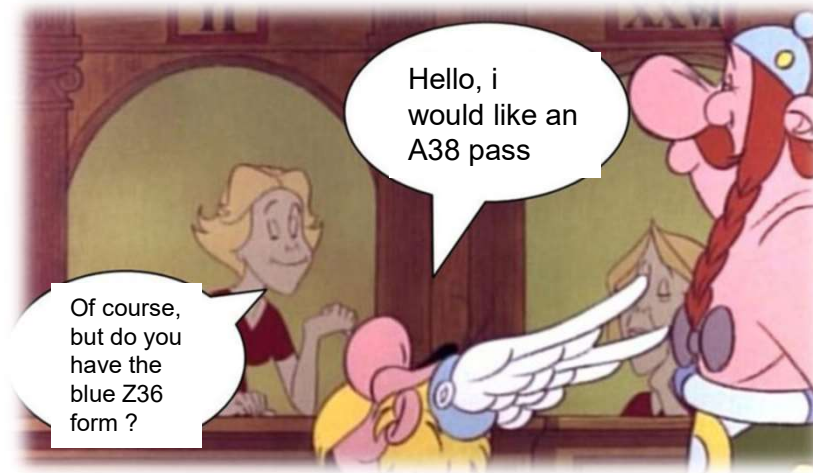
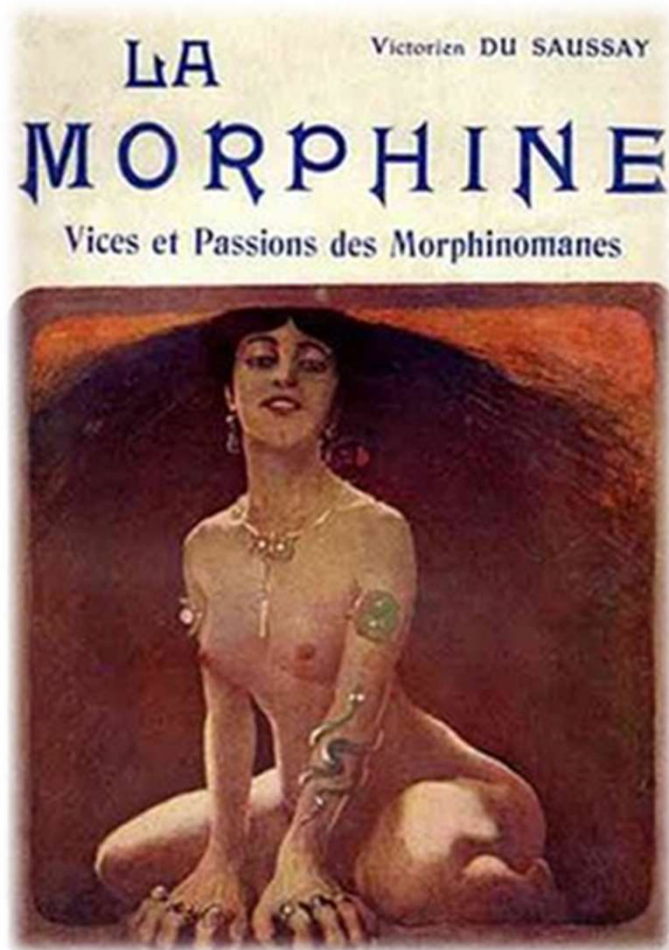
Gerhardt Prehosp Emerg Care 2016



- 70% of military caregivers do not find pain management optimal on the battlefield
- 92% wanted a strong, fast-acting analgesic

Blankenstein Brit J Pain 2015

A historic and cultural unconscious mind



A frustrating topic



Challenges of pain management on the battlefield...

- An area for improvement in our care
- An issue of high-intensity conflicts
- A field for innovations
- A field for clinical research
- **An added value in favor of the presence of a physician at the front**



Parker BMJ Mil Heath 2022



Montagnon J Spec Oper Med 2021



*Petz Mil Med 2015
Benov J Trauma 2017*

...but also an interest in homeland in counter terrorism



Corcostegui Intern Emerg Med 2019

Take home messages

- A topic where we need to improve
- No magic potion
- Rediscover the added value of the **caregiver**



Thank you for your attention

