

Supplemental Table 3: Description of Excluded Studies

| Title | Year Published | Reason for Exclusion |
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| Pulmonary Embolism Prevention By Clinical Management Guideline In High Risk Trauma Patients Admitted to An ICU Using Duplex Surveillance ⁽¹⁾ | 1998 | Wrong intervention Wrong outcomes |
| Thrombosis Risk in The Trauma Patient: Prevention and Treatment ⁽²⁾ | 2000 | Review article |
| Primary Prevention of Deep Venous Thrombosis and Pulmonary Embolism in Acute Spinal Cord Injured Patients ⁽³⁾ | 2002 | Did not include implementation strategy |
| The Effect of a Computerized Reminder System on The Prevention of Postoperative Venous Thromboembolism ⁽⁴⁾ | 2004 | Wrong population |
| Evaluation of the Applicability, Efficacy, And Safety of a Thromboembolic Event Prophylaxis Guideline Designed for Quality Improvement of The Traumatically Injured Patient ⁽⁵⁾ | 2005 | Did not report how guideline was implemented Did not report how many patients actually received prophylaxis |
| Implementing Guidelines for Venous Thromboembolism Prophylaxis in A Large Italian Teaching Hospital: Lights and Shadows ⁽⁶⁾ | 2005 | Wrong population |
| Hospitals' Compliance with Prophylaxis Guidelines for Venous Thromboembolism ⁽⁷⁾ | 2007 | Wrong population |
| Improving The Use of Venous Thromboembolism Prophylaxis in An Australian Teaching Hospital ⁽⁸⁾ | 2008 | Wrong population |
| Incidence Of Deep Venous Thrombosis in The Surgical Patient Population and Prophylactic Measures to Reduce Occurrence ⁽⁹⁾ | 2008 | Wrong population - Surgical patients |
| Implementation Of a Mandatory Checklist of Protocols and Objectives Improves Compliance with A Wide Range of Evidence-Based Intensive Care Unit Practices ⁽¹⁰⁾ | 2009 | Wrong population |
| Implementation Of a Multidisciplinary, Pharmacy-Led, Thromboprophylaxis Program in Total-Joint Arthroplasty Patients ⁽¹¹⁾ | 2009 | Wrong population |
| Reduction In Deep Vein Thrombosis Incidence in Intensive Care After a Clinician Education Program ⁽¹²⁾ | 2009 | Did not include implementation strategy Wrong Outcomes |
| Thromboembolic Prophylaxis for Spinal Injuries: Is Consensus Possible? ⁽¹³⁾ | 2009 | Wrong study - Editorial |
| Adherence To Guideline-Directed Venous Thromboembolism Prophylaxis Among Medical and Surgical Inpatients At 33 Academic Medical Centers in The United States ⁽¹⁴⁾ | 2011 | Wrong population - all hospitalized patients, not trauma specific Wrong intervention- reported guideline adherence not implementation strategies |
| Implementation Of an Enoxaparin Protocol for Venous Thromboembolism Prophylaxis in Obese Surgical Intensive Care Unit Patients ⁽¹⁵⁾ | 2011 | Did not include implementation strategy |
| Improvement Of Venous Thromboembolism Prophylaxis by Attaching Printed Thrombosis Risk Assessment Tool and Recommendations to Patients | 2011 | Abstract only |

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| Hospital Charts ⁽¹⁶⁾ | | |
| "Leaning" The Process of Venous Thromboembolism Prophylaxis ⁽¹⁷⁾ | 2011 | Wrong population |
| Venous Thromboembolism in Patients with Blunt Trauma: Are Comprehensive Guidelines the Answer? ⁽¹⁸⁾ | 2011 | Did not include implementation strategy |
| Do Patients Receive the Appropriate Assessment and Implementation of Venous Thromboembolism Prophylaxis for Lower Leg Trauma and Surgery? ⁽¹⁹⁾ | 2014 | Reported compliance of published guidelines and VTE risk assessment, not implementation |
| Reducing Postoperative Venous Thromboembolism Complications with A Standardized Risk-Stratified Prophylaxis Protocol and Mobilization Program ⁽²⁰⁾ | 2014 | Wrong population |
| Decision Support Systems in Clinical Practice: The Case of Venous Thromboembolism Prevention ⁽²¹⁾ | 2015 | Wrong population - On all hospitalized patients Abstract only |
| Eliminating Health Care Disparities with Mandatory Clinical Decision Support: The Venous Thromboembolism (VTE) Example ⁽²²⁾ | 2015 | No outcomes reported |
| Improving Deep Vein Thrombosis Prophylaxis with Mechanical Modalities in Surgical Intensive Care Unit ⁽²³⁾ | 2015 | No outcomes reported |
| Proactivity In VTE Prevention: A Concept Analysis ⁽²⁴⁾ | 2015 | Did not include implementation strategy |
| Quality Of Care Delivered Before Vs After a Quality-Improvement Intervention for Acute Geriatric Trauma ⁽²⁵⁾ | 2015 | Did not include implementation strategy Wrong outcome |
| Reduction In Venous Thromboembolism Events: Trauma Performance Improvement and Loop Closure Through Participation in A State-Wide Quality Collaborative ⁽²⁶⁾ | 2015 | Wrong outcome Wrong comparator |
| Suboptimal Compliance with Surgical Safety Checklists in Colorado: A Prospective Observational Study Reveals Differences Between Surgical Specialties ⁽²⁷⁾ | 2015 | Study did not evaluate VTE outcomes |
| Preventing Acute Care-Associated Venous Thromboembolism in Adult and Pediatric Patients Across a Large Healthcare System ⁽²⁸⁾ | 2016 | Wrong outcomes Wrong population |
| The Johns Hopkins Venous Thromboembolism Collaborative: Multidisciplinary Team Approach to Achieve Perfect Prophylaxis ⁽²⁹⁾ | 2016 | Review article |
| Thromboprophylaxis Prescribing Among Junior Doctors: The Impact of Educational Interventions ⁽³⁰⁾ | 2016 | Wrong population |
| Venous Thromboembolism Prophylaxis: Applying Evidence-Based Guidelines ⁽³¹⁾ | 2016 | Wrong population |
| Venous Thromboembolism Prophylaxis in Outpatient Lower Limb Fractures and Injuries ⁽³²⁾ | 2016 | Wrong outcomes Wrong population - Outpatient |

