



Étude des pratiques professionnelles sur l'administration d'acide tranexamique chez le blessé de guerre français

JAMA Surgery | **Original Investigation**

Evaluation of Military Use of Tranexamic Acid and Associated Thromboembolic Events

Luke R. Johnston, MD; Carlos J. Rodriguez, DO; Eric A. Elster, MD; Matthew J. Bradley, MD

JAMA Surg. 2018;153(2):169-175

CRASH 2

EFFECTS OF TRANEXAMIC ACID ON DEATH, VASCULAR OCCLUSIVE EVENTS, AND BLOOD TRANSFUSION IN TRAUMA PATIENTS WITH SIGNIFICANT HAEMORRHAGE (CRASH-2): A RANDOMISED, PLACEBO-CONTROLLED TRIAL

Lancet 2010; 376: 23–32

RANDOMIZED PLACEBO CONTROL TRIAL



40 countries



274 hospitals



20211 patients



PLACEBO

10067 patients



TXA

10060 patients



PROCEDURE

1 g of TXA infused over 10 min.



1 g of TXA over 8 hrs

1650

825

0

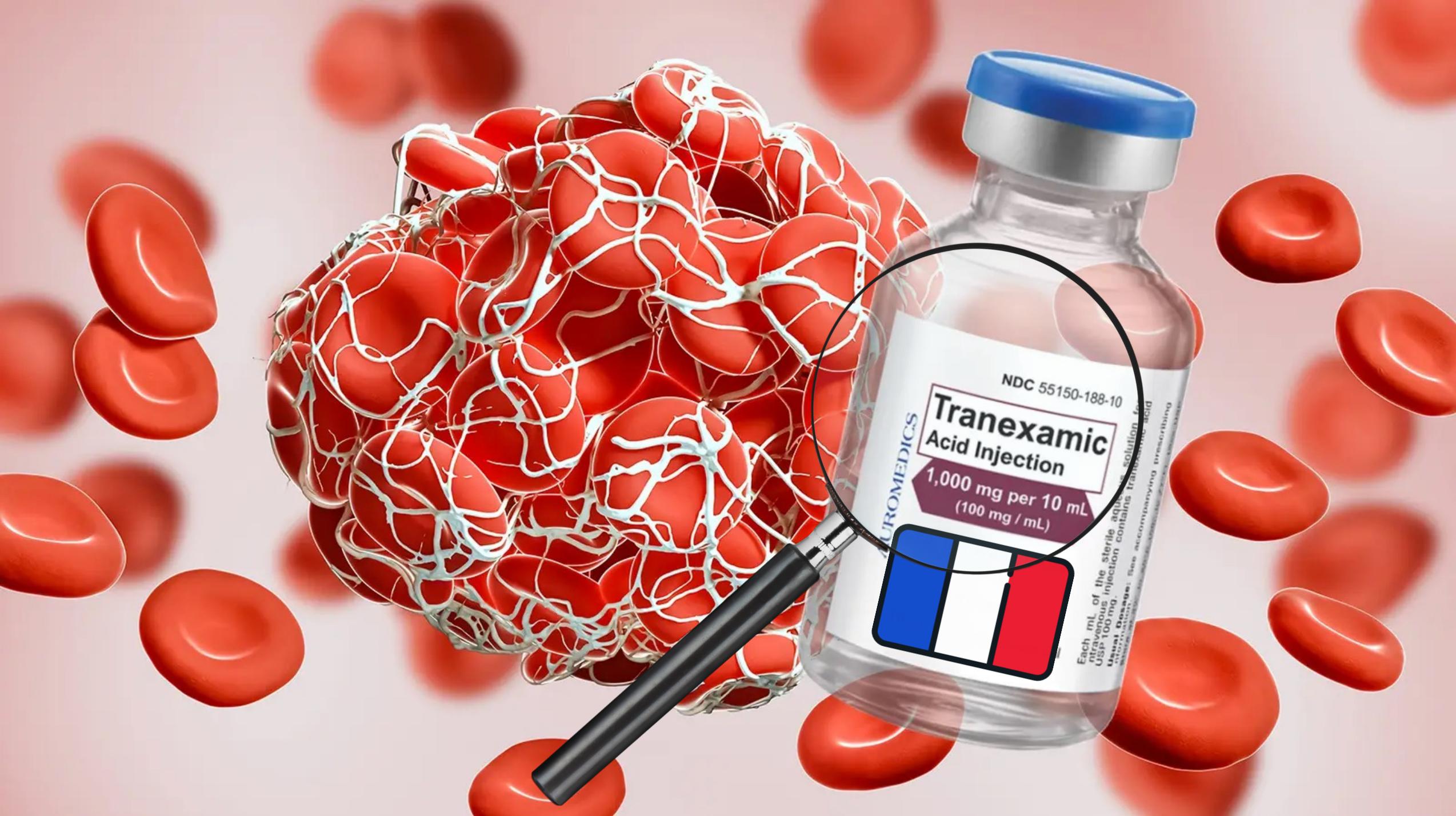
n = 10060

TXA

