

# Clinicians' practice when evaluating VTE Risk due to Lower Limb Injuries within the Emergency Setting - Final

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## Page 1: Participant Information Sheet

Participants' Information Sheet

### Research Project Title

*Clinicians' practice when evaluating Venous Thromboembolism (VTE) risk due to lower limb injuries within the emergency setting (CPE-TROLLIES Study).*

### 1. Opening text:

You are invited to participate in a web-based online survey which is investigating Clinicians' knowledge and current practice on the prevention of VTE in patients who have sustained a lower limb fracture resulting in immobilisation either in the form of a backslab or a walking boot. This survey is part of a research project being conducted by myself, Lynda Gibbons, a Clinical Doctorate research student at the University of Stirling. It should take approximately 10 minutes to complete. You will be given some series of questions where you will be required to tick the appropriate box and also questions based on a scale ranging from "strongly agree" to "strongly disagree". Please read through these terms before agreeing to participate below.

### 2. Background, aims of project

The aim of this study is to explore clinicians' knowledge and current practice regarding VTE risk assessment and treatment of patients with lower limb injuries within the Emergency setting.

The evaluation aims to capture the current level of knowledge that ED clinicians have, their current practice and if any barriers or facilitators that exist in the prevention and assessment of VTE in patients who are discharged with a lower limb immobilisation.

### 3. Why have I been invited to take part?

You have been asked to take part in the study to gather further information regarding the barriers and facilitators towards the adherence and implementation of the use of the VTE risk assessment guidelines.

As a treating and discharging clinician within the Emergency Setting you are a key informant about the evaluation of adherence to VTE risk guidelines.

#### **4. Do I have to take part?**

No. Your participation in this survey is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty by pressing the 'Exit' button / closing the browser. You are free to decline to answer any particular question for any reason – we have included a “prefer not to say” option for a few questions.

#### **5. Are there any potential risks in taking part?**

There are no foreseeable risks involved in participating in this study.

#### **6. Are there any benefits in taking part?**

There will be no direct benefit to you from taking part in this research. However, the information gathered from the results of the study may prompt guidance review and/or the development of further research in this area.

#### **7. What happens to the data I provide?**

Your answers will be completely anonymous, and we will use all reasonable endeavours to keep them confidential. Your data will be stored securely on a password protected IT and the document will also be password protected which will be only accessible to the researcher. Your IP address will not be stored. Supervisors and the statistician will only see the data after anonymization.

Research reports and publications will not include any information that may identify you or your organisation. The study data including (questionnaires data) will be stored in a secure place for 10 years as per the University data guidelines. All data will adhere to the GDPR (2018) requirements.

#### **8. Will the research be published?**

The research will be published in a peer reviewed journal following completion of the study. It may also be presented at an International Healthcare Conference.

#### **9. Who has reviewed this research project?**

This project has been ethically approved by The University of Stirling Ethics Panel as well as the HSE Recognised Ethics Committee (REC) under the European Network of Research Ethics Committees (EUREC).

**10. Whom do I contact if I have concerns about this study or I wish to complain?**

If you would like to discuss the research with myself Ms Lynda Gibbons (086) 6067266 or [l.j.gibbons1@stir.ac.uk](mailto:l.j.gibbons1@stir.ac.uk) or if you have any concerns you can contact Professor Jayne Donaldson Dean of the Faculty Health Science and Sport in the University of Stirling.

Prof Jayne Donaldson– (0044) 1786 466343 or [jayne.donaldson@stir.ac.uk](mailto:jayne.donaldson@stir.ac.uk)

## Page 2: Participants' Consent

When you log onto the survey you will be asked to read each statement and tick the appropriate box 'yes or no' before continuing with the survey. Once you begin answering the questions you will need to complete to the end as it will only save your answers once you hit the submit button. I appreciate if you could take the time to answer all the questions, you will not be able to go back and answer them later. Once submitted you can then print off a certificate of completion for your portfolio.

### Consent

I have read and understood the **Information Leaflet (January 2019 version 2)** about this research project. \* *Required*

- Yes
- No

I understand that I don't have to take part in this study and that I can opt out at any time. I understand that I don't have to give a reason for opting out.

Please select exactly 1 answer(s).

- Yes
- No

I am aware of the potential risks and benefits of this research study.

Please select at least 1 answer(s).

- Yes
- No

I am satisfied that my information will be kept private and confidential.