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| Implementation Of an Early VTE Prophylaxis Protocol Following Surgery for Traumatic Spinal Injury ⁽³³⁾ | 2017 | Only abstract available for review |
| The Michigan Trauma Quality Improvement Program: Results from A Collaborative Quality Initiative ⁽³⁴⁾ | 2017 | Wrong intervention Wrong outcome |
| Use Of Computerized Clinical Decision Support Systems to Prevent Venous Thromboembolism in Surgical Patients: A Systematic Review and Meta-Analysis ⁽³⁵⁾ | 2017 | Wrong study- Systematic Review |
| Adherence To Guideline of Venous Thromboembolism Prophylaxis in A Level 1 Trauma Center in Thailand ⁽³⁶⁾ | 2018 | Wrong population Does not discuss how adherence to the guideline was measured |
| Improving Pharmacologic Prevention of VTE In Trauma: IMPACT-IT QI Project ⁽³⁷⁾ | 2018 | Implementation technique is a protocol and was not an intervention |
| Multicenter Review of Current Practices Associated with Venous Thromboembolism Prophylaxis in Pediatric Patients After Trauma ⁽³⁸⁾ | 2018 | Did not include implementation strategy |
| Adherence Rates to The Trusts New Venous Thromboembolism (VTE) Prophylaxis Protocol in The Trauma Orthopedics Patients: How Are We Getting On? ⁽³⁹⁾ | 2019 | Poster presentation only |
| Non-Preventable Venous Thromboembolism After Pelvic and Lower Extremity Trauma Occur Despite Adherence to Modern Prophylactic Protocols ⁽⁴⁰⁾ | 2020 | Did not include implementation strategy |
| Timely Venous Thromboembolism Prophylaxis in Trauma: A Team Approach to Process Improvement ⁽⁴¹⁾ | 2020 | Wrong outcome |
| Using Electronic Health Record System Triggers to Target Delivery of a Patient-Centered Intervention to Improve Venous Thromboembolism Prevention for Hospitalized Patients: Is There a Differential Effect by Race? ⁽⁴²⁾ | 2020 | Wrong outcome |
| A Basic Intervention to Improve Compliance with Thromboprophylaxis in Patients with Neck of Femur Fracture ⁽⁴³⁾ | 2021 | Wrong outcomes Wrong population |
| A Systems-Based Approach to Reduce Deep Venous Thrombosis and Pulmonary Embolism in Trauma Patients ⁽⁴⁴⁾ | 2021 | Wrong outcome – Examined optimal dosing and not implementation strategy. There was a mention of implementation through EMR alerts but this was not the focus of the study |
| Audit And Feedback to Surgery Interns and Residents on Prescribing Risk-Appropriate Venous Thromboembolism Prophylaxis ⁽⁴⁵⁾ | 2021 | Wrong population - Surgical patients |
| Comprehensive Initiative to Decrease Trauma Venous Thromboembolism ⁽⁴⁶⁾ | 2021 | No outcomes reported |

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| Deep Vein Thrombosis (DVT) Prophylactic Team Activity to Support DVT Prevention Protocol for The Purpose of The Prophylaxis of Pulmonary Thromboembolism (PTE) And Operation ⁽⁴⁷⁾ | 2021 | Wrong population |
| Design And Retrospective Application of a Spine Trauma DVT Prophylaxis Protocol on Level 1 Trauma Center Patient Database ⁽⁴⁸⁾ | 2021 | Wrong outcomes |
| You're Never Too Old for Optimal Venous Thromboembolism Prophylaxis: Re-Thinking Current Trauma Guidelines ⁽⁴⁹⁾ | 2022 | Wrong outcomes |

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- objectives improves compliance with a wide range of evidence-based intensive care unit practices. *Crit Care Med*. 2009 Oct;37(10):2775-81. doi: 10.1097/CCM.0b013e3181a96379. PMID: 19581803.
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