

# JTACS NOVEMBER TABLE OF CONTENTS

## 'BEST OF' NOVEMBER ARTICLES

BEST OF TRAUMA ARTICLE

**Journal of Trauma and Acute Care Surgery**

READ THE ARTICLE

### DIAGNOSIS AND MANAGEMENT OF TRAUMATIC RECTAL INJURY: A WESTERN TRAUMA ASSOCIATION CRITICAL DECISIONS ALGORITHM

**DIAGNOSIS AND MANAGEMENT OF TRAUMATIC RECTAL INJURY: A WESTERN TRAUMA ASSOCIATION CRITICAL DECISIONS ALGORITHM**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/DIAGNOSIS\\_AND\\_MANAGEMENT\\_OF\\_TRAUMATIC\\_RECTAL.18.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/diagnosis_and_management_of_traumatic_rectal.18.aspx)

BEST OF SCC ARTICLE

**Early Venous Thromboembolism Prophylaxis in Patients with Trauma Intracranial Hemorrhage: Analysis of the Prospective Multicenter CLOTT Study**

**17 Level 1 centers**  
Head AIS 3-5

No VTE prophylaxis within 24h due to intracranial hemorrhage (ICH)

or

Craniotomy, craniectomy, ICP monitor or EVD

**Initiation of VTE chemoprophylaxis**

≤ 48h (early) vs > 48h (late)

Multivariate models for VTE & bleeding events

**EARLY prophylaxis**

VTE 7.2% vs 12.4%

DVT 6.1% vs 11.0%

**No difference in:**

ICH progression

Bleeding events

**Journal of Trauma and Acute Care Surgery**

Wu YT et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004607

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**EARLY VENOUS THROMBOEMBOLISM PROPHYLAXIS IN PATIENTS WITH TRAUMA INTRACRANIAL HEMORRHAGE: ANALYSIS OF THE PROSPECTIVE MULTICENTER CLOTT STUDY**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/EARLY\\_VEINOUS\\_THROMBOEMBOLISM\\_PROPHYLAXIS\\_IN.6.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/early_veinous_thromboembolism_prophylaxis_in.6.aspx)



**SCAN HERE TO VIEW A VIDEO OVERVIEW OF THE ARTICLE**

<https://qr.page/g/1nHU7Ily6Pi>

BEST OF BASIC SCIENCES ARTICLE

**Prolonging the therapeutic window for valproic acid treatment in a swine model of traumatic brain injury and hemorrhagic shock**

Valproic acid (VPA) has cytoprotective effects following hemorrhage and traumatic brain injury (TBI) if given within the first hour

Effectiveness of delayed administration is unknown

Hemorrhage + TBI

Dose 2: 8hr later ← Dose 1: 3hr post-injury

Control: No treatment

Improved functional neurologic recovery

Benefit despite delayed administration

Jin G et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004022

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**Journal of Trauma and Acute Care Surgery**

**PROLONGING THE THERAPEUTIC WINDOW FOR VALPROIC ACID TREATMENT IN A SWINE MODEL OF TRAUMATIC BRAIN INJURY AND HEMORRHAGIC SHOCK**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/PROLONGING\\_THE\\_THERAPEUTIC\\_WINDOW\\_FOR\\_VALPROIC.7.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/prolonging_the_therapeutic_window_for_valproic.7.aspx)

**SCAN HERE TO VIEW A VIDEO OVERVIEW OF THE ARTICLE**

<https://qr.page/g/58t2JTUf5w>



BEST OF EGGS ARTICLE

**Current Use and Utility of MRCP, ERCP and Pancreatic Duct Stents: A Secondary Analysis from the WTA Multicenter Trials Group on Pancreatic Injuries**

