

JTACS MARCH TABLE OF CONTENTS

'BEST OF' MARCH ARTICLES

BEST OF BASIC SCIENCES ARTICLE

A Proteomic Analysis of NETosis in Trauma: Emergence of SerpinB1 as a Key Player

Study Population/Methods

Median Age in years (IQR)	33 (26-48)
Male sex	18 (60%)
Penetrating Mechanism	52 (89%)
ISS Present	29 (47%)
Median ISS (IQR)	27 (15-41)
Median LDH in mg/dL (IQR)	9.0 (1.3 to 5.75)
Median LDH (IQR)	14 (12-18)
Shock/Trauma Phenotype	
Group 1 (N=25, IR/OM)	34 (22%)
Group 2 (N=25, IR/OM)	14 (13%)
Group 3 (N=25, IR/OM)	28 (27%)
Group 4 (N=25, IR/OM)	28 (24%)
Group 5 (N=25, IR/OM)	28 (24%)
Median ISS units in the (IQR)	2 (0-4)
Median ISS units in the (IQR)	2 (0-4)
Median VAP (IQR)	2 (0-4)
Median LOS (IQR)	25 (10-26)
Median LOS (IQR)	11 (7-15)

Results

SerpinB1 is correlated with known NETosis markers, which are elevated proportional to injury severity.

Conclusions

NETosis happens early after injury and may mediate post-injury organ dysfunction. SerpinB1 is a major component of this NET protein profile and may be an important biomarker.

SerpinB1 was consistently among known NETosis markers as top predictors of adverse outcomes in proteome-wide analyses.

Schaid TR, et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.00000000000033845 @JTraumaAcuteSurg

A PROTEOMIC ANALYSIS OF NETOSIS IN TRAUMA: EMERGENCE OF SERPINB1 AS A KEY PLAYER

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/A_PROTEOMIC_ANALYSIS_OF_NETOSIS_IN_TRAUMA_2.ASPX?CONTEXT=FEATUREDARTICLES&COLLECTIONID=5](https://journals.lww.com/jtrauma/fulltext/2023/03000/a_proteomic_analysis_of_netosis_in_trauma_2.aspx?context=featuredarticles&collectionid=5)



SCAN HERE TO VIEW A VIDEO OVERVIEW OF THE ARTICLE

<https://qr.page/g/1V8GaKMr5rX>

Therapeutic strategies for pseudoaneurysm following blunt liver and spleen injuries: a multicenter cohort study in the pediatric population.

Study Population

Pediatric patients (<16 years old) who sustained blunt liver or/and spleen injury from 2008 to 2019.

Eligible patients : 1,407 children from 83 centers

Incidence of Delayed Pseudoaneurysm (PA)

- NOM group: 4.1%
- NOM with IR group: 12%
- OM group: 3.8%
- Combined IR/OM group: 14%

Treatment of Pseudoaneurysm

39%: Prophylactic IR for unruptured PA

13%: Emergent angioembolization for delayed PA rupture

AT LEAST 45%: Spontaneous resolution

IR interventions are usually successful

The ideal management of PA remains to be investigated in future study

Katsura et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003813 @JTraumaAcuteSurg

THERAPEUTIC STRATEGIES FOR PSEUDOANEURYSM FOLLOWING BLUNT LIVER AND SPLEEN INJURIES: A MULTICENTER COHORT STUDY IN THE PEDIATRIC POPULATION

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/THERAPEUTIC_STRATEGIES_FOR_PSEUDOANEURYSM.11.ASPX?CONTEXT=FEATUREDARTICLES&COLLECTIONID=5](https://journals.lww.com/jtrauma/fulltext/2023/03000/therapeutic_strategies_for_pseudoaneurysm.11.aspx?context=featuredarticles&collectionid=5)

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BEST OF SCC ARTICLE

ARE WE WAITING FOR THE SKY TO FALL? PREDICTORS OF WITHDRAWAL OF LIFE-SUSTAINING SUPPORT IN GERIATRIC TRAUMA PATIENTS

2017-2018 ACS TQIP database

597,840 trauma patients age 65+

Presence of advance directive limiting care (ADLC)

Main outcome: withdrawal of life sustaining treatment (WLS)

1:1 propensity matching on basis of ADLC

Adjusted multivariable analysis on factors affecting WLS

Patients with ADLC more likely to undergo WLS

Other factors more likely to lead to WLS than ADLC:

- In-hospital cardiac arrest
- Unplanned ICU admission

Badrinathan A et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003844 @JTraumaAcuteSurg

