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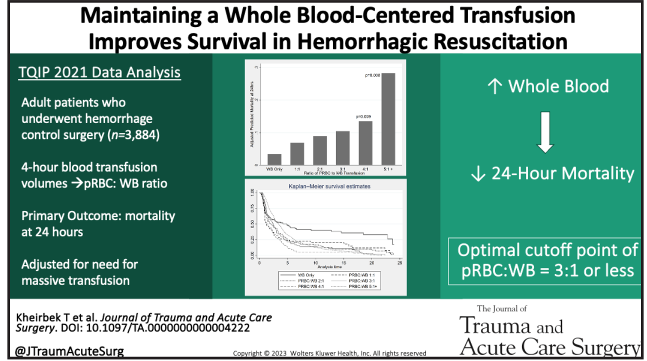
‘BEST OF’ MAY ARTICLES

BEST OF TRAUMA ARTICLE



MAINTAINING A WHOLE BLOOD-CENTERED TRANSFUSION IMPROVES SURVIVAL IN HEMORRHAGIC RESUSCITATION

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BEST OF BASIC SCIENCES ARTICLE

SELF-EXPANDING FOAM VS PRE-PERITONEAL PACKING FOR EXSANGUINATING PELVIC HEMORRHAGE

Two lethal, swine models of pelvic hemorrhage were developed

Model 1: Bilateral, retroperitoneal hemorrhage

Model 2: Unilateral, retroperitoneal hemorrhage w/bony fracture

Injury

Group 1: Controls — No intervention or fluid resuscitation only

Group 2: Pre-peritoneal foam injection

Group 3: Pre-peritoneal packing

Median Survival Time (minutes)

Group	Model 1	Model 2
Controls	6	4
Foam	67	124
Packing	50	119

Percutaneous injection of self-expanding foam into the pre-peritoneal space significantly improves survival in otherwise lethal pelvic hemorrhages

King DR et al. Journal of Trauma and Acute Care Surgery. DOI: 10.1097/TA.0000000000004138

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SELF-EXPANDING FOAM VS PRE-PERITONEAL PACKING FOR EXSANGUINATING PELVIC HEMORRHAGE

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BEST OF SCC ARTICLE

ICU Readmission in Injured Older Adults: Modifiable Risk Factors and Implications

High Volume Trauma Center — 6,691 Injured Adults ≥ 65 years — 2013-2018

3,709 Admitted to ICU

90.9% Single ICU Admission

9.1% ICU Readmission

MODIFIABLE RISK FACTORS: Aspiration; Delirium

ICU Readmitted injured older adults have:
- Twice the mortality
- Higher rates of complications
- Fewer deaths on comfort care

Agoubi LL et al. Journal of Trauma and Acute Care Surgery. DOI: 10.1097/TA.0000000000004203

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ICU READMISSION IN INJURED OLDER ADULTS: MODIFIABLE RISK FACTORS AND IMPLICATIONS

HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/INTENSIVE_CARE_UNIT_READMISSION_IN_INJURED_OLDER.18.ASPX?CONTEXT=FEATUREDARTICLES&COLLECTIONID=5

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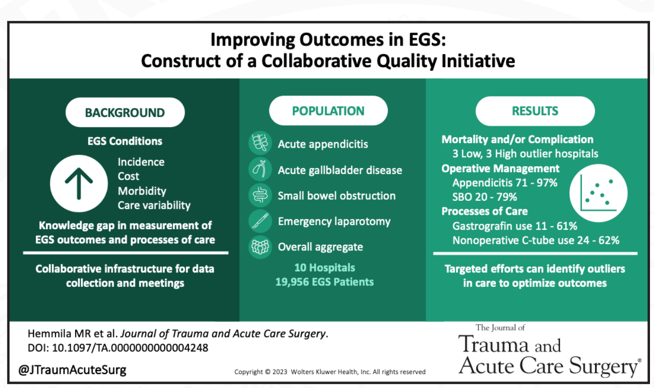
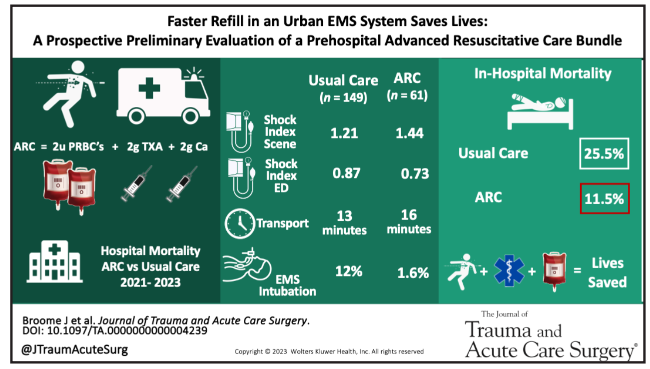


