

## Abstract

### Pulse check in pharmacies IV

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**Introduction:** Atrial fibrillation (AF) is a serious arrhythmia that is also the most common heart rhythm disorder in our population and its incidence continues to rise. It can be a cause of high morbidity and mortality if it is not detected and treated in time. Unfortunately, almost one third of patients have an asymptomatic AF. Screening activities in pharmacies are a possible tool for early detection of hidden arrhythmias.

**Aim:** The aim of the study was to measure heart rate (HR), blood pressure (BP) and to monitor some of the symptoms of AF in patients involved in screening for heart rhythm disorders in a community pharmacy.

**Methods:** HR measurements took place for eight weeks (08–09/2021 and 12/2021–01/2022) in two community pharmacies in Doksy and Cvikov. Patients  $\geq 55$  years of age were offered the option of AF screening. First, the HR was measured by palpation. Subsequently, it was verified with a Veroval ECG device. BP was then measured with an Omron M6 Comfort pressure device. All measurements took place in a consultation room. An evaluation of selected symptoms, risk factors and comorbidities of the patient was also performed. Patients were referred to a doctor when irregular HR, tachycardia ( $> 100$  beats/min), bradycardia ( $< 55$  beats/min) and high BP ( $> 140/90$  mmHg) were detected. The data were processed by descriptive statistics.

**Results:** Measurements were performed in 103 patients (68.0% women). The mean age was  $69.4 \pm 11.0$ . There were 17 (16.5%) smokers, 22 (21.4%) ex-smokers, and 64 (62.1%) non-smokers. The group of smokers was dominated by women (13/17). The most common symptoms reported by patients were fatigue (46.6%), dyspnoea (29.1%) and dizziness (25.2%). There were also 38 (36.9%) asymptomatic patients. The most frequently reported disease was arterial hypertension, which was treated in 55 (53.4%) patients. The average CHA<sub>2</sub>DS<sub>2</sub>-VASc score was  $2.4 \pm 1.5$ . The average HR value was  $71.7 \pm 12.0$  beats/min using the palpation method and  $74.6 \pm 13.1$  beats/min using Veroval ECG. HR abnormalities were detected in 24 (23.3%) patients. Five patients had bradycardia, one had tachycardia and the