ARE WE WAITING FOR THE SKY TO FALL? PREDICTORS OF WITHDRAWAL OF LIFE-SUSTAINING SUPPORT IN OLDER TRAUMA PATIENTS: A RETROSPECTIVE ANALYSIS

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/ARE_WE_WAITING_FOR_THE_SKY_TO_FALL_PREDICTORS_OF_WITHDRAWAL_OF_LIFE_SUSTAINING_SUPPORT_IN_OLDER_TRAUMA_PATIENTS:A_RETROSPECTIVE_ANALYSIS.5.ASPX?CONTEXT=FEATUREDARTICLES&COLLECTIONID=5](https://journals.lww.com/jtrauma/fulltext/2023/03000/are_we_waiting_for_the_sky_to_fall_predictors_of_withdrawal_of_life_sustaining_support_in_older_trauma_patients_a_retrospective_analysis.5.aspx?context=featuredarticles&collectionid=5)



SCAN HERE TO VIEW A VIDEO OVERVIEW OF THE ARTICLE

<https://qr.page/g/j3iyK1dLQ2>

Wait-and-see strategy is justified after ERCP and endoscopic sphincterotomy in elderly patients with common biliary duct stones.

Multicentric, years 2010-2020

Methods: Observational study with 450 patients aged ≥ 75 years undergoing endoscopic stone extraction without subsequent cholecystectomy

Main outcome measure recurrence of biliary events, and secondary outcome measures morbidity and mortality

Median follow-up time 36 months

Results: Subsequent biliary events in 11% (4% underwent ERCP and 3.5% surgery) with no operation associated deaths or morbidity, four deaths (0.9%) associated with later biliary events

Conclusion: In elderly and frail patients a wait-and see strategy without routine cholecystectomy rarely leads to clinically significant consequences.

Antti K et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003852 @JTraumaAcuteSurg

WAIT-AND-SEE STRATEGY IS JUSTIFIED AFTER ERCP AND ENDOSCOPIC SPHINCTEROTOMY IN ELDERLY PATIENTS WITH COMMON BILIARY DUCT STONES

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/WAIT_AND_SEE_STRATEGY_IS_JUSTIFIED_AFTER_ERCP_AND_ENDOSCOPIC_SPHINCTEROTOMY_IN_ELDERLY_PATIENTS_WITH_COMMON_BILIARY_DUCT_STONES.12.ASPX?CONTEXT=FEATUREDARTICLES&COLLECTIONID=5](https://journals.lww.com/jtrauma/fulltext/2023/03000/wait_and_see_strategy_is_justified_after_ercp_and_endoscopic_sphincterotomy_in_elderly_patients_with_common_biliary_duct_stones.12.aspx?context=featuredarticles&collectionid=5)

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BEST OF TRAUMA ARTICLE

BEST OF EGS ARTICLE

A Proteomic Analysis of NETosis in Trauma: Emergence of SerpinB1 as a Key Player

Study Population/Methods	Results	Conclusions
<ul style="list-style-type: none"> 197 Trauma Patients, Hospitalized in the ED Median Age In Years (IQR): 33 (26-49) Male Sex: 80 (80%) Penetrating Mechanism: 52 (49%) TBI Present: 29 (27%) Median ISS (IQR): 27 (13-41) Median ISS (IQR) in Mortal: 41 (13.0 to 5.293) Mortality: 14 (13%) 	<ul style="list-style-type: none"> SerpinB1 is correlated with known NETosis markers, which are elevated proportional to injury severity. SerpinB1 was consistently among known NETosis markers as top predictors of adverse outcomes in proteome-wide analysis. 	<ul style="list-style-type: none"> NETosis happens early after injury and may mediate post-injury organ dysfunction. SerpinB1 is a major component of this NET proteome profile and may be an important biomarker.