Please select exactly 1 answer(s).

Yes

No

I have voluntarily agreed to participate in this research study.

Please select exactly 1 answer(s).

Yes

No

I am 18 years or older.

Please select exactly 1 answer(s).

Yes

No

## Page 3: Consent

I have read the information provided. I give my informed consent to have my data processed as part of this research study. \* *Required*

Yes

No

## Page 4: Demographic

What is your current position?

If you selected Other, please specify:

What is your specialty?

If you selected Other, please specify:

How many years have you worked in your specialty?

Which settings do you practice?

If you selected Other, please specify:

On average how many patients does your department see a year?

Are you male or female?

What is your age?

What is your highest level of qualifications?

- Degree
- Masters
- Doctorate/PhD



Other

If you selected Other, please specify:

## Page 5: Knowledge

Have you ever attended a course or in service program that provided information on venous thromboembolism (VTE) risk assessment and prevention? \* *Required*

If yes, how would you rate the quality of the information you received? *Optional*

How would you rate your overall knowledge of venous thromboembolism (VTE) risk assessment? \* *Required*

Which of these guidelines for venous thromboembolism management are you familiar with? (You may select more than one) \* *Required*

- National Institute for Health and Clinical Excellence (NICE): 2012 guidelines
- Scottish Intercollegiate Guidelines Network (SIGN) (SIGN 122) guidelines
- European Society of Anesthesiology (ESA) 2017 guidelines
- College of Emergency Medicine 2012
- BCSH Guidelines
- ACCP Guidelines
- None of the above
- All of the above
- I don't Know
- Other

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If you selected Other, please specify:

Which risk assessment forms are you familiar with? (You may select more than one) \*  
*Required*

- Plymouth Rule Version 2
- Plymouth Rule Version 3
- GEMNet Risk Factors Score
- L-TRIP Score
- Modified Caprini Score
- None of the above
- All of the above
- I don't Know
- Other

If you selected Other, please specify:

**Please read the following comments and (tick the most applicable).** \* *Required*

Please don't select more than 1 answer(s) per row.

Please select exactly 3 answer(s).

Please don't select more than 3 answer(s) in any single column.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Patients with a lower limb immobilisation are not at risk of developing a VTE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VTE prophylaxis should be prescribed for all patients with lower limb immobilisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VTE prophylaxis should not be prescribed for patients with lower limb immobilisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**All these patients are a potential risk of developing a VTE (tick the most applicable).**

*\* Required*

Please don't select more than 1 answer(s) per row.

Please select exactly 20 answer(s).

Please don't select more than 20 answer(s) in any single column.

	Strongly Disagree	Disagree	Agree	Strong Agree
Patients with a BMI over or equal to 30KG/m <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients older or equal to 60 years old	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent pelvic surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent lower limb surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent abdominal surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients on anticoagulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients sustaining an achilles tendon injury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Patients on oral contraceptive pill (OCP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients on hormone replacement therapy (HRT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent pregnancy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with Varicose Veins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with Cancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with heart disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with lung disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with bowel disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with hormone disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with history of thrombophilia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with history of deep vein thrombosis (DVT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with history of pulmonary embolism (PE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family member who had a DVT or PE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Please rate the the level of your concern regarding the risk of developing a VTE (tick the most applicable). \* Required**

Please don't select more than 1 answer(s) per row.

Please select exactly 20 answer(s).

Please don't select more than 20 answer(s) in any single column.

	Serious Concern	Moderate Concern	Mild Concern	No Concern
Patients older than or equal to 60 years old	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Patients with a BMI over or equal to 30KG/m2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent pelvic surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent lower limb surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent abdominal surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients on anticoagulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients sustaining an achilles tendon injury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients on oral contraceptive pill (OCP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients on hormone replacement therapy (HRT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recent pregnancy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with Varicose Veins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with Cancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with heart disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with lung disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with bowel disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with hormone disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with history of thrombophilia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with history of deep vein thrombosis (DVT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients with history of pulmonary embolism (PE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family member who had a DVT or PE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Page 6: Clinical Guidelines

Does your hospital have local protocols or guidelines to aid in the management of VTE in patients with lower limb immobilisation? \* *Required*

- Yes
- No
- I don't know

If Yes, which guidelines does your hospital use? \* *Required*

- National Institute for Health and Clinical Excellence (NICE): 2012 guidelines
- Scottish Intercollegiate Guidelines Network (SIGN) (SIGN 122) guidelines
- European Society of Anesthesiology (ESA) 2017 guidelines
- College of Emergency Medicine 2012
- Plymouth Guidelines
- BCSH Guidelines
- ACCP Guidelines
- I don't Know
- All of the above
- None of the above
- Other

If you selected Other, please specify:

Do you use any other guidelines to aid in the management of VTE in patients with lower limb immobilisation? \* *Required*

- Yes
- No
- I don't know

If Yes, which of these guidelines do you use?