1243 adults with pancreatic injuries

1110 24hr survivors

216 Pancreatography

137 MRCP, 115 ERCP, 77 Stents

Purposes: Evaluate accuracy of MRCP and efficacy of pancreatic duct stents

MRCP Results	Final Pancreatic Injury Grade	NOI	Stentless	Stented
Major Duct Leak	0	14	2	21 (76%)
Minor Duct Leak	0	0	0	4 (75%)
Stent Leak	26	0	0	19 (73%)
Stent Occlusion	0	0	0	1 (100%)
Stent Migration	0	0	0	1 (100%)
Stent Fracture	0	0	0	1 (100%)
Stent Dislodgement	0	0	0	1 (100%)
Stent Migration	0	0	0	1 (100%)
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Stent Migration	0	0	0	1 (100%)
Stent Fracture	0	0	0	1 (100%)
Stent Dislod				



### THE REPORTS OF MY DEATH ARE GREATLY EXAGGERATED: AN EVALUATION OF FUTILITY CUT-POINTS IN MASSIVE TRANSFUSION

**Study Population**

- Adult trauma patients receiving emergency-release blood products
- Mortality by transfusion volumes at 4 hours, then compared by receipt of any whole blood (WB)

**Results**

- No transfusion futility cut-off, with 50% survival at 50 U and 22% survival at 150 U
- Early WB demonstrated improved survival with increased transfusion volumes

**Conclusions**

- Futility should NOT be declared based on transfusion volumes alone

Clements TW et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000003580

The Journal of Trauma and Acute Care Surgery

### Policing and Firearm Homicides in Boston and Philadelphia

2015-2020

Boston:  
1,399 Shootings  
241 Firearm Homicides

Philadelphia:  
9,084 Shootings  
1,780 Firearm Homicides

Philadelphia: increase in homicides over time

No correlation with police budget

Crime gun recovery associated with:  
↓ Shootings  
↓ Firearm homicide

Hatchimonji JS et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000004008

The Journal of Trauma and Acute Care Surgery

**THE REPORTS OF MY DEATH ARE GREATLY EXAGGERATED: AN EVALUATION OF FUTILITY CUT-POINTS IN MASSIVE TRANSFUSION**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/THE\\_REPORTS\\_OF\\_MY\\_DEATH\\_ARE\\_GREATLY\\_EXAGGERATED\\_11.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/the_reports_of_my_death_are_greatly_exaggerated_11.aspx)

**A TALE OF TWO CITIES: POLICING AND FIREARM HOMICIDES IN BOSTON AND PHILADELPHIA**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/A\\_TALE\\_OF\\_TWO\\_CITIES\\_POLICING\\_AND\\_FIREARM\\_HOMICIDES\\_15.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/a_tale_of_two_cities_policing_and_firearm_homicides_15.aspx)

### LONG TERM OUTCOME AFTER RECURRENT INJURY

**Baseline & Six Month Post-Injury Assessment**

- PROMIS-29
- PTSD Screening

40% Reported Prior Injury

Similar Six Month Outcomes Except:  
Better Physical Function  
More PTSD  
N=92

**Need A Robust Post-Trauma Support Network**

Learn from Resilient Patients with Recurrent Injury

Beyer CA et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000004027

The Journal of Trauma and Acute Care Surgery

### Current Use and Utility of MRCP, ERCP and Pancreatic Duct Stents: A Secondary Analysis from the WTA Multicenter Trials Group on Pancreatic Injuries

1743 adults with pancreatic injuries

1110 24hr survivors

216 Pancreatography

137 MRCP | 115 ERCP

77 Stents

Purposes: Evaluate accuracy of MRCP and efficacy of pancreatic duct stents

MRCP Results	Exact Pancreatic Injury Grade	SDI	Shuntless N/DI				
	I	II	III	IV	V		
Major Duct Leak	1	2	1	1	1	22 (17%)	1 (2%)
Minor Duct Leak	1	2	1	1	1	4 (3%)	4 (4%)
No Duct Leak	38	46	28	17	11	97 (76%)	24 (20%)
Shuntless	0	0	0	0	0	0 (0%)	1 (100%)
Shuntless	28	28	28	17	11	102 (100%)	34 (29%)

The overall accuracy of MRCP for pancreatic duct integrity is 74%.

Neither prophylactic nor therapeutic pancreatic duct stents appear to improve outcomes in terms of preventing or treating PSC.