Schall TR, Jr, et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003849

A PROTEOMIC ANALYSIS OF NETOSIS IN TRAUMA: EMERGENCE OF SERPINB1 AS A KEY PLAYER

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/A-PROTEOMIC_ANALYSIS_OF_NETOSIS_IN_TRAUMA_2.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/a-proteomic-analysis-of-netosis_in-trauma_2.aspx)

Cover with Caution: Management of the Left Subclavian Artery in TEVAR for Trauma

Aortic Trauma Foundation

TEVAR for BTAI (n=364)
LSA uncovered (n=204) vs LSA covered w/o revascularization (n=97)

LSA covered w/o revascularization: ↑ Late and overall ischemic strokes

LSA covered w/o revascularization: ↑ Early, Late, & Overall composite CNS ischemic events

Romagnoli et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003832

COVER WITH CAUTION: MANAGEMENT OF THE LEFT SUBCLAVIAN ARTERY IN TEVAR FOR TRAUMA

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/COVER_WITH_CAUTION_MANAGEMENT_OF_THE_LEFT.6.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/cover-with-caution-management-of-the-left.6.aspx)

Racial and Ethnic Disparities in Interhospital Transfer for Complex EGS Disease Across the United States

Study Population	Interhospital Transfer Rates	Conclusions
<ul style="list-style-type: none"> National Emergency Department Sample 2019 13 Complex EGS Conditions 387,610 patient encounters 989 hospitals across US 	<ul style="list-style-type: none"> 17% Non-Hispanic White 15% Non-Hispanic Black 9% Hispanic/Latinx 11% Asian/Pacific Islander 12% Other Race/Ethnicity 	<ul style="list-style-type: none"> Disparities persist when controlling for SES, insurance, comorbidities, geography Hispanic/Latinx and Asian/Pacific Islander patients may face unique barriers to surgery

Iantorno SE et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003856

RACIAL AND ETHNIC DISPARITIES IN INTERHOSPITAL TRANSFER FOR COMPLEX EMERGENCY GENERAL SURGICAL DISEASE ACROSS THE UNITED STATES

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/RACIAL_AND_ETHNIC_DISPARITIES_IN_INTERHOSPITAL.3.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/racial-and-ethnic-disparities_in_interhospital.3.aspx)

Non-Surgical Management for Older Adults with Multiple Rib Fractures—Systematic Review and EAST PMG

Key Questions: ICU?, IS7?, HFNC/BiPAP vs ET7?, Ketamine, Locoregional Meds, Best pain control?

Key Outcomes: ↑ Rib fracture mortality in those aged ≥ 65 years, Nonop management not well-defined

Systematic Review 151 manuscripts, GRADE methodology, Consensus Recs

Is <1L = high risk, HFNC/BiPAP first for resp failure if protecting airway, ICU and Pain control per MD judgment

Mukherjee et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003850

NON-SURGICAL MANAGEMENT AND ANALGESIA STRATEGIES FOR OLDER ADULTS WITH MULTIPLE RIB FRACTURES: A SYSTEMATIC REVIEW, META-ANALYSIS, AND PRACTICE MANAGEMENT GUIDELINE FROM THE EASTERN ASSOCIATION FOR THE SURGERY OF TRAUMA

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/NON_SURGICAL_MANAGEMENT_AND_ANALGESIA_STRATEGIES.7.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/non-surgical-management-and-analgesia-strategies.7.aspx)

Detection Of Pneumothorax On Ultrasound Using Artificial Intelligence

In response to a DARPA Challenge, an artificial intelligence program was created to detect pneumothorax on 3 second ultrasound videos gathered with inexpensive point of care probes

Linearization of images, anatomic reconstruction using convolutional neural networks, and other AI methodologies were applied

A sensitivity of 86% and a specificity of 76% were achieved. This could potentially be improved with longer videos and analysis for chest wall motion. This may be useful for prehospital personnel and non expert clinicians

Montgomery S et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003845

DETECTION OF PNEUMOTHORAX ON ULTRASOUND USING ARTIFICIAL INTELLIGENCE

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/DETECTION_OF_PNEUMOTHORAX_ON_ULTRASOUND_USING.4.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/detection-of-pneumothorax-on-ultrasound-using.4.aspx)

LONG-TERM CARDIOVASCULAR MORTALITY IN ADULT BURN SURVIVORS

POPULATION & METHODS: 4,134 burns patients aged >15 years old admitted over 16 year time-period, Followed for up to 20 years

FINDINGS: ↑ cardiovascular mortality compared to age and gender-matched reference population, Males 15-64: 10x ↑ cardiovascular mortality risk ratio, Males 65-64: 2.5x ↑ cardiovascular mortality risk ratio

IMPLICATIONS: Young and middle-aged men who experience burn injuries have an elevated risk of cardiovascular death over the ensuing two decades, Structured follow-up and aggressive control of cardiac risk factors in young men with burns is recommended.