- National Institute for Health and Clinical Excellence (NICE): 2012 guidelines
- Scottish Intercollegiate Guidelines Network (SIGN) (SIGN 122) guidelines
- European Society of Anesthesiology (ESA) 2017 guidelines
- College of Emergency Medicine 2012
- Plymouth Guidelines
- BCSH Guidelines
- ACCP Guidelines
- I don't Know
- All of the above
- None of the above
- Other

If you selected Other, please specify:

Which risk assessment form does your hospital use? \* *Required*

- Plymouth Rule Version 2
- Plymouth Rule Version 3
- GEMNet Risk Factors Score
- L-TRIP Score



- Modified Caprini Score
- I don't know
- All of the above
- None of the above
- Other

If you selected Other, please specify:

Which risk assessment form do you use in clinical practice? \* *Required*

- Plymouth Rule Version 2
- Plymouth Rule Version 3
- GEMNet Risk Factors Score
- L-TRIP Score
- Modified Caprini Score
- I don't know
- All of the above
- None of the above
- Other

If you selected Other, please specify:

How often are any or all of the previously mentioned guidelines or risk assessments forms used in your department? \* *Required*

- Always
- Usually
- Sometimes
- Rarely
- Never
- No guidelines in the department

Have any of the previously mentioned guidelines or risk assessment forms ever been audited in your department? \* *Required*

- Yes
- No
- I don't know
- No guidelines in the department

## Page 7: Clinical Practice

Are you aware of any patients who have returned to your department with a complication associated with a lower limb immobilisation while commenced on a prophylaxis? \*

*Required*

- Yes
- No
- I don't know
- Other

If you selected Other, please specify:

**If Yes, please state the complications reported.**

Your clinical decision making? \* *Required*

Please don't select more than 1 answer(s) per row.

Please select exactly 4 answer(s).

Please don't select more than 4 answer(s) in any single column.

	Always	Usually	Sometimes	Rarely	Never
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I use my clinical judgment instead of a recognised assessment tool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often do you complete a VTE risk assessment on your patients with lower limb immobilisation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you assess patients with lower limb immobilisation for VTE do you document this?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually base clinical decisions concerning VTE on one or more guidelines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you **routinely** prescribe VTE prophylaxis for patients with lower limb immobilisation?  
*\* Required*

Yes  
 No  
 I don't know

What do you **routinely** prescribe for VTE prophylaxis for patients with lower limb immobilisation? *\* Required*

LMWH

- NOAC
- Rivaroxiban
- Warfarin
- Aspirin
- Anti-embolic stockings
- All of the above
- None of the above
- I don't know
- Other

If you selected Other, please specify:

How much do patient's preferences influence your decision? \* *Required*

- Frequently
- Occasionally
- Sometimes
- Rarely
- Never

VTE risk assessment of patients with lower limb immobilisation. \* *Required*

Please don't select more than 1 answer(s) per row.

Please select exactly 8 answer(s).

Please don't select more than 8 answer(s) in any single column.

	Always	Usually	Sometimes	Rarely	Never
Do you complete a VTE risk assessment form for patients with lower limb immobilisation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you complete the VTE risk assessment form in conjunction with the patient?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you weigh the patient?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you measure the height of the patient?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you calculate the patients BMI?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you discuss with the patient risks and benefits of thrombolysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you give patients written information about VTE risks while in lower limb immobilisation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you give patients written information about VTE prophylaxis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Page 8: Barriers and Facilitators

Are there barriers that exist to prevent you from assessing patients with lower limb immobilisation for VTE? \* *Required*

- Yes
- No
- I don't know

**Which of these are barriers in your own clinical setting that prevent you from assessing patients for risk of VTE? \* *Required***

Please don't select more than 1 answer(s) per row.

