**Purpose**

To establish whether the recommended dose of Enoxaparin (40 mg/day) in patients weighing less than 55 kilograms produces anti-factor Xa activity over the desired ranges for thromboembolic prophylaxis.

**Materials and Methods**

Cross sectional study. Sample size estimated in 53 patients. Inclusion criteria: over 18 years, body weight equal or less than 55 kilograms, hospitalised in medical wards and with an indication of thromboembolic prophylaxis with enoxaparin 40 mg/day by the treating physician. Exclusion criteria: renal failure and concomitant use of oral anticoagulants. Anti-factor Xa activity was measured 3 hours after the third dose of enoxaparin. We estimated the proportion of patients with anti-factor Xa activity over 0.5 u/ml and the average anti-factor Xa activity.

**Results**

Average age was 65.4 ± 20.3 years and average weight 47.7 kilograms (26 to 54). The average anti-factor Xa activity was 0.54 ± 0.18 u/ml and the proportion of patients with values over 0.5 u/ml was 60%. Weight and anti-factor Xa activity were inversely correlated, with a Pearson coefficient of −0.497. In subgroup analysis, patients weighing less than 50 kilograms had anti-factor Xa activity of 0.61 u/ml, while those with weight over 50 kilograms had an anti-factor Xa activity of 0.47 u/ml (p = 0.019).

**Conclusions**

Anti-factor Xa activity rises significantly when body weight decreases. Patients with low weight had an anti-factor Xa activity over the desired range for thromboembolic prophylaxis, especially in those under 50 Kilograms. Further study is needed to determine if these data are clinically significant and whether prophylactic doses should be adjusted for body weight.

No conflict of interest.

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**GRP-023**

**ANTI-FACTOR XA ACTIVITY AFTER PROPHYLACTIC DOSES OF ENOXAPARIN (40 mg) IN HOSPITALISED PATIENTS WEIGHING LESS THAN 55 KILOGRAMMES**

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**Background**

Enoxaparin is commonly used for thromboembolic disease prophylaxis probably because of its safety profile and once-daily administration. In contrast to therapeutic doses, the prophylactic recommended dose is fixed (40 mg once a day for enoxaparin).

There is little evidence for suitable dosing in extreme body weights, especially in low-weight patients.

**Purpose**

To establish whether the recommended dose of Enoxaparin (40 mg/day) in patients weighing less than 55 kilograms produces anti-factor Xa activity over the desired ranges for thromboembolic prophylaxis.

**Materials and Methods**

Cross sectional study. Sample size estimated in 53 patients. Inclusion criteria: over 18 years, body weight equal or less than 55 kilograms, hospitalised in medical wards and with an indication of thromboembolic prophylaxis with enoxaparin 40 mg/day by the treating physician. Exclusion criteria: renal failure and concomitant use of oral anticoagulants. Anti-factor Xa activity was measured 3 hours after the third dose of enoxaparin. We estimated the proportion of patients with anti-factor Xa activity over 0.5 u/ml and the average anti-factor Xa activity.

**Results**

Average age was 65.4 ± 20.3 years and average weight 47.7 kilograms (26 to 54). The average anti-factor Xa activity was 0.54 ± 0.18 u/ml and the proportion of patients with values over 0.5 u/ml was 60%. Weight and anti-factor Xa activity were inversely correlated, with a Pearson coefficient of −0.497. In subgroup analysis, patients weighing less than 50 kilograms had anti-factor Xa activity of 0.61 u/ml, while those with weight over 50 kilograms had an anti-factor Xa activity of 0.47 u/ml (p = 0.019).

**Conclusions**

Anti-factor Xa activity rises significantly when body weight decreases. Patients with low weight had an anti-factor Xa activity over the desired range for thromboembolic prophylaxis, especially in those under 50 Kilograms. Further study is needed to determine if these data are clinically significant and whether prophylactic doses should be adjusted for body weight.

No conflict of interest.
adherence to the guidelines: it is fundamental continuing the training of the staff to achieve the required standard. Among the objectives for 2013, another audit with a modified cheque list will be performed, involving a greater number of health care professionals. No conflict of interest.

**Background** Failure Mode and Effect Analysis (FMEA) is a tool to identify, assess and prevent possible failures that could occur in a process.

**Purpose**

1. To describe FMEA as a method to identify weaknesses in the process of prescription and transcription of medical orders.
2. To isolate the key steps according to their risk priority number (RPN).
3. To report the steps taken.

**Materials and Methods** A multidisciplinary study group was assembled. Possible errors in the prescription/transcription workflow were identified and classified according to their RPN score (calculated by multiplying the severity, occurrence, and detection). Strategies for improvement were established.

**Results** Errors in the prescription were classified as follows: (1) Patient-and-history identification, (2) Clinical and laboratory data checkout, (3) Treatment conciliation, (4) Allergies, (5) Verbal prescription, (6) Handwritten prescription. Errors in transcription: (7) Patient identification (nurse), (8) Internally mailed prescriptions, (9) Paper transcription, (10) Check in pharmacy, (11) Patient identification (nurse), (12) Prescription validation, (13) Prescription printing, and (14) Acknowledgement of errors by the pharmacist. Top-ranked item (number), suggested solution, and indicator, respectively were: (5) Verbal prescription (288), storage of verbal prescriptions in pharmacy, % of verbal prescriptions; (9) Failure in paper transcription (288), computerised physician order entry (CPOE), % of electronic prescriptions; (14) Error report to the pharmacist (288), implementation of a two-way communication protocol, number of reports; (8) Paper-based prescriptions sent to pharmacy (243), CPOE, % of electronic prescriptions; (10) Check in pharmacy (216), CPOE, % of electronic prescriptions. The pharmacy, medical director, and Quality Unit were responsible for the changes undertaken in all cases.

**Conclusions** Verbal prescription, failure in paper transcription, error report and mailed prescriptions to pharmacy were the steps with the highest risk of error. For most cases, CPOE was implemented, whereas the percentage of electronic prescriptions was the key indicator to measure the overall improvement in these processes. In conclusion, further efforts and pharmacy policies should focus on the implementation of CPOE in all inpatient areas, thus preventing changes undertaken in all cases.

**Purpose** To evaluate BP control and antihypertensive medicines adherence in a Portuguese hypertensive population.

**Materials and Methods** A cross-sectional observational study was conducted in adult (aged 18 or over) hypertensive patients attending the hypertension/dyslipidaemia clinic for at least 6 months at the university teaching hospital of Cova da Beira Hospital Centre, Covilhã, Portugal, from March to August 2012. Patients were asked to participate in a structured interview which included socio-demographic characteristics, antihypertensive medicines adherence and target BP values. Medicines adherence was measured using a validated five-item adherence scale, [1] derived from the four-item scale developed by Morisky et al, [2] Detailed clinical information was obtained from medical records.

**Results** A total of 94 patients met the inclusion criteria and completed the structured interview. Of these, the BP of 47% was under control according to the European Society of Hypertension. Antihypertensive medicines adherence was 40%. Patients with controlled BP had a significantly higher rate of medicines adherence than patients with uncontrolled BP (52% vs. 30%, P = 0.022). Likewise, it was observed that patients whose BP was controlled were significantly more aware of their target BP figures (75% vs. 46%, P = 0.054).

**Conclusions** Many hypertensive patients prescribed antihypertensive treatment fail to achieve BP control in clinical practice. Poor medicines adherence and poor patient knowledge of target BP values should be considered as possible underlying causes of inadequately controlled BP and must be addressed in any intervention aimed to improve BP control.

**References**


No conflict of interest.