Paratz et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003781

CARDIOVASCULAR MORTALITY POST BURN INJURY

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/CARDIOVASCULAR_MORTALITY_POST_BURN_INJURY.8.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/cardiovascular-mortality-post-burn-injury.8.aspx)

ARE WE WAITING FOR THE SKY TO FALL? PREDICTORS OF WITHDRAWAL OF LIFE-SUSTAINING SUPPORT IN GERIATRIC TRAUMA PATIENTS

2017-2018 ACS TQIP database, 597,840 trauma patients age 65+, Presence of advance directive limiting care (ADLC), Main outcome: withdrawal of life sustaining treatment (WLSS)

1:1 propensity matching on basis of ADLC, Adjusted multivariable analysis on factors affecting WLSS

Patients with ADLC more likely to undergo WLSS, Other factors more likely to lead to WLSS than ADLC: In-hospital cardiac arrest, Unplanned ICU admission

Badrinathan A et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003844

ARE WE WAITING FOR THE SKY TO FALL? PREDICTORS OF WITHDRAWAL OF LIFE-SUSTAINING SUPPORT IN OLDER TRAUMA PATIENTS: A RETROSPECTIVE ANALYSIS

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/ARE_WE_WAITING_FOR_THE_SKY_TO_FALL_PREDICTORS_OF.5.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/are-we-waiting-for-the-sky-to-fall-predictors_of.5.aspx)

Impact of Individual Components of Emergency Department Pediatric Readiness on Pediatric Mortality in US Trauma Centers

Study Purpose: What attributes of Emergency Department pediatric readiness are most important to improved outcomes in children?

Trauma Centers with a physician and a nurse pediatric emergency care coordinator had better-than-expected survival

Remick K, Smith M, Newgard CD, et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003779

IMPACT OF INDIVIDUAL COMPONENTS OF EMERGENCY DEPARTMENT PEDIATRIC READINESS ON PEDIATRIC MORTALITY IN US TRAUMA CENTERS

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/IMPACT_OF_INDIVIDUAL_COMPONENTS_OF_EMERGENCY.9.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/impact-of-individual-components-of-emergency.9.aspx)

Association between physician's case volume in prehospital advanced trauma care and 30-day mortality: a registry-based analysis of 4,032 patients

Multivariate logistic regression was used to investigate whether 30-day mortality of trauma patients was associated with the number of cases encountered by the physician during the preceding 12 months.

Practice patterns were compared according to physicians' case volumes.

Higher case volume was associated with lower mortality (OR 0.59, 95% CI 0.38–0.89).

Advanced interventions were more common among patients treated by physicians with a higher case volume.

Organizing advanced prehospital trauma care in a way that ensures physicians encounter these patients frequently might improve patient survival.

Saviluo A et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003777

The Journal of **Trauma and Acute Care Surgery**

ASSOCIATION BETWEEN PHYSICIAN'S CASE VOLUME IN PREHOSPITAL ADVANCED TRAUMA CARE AND 30-DAY MORTALITY: A REGISTRY-BASED ANALYSIS OF 4,032 PATIENTS

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/ASSOCIATION_BETWEEN_PHYSICIAN_S_CASE_VOLUME_IN.10.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/association_between_physician_s_case_volume_in.10.aspx)

Blunt Pancreatic Trauma
A Western Trauma Association Critical Decisions Algorithm

Blunt pancreatic injury (BPI) is difficult to diagnose

This algorithm addresses the workup, diagnosis and treatment of BPI

A high degree of clinical suspicion should be maintained

Recommendations
- Low grade injury: non-op/conservative management
- High grade injury: operative management

Figure 1. Western Trauma Association algorithm for the diagnosis and management of patients with blunt pancreatic injury. Critical Decisions algorithm to address the potential emergency.

Moren et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003794

The Journal of **Trauma and Acute Care Surgery**

BLUNT PANCREATIC TRAUMA: A WESTERN TRAUMA ASSOCIATION CRITICAL DECISIONS ALGORITHM

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/BLUNT_PANCREATIC_TRAUMA_A_WESTERN_TRAUMA.14.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/blunt_pancreatic_trauma_a_western_trauma.14.aspx)

BEST OF TRAUMA ARTICLE

Therapeutic strategies for pseudoaneurysm following blunt liver and spleen injuries: a multicenter cohort study in the pediatric population.

Study Population
Pediatric patients (≤16 years old) who sustained blunt liver or/and spleen injury from 2008 to 2019.

