

Should We Follow VTE Prophylaxis for Emergency Surgical Admissions?

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ABSTRACT

Aim: To find justification in prescribing VTE prophylaxis and make sure that all emergency and other major elective surgical procedures should adhere to these prophylactic measures.

Study design: Prospective analysis

Setting: Department of Surgery, Avicenna Medical College/Hospital, Lahore

Methods: This study includes prospective analysis of the subjects, who were treated and admitted in Avicenna Hospital, Lahore. The collected data was entered into SPSS version 25.0 and were analyzed accordingly applying descriptive statistics e.g., mean, frequency and analytical using Chi Square test.

Results: There were 53 patients above 40 years of age were admitted as an emergency in surgical ward and were supposed to have LMWH/ Clexane 20-40mg and mechanical prophylaxis according to NICE guidelines.

Conclusion: There should be risk assessment followed by the pharmacological and mechanical prophylaxis for high risk patients with previous H/O DVT, major surgery, orthopedic or pelvic surgery, cancer surgery and patients with co-morbid conditions etc, to avoid preventable morbidity or mortality.

Keywords: VTE prophylaxis, DVT, emergency surgery

INTRODUCTION

Venous Thromboembolism (VTE) is the most common complication following major joint surgery. While attention has been focused upon the incidence of thromboembolic disease following total hip or knee arthroplasty or emergency surgery for hip fracture, there exists a gap in the medical literature examining the incidence of VTE in spinal surgery. Evidence suggests that the prevalence of DVT after spinal surgery is higher than generally recognized but with a shortage of epidemiological data, guidelines for optimal prophylaxis are limited. This survey, of individuals attending the 53 patients above 40 years of age, sought to examine prevailing trends in VTE thromboprophylaxis in spinal surgery, adherence to guideline outlined by the National Institute for Health and Clinical Excellence (NICE) and to compare selections made by orthopaedic and neurosurgeons.

SUBJECTS AND METHODS

This randomized controlled trial was conducted in the Department of Surgery, Avicenna Medical College/Hospital, Lahore over a period of Six months from 10-Jan-2014 till 10-July-2014. This study includes prospective analysis of patients, who were admitted in surgical ward 53 patients were selected. All patients above age of 40 years were included in the study and patients less than 40 years were

excluded. After approval from ethical committee, 53 patients above 40 years of age were admitted as an emergency in surgical ward who fulfill the inclusion and exclusion criteria were treated and were supposed to have LMWH/ Clexane 20-40 mg and mechanical prophylaxis according to NICE guidelines. Informed consent was obtained and patient demographic information (name, age, sex, height, weight, and contact) was recorded. Data was collected by research proforma after detailed counselling of the patients about the purpose and method of the study; a written consent was also obtained. The collected data was entered into SPSS version 25.0 and analyzed accordingly. The qualitative data is given in form of frequency and percentages. Mean \pm S.D was used for quantitative data. Chi-square test was used to see any significance association in neck pain and possible related factors. P-value less than or equal to 0.05 was taken as significant.

RESULTS

Table 1: Has Patient had a documented VTE Risk assessed? (n=51)

VTE Risk	n
Yes	8%
No	92%

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Fig. 1: VTE risk assessment

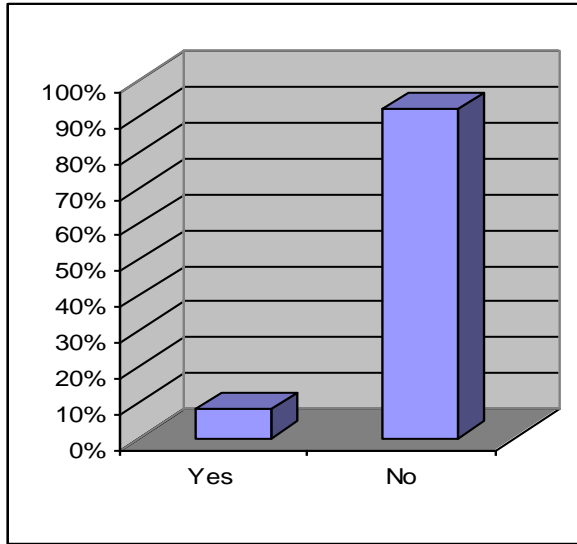


Table 2: Is patient on anticoagulant medication? (n=52)

VTE Risk	n
Yes	0%
No	100%

Fig.2: Anticoagulant medication

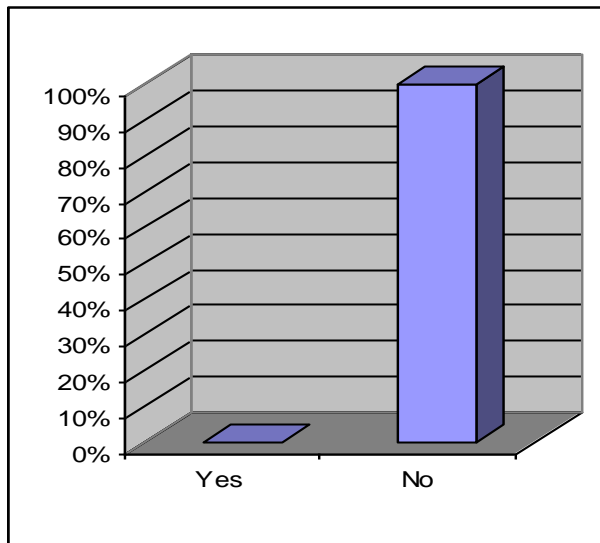


Table 3: Was mechanical prophylaxis prescribed? (n=53)