▼ 14.5% Risk of death due to bleeding

▼ 4.9% All cause mortality

Any cause of death Bleeding



NDC 55150-188-10

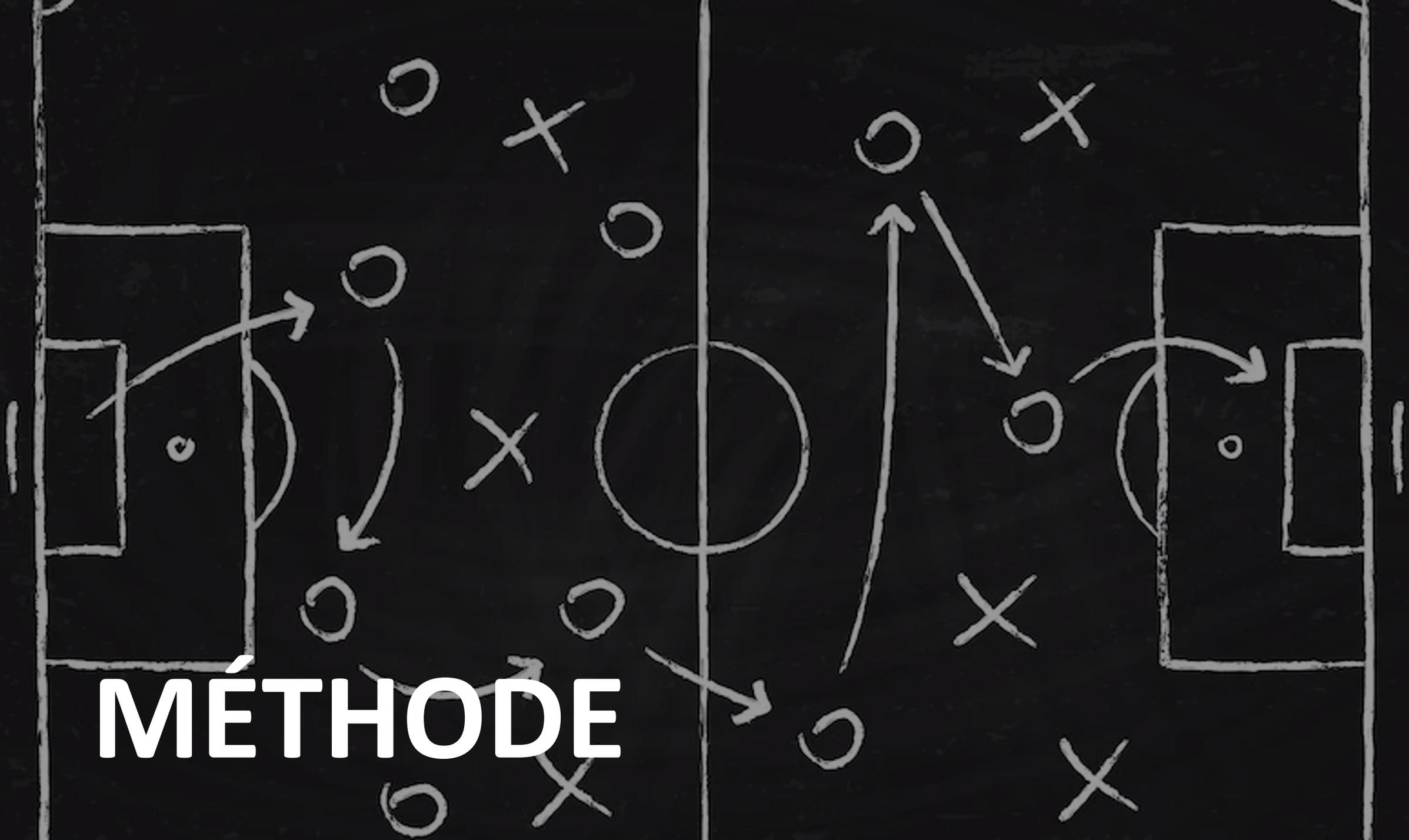
**Tranexamic
Acid Injection**

1,000 mg per 10 mL
(100 mg / mL)

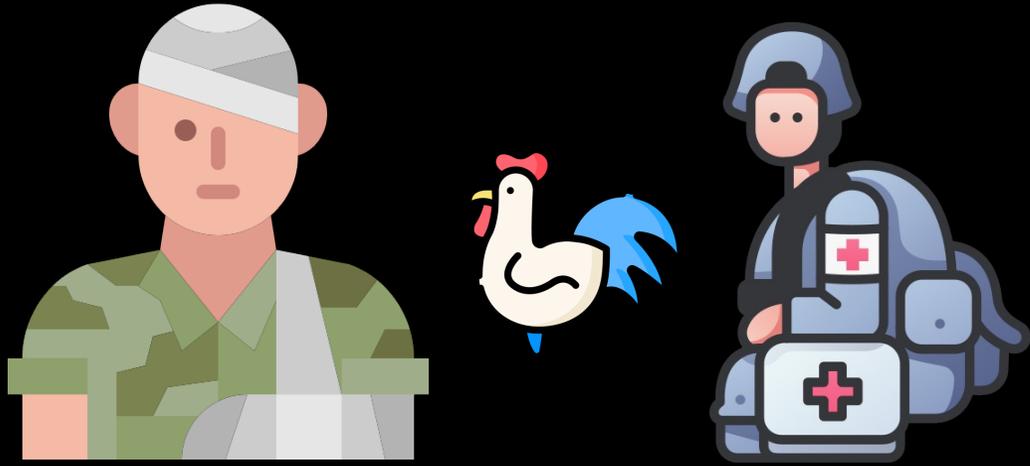
UROMEDICS



Each mL of the sterile aqueous solution for intravenous injection contains tranexamic acid USP 100 mg.
Usual Dosage: See accompanying prescribing information.