Eligible patients: 1,407 children from 83 centers

Incidence of Delayed Pseudoaneurysm (PA)

- NOM group: 4.1%
- NOM with IR group: 12%
- OM group: 3.8%
- Combined IR/OM group: 14%

The risk of delayed PA still exists even after acute phase IR

Treatment of Pseudoaneurysm

- 39%: Prophylactic IR for unruptured PA
- 13%: Emergent angioembolization for delayed PA rupture
- AT LEAST 45%: Spontaneous resolution
- IR interventions are usually successful
- The ideal management of PA remains to be investigated in future study

Katsura et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003813

The Journal of **Trauma and Acute Care Surgery**

THERAPEUTIC STRATEGIES FOR PSEUDOANEURYSM FOLLOWING BLUNT LIVER AND SPLEEN INJURIES: A MULTICENTER COHORT STUDY IN THE PEDIATRIC POPULATION

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/THERAPEUTIC_STRATEGIES_FOR_PSEUDOANEURYSM.11.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/therapeutic_strategies_for_pseudoaneurysm.11.aspx)

Approaches for Optimizing Venous Thromboembolism (VTE) Prevention in Injured Patients

Previously Accepted Practice Patterns
LMWH 30-mg BID
Mobilization, SCDs
Prophylactic IVC Filters
Prophylaxis limited to inpatient

Evolving VTE Prevention Strategies
Limited utility of mechanical prophylaxis and IVCFs
Anti-Xa levels
Weight-based dosing
Cr based dosing
TEG guided dosing
Extended VTE prevention Rx

Future Directions
Standardized LMWH dosing regimen
Extended duration prophylaxis

Teichman AL et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003854

The Journal of **Trauma and Acute Care Surgery**

APPROACHES FOR OPTIMIZING VENOUS THROMBOEMBOLISM (VTE) PREVENTION IN INJURED PATIENTS: FINDINGS FROM THE CONSENSUS CONFERENCE TO IMPLEMENT OPTIMAL VTE PROPHYLAXIS IN TRAUMA

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/APPROACHES_FOR_OPTIMIZING_VENOUS_THROMBOEMBOLISM.16.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/approaches_for_optimizing_venous_thromboembolism.16.aspx)

BEST OF EMERGENCY GENERAL SURGERY ARTICLE

Wait-and-see strategy is justified after ERCP and endoscopic sphincterotomy in elderly patients with common biliary duct stones.

Multicentric, years 2010-2020

Methods: Observational study with 450 patients aged ≥ 75 years undergoing endoscopic stone extraction without subsequent cholecystectomy

Main outcome measure recurrence of biliary events, and secondary outcome measures morbidity and mortality

Median follow-up time 36 months

Results: Subsequent biliary events in 11% (4% underwent ERCP and 3.5% surgery) with no operation associated deaths or morbidity, four deaths (0.9%) associated with later biliary events

Conclusion: In elderly and frail patients a wait-and see strategy without routine cholecystectomy rarely leads to clinically significant consequences.

Antti K et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003852

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WAIT-AND-SEE STRATEGY IS JUSTIFIED AFTER ERCP AND ENDOSCOPIC SPHINCTEROTOMY IN ELDERLY PATIENTS WITH COMMON BILIARY DUCT STONES.

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/WAIT_AND_SEE_STRATEGY_IS_JUSTIFIED_AFTER_ERCP_AND.12.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/wait_and_see_strategy_is_justified_after_ercp_and.12.aspx)

Novel Therapeutic Medications for Venous Thromboembolism Prevention in Trauma Patients: Findings from the Consensus Conference to Implement Optimal VTE Prophylaxis in Trauma

Current VTE chemoprophylactic strategies used in trauma patients require updates

Aspirin and direct oral anticoagulants may serve as suitable alternatives

Literature review exploring potential novel therapeutics

Dhillon NK et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003853

The Journal of **Trauma and Acute Care Surgery**

NOVEL THERAPEUTIC MEDICATIONS FOR VENOUS THROMBOEMBOLISM PREVENTION IN TRAUMA PATIENTS: FINDINGS FROM THE CONSENSUS CONFERENCE TO IMPLEMENT OPTIMAL VTE PROPHYLAXIS IN TRAUMA

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/NOVEL_THERAPEUTIC_MEDICATIONS_FOR_VENOUS.17.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/novel_therapeutic_medications_for_venous.17.aspx)

Blunt Splenic Injury, ED to Discharge: A Western Trauma Association Critical Decisions Algorithm

Management of blunt splenic injury begins in the trauma bay but must continue throughout hospitalization and for weeks after discharge.