**Conclusions**

There are very real shortcomings in the accuracy of MRCP on its ability to diagnose main pancreatic duct injury.

Endoscopic stenting may not be effective in preventing or treating PSC, but this needs to be studied prospectively.

Biffi WL et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000003930

The Journal of Trauma and Acute Care Surgery

**EFFECTS OF PRIOR INJURY ON LONG TERM PATIENT REPORTED OUTCOMES AFTER TRAUMA**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/EFFECTS\\_OF\\_PRIOR\\_INJURY\\_ON\\_LONG\\_TERM\\_PATIENT\\_REPORTED\\_OUTCOMES\\_AFTER\\_TRAUMA\\_12.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/effects_of_prior_injury_on_long_term_patient_reported_outcomes_after_trauma_12.aspx)

**CURRENT USE AND UTILITY OF MRCP, ERCP AND PANCREATIC DUCT STENTS: A SECONDARY ANALYSIS FROM THE WTA MULTICENTER TRIALS GROUP ON PANCREATIC INJURIES**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/CURRENT\\_USE\\_AND\\_UTILILITY\\_OF\\_MAGNETIC\\_RESONANCE\\_16.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/current_use_and_utility_of_magnetic_resonance_16.aspx)

### Mobile Health Follow-Up Screening to Risk Stratify Patients in Need of Further Care in a Low Resource Setting: Results from a Prospective Multi-Site Implementation Study

**Study Population**

Cameroonian trauma patients two weeks after hospital discharge

Telephone triage compared with physician exam

**Results**

560 patients

8 triage questions associated w/ high risk of poor outcome (HR)

HR by triage risk score (n= 560)

Positive survey response had 89% sensitivity for HR

**Conclusions**

Telephone triage provides sensitive risk stratification of patients needing further care after discharge

Limited resources should be directed on extending care to patients screening as high risk for poor outcomes

Christie SA et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000003991

The Journal of Trauma and Acute Care Surgery

### The Undisclosed Disclosures: The Dollar-Outcome Relationship In Resuscitative Endovascular Balloon Occlusion of the Aorta

**PubMed Search**

REBOA (≥1 US Author) (2017-2022)

288 Articles

COI Absent 123 (43%)

COI Present 165 (57%)

**Results**

Articles COI Present 165

Inaccurate/Nondisclosure 145 (88%)

Accurate Disclosure 20 (12%)

**Conclusions**

Inaccurate COI disclosures very common (88%) in REBOA research

Need for standardization of reporting COI to avoid potential bias

Bhogadi SK et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000004080

The Journal of Trauma and Acute Care Surgery

**MOBILE HEALTH FOLLOW-UP SCREENING TO RISK STRATIFY PATIENTS IN NEED OF FURTHER CARE IN A LOW RESOURCE SETTING: RESULTS FROM A PROSPECTIVE MULTI-SITE IMPLEMENTATION STUDY**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/MOBILE\\_HEALTH\\_FOLLOW\\_UP\\_SCREENING\\_TO\\_RISK\\_STRATIFY\\_13.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/mobile_health_follow_up_screening_to_risk_stratify_13.aspx)

**THE UNDISCLOSED DISCLOSURES: THE DOLLAR-OUTCOME RELATIONSHIP IN RESUSCITATIVE ENDOVASCULAR BALLOON OCCLUSION OF THE AORTA**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/THE\\_UNDISCLOSED\\_DISCLOSURES\\_THE\\_DOLLAR\\_OUTCOME\\_17.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/the_undisclosed_disclosures_the_dollar_outcome_17.aspx)

### Artificial Intelligence Evaluation of Focused Assessment with Sonography in Trauma

Utility of the FAST exam in trauma is limited to the user's skill level and ability to interpret images

Artificial intelligence (AI) was used to interpret FAST exam images for accuracy and positivity

**Results**

109 cases assessed with 245 videos and 6608 extracted images used for training, validation, and testing the AI

Cases analyzed in two separate cohorts for "adequate" with respect to views and "positive" with respect to fluid