MÉTHODE



1/10/2016
31/09/2020

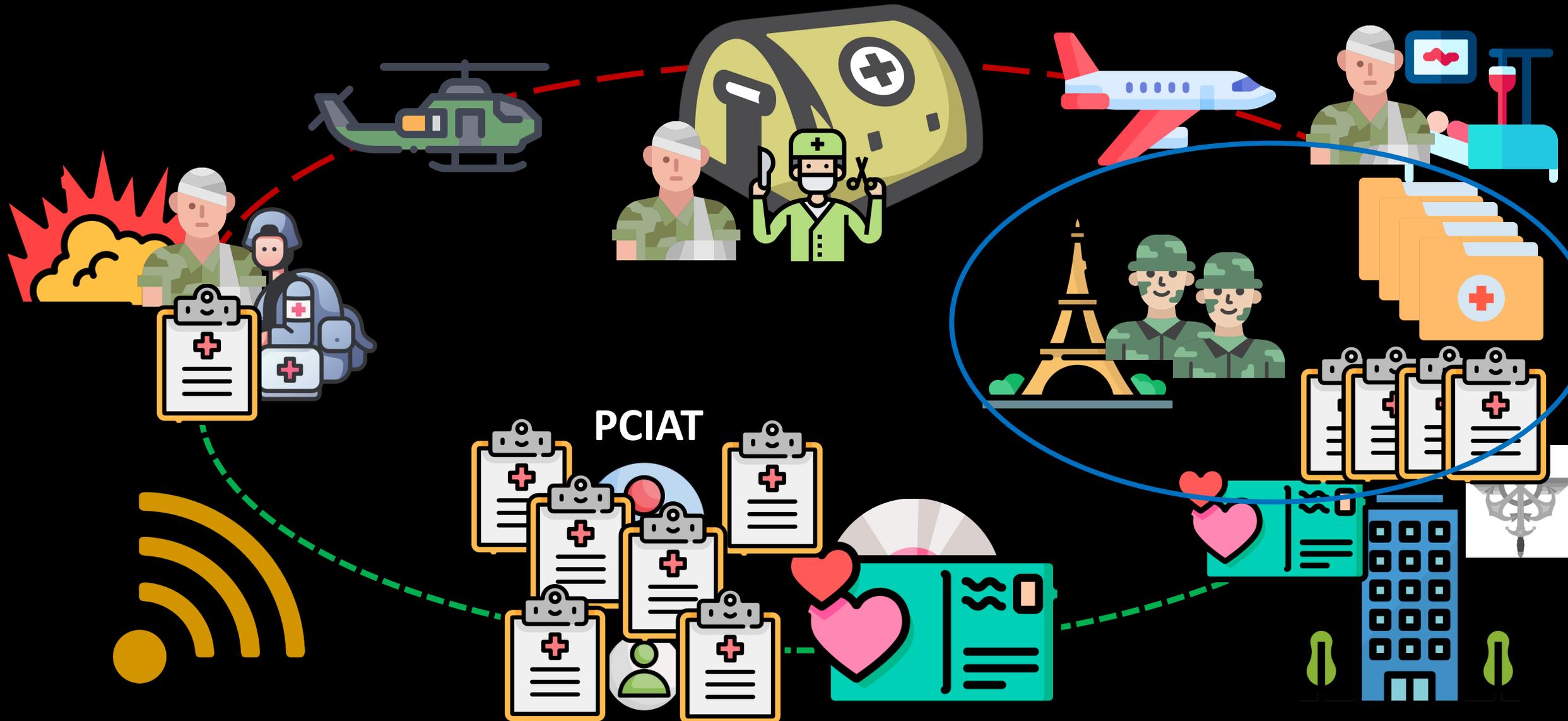


RSA

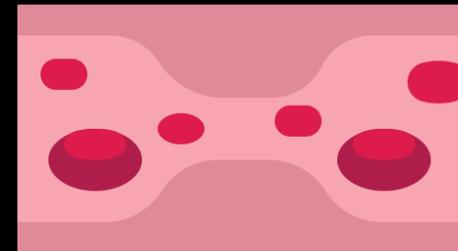
