Service Priorities and Programmes

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Prevention of Venous Thromboembolism (VTE) in surgical patients by a hospital-based standardization of practice

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Introduction

Venous Thromboembolism (VTE) has been considered a medical problem that affects predominately Caucasians (in the US, the incidence is 80 cases per 100,0001). Limited studies have also demonstrated the incidence rate of VTE in Asian, particularly in Chinese. Even though the data is underreported, VTE is a life-threatening complication that can happen after major operation. Therefore, it is important that all surgical team members be aware of this situation. Over the last decade, many clinical studies demonstrated the efficacy of mechanical prophylaxis in the prevention of VTE. Common mechanical prophylaxes include Graduated Elastic Compression Stockings (GECS) and Sequential Compression Device (SCD). In United Christian Hospital (UCH), therew was different practice on the VTE risk assessment, continuity care of peri-operative mechanical thromboprophylaxis, utilization of SCD and clinical pathways. This creates confusion for surgical care professionals in various specialties, and deviates from the benchmark for the prevention of VTE. With the support from the Hospital Management, a hospital based project is launched to aim for establishment of a standardized practice in the prevention of VTE in surgical patients.

Objectives

- To align with revised practices of VTE assessment & prophylaxis at the hospital level
- To reinforce a standardized practice for continuity care of post-operative VTE mechanical prophylaxis - To reinforce clinical pathways for patient care & utilization of

mechanical devices

Methodology

Initiating ☐ Project started in March 2014 ☐ Identified the service gaps in prevention of VTE used by various surgical teams ☐ Identified inadequate stock of sequential compression devices in hospital that varied with benchmarks in other hospitals Planning ☐ Established a working group to draft a standardized practice for the prevention of VTE in surgical patients. The working group members included medical and nursing representatives of different specialties (Nursing Services Division, Clinical Departments from: Ana & PM, Surgery, O&T, O&G, ENT, Eye, DMF, OR, ICU) and hematological expert as an advisor. ☐ Verified the local and hospital incidence of VTE and application of VTE risk assessment scale compared with international & regional data and found significantly varied results. ☐ Benchmarked the existing practices adopted by other local hospitals for prevention of VTE ☐ Planned an estimated budget on mechanical prophylaxis for approval by the Hospital Management. Executing ☐ Conducted literature review on different guidelines including ACCP 2012 guideline (2) & NICE 2010 guideline (3) in the prevention of VTE. ☐ Held consecutive meetings for the standardized practice including adopting the Autar VTE risk assessment scale, continuity care of peri-operative mechanical thromboprophylaxis, clinical pathways for patient care , and mechanical devices' utilization by reaching a mutual agreement amongst workgroup members ☐ Fine-tuned the standardized guidelines with evidence-based support Monitoring/controlling- ☐ Justified the clinical pathways for patient care and utilization of mechanical devices within the limited resources available during the implementation of various phases. ☐ Established the standard guideline in line with the hospital governance.

Result

I.A hospital based standard guideline for the prevention of VTE in surgical patients was adopted. II.The compliance audit on standard guidelines is work in progress and will be followed up on in due course. III.The additional quantity of Sequential Compression Devices was purchased The incidence of VTE might be minimized if surgical team members adhere to VTE prevention protocol.