IMPROVING OUTCOMES IN EGS: CONSTRUCT OF A COLLABORATIVE QUALITY INITIATIVE

HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/IMPROVING_OUTCOMES_IN_EMERGENCY_GENERAL_SURGERY_.5.ASPX?CONTEXT=FEATUREDARTICLES&COLLECTIONID=5



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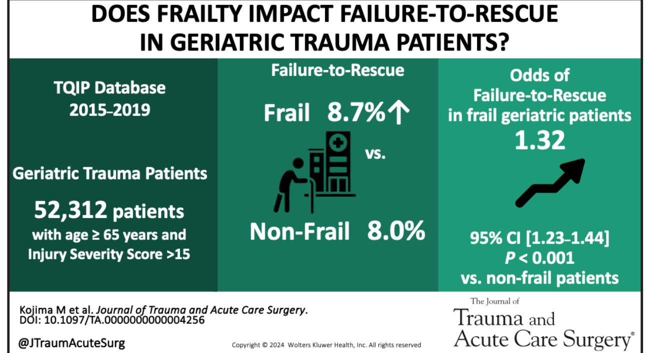

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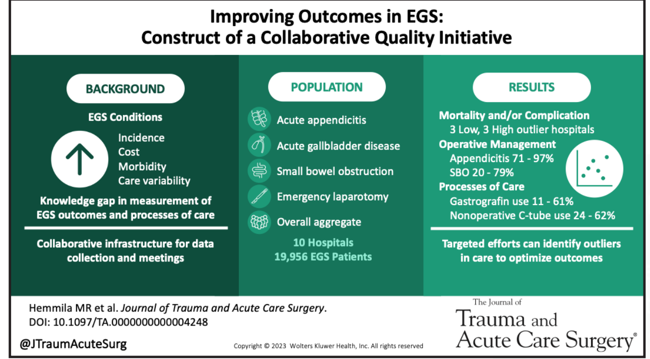

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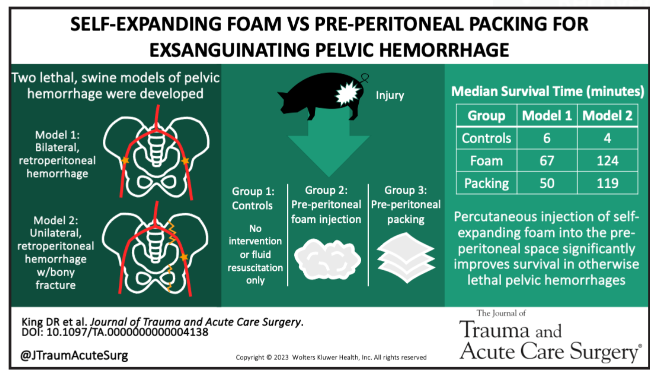

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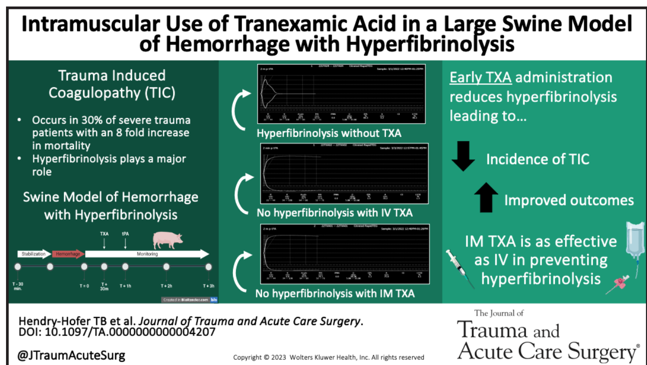

