

## REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of interest** No conflict of interest

### 5PSQ-125 EFFECT OF A MULTIFACETED CLINICAL DECISION SUPPORT INTERVENTION ON ADHERENCE TO THROMBOPROPHYLAXIS GUIDELINES IN NON-SURGICAL PATIENTS

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**Background and importance** Venous thromboembolism (VTE) is a potentially fatal complication of hospitalisation, affecting approximately 3% of non-surgical patients. Administration of low molecular weight heparins to appropriate patients adequately decreases the incidence of VTE but a low guideline adherence is described in the literature.

**Aim and objectives** A multifaceted intervention was introduced to increase adherence to thromboprophylaxis guidelines in non-surgical patients. The primary objective was to determine the effect on guideline adherence. The secondary objective was to study the effect on guideline adherence specifically in patients with a high VTE risk. As an exploratory objective, we determined how many VTEs may have been prevented by the multifaceted intervention.

**Material and methods** A prospective study with a pre- and post-intervention measurement was conducted between October 2018 and March 2020. A multifaceted intervention, consisting of clinical decision support (CDS), a mobile phone application, monitoring of duplicate anticoagulant medication and training, was implemented. Adherence to guidelines was assessed by calculating the Padua prediction score and improve bleeding risk score for each patient, based on electronic health record (EHR) documentation. Adherence to guidelines was analysed by univariate and multivariate logistic regression.

**Results** 170 patients were included: 85 in the control group and 85 in the intervention group. The intervention significantly increased guideline adherence from 42/85 of the patients in the control group to 70/85 in the intervention group (OR 4.78; 95% CI 2.37 to 9.63). Guideline adherence in the patient group with a high VTE risk also increased significantly from 30/55 to 43/51 (OR 2.46; 95% CI 1.31 to 4.62). Extrapolation of these results to an annual admission rate of 25 000 patients in our hospital resulted in the potential prevention of ±261 VTEs per year.

**Conclusion and relevance** Our multifaceted intervention significantly increased adherence to thromboprophylaxis guidelines. To our knowledge, this is the first study describing such a large effect after the implementation of a multifaceted intervention. We believe this is mostly due to the design of our CDS, which is built-in to the EHR and has a highly specific design; it only alerts prescribers if patients actually have a high VTE risk and are not treated with anticoagulant therapy.

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### 5PSQ-126 AVICENNE AS A CLINICAL DECISION SUPPORT IN THROMBOPROPHYLAXIS: JUST BECAUSE THE PATIENT'S SITUATION IS IMPROVING DOESN'T MEAN THERE'S NO DRUG RELATED PROBLEM!

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**Background and importance** Pharmacological thromboprophylaxis reduces the risk of pulmonary embolism and deep vein thrombosis. Enoxaparin once a day is more relevant than unfractionated heparin (UFH) twice a day when glomerular filtration rate is >30 mL/min. The threefold alliance AVICENNE, as a real time clinical decision support system, works on the patient's data, pharmaceutical algorithms (PA) and Pharmaclass (Keenturtle-F).

**Aim and objectives** To show the value of one AVICENNE algorithm in detecting UFH which was not indicated, and the acceptance by the physician of the switch to enoxaparin proposed by the pharmacist.

**Material and methods** A prospective study was carried out from March 2019 to September 2020 in two health facilities (1600 beds). One algorithm was encoded in Pharmaclass to detect patients with a UFH prescription and two glomerular filtration rate measurements >30 mL/min, the second higher than the first. A guideline detailed the pharmaceutical analysis, from history taking of detected DRPs to reporting of pharmaceutical interventions (PI). The first outcome was the number of detected DRPs and accepted PIs. The second outcome was the number of injections and hospital cost avoided.

**Results** The data were collected over 250 non-consecutive days. First, the pharmacist confirmed 98 DRPs after anamnesis and 96 PIs proposing the switch from UFH and enoxaparin. A total of 41 PIs (43%) were accepted by physicians. The secondary outcome included savings of 353 injections, providing a minimal cost saving of 1700€.

**Conclusion and relevance** AVICENNE optimises patients' thromboprophylaxis management by triggering a pharmaceutical analysis on DRPs which are complex to detect. What is original is that this study showed that pharmaceutical analysis stayed relevant although the clinical and biological situation of the patient was improving.

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### 5PSQ-127 ASSESSING APPROPRIATE DOSING OF NEW ORAL ANTICOAGULANTS: APIXABAN, DABIGATRAN AND RIVAROXABAN IN A TERTIARY HOSPITAL

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**Background and importance** For a long time, vitamin K antagonists (VKAs), such as warfarin and acenocoumarol, have remained firstline anticoagulation therapy. Despite their