

ASSESSMENT OF AN EDUCATION PROGRAM FOR PATIENTS TREATED WITH ORAL ANTICOAGULANTS IN A CARDIOLOGY DEPARTMENT : A PILOT STUDY

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Background

- January 2013 : implementation of an education program called « ETAP » for patients treated with oral anticoagulants in the cardiology department.

Immediate knowledge and coping are usually assessed the day after educational intervention

Objectives

20 months after the beginning of the program, the goal was to design a pilot study to assess :

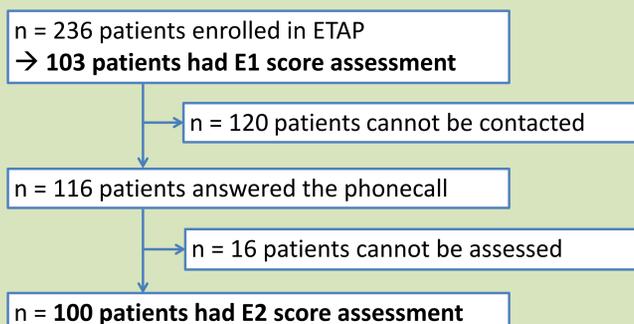
- 1) Medication adherence
- 2) Long-term knowledge and coping of patients enrolled in ETAP since the onset.

Patients and methods

1. January 2013-August 2014 :
 - Enrollment in ETAP of patients hospitalized in cardiology department
 - Design of a 8-item (each rated from 0 to 1) questionnaire which is then converted into 0 to 10 points « knowledge and coping score »
 - Assessment of initial score (E1 score) during hospitalization
2. August-September 2014 :
 - One pharmacy student called at home every patient enrolled in ETAP at least one month after hospital discharge
 - Assessment of medication adherence using the 8-item Morisky Medication Adherence Scale (MMAS-8) (Morisky, 2008)
 - Assessment of long-term « knowledge and coping score » (E2 score) with the same specific questionnaire
 - Data were collected using Excel[®] table and analyzed using R[®] software. The level of significance was set at 0,05.

Results

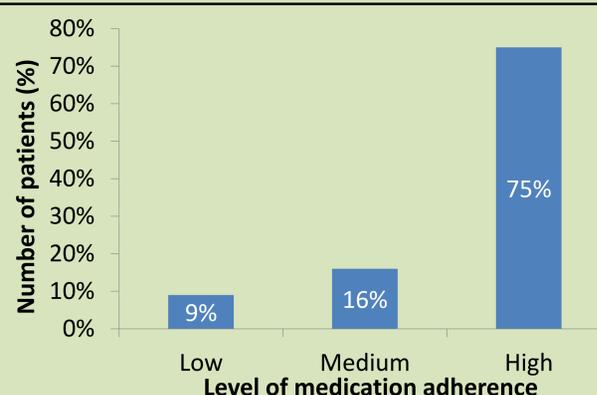
Flow diagram of every patients enrolled in the study



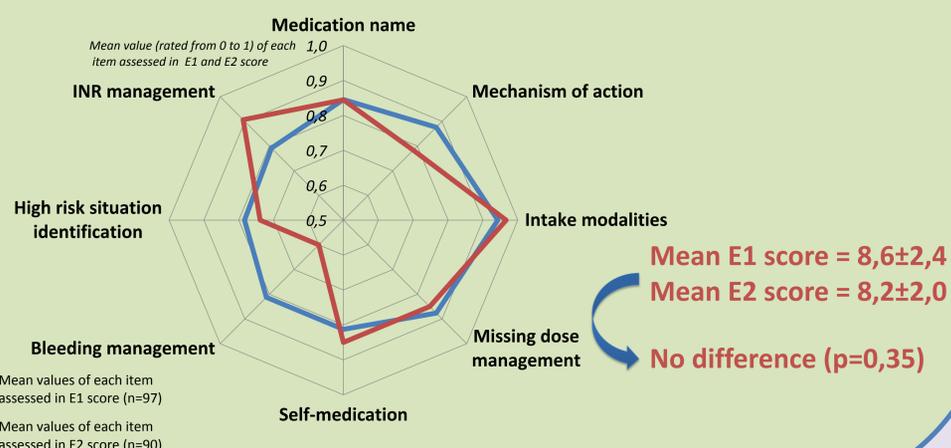
Characteristics of patients

	Patients enrolled in ETAP (n=236)	Patients with E1 score assessment (n=103)	Patients with E2 score assessment (n=100)
Demographic data			
Sex-ratio (M/F)	1,38	1,29	1,50
Age (years)	68 ± 16	68 ± 16	70 ± 14
Indications			
Atrial fibrillation	148 (63 %)	58 (57 %)	68 (68 %)
Pulmonary embolism	53 (22 %)	19 (18 %)	18 (18 %)
Valvular prosthesis	23 (10 %)	19 (18 %)	9 (9 %)
Deep venous thrombosis	9 (4 %)	5 (5 %)	4 (4 %)
Other	3 (1 %)	2 (2 %)	1 (1 %)
Anticoagulant drugs			
Vitamin-K Antagonists (VKA)	211 (89 %)	97 (94 %)	90 (90 %)
Fluindione	184 (78 %)	86 (83 %)	81 (81 %)
Warfarine	23 (10 %)	9 (9 %)	7 (7 %)
Acénocoumarol	4 (2 %)	2 (2 %)	2 (2 %)
Novel Oral Anti-Coagulants (NOAC)	25 (11 %)	6 (6 %)	10 (10 %)
Dabigatran etexilate	1 (1 %)	0	1 (1 %)
Rivaroxaban	24 (10 %)	6 (6 %)	9 (9 %)
Apixaban	0	0	0

Level of adherence to oral anticoagulants assessed by MMAS-8 at least one month after hospitalization (n=100)



Mean values of the 8 items assessed in « knowledge and coping scores » during hospitalization (E1) and at least one month after hospital discharge (E2) of patients treated with VKA



Discussion - Conclusion

The medication adherence to oral anticoagulants estimated by MMAS-8 is higher than in routine practice. The results of this pilot study suggest that most patients keep satisfying long-term knowledge and coping. These data are in agreement with other studies (Baker, 2011, Thiriart, 2014). However, we identified educational objectives like bleeding management which have to be reinforced during educational interventions. After this study, assessment of ETAP program has been improved by collection of biological and clinical outcomes such as INR and bleeding events.

Morisky DE et al. Predictive validity of a medication adherence measure in an outpatient setting. J Clin Hypertens. 2008 May; 10(5):348-54.

Baker JW et al. INR goal attainment and oral anticoagulation knowledge of patients enrolled in an anticoagulation clinic in a veterans affairs medical center. J Manag Care Pharm. 2011 Mar;17(2):133-42.

Thiriart N et al. Therapeutic education of elderly patients under antivitamin - K treatment : evaluation of the program after 5 years. J Pharm Belg. 2014 Sep;(3):30-7.