Blunt Splenic Injury Management Guideline
Nonoperative and Post-Splenic Angioembolization

CLASSIFICATION	LOW GRADE	HIGH GRADE
AAST (OR)	≤ 1	≥ 2
Mechanism	Direct impact only	Indirect impact with 2nd, 3rd, 4th
Signs	None	Free fluid on CT scan
CT scan	Non-contrast CT scan showed a splenic laceration (segment 1-3)	Free fluid on CT scan
Follow-up CT scan	Serial CT scans or contrast-enhanced CT scan	1-2 days after injury
Discharge criteria (nonoperative management)	Stable vital signs, 24-hr urine output > 300 mL	Stable CT, stable vital signs, 24-hr urine output > 300 mL
Admission to critical care	1 week if needs for all 3 criteria are met	4 weeks if needs for all 3 criteria are met

Schatz et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003823

The Journal of **Trauma and Acute Care Surgery**

BLUNT SPLENIC INJURY, ED TO DISCHARGE: A WESTERN TRAUMA ASSOCIATION CRITICAL DECISIONS ALGORITHM

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/BLUNT_SPLENIC_INJURY_EMERGENCY_DEPARTMENT_TO.13.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/blunt_splenic_injury_emergency_department_to.13.aspx)

Timing of VTE Prophylaxis Initiation after Injury: Findings from the Consensus Conference to Implement Optimal VTE Prophylaxis in Trauma

High Risk Trauma Patients
Solid Organ Injuries
Spine Injuries
Traumatic Brain Injuries

Early Initiation of VTE Chemoprophylaxis
Safe ↓ VTE
(but data are primarily retrospective single center)

Next Step: Prospective multicenter evaluations of optimal time to initiate VTE prophylaxis among high risk trauma patients

Risk of Bleeding vs. VTE

Schellenberg et al. *Journal of Trauma and Acute Care Surgery*. DOI: 10.1097/TA.0000000000003847

The Journal of **Trauma and Acute Care Surgery**

TIMING OF VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS INITIATION AFTER INJURY: FINDINGS FROM THE CONSENSUS CONFERENCE TO IMPLEMENT OPTIMAL VTE PROPHYLAXIS IN TRAUMA

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/TIMING_OF_VENOUS_THROMBOEMBOLISM_PROPHYLAXIS.18.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/timing_of_venous_thromboembolism_prophylaxis.18.aspx)

Implementation Science Approaches to Optimizing Venous Thromboembolism Prevention in Patients with Traumatic Injuries: Findings from the 2022 Consensus Conference to Implement Optimal VTE Prophylaxis in Trauma

Many guidelines for VTE prophylaxis implementation in trauma patients exists

Disconnect in evidence and VTE prophylaxis implementation

Practice pattern variations

Inconsistencies VTE prophylaxis prescription

Paucity of implementation science in trauma

Heterogeneity in injury burden

Need for further investigations for optimal VTE prophylaxis implementation

Ratnasekera A et al. *Journal of Trauma and Acute Care Surgery*.
DOI: 10.1097/TA.0000000000003850

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IMPLEMENTATION SCIENCE APPROACHES TO OPTIMIZING VENOUS THROMBOEMBOLISM PREVENTION IN PATIENTS WITH TRAUMATIC INJURIES: FINDINGS FROM THE 2022 CONSENSUS CONFERENCE TO IMPLEMENT OPTIMAL VTE PROPHYLAXIS IN TRAUMA

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/IMPLEMENTATION_SCIENCE_APPROACHES_TO_OPTIMIZING.19.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/implementation_science_approaches_to_optimizing.19.aspx)

NO VISUAL ABSTRACT PROVIDED

VENOUS THROMBOEMBOLISM IN TRAUMA: CURRENT TRENDS AND RECENT ADVANCEMENTS IN PROPHYLAXIS, DIAGNOSIS, AND MANAGEMENT

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/VENOUS_THROMBOEMBOLISM_IN_TRAUMA_CURRENT_TRENDS.1.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/venous_thromboembolism_in_trauma_current_trends.1.aspx)

NO VISUAL ABSTRACT PROVIDED

PROCEEDINGS FROM THE 2022 CONSENSUS CONFERENCE TO IMPLEMENT OPTIMAL VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS IN TRAUMA

[HTTPS://JOURNALS.LWW.COM/JTRAUMA/FULLTEXT/2023/03000/PROCEEDINGS_FROM_THE_2022_CONSENSUS_CONFERENCE_TO.15.ASPX](https://journals.lww.com/jtrauma/fulltext/2023/03000/proceedings_from_the_2022_consensus_conference_to.15.aspx)