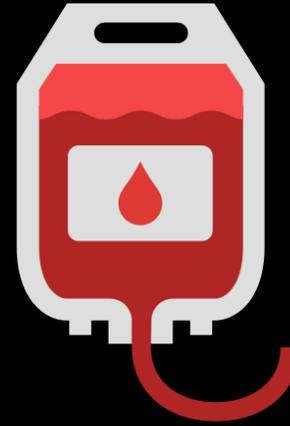
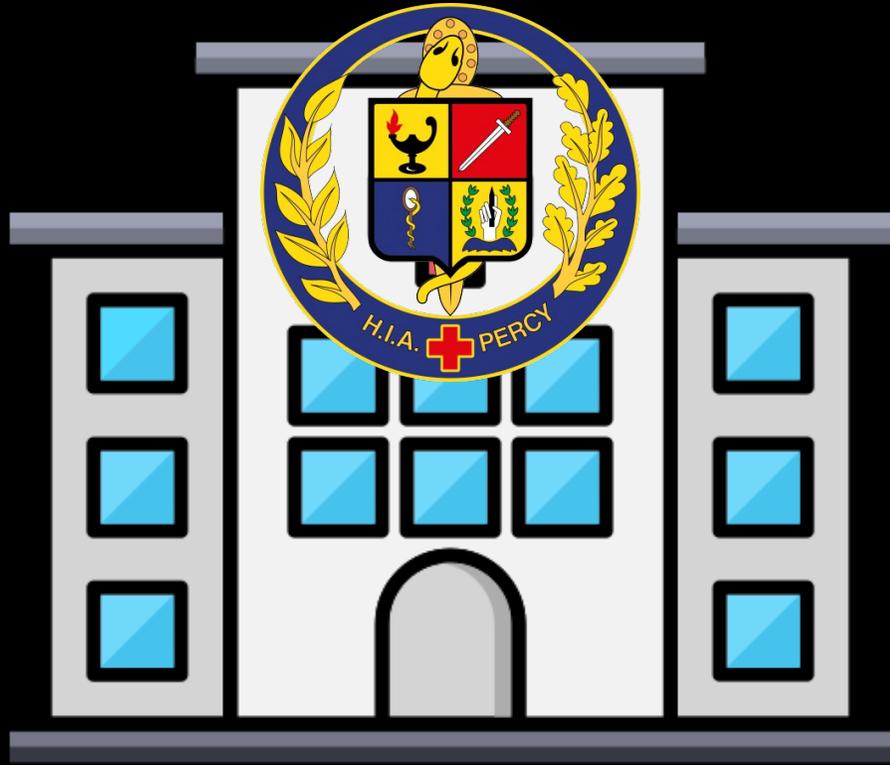