INTRAMUSCULAR ADMINISTRATION OF TRANEXAMIC ACID IN A LARGE SWINE MODEL OF HEMORRHAGE WITH HYPERFIBRINOLYSIS

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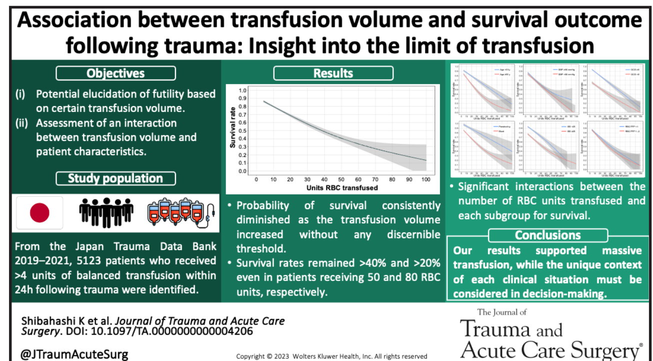

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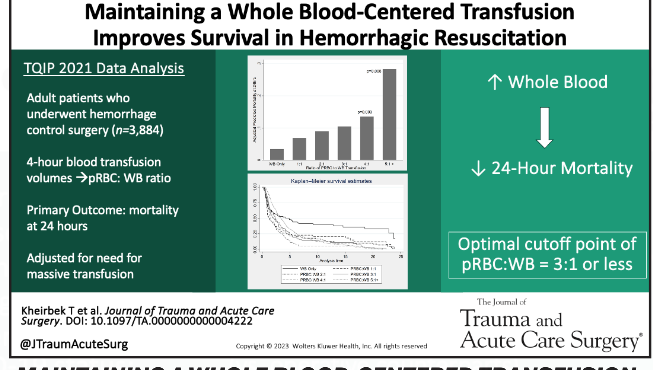

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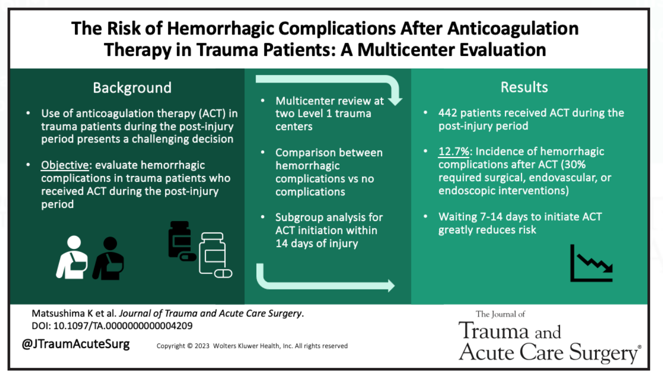

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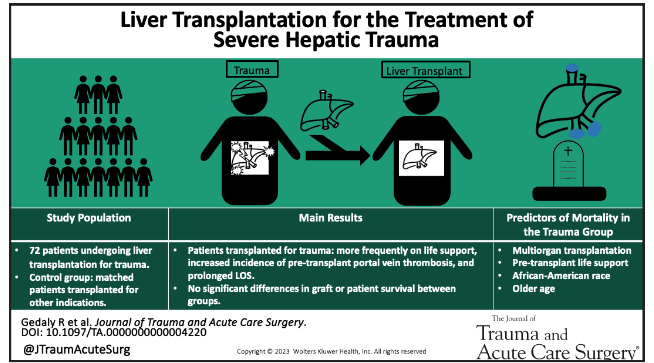

LIVER TRANSPLANTATION FOR SEVERE HEPATIC TRAUMA: A MULTICENTER ANALYSIS FROM THE UNOS DATASET

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Balanced resuscitation with whole blood versus component therapy in critically injured pre-adolescent children: getting there faster with fewer exposures

Traumatic hemorrhagic shock requires timely balanced resuscitation with blood products

Existing whole blood (WB) studies mainly evaluated adults and adolescents – what about younger children?

In younger children, is WB associated with:

- Faster achievement of balanced resuscitation?
- Fewer transfusion exposures and volume?
- Differences in resource utilization and outcomes?