**Conclusions**

AI was up to 83% sensitive and 94% specific in assessing adequacy of imaging

AI with augmentations was up to 94% sensitive and 96.5% specific for assessing positivity of imaging

Levy BE et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000004021

The Journal of Trauma and Acute Care Surgery

### ABO blood type and functional neurological outcome in patients with severe traumatic brain injury (TBI) : a single-center, retrospective and observational study

Patients admitted in ICU with severe TBI (i.e. Glasgow Coma Scale ≤8) between January 2007 and December 2018

Assessment of the association between ABO blood type and functional neurological outcome at the 6-month follow-up

Hypothesis: Blood type O is associated with an unfavorable functional neurological outcome at 6 months, defined by a Glasgow Outcome Scale between 1 and 3

331 patients included

After adjustment, blood type O was significantly associated with unfavorable neurological outcome at 6 months (OR 1.97 – 95%CI [1.03-3.80], p=0.042)

Conclusion: Blood type O seems to be associated with unfavorable long-term functional outcome in critically ill patient with severe TBI

Esnault P et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/JA.0000000000004041

The Journal of Trauma and Acute Care Surgery

**ARTIFICIAL INTELLIGENCE EVALUATION OF FOCUSED ASSESSMENT WITH SONOGRAPHY IN TRAUMA**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/ARTIFICIAL\\_INTELLIGENCE\\_EVALUATION\\_OF\\_FOCUSED\\_14.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/artificial_intelligence_evaluation_of_focused_14.aspx)

**ABO BLOOD TYPE AND FUNCTIONAL NEUROLOGICAL OUTCOME IN PATIENTS WITH SEVERE TRAUMATIC BRAIN INJURY**  
[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/ABO\\_BLOOD\\_TYPE\\_AND\\_FUNCTIONAL\\_NEUROLOGICAL\\_OUTCOME\\_19.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/abo_blood_type_and_functional_neurological_outcome_19.aspx)

**Assessment of Ethynylestradiol-3-sulfate on Coagulation, Metabolism and Survival in Pigs with Traumatic Hemorrhage**

1. 17- $\alpha$ -ethynylestradiol-3-sulfate (EE-3-S), is sulfuric acid ester of 17- $\alpha$ -ethynylestradiol (EE), a synthetic form of estradiol, which is the predominant and biologically active estrogen

2. EE-3-S is highly water soluble, but EE or estradiol is not.

3. This study tested whether EE-3-S can improve survival and clotting function after injury and blood loss in pigs

26 pigs were anesthetized and subject to femur fracture and blood loss of 55% of the total blood volume

10 pigs were then given small volume of normal saline (4ml/kg); 11 pigs were given EE-3-S with normal saline (1mg/kg, 4ml/kg); and 5 pigs without normal saline. All pigs were monitored for 6 hours

Clotting function was measured from blood samples and survival time was recorded in each pig

**Following femur fracture and severe blood loss in pigs, EE-3-S (1mg/kg) administered with small volume of normal saline does not improve survival or blood clotting function**

Martini WZ et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004031

The Journal of Trauma and Acute Care Surgery

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**ASSESSMENT OF ETHYNYLESTRADIOL-3-SULFATE ON COAGULATION, METABOLISM AND SURVIVAL IN PIGS WITH TRAUMATIC HEMORRHAGE**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/ASSESSMENT\\_OF\\_ETHYNYLESTRADIOL\\_3\\_SULFATE\\_ON\\_20.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/assessment_of_ethynylestradiol_3_sulfate_on_20.aspx)

**Financial Toxicity after Trauma & Acute Care Surgery: From Understanding to Action**

**Financial toxicity** after trauma or emergency surgery encompasses both the objective financial consequences of illness/treatment as well as patients' subjective financial concerns.