CRH

Constitution de la base de données



Compte-rendu hospitalier

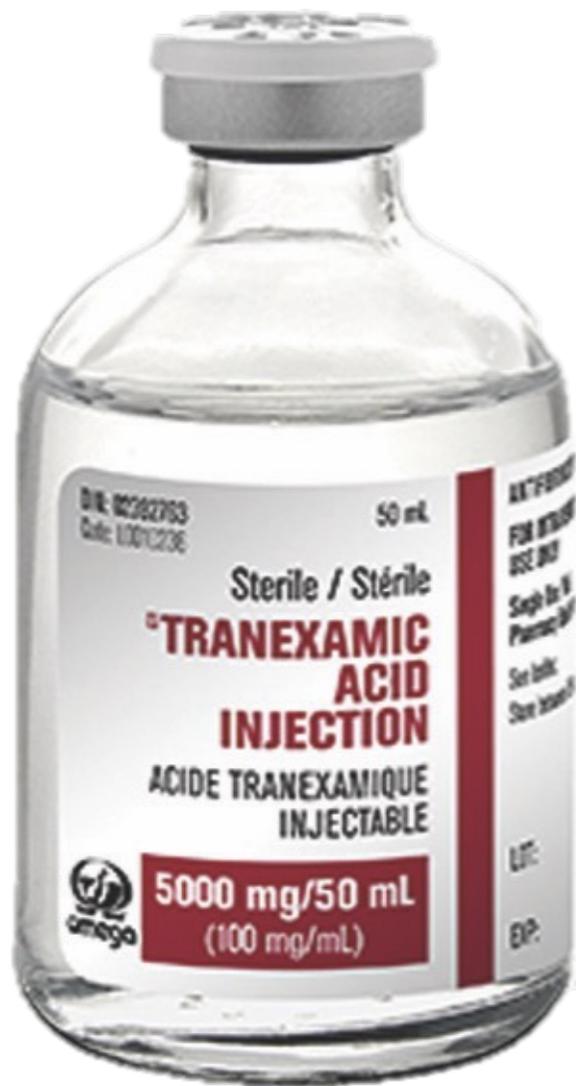


Sous-utilisation



Sur-utilisation

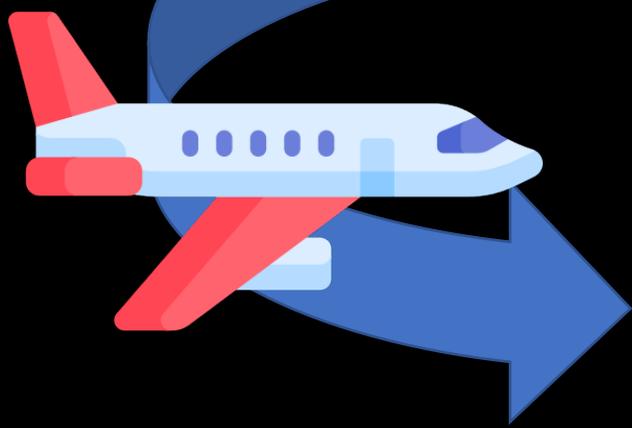




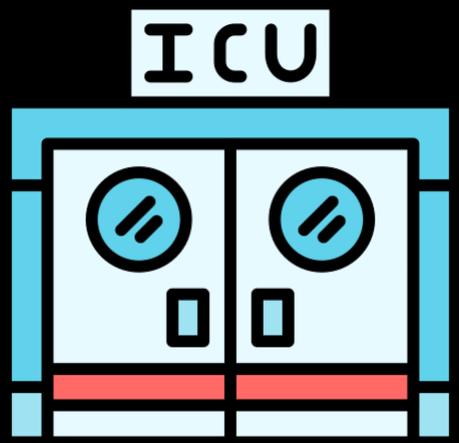
RÉSULTATS



76



23



19



16



25%



21%

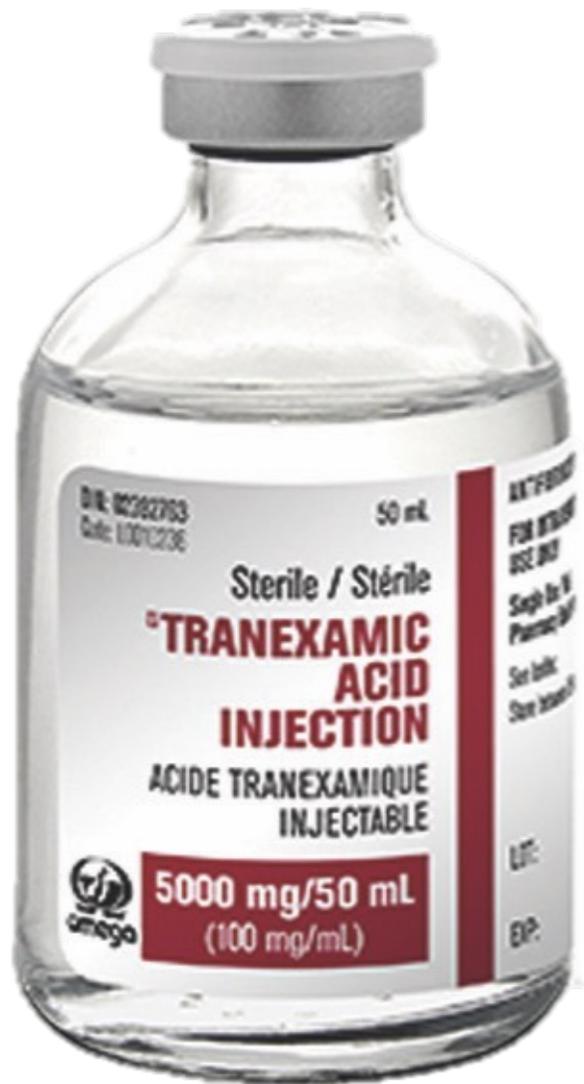


Variable, n (%)	TXA (n=19)	No TXA (n=57)	P value
Demographic data			
Age (years)	29.6	27.9	0.36
Male, n (%)	19 (100)	56 (98.2)	1
Mechanism of injury, n (%)			
Gunshot wound	2 (10.5)	5 (8.8)	1
IED/blast	11 (57.9)	34 (59.6)	1
Shrapnel or bullet fragment	6 (31.6)	6 (10.5)	0.06
Road traffic injury	0 (0)	11 (19.3)	0.06
Other blunt	0 (0)	1 (1.8)	1