Prescription	n
Mechanical Prophylaxis	26
TED Stockings	24
Other (Unknown)	2
Total	53

Fig. 3: Mechanical prophylaxis

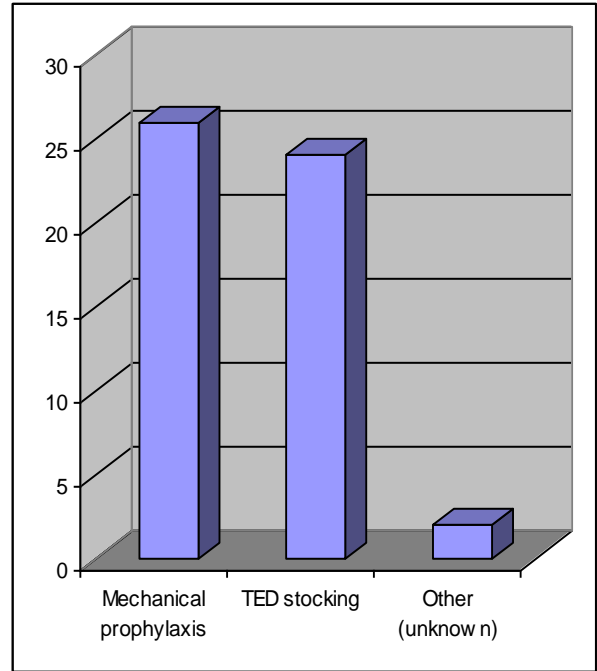
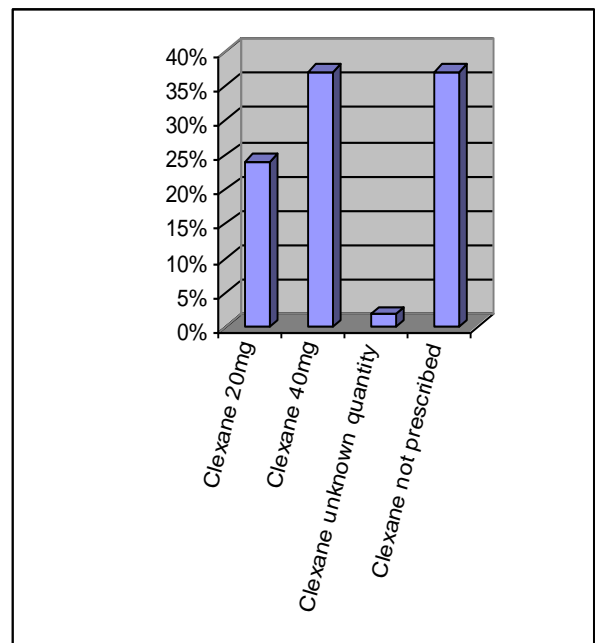


Table 4: Was low weight Heparin prescribed? (n=54)

Prescription	n
Clexane 20mg	24
Clexane 40mg	37
Clexane-Unknown Quantity	2
Clexane Not Prescribed	37

Fig. 4: Was low weight Heparin prescribed?



Standard achieved

Ref.	Criterion statement (relating to the aspect of care being measured)	Achieved	Not achieved
1	All patients admitted for surgical emergency admissions must be administered Clexane	63%	37%
2	All patients admitted for surgical emergency admission must be prescribed TED stocking	49%	51%

DISCUSSION

Venous thromboembolism (VTE) is a common complication of surgical procedures. The risk for VTE in surgical patients is determined by the combination of individual predisposing factors and the specific type of surgery. Prophylaxis with mechanical and pharmacological methods has been shown to be effective and safe in most types of surgery and should be routinely implemented. For patients undergoing general, gynecologic, vascular, and major urologic surgery, low-dose unfractionated heparin or low-molecular-weight heparin (LMWH) are the options of choice., graduated elastic stockings are effective and safe and may be combined with LMWH to further reduce the risk of VTE. The role of prophylaxis is less defined in patients undergoing elective spine surgery, as well as laparoscopic and arthroscopic surgery. A number of issues related to prophylaxis of VTE after surgery deserve further clarification, including the role of screening for asymptomatic deep vein thrombosis, the best timing for initiation of pharmacological prophylaxis, and the optimal duration of prophylaxis in high-risk patients. It is usually recommended to continue until the patient is fully mobile.

CONCLUSION

We recommend that in all surgical emergency admissions and other major elective surgical procedures, there should be risk assessment followed by the pharmacological and mechanical prophylaxis for high risk patients with previous H/O DVT, major surgery, orthopedic or pelvic surgery, cancer surgery and patients with co-morbid conditions etc, to avoid preventable morbidity or

mortality and to make sure that these are properly adhered to.

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