TQIP, 2017-2019, <12 yrs old

Blood transfusion within 1st 4 hours

1° endpoint: Time to achieve balanced resuscitation

2° endpoints: Number of transfusion exposures, ICU length of stay, In-hospital mortality

N=390: 109 WB vs. 281 component tx (CT)
Median ISS 30, 72% abnormal hemodynamics

WB associated with:

- Faster balanced resuscitation (28 vs 87 mins)
- Fewer transfusion exposures (3.2 vs 3.9)
- Lower transfusion volumes (50 vs 85 ml/kg)
- Trend toward shorter ICU length of stay
- No difference in mortality

National prospective pediatric WB study needed!

McLoughlin RJ et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004132

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BALANCED RESUSCITATION WITH WHOLE BLOOD VERSUS COMPONENT THERAPY IN CRITICALLY INJURED PRE-ADOLESCENT CHILDREN: GETTING THERE FASTER WITH FEWER EXPOSURES

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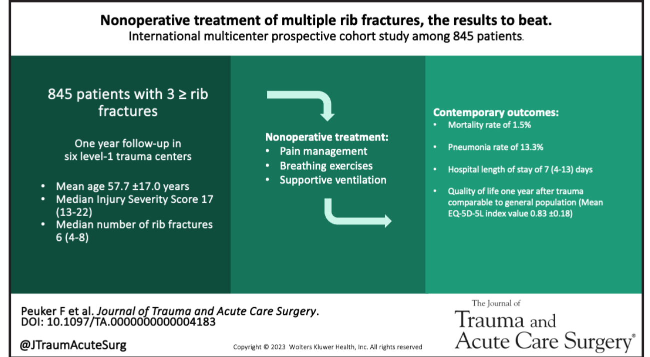

NONOPERATIVE TREATMENT OF MULTIPLE RIB FRACTURES, THE RESULTS TO BEAT; AN INTERNATIONAL MULTICENTER PROSPECTIVE COHORT STUDY AMONG 845 PATIENTS

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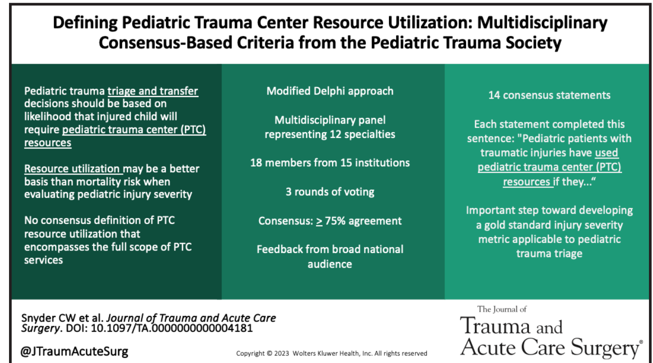

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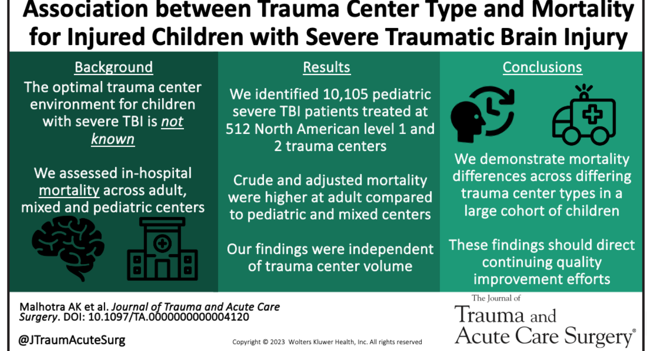

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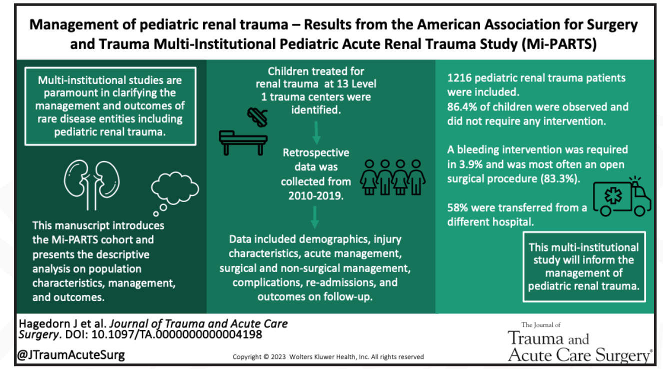