**Financial toxicity impacts hr-QoL through a variety of measurable domains:**

- Out-of-pocket expenses
- Medical Debt
- Non-medical expenses & debt
- Work loss and income loss
- Overall financial distress
- Delayed/forgone care due to cost

**Key Knowledge Gaps Must Be Explored:**

- The magnitude of financial toxicity after Trauma/ACS
- Identify populations at highest risk of financial toxicity
- The bi-directional link between financial toxicity and hr-QoL
- Evaluate of programs & policies to mitigate financial toxicity

Scott JW et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003979

The Journal of Trauma and Acute Care Surgery

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**FINANCIAL TOXICITY AFTER TRAUMA & ACUTE CARE SURGERY: FROM UNDERSTANDING TO ACTION**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/FINANCIAL\\_TOXICITY\\_AFTER\\_TRAUMA\\_AND\\_ACUTE\\_CARE\\_26.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/financial_toxicity_after_trauma_and_acute_care_surgery_26.aspx)

**Improving Tissue Perfusion Improves Shock Outcomes**

**Increased Tissue Perfusion**

**Improved Central Hemodynamics**

**Increased Survival**

**New Method**

**Old Method**

**Both Methods Needed**

Kang HS et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004003

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**RESTORING MICROCIRCULATORY PERFUSION IN A PRECLINICAL MODEL OF SEVERE HEMORRHAGIC SHOCK: THE ROLE OF MICRO-CIRCULATORY FUNCTION IN SHOCK SURVIVAL**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/RESTORING\\_MICROCIRCULATORY\\_PERFUSION\\_IN\\_A\\_21.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/restoring_microcirculatory_perfusion_in_a_21.aspx)

**TRENDS IN DISPARITIES RESEARCH ON TRAUMA AND ACUTE CARE SURGERY OUTCOMES: A 10-YEAR SYSTEMATIC REVIEW OF ARTICLES PUBLISHED IN THE JOURNAL OF TRAUMA AND ACUTE CARE SURGERY**

Healthcare disparities arise from a complex interaction of factors that affect patient outcomes

74 articles of the 4,178 published in JTACS over 10 years addressed healthcare disparities

This review highlights the areas in need of further research and funding aimed at interventions used to target and reduce disparities surrounding trauma care

Breeding T et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004067

The Journal of Trauma and Acute Care Surgery

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**TRENDS IN DISPARITIES RESEARCH ON TRAUMA AND ACUTE CARE SURGERY OUTCOMES: A 10-YEAR SYSTEMATIC REVIEW OF ARTICLES PUBLISHED IN THE JOURNAL OF TRAUMA AND ACUTE CARE SURGERY**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/TRENDS\\_IN\\_DISPARITIES\\_RESEARCH\\_ON\\_TRAUMA\\_AND\\_ACUTE\\_CARE\\_27.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/trends_in_disparities_research_on_trauma_and_acute_care_surgery_27.aspx)

**Research Priorities in Venous Thromboembolism after Trauma: Secondary Analysis of the National Trauma Research Action Plan (NTRAP)**

**BACKGROUND:**

NTRAP convened 11 different multidisciplinary Delphi panels to identify consensus research questions across the spectrum of injury care

**AIM:**

Identify VTE-related research questions across all NTRAP panels to guide future trauma VTE research

**RESULTS**

86 VTE-related questions were identified across 9 different NTRAP panels.

VTE questions were related to:

- Timing of prophylaxis (n=17)
- Risk factors for VTE (n=16)
- Effects of TXA on VTE (n=11)
- Dosing strategies (n=8)
- Prophylactic medication choice (n=6)

**CONCLUSION**

NTRAP panels identified research questions that should drive dedicated extramural research funding

VTE researchers should consider prioritizing these research questions based on their importance in advancing VTE-related trauma care

Costantini TW et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004074

The Journal of Trauma and Acute Care Surgery

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**RESEARCH PRIORITIES IN VENOUS THROMBOEMBOLISM AFTER TRAUMA: SECONDARY ANALYSIS OF THE NATIONAL TRAUMA RESEARCH ACTION PLAN (NTRAP)**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/RESEARCH\\_PRIORITIES\\_IN\\_VENOUS\\_THROMBOEMBOLISM\\_22.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/research_priorities_in_venous_thromboembolism_22.aspx)