Variable	TXA (n=19)	No TXA (n=57)	P
ISS (mean)	16.2	4.5	<0.01
Bilan clinique initial			
Consciousness (AVPU scale), n (%)			
Alert	14 (73.7)	52 (91.2)	0.1
Verbal	4 (21.1)	2 (3.5)	0.03
Pain	0 (0)	3 (5.3)	0.5
Unresponsive	1 (5.2)	0 (0)	0.25
Initial perception of radial pulse, n (%)	11 (57.9*)	38 (95*)	0.29
Type of life-threatening injury leading clinical presentation, n (%)			
External haemorrhage	12 (63.2)	9 (15.8)	< 0.01
Upper airway obstruction	2 (10.5)	0 (0)	0.06
Acute respiratory distress	0 (0)	2 (3.5)	1
Haemodynamic failure	4 (21.1)	3 (5.3)	0.06
Neurological failure	0 (0)	0 (0)	N/A
Cardiac arrest	2 (10.5)	1 (1.8)	0.15

Variable	TXA (n=19)	No TXA (n=57)	P
Prehospital intervention, n (%)			
Vasopressors	6 (31.6)	2 (3.5)	<0.01
Orotracheal intubation	2 (10.5)	2 (3.5)	0.26
Transfusion, No. (%)			
Prehospital			
FLYP	11 (57.9)	1 (1.8)	<0.01
RBC	0 (0)	0 (0)	N/A
LTWB	0 (0)	1 (1.8)	1
Role 2			
FLYP	8 (42.1)	2 (3.5)	<0.01
RBC	6 (31.6)	2 (3.5)	<0.01
LTWB	3 (15.8)	1 (1.8)	0.046
PT	0 (0)	0 (0)	N/A
Role 4			
FLYP	5 (26.3)	1 (1.8)	<0.01
RBC	8 (42.1)	1 (1.8)	<0.01
WB	0 (0)	0 (0)	N/A
PT	4 (21.1)	1 (1.8)	0.01

Variable	TXA (n=19)	No TXA (n=57)	<i>P</i>
TXA administration, No. (%)	19 (100)	0 (0)	<0.01
Time to TXA administration, No. (%)			
<1 hour	6 (31.6)	N/A	N/A
1–3 hours	9 (47.4)	N/A	N/A
Unknown	4 (21.1)	N/A	N/A
Mean time from injury to role 2 (min)	91	249	0.04
VTE, n (%)†	2 (12.5)	0 (0)	0.05
Mortality, n (%)	3 (15.8)	2 (3.5)	0.09