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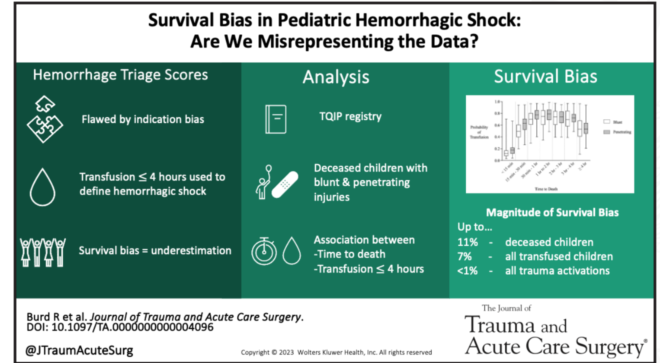

SURVIVAL BIAS IN PEDIATRIC HEMORRHAGIC SHOCK: ARE WE MISREPRESENTING THE DATA?

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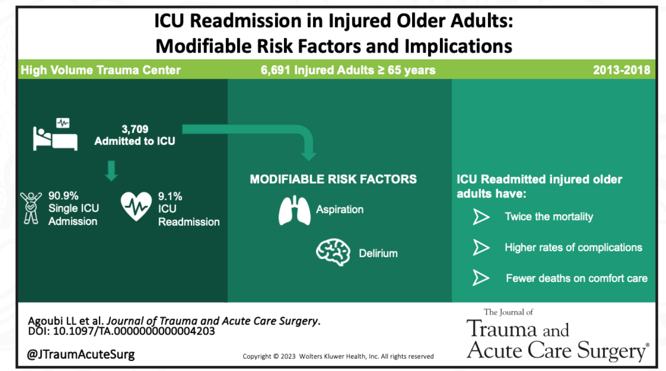

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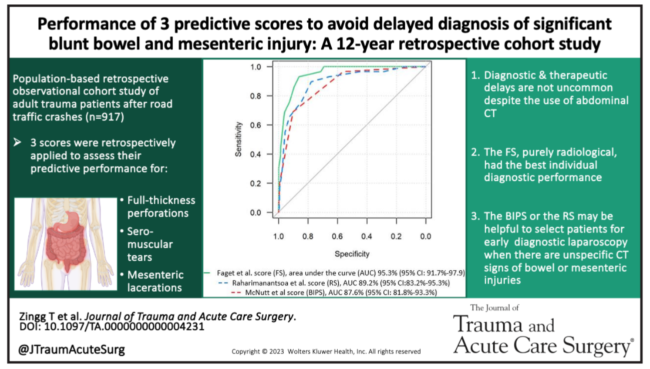

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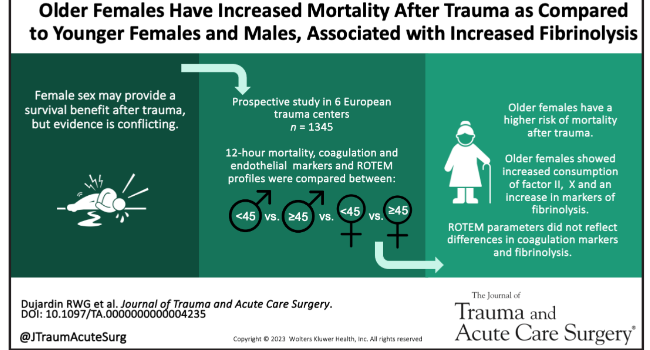

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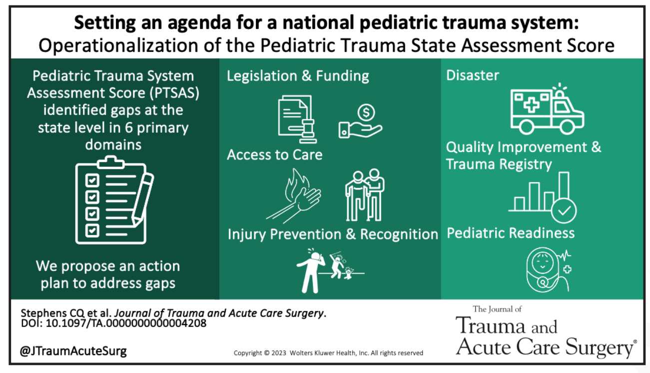

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