VTE prophylaxis guide for Geriatric patients

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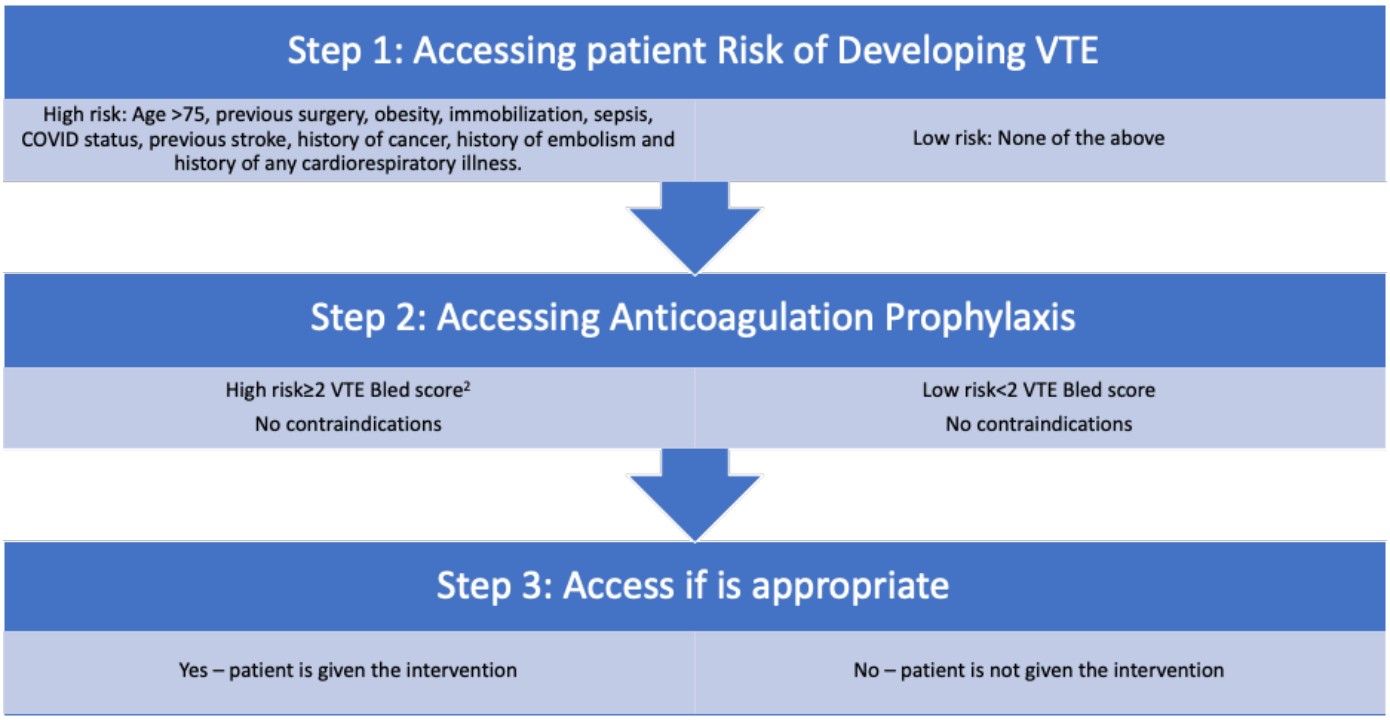
Abstract

Venous thromboembolism (VTE) is an important healthcare problem for inpatient hospitals. The use of VTE prophylaxis among high-risk patients usually fall short. This is a guide that was used to screen both COVID and Non-COVID in-patients who were at risk of developing VTE admitted under Geriatrics Unit in the Department of Internal Medicine, Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital Brunei Darussalam.

Introduction:

VTE remains a huge burden in hospitalised patients financially and medically. The cost of treating it could reach up to 640 thousand pounds a year[5]. The risk of developing VTE increases with both age[1] and hospitalisation; of about 8 folds. Notably its hospital incidence amounts to 100 times more than in the community. With regards to Non-COVID patients, multi-centre studies such as ENDORSE[4] demonstrated that only 58.5% of high-risk surgical patients and 39.5% of medical in-patients were prescribed thromboprophylaxis. This phenomenon was being observed in the IMPROVED[5] study showing that only 60% of acutely ill medical patient who met the criteria for prophylaxis actually got it.
Studies focusing on VTE prophylaxis for COVID patients remains limited. However, this issue has been address through meta-analyses highlighting the under prescribing of VTE appropriately in patients who were admitted to the hospital patients[3]. COVID infection triggers a multi organ inflammatory response that can lead to a hyper coagulable state, leading to the risk of developing VTE. Treatments such has heparin can lead to significant lower mortality rate of 60% in comparison to patients who had not received thromboprophylaxis[6]. Despite receiving the appropriate intervention, there is also still a chance of developing VTE as reflected in the Birmingham[7] study.

Methods:



Geriatric patients above the age of 70 were initially screened for any comorbids or risk factors which stated above. They then accessed to see the risk of bleed using the VTE-BLEED score[2]. Additionally, contraindications mentioned above were factored in while accessing suitability of thromboprophylaxis. Ultimately the choice of prophylaxis used was either Fondaparinux or Heparin depending on the patient's renal function[4].

Conclusion:

The trend of prescribing VTE appropriately in the hospital settings remains low globally. There has been efforts to increase awareness on the severity of having VTE as a complication. Various studies mentioned has identified gaps with hopes to guide practitioners to keep up to standard during daily clinical practices. This tool serves a guide to stratify high-risk Geriatric in-patients admitted in RIPAS Hospital Brunei Darussalam and the appropriateness of receiving thomboprophylaxis.

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