< 3h

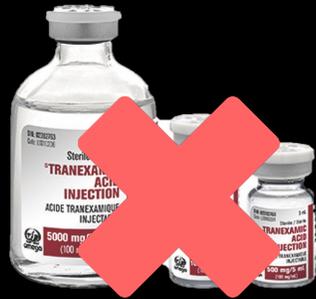


Sous-utilisation

16



3



19%

Sur-utilisation

600

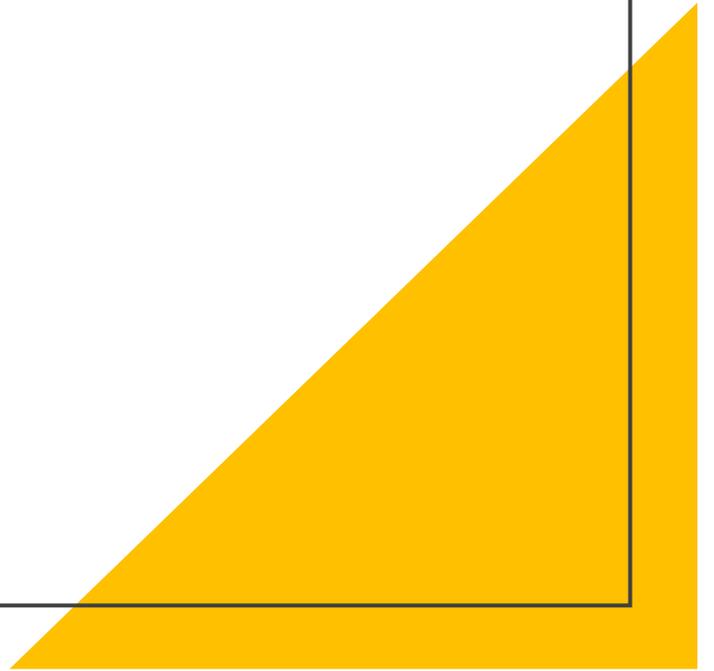


6

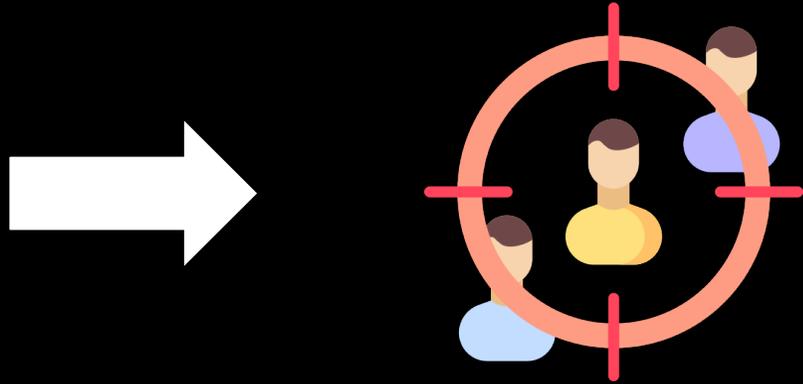


10%

DISCUSSION



Taux de sur-utilisation « conforme »



Johnston et al. *JAMA Surg* 2018

Taux de sous-utilisation « ~~correct~~ »
« excellent »

Johnston et al. *JAMA Surg* 2017

Fisher et al. *J Emerg Med* 2019

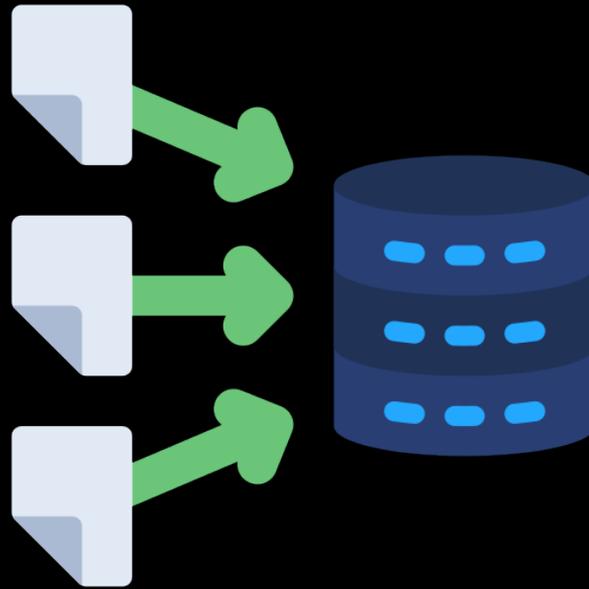
Administration ATX



Survenue ETEV



LIMITES



Perspectives



Administrer + tôt

Guyette et al. *JAMA Surg* 2020

Ageron et al. *Transfusion* 2022

Administrer + largement

Grassin-Delyle et al. *BJA* 2020



Taux de sous-utilisation
élevé

Enseignement

Innovation



Original research

Retrospective analysis of tranexamic acid administration in French war-wounded between October 2016 and September 2020

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