Please select between 13 and 14 answers.

Please don't select more than 14 answer(s) in any single column.

	Yes	No
Too busy	<input type="checkbox"/>	<input type="checkbox"/>
Forget about completing form	<input type="checkbox"/>	<input type="checkbox"/>
No policy in your clinical setting	<input type="checkbox"/>	<input type="checkbox"/>
No education provided	<input type="checkbox"/>	<input type="checkbox"/>
No discharge advice for patients	<input type="checkbox"/>	<input type="checkbox"/>
No height chart for measuring patients	<input type="checkbox"/>	<input type="checkbox"/>
No weighting scales for patients	<input type="checkbox"/>	<input type="checkbox"/>
No BMI conversion chart	<input type="checkbox"/>	<input type="checkbox"/>
No VTE risk assessment forms available	<input type="checkbox"/>	<input type="checkbox"/>
Poor staff skill mix	<input type="checkbox"/>	<input type="checkbox"/>
Constant interruptions while with patients	<input type="checkbox"/>	<input type="checkbox"/>
No clear guidelines	<input type="checkbox"/>	<input type="checkbox"/>
No equipment available to give patients	<input type="checkbox"/>	<input type="checkbox"/>

Other



If Other (please specify): *Optional*

**How could these barriers be overcome?** *Optional*

**Are there facilitators that you encounter that enable and allow you to prescribing VTE prophylaxis treatment for patients within the ED that have sustained a lower limb fracture?** \* *Required*

- Yes
- No
- I don't know
- Other

If you selected Other, please specify:



**What are these facilitators that allow you to prescribing VTE prophylaxis treatment for patients within the ED that have sustained a lower limb fracture?**

**How satisfied are you with your current practice in relation to VTE risk and prevention for patients within the ED that have sustained a lower limb fracture? \* Required**

- Very satisfied
- Satisfied
- Dissatisfied
- Very Dissatisfied

**Are you aware of any patients who have returned to your department and were diagnosed as having a VTE as a result of a lower limb immobilisation? \* Required**

- Yes
- No
- I don't know

**Would you like to receive education or training about VTE risk and lower limb immobilisation? \* Required**

- Yes
- No
- I don't know

Other

If you selected Other, please specify:

If you would like further education or training surrounding the topic of VTE, how long an education or training programme would you feel is appropriate?

- Department inservice
- One day course
- Conference
- Week long course
- University based module - 3 months
- Post graduate certificate - 1 year
- Other

If you selected Other, please specify:

Do you think patients should be informed about the risk of VTE when placed in a lower limb immobilisation? \* *Required*

- Yes
- No
- I don't know

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Do you regard this as an important issue? \* *Required*

- Yes
- No
- I don't know

**Is there anything not addressed in these questions that you would like to add?**

**Any additional comments?**

# Page 9: Final page

<https://drive.google.com/file/d/1aaaKTfqHnYaNvkJE8gQJHWbr5ZegyCY8/view?usp=sharing>

Thank you for your time in completing this questionnaire.

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## Key for selection options

### 3 - What is your current position?

- Consultant
- Specialist Registrar
- Registrar
- Nurse practitioner
- Other

### 4 - What is your specialty?

- Emergency medicine
- Orthopaedics
- General medicine
- Haematology
- Other

### 5 - How many years have you worked in your specialty?

- 1 - 5 years
- 6 – 10 years
- 11 -15 years
- 16 -20 years
- 21 + years

**6 - Which settings do you practice?**

- Acute urban hospital – Emergency Department
- Acute rural hospital – Emergency Department
- Local Injury Unit
- Other

**7 - On average how many patients does your department see a year?**

- <10,001 patients
- 10,001 – 20,000 patients
- 20,001 – 30,000 patients
- 30,001 -40,000 patients
- 40,001 -50,000 patients
- 50,001 – 60,000 patients
- 60,001 -70,000 patients
- 70,001 -80,000 patients
- 80,001 + patients
- I don't Know

**8 - Are you male or female?**

- Male
- Female
- Non-binary
- Prefer not to say

**9 - What is your age?**

- 20-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71+

**11 - Have you ever attended a course or in service program that provided information on venous thromboembolism (VTE) risk assessment and prevention?**

- Yes
- No
- I don't know

**12 - How would you rate your overall knowledge of venous thromboembolism (VTE) risk assessment?**

Poor

Fair

Good

Very Good

Excellent

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