**The Persistent Inflammation, Immunosuppression and Catabolism Syndrome (PICS) Ten Years Later**

Scientific understanding of the pathobiology underlying Multiple Organ Failure (MOF) and chronic critical illness (CCI) in sepsis and trauma has undergone significant evolution

In 2012, the persistent inflammation, immunosuppression and catabolism syndrome (PICS) was first described as the underlying etiology of CCI in surgical ICU survivors

**Exacerbated by:**

- Age
- Sarcopenia

**Associated with:**

- Acute kidney injury (AKI)
- Myeloid-derived suppressor cell (MDSC) expansion
- Dysfunctional high-density lipoprotein (Dys-HDL)

Efron PA et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000004087

The Journal of Trauma and Acute Care Surgery

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**THE PERSISTENT INFLAMMATION, IMMUNOSUPPRESSION, AND CATABOLISM SYNDROME (PICS) TEN YEARS LATER**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/THE\\_PERSISTENT\\_INFLAMMATION\\_IMMUNOSUPPRESSION\\_25.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/the_persistent_inflammation_immunosuppression_25.aspx)

**NO VISUAL ABSTRACT PROVIDED**

**THINKING LIKE A FREAK IN ACUTE CARE SURGERY**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/THINKING\\_LIKE\\_A\\_FREAK\\_IN\\_ACUTE\\_CARE\\_SURGERY\\_1.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/thinking_like_a_freak_in_acute_care_surgery_1.aspx)

**FUNDING THE WAR IN AMERICA: A LOOK IN THE MIRROR**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/FUNDING\\_THE\\_WAR\\_IN\\_AMERICA\\_A\\_LOOK\\_IN\\_THE\\_MIRROR\\_2.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/funding_the_war_in_america_a_look_in_the_mirror_2.aspx)

**DIAGNOSIS AND MANAGEMENT OF TRAUMATIC RECTAL INJURY: A WESTERN TRAUMA ASSOCIATION CRITICAL DECISIONS ALGORITHM**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/DIAGNOSIS\\_AND\\_MANAGEMENT\\_OF\\_TRAUMATIC\\_RECTAL\\_18.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/diagnosis_and_management_of_traumatic_rectal_18.aspx)

**DAMAGE CONTROL SURGERY IN EMERGENCY GENERAL SURGERY: WHAT YOU NEED TO KNOW**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/DAMAGE\\_CONTROL\\_SURGERY\\_IN\\_EMERGENCY\\_GENERAL\\_23.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/damage_control_surgery_in_emergency_general_surgery_23.aspx)

**MANAGEMENT OF TRAUMATIC BRAIN INJURY IN OLDER ADULTS: WHAT YOU NEED TO KNOW**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/MANAGEMENT\\_OF\\_TRAUMATIC\\_BRAIN\\_INJURY\\_IN\\_OLDER\\_24.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/management_of_traumatic_brain_injury_in_older_adults_24.aspx)

**THE ACUTE CARE SURGERY MODEL AND ELECTIVE SURGERY**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/THE\\_ACUTE\\_CARE\\_SURGERY\\_MODEL\\_AND\\_ELECTIVE\\_SURGERY\\_28.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/the_acute_care_surgery_model_and_elective_surgery_28.aspx)

**BESIEGED IN THE BRONX: LESSONS FROM AN IN-HOSPITAL MASS CASUALTY**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/BESIEGED\\_IN\\_THE\\_BRONX\\_LESSONS\\_FROM\\_AN\\_IN\\_HOSPITAL\\_29.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/besieged_in_the_bronx_lessons_from_an_in_hospital_29.aspx)

**ASSESSING TRANSFUSION-RELATED COSTS: MORE THAN JUST THE PRICE OF BLOOD**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/ASSESSING\\_TRANSFUSION\\_RELATED\\_COSTS\\_MORE\\_THAN\\_30.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/assessing_transfusion_related_costs_more_than_30.aspx)

**FUTILITY THRESHOLDS, TOO SIMPLE**

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/11000/FUTILITY\\_THRESHOLDS\\_TOO\\_SIMPLE\\_31.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/11000/futility_thresholds_too_simple_31.aspx)