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BEST OF TRAUMA ARTICLE

Maintaining a Whole Blood-Centered Transfusion Improves Survival in Hemorrhagic Resuscitation

TOIP 2021 Data Analysis

Adult patients who underwent hemorrhage control surgery (n=3,884)

4-hour blood transfusion volumes → pRBC: WB ratio

Primary Outcome: mortality at 24 hours

Adjusted for need for massive transfusion

↑ Whole Blood
↓ 24-Hour Mortality

Optimal cutoff point of pRBC:WB = 3:1 or less

Khairbek T et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004222
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MAINTAINING A WHOLE BLOOD-CENTERED TRANSFUSION IMPROVES SURVIVAL IN HEMORRHAGIC RESUSCITATION

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/MAINTAINING_A_WHOLE_BLOOD_CENTERED_TRANSFUSION.9.ASPX?CONTEXT=FEATUREDARTICLES&COLLECTIONID=5](https://journals.lww.com/jtrauma/fulltext/2024/05000/maintaining_a_whole_blood_centered_transfusion.9.aspx?context=featuredarticles&collectionid=5)

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
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](https://journals.lww.com/jtrauma/fulltext/2024/05000/intensive_care_unit_readmission_in_injured_older.18.aspx?context=featuredarticles&collectionid=5)

BEST OF EGS ARTICLE

Improving Outcomes in EGS: Construct of a Collaborative Quality Initiative

BACKGROUND

EGS Conditions: Incidence, Cost, Morbidity, Care variability

Knowledge gap in measurement of EGS outcomes and processes of care

Collaborative infrastructure for data collection and meetings

POPULATION

- Acute appendicitis
- Acute gallbladder disease
- Small bowel obstruction
- Emergency laparotomy
- Overall aggregate: 10 Hospitals, 19,956 EGS Patients

RESULTS

Mortality and/or Complication: 3 Low, 3 High outlier hospitals

Operative Management: Appendicitis 71 - 97%, SBO 20 - 79%

Processes of Care: Gastrografin use 11 - 61%, Nonoperative C-tube use 24 - 62%

Targeted efforts can identify outliers in care to optimize outcomes

Hemmila MR et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004248
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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](https://journals.lww.com/jtrauma/fulltext/2024/05000/improving_outcomes_in_emergency_general_surgery.5.aspx?context=featuredarticles&collectionid=5)

Faster Refill in an Urban EMS System Saves Lives: A Prospective Preliminary Evaluation of a Prehospital Advanced Resuscitative Care Bundle

| | Usual Care (n = 149) | ARC (n = 61) |
|-------------------|----------------------|--------------|
| Shock Index Scene | 1.21 | 1.44 |
| Shock Index ED | 0.87 | 0.73 |
| Transport | 13 minutes | 16 minutes |
| EMS Intubation | 12% | 1.6% |

In-Hospital Mortality

| Group | Mortality |
|------------|-----------|
| Usual Care | 25.5% |
| ARC | 11.5% |

ARC = 2u PRBC's + 2g TXA + 2g Ca

Hospital Mortality ARC vs Usual Care 2021-2023

EMT + Paramedic + Doctor = Lives Saved

Broome J et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004239
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Intramuscular Use of Tranexamic Acid in a Large Swine Model of Hemorrhage with Hyperfibrinolysis

Trauma Induced Coagulopathy (TIC)

- Occurs in 30% of severe trauma patients with an 8 fold increase in mortality
- Hyperfibrinolysis plays a major role

Swine Model of Hemorrhage with Hyperfibrinolysis

Early TXA administration reduces hyperfibrinolysis leading to... Improved outcomes

Incidence of TIC

IM TXA is as effective as IV in preventing hyperfibrinolysis

Hendry-Hofer TB et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004207
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FASTER REFILL IN AN URBAN EMS SYSTEM SAVES LIVES: A PROSPECTIVE PRELIMINARY EVALUATION OF A PREHOSPITAL ADVANCED RESUSCITATIVE CARE BUNDLE
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/FASTER_REFILL_IN_AN_URBAN_EMERGENCY_MEDICAL.3.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/FASTER_REFILL_IN_AN_URBAN_EMERGENCY_MEDICAL.3.ASPX)

INTRAMUSCULAR ADMINISTRATION OF TRANEXAMIC ACID IN A LARGE SWINE MODEL OF HEMORRHAGE WITH HYPERFIBRINOLYSIS
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/INTRAMUSCULAR_ADMINISTRATION_OF_TRANEXAMIC_ACID.IN.7.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/INTRAMUSCULAR_ADMINISTRATION_OF_TRANEXAMIC_ACID.IN.7.ASPX)

DOES FRAILTY IMPACT FAILURE-TO-RESCUE IN GERIATRIC TRAUMA PATIENTS?

TQIP Database 2015-2019

Geriatric Trauma Patients with age ≥ 65 years and Injury Severity Score >15

52,312 patients

Failure-to-Rescue

Frail 8.7% ↑

Non-Frail 8.0%

Odds of Failure-to-Rescue in frail geriatric patients: 1.32

95% CI [1.23-1.44] P < 0.001 vs. non-frail patients

Kojima M et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004256
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Association between transfusion volume and survival outcome following trauma: Insight into the limit of transfusion

Objectives

- Potential elucidation of futility based on certain transfusion volume.
- Assessment of an interaction between transfusion volume and patient characteristics.

Results

Probability of survival consistently diminished as the transfusion volume increased without any discernible threshold.

Survival rates remained >40% and >20% even in patients receiving 50 and 80 RBC units, respectively.

Conclusions

Our results supported massive transfusion, while the unique context of each clinical situation must be considered in decision-making.

Shibahashi K et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004206
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DOES FRAILTY IMPACT FAILURE-TO-RESCUE IN GERIATRIC TRAUMA PATIENTS?
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/DOES_FRAILTY_IMPACT_FAILURE_TO_RESCUE_IN_GERIATRIC.4.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/DOES_FRAILTY_IMPACT_FAILURE_TO_RESCUE_IN_GERIATRIC.4.ASPX)

ASSOCIATION BETWEEN TRANSFUSION VOLUME AND SURVIVAL OUTCOME FOLLOWING TRAUMA: INSIGHT INTO THE LIMIT OF TRANSFUSION FROM AN ANALYSIS OF NATIONWIDE TRAUMA REGISTRY IN JAPAN
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Hemmila MR et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004128
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Adjusted for need for massive transfusion

↑ Whole Blood

↓ 24-Hour Mortality

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Kheirbek T et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004222
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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 |
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| Controls | 6 | 4 |
| Foam | 67 | 124 |
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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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The Risk of Hemorrhagic Complications After Anticoagulation Therapy in Trauma Patients: A Multicenter Evaluation

Background

- Use of anticoagulation therapy (ACT) in trauma patients during the post-injury period presents a challenging decision
- Objective: evaluate hemorrhagic complications in trauma patients who received ACT during the post-injury period

Results

- 442 patients received ACT during the post-injury period
- 12.7%: Incidence of hemorrhagic complications after ACT (30% required surgical, endovascular, or endoscopic interventions)
- Waiting 7-14 days to initiate ACT greatly reduces risk

Matsushima K et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004209
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SELF-EXPANDING FOAM VS PRE-PERITONEAL PACKING FOR EXSANGUINATING PELVIC HEMORRHAGE
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THE RISK OF HEMORRHAGIC COMPLICATIONS AFTER ANTICOAGULATION THERAPY IN TRAUMA PATIENTS: A MULTICENTER EVALUATION
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/THE_RISK_OF_HEMORRHAGIC_COMPLICATIONS_AFTER.10.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/THE_RISK_OF_HEMORRHAGIC_COMPLICATIONS_AFTER.10.ASPX)

Liver Transplantation for the Treatment of Severe Hepatic Trauma

| Study Population | Main Results | Predictors of Mortality in the Trauma Group |
|---|--|---|
| <ul style="list-style-type: none"> 72 patients undergoing liver transplantation for trauma. Control group: matched patients transplanted for other indications. | <ul style="list-style-type: none"> Patients transplanted for trauma: more frequently on life support, increased incidence of pre-transplant portal vein thrombosis, and prolonged LOS. No significant differences in graft or patient survival between groups. | <ul style="list-style-type: none"> Multiorgan transplantation Pre-transplant life support African-American race Older age |

Gedaly R et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004220
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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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|--|---|---|
| <p>Traumatic hemorrhagic shock requires timely balanced resuscitation with blood products</p> <p>Existing whole blood (WB) studies mainly evaluated adults and adolescents – what about younger children?</p> <p>In younger children, is WB associated with:</p> <ul style="list-style-type: none"> Faster achievement of balanced resuscitation? Fewer transfusion exposures and volumes? Differences in resource utilization and outcomes? | <p>TQIP, 2017-2019, <12 years old</p> <p>Blood transfusion within 1st 4 hours</p> <p>1st endpoint: Time to achieve balanced resuscitation</p> <p>2nd endpoints: Number of transfusion exposures, ICU length of stay, In-hospital mortality</p> | <p>N=390; 109 WB vs. 281 component tx (CT)</p> <p>Median ISS 30, 72% abnormal hemodynamics</p> <p>WB associated with:</p> <ul style="list-style-type: none"> 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 <p>National prospective pediatric WB study needed!</p> |
|--|---|---|

McLoughlin RJ et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004132
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LIVER TRANSPLANTATION FOR SEVERE HEPATIC TRAUMA: A MULTICENTER ANALYSIS FROM THE UNOS DATASET
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/LIVER_TRANSPLANTATION_FOR_SEVERE_HEPATIC_TRAUMA_A.11.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/liver_transplantation_for_severe_hepatic_trauma_a.11.aspx)

BALANCED RESUSCITATION WITH WHOLE BLOOD VERSUS COMPONENT THERAPY IN CRITICALLY INJURED PRE-ADOLESCENT CHILDREN: GETTING THERE FASTER WITH FEWER EXPOSURES
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/BALANCED_RESUSCITATION_WITH_WHOLE_BLOOD_VERSUS_COMPONENT_THERAPY_IN_CRITICALLY_INJURED_PRE-ADOLESCENT_CHILDREN_GETTING_THERE_FASTER_WITH_FEWER_EXPOSURES.15.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/balanced_resuscitation_with_whole_blood_versus_component_therapy_in_critically_injured_pre-adolescent_children_getting_there_faster_with_fewer_exposures.15.aspx)

Nonoperative treatment of multiple rib fractures, the results to beat. International multicenter prospective cohort study among 845 patients

| | | |
|--|---|---|
| <p>845 patients with 3 ≥ rib fractures</p> <p>One year follow-up in six level-1 trauma centers</p> <ul style="list-style-type: none"> Mean age 57.7 ± 17.0 years Median Injury Severity Score 17 (13-22) Median number of rib fractures 6 (4-8) | <p>Nonoperative treatment:</p> <ul style="list-style-type: none"> Pain management Breathing exercises Supportive ventilation | <p>Contemporary outcomes:</p> <ul style="list-style-type: none"> Mortality rate of 1.5% Pneumonia rate of 13.3% Hospital length of stay of 7 (4-13) days Quality of life one year after trauma comparable to general population (Mean EQ-5D-3L index value 0.83 ± 0.18) |
|--|---|---|

Peuker F et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004183
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Defining Pediatric Trauma Center Resource Utilization: Multidisciplinary Consensus-Based Criteria from the Pediatric Trauma Society

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|--|--|--|
| <p>Pediatric trauma triage and transfer decisions should be based on likelihood that injured child will require pediatric trauma center (PTC) resources</p> <p>Resource utilization may be a better basis than mortality risk when evaluating pediatric injury severity</p> <p>No consensus definition of PTC resource utilization that encompasses the full scope of PTC services</p> | <p>Modified Delphi approach</p> <p>Multidisciplinary panel representing 12 specialties</p> <p>18 members from 15 institutions</p> <p>3 rounds of voting</p> <p>Consensus: ≥ 75% agreement</p> <p>Feedback from broad national audience</p> | <p>14 consensus statements</p> <p>Each statement completed this sentence: "Pediatric patients with traumatic injuries have used pediatric trauma center (PTC) resources if they..."</p> <p>Important step toward developing a gold standard injury severity metric applicable to pediatric trauma triage</p> |
|--|--|--|

Snyder CW et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004181
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NONOPERATIVE TREATMENT OF MULTIPLE RIB FRACTURES, THE RESULTS TO BEAT; AN INTERNATIONAL MULTICENTER PROSPECTIVE COHORT STUDY AMONG 845 PATIENTS
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/NONOPERATIVE_TREATMENT_OF_MULTIPLE_RIB_FRACTURES_12.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/nonoperative_treatment_of_multiple_rib_fractures_12.aspx)

DEFINING PEDIATRIC TRAUMA CENTER RESOURCE UTILIZATION: MULTIDISCIPLINARY CONSENSUS-BASED CRITERIA FROM THE PEDIATRIC TRAUMA SOCIETY
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/DEFINING_PEDIATRIC_TRAUMA_CENTER_RESOURCE_UTILIZATION_MULTIDISCIPLINARY_CONSENSUS-BASED_CRITERIA_FROM_THE_PEDIATRIC_TRAUMA_CENTER_RESOURCE_UTILIZATION_MULTIDISCIPLINARY_CONSENSUS-BASED_CRITERIA_FROM_THE_PEDIATRIC_TRAUMA_SOCIETY.16.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/defining_pediatric_trauma_center_resource_utilization_multidisciplinary_consensus-based_criteria_from_the_pediatric_trauma_society.16.aspx)

Association between Trauma Center Type and Mortality for Injured Children with Severe Traumatic Brain Injury

| | | |
|---|--|---|
| <p>Background</p> <p>The optimal trauma center environment for children with severe TBI is <i>not known</i></p> <p>We assessed in-hospital mortality across adult, mixed and pediatric centers</p> | <p>Results</p> <p>We identified 10,105 pediatric severe TBI patients treated at 512 North American level 1 and 2 trauma centers</p> <p>Crude and adjusted mortality were higher at adult compared to pediatric and mixed centers</p> <p>Our findings were independent of trauma center volume</p> | <p>Conclusions</p> <p>We demonstrate mortality differences across differing trauma center types in a large cohort of children</p> <p>These findings should direct continuing quality improvement efforts</p> |
|---|--|---|

Mahotra AK et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004120
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Management of pediatric renal trauma – Results from the American Association for Surgery and Trauma Multi-Institutional Pediatric Acute Renal Trauma Study (MI-PARTS)

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|--|--|--|
| <p>Multi-institutional studies are paramount in clarifying the management and outcomes of rare disease entities including pediatric renal trauma.</p> <p>This manuscript introduces the MI-PARTS cohort and presents the descriptive analysis on population characteristics, management, and outcomes.</p> | <p>Children treated for renal trauma at 13 level 1 trauma centers were identified.</p> <p>Retrospective data was collected from 2010-2019.</p> <p>Data included demographics, injury characteristics, acute management, surgical and non-surgical management, complications, re-admissions, and outcomes on follow-up.</p> | <p>1216 pediatric renal trauma patients were included</p> <p>88.4% of children were observed and did not require any intervention.</p> <p>A bleeding intervention was required in 3.9% and was most often an open surgical procedure (83.3%).</p> <p>58% were transferred from a different hospital.</p> <p>This multi-institutional study will inform the management of pediatric renal trauma.</p> |
|--|--|--|

Hagedorn J et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004198
 @JTraumaAcuteSurg Copyright © 2023 Wolters Kluwer Health, Inc. All rights reserved. The Journal of Trauma and Acute Care Surgery

ASSOCIATION BETWEEN TRAUMA CENTER TYPE AND MORTALITY FOR INJURED CHILDREN WITH SEVERE TRAUMATIC BRAIN INJURY
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/ASSOCIATION_BETWEEN_TRAUMA_CENTER_TYPE_AND_MORTALITY_FOR_INJURED_CHILDREN_WITH_SEVERE_TRAUMATIC_BRAIN_INJURY.13.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/association_between_trauma_center_type_and_mortality_for_injured_children_with_severe_traumatic_brain_injury.13.aspx)

MANAGEMENT OF PEDIATRIC RENAL TRAUMA – RESULTS FROM THE AMERICAN ASSOCIATION FOR SURGERY AND TRAUMA MULTI-INSTITUTIONAL PEDIATRIC ACUTE RENAL TRAUMA STUDY
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/MANAGEMENT_OF_PEDIATRIC_RENAL_TRAUMA_RESULTS_FROM_THE_AMERICAN_ASSOCIATION_FOR_SURGERY_AND_TRAUMA_MULTI-INSTITUTIONAL_PEDIATRIC_ACUTE_RENAL_TRAUMA_STUDY.17.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/management_of_pediatric_renal_trauma_results_from_the_american_association_for_surgery_and_trauma_multi-institutional_pediatric_acute_renal_trauma_study.17.aspx)

Survival Bias in Pediatric Hemorrhagic Shock: Are We Misrepresenting the Data?

| | | |
|--|---|--|
| <p>Hemorrhage Triage Scores</p> <p>Flawed by indication bias</p> <p>Transfusion ≤ 4 hours used to define hemorrhagic shock</p> <p>Survival bias = underestimation</p> | <p>Analysis</p> <p>TQIP registry</p> <p>Deceased children with blunt & penetrating injuries</p> <p>Association between -Time to death -Transfusion ≤ 4 hours</p> | <p>Survival Bias</p> <p>Magnitude of Survival Bias</p> <p>Up to... 11% - deceased children 7% - all transfused children <1% - all trauma activations</p> |
|--|---|--|

Burd R et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004096
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ICU Readmission in Injured Older Adults: Modifiable Risk Factors and Implications

| | | |
|--|---|---|
| <p>High Volume Trauma Center</p> <p>6,691 Injured Adults ≥ 65 years</p> <p>2013-2018</p> <p>3,709 Admitted to ICU</p> <p>90.9% Single ICU Admission</p> <p>9.1% ICU Readmission</p> | <p>MODIFIABLE RISK FACTORS</p> <p>Aspiration</p> <p>Delirium</p> | <p>ICU Readmitted injured older adults have:</p> <ul style="list-style-type: none"> > Twice the mortality > Higher rates of complications > Fewer deaths on comfort care |
|--|---|---|

Agouli LL et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000004203
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SURVIVAL BIAS IN PEDIATRIC HEMORRHAGIC SHOCK: ARE WE MISREPRESENTING THE DATA?
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/SURVIVAL_BIAS_IN_PEDIATRIC_HEMORRHAGIC_SHOCK_ARE_WE_MISREPRESENTING_THE_DATA.14.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/survival_bias_in_pediatric_hemorrhagic_shock_are_we_misrepresenting_the_data.14.aspx)


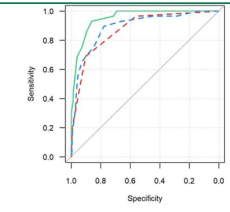
ICU READMISSION IN INJURED OLDER ADULTS: MODIFIABLE RISK FACTORS AND IMPLICATIONS
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/INTENSIVE_CARE_UNIT_READMISSION_IN_INJURED_OLDER_ADULTS.18.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/intensive_care_unit_readmission_in_injured_older_adults.18.aspx)

Performance of 3 predictive scores to avoid delayed diagnosis of significant blunt bowel and mesenteric injury: A 12-year retrospective cohort study

Population-based retrospective observational cohort study of adult trauma patients after road traffic crashes (n=917)

3 scores were retrospectively applied to assess their predictive performance for:

- Full-thickness perforations
- Sero-muscular tears
- Mesenteric lacerations

1. Diagnostic & therapeutic delays are not uncommon despite the use of abdominal CT

2. The FS, purely radiological, had the best individual diagnostic performance

3. The BIPS or the RS may be helpful to select patients for early diagnostic laparoscopy when there are unspecific CT signs of bowel or mesenteric injuries

Faget et al. score (FS), area under the curve (AUC) 95.3% (95% CI: 91.7%-97.9%)
 -- Rahrifmanantsoa et al. score (RS), AUC 89.2% (95% CI: 83.2%-95.3%)
 -- McQuirt et al. score (BIPS), AUC 87.6% (95% CI: 81.8%-93.3%)

Zingg T et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004231

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PERFORMANCE OF THREE PREDICTIVE SCORES TO AVOID DELAYED DIAGNOSIS OF SIGNIFICANT BLUNT BOWEL AND MESENTERIC INJURY. A 12-YEAR RETROSPECTIVE COHORT STUDY.
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/PERFORMANCE_OF_THREE_PREDICTIVE_SCORES_TO_AVOID.19.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/performance_of_three_predictive_scores_to_avoid.19.aspx)

Older Females Have Increased Mortality After Trauma as Compared to Younger Females and Males, Associated with Increased Fibrinolysis

Female sex may provide a survival benefit after trauma, but evidence is conflicting.

Prospective study in 6 European trauma centers n = 1345

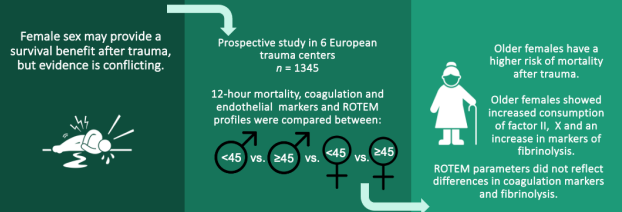
12-hour mortality, coagulation and endothelial markers and ROTEM profiles were compared between:

<45 vs. ≥45 vs. <45 vs. ≥45

Older females have a higher risk of mortality after trauma.

Older females showed increased consumption of factor II, X and an increase in markers of fibrinolysis.

ROTEM parameters did not reflect differences in coagulation markers and fibrinolysis.



Dujardin RWG et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004235

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OLDER FEMALES HAVE INCREASED MORTALITY AFTER TRAUMA AS COMPARED TO YOUNGER FEMALES AND MALES, ASSOCIATED WITH INCREASED FIBRINOLYSIS
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/OLDER_FEMALES_HAVE_INCREASED_MORTALITY_AFTER.20.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/older_females_have_increased_mortality_after.20.aspx)

Setting an agenda for a national pediatric trauma system: Operationalization of the Pediatric Trauma State Assessment Score

Pediatric Trauma System Assessment Score (PTSAS) identified gaps at the state level in 6 primary domains

We propose an action plan to address gaps

Legislation & Funding


Access to Care

Injury Prevention & Recognition

Disaster

Quality Improvement & Trauma Registry

Pediatric Readiness



Stephens CO et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004208

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SETTING AN AGENDA FOR A NATIONAL PEDIATRIC TRAUMA SYSTEM: OPERATIONALIZATION OF THE PEDIATRIC TRAUMA STATE ASSESSMENT SCORE
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/SETTING_AN_AGEN-DA_FOR_A_NATIONAL_PEDIATRIC_TRAUMA.21.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/setting_an_agenda_for_a_national_pediatric_trauma.21.aspx)

WHAT YOU NEED TO KNOW
DIAGNOSIS AND MANAGEMENT OF BLUNT CARDIAC INJURY
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/DIAGNOSIS_AND_MANAGEMENT_OF_BLUNT_CARDIAC_INJURY.1.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/diagnosis_and_management_of_blunt_cardiac_injury.1.aspx)

WHAT YOU NEED TO KNOW
DAMAGE CONTROL ORTHOPEDICS OR EARLY TOTAL CARE
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/DAMAGE_CONTROL_ORTHOPEDICS_OR_EARLY_TOTAL_CARE.2.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/damage_control_orthopedics_or_early_total_care.2.aspx)

LETTER TO THE EDITOR
WHAT DO WE MEAN BY SOURCE CONTROL AND WHAT ARE WE TRYING TO ACCOMPLISH WITH AN OPEN ABDOMEN IN SEVERE COMPLICATED INTRA-ABDOMINAL SEPSIS?
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/WHAT_DO_WE_MEAN_BY_SOURCE_CONTROL_AND_WHAT_ARE_WE.22.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/what_do_we_mean_by_source_control_and_what_are_we.22.aspx)

AUTHOR REPLY
“WHAT DO WE MEAN BY SOURCE CONTROL AND WHAT ARE WE TRYING TO ACCOMPLISH WITH AN OPEN ABDOMEN IN SEVERE COMPLICATED INTRA-ABDOMINAL SEPSIS?”
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/AUTHOR_REPLY_WHAT_DO_WE_MEAN_BY_SOURCE_CONTROL.23.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/author_reply_what_do_we_mean_by_source_control.23.aspx)

LETTER TO THE EDITOR
THE LIFE-OVER-LIMB IMPERATIVE: DAMAGE CONTROL ANGIOEMBOLIZATION IN PELVIC TRAUMA
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/THE_LIFE_OVER_LIMB_IMPERATIVE_DAMAGE_CONTROL.24.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/the_life_over_limb_imperative_damage_control.24.aspx)

LETTER TO THE EDITOR
RESPONSE TO “ELIMINATING THE BENZOS: A BENZODIAZEPINE-SPARING APPROACH TO PREVENTING AND TREATING ALCOHOL WITHDRAWAL SYNDROME”
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/RESPONSE_TO_ELIMINATING_THE_BENZOS.25.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/response_to_eliminating_the_benzos.25.aspx)

AUTHOR REPLY
REPLY TO LETTER TO THE EDITOR: ELIMINATING THE BENZOS: A BENZODIAZEPINE-SPARING APPROACH TO PREVENTING AND TREATING ALCOHOL WITHDRAWAL SYNDROME
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2024/05000/REPLY_TO_LETTER_TO_THE_EDITOR_ELIMINATING_THE.26.ASPX](https://journals.lww.com/jtrauma/fulltext/2024/05000/reply_to_letter_to_the_editor_eliminating_the_benzos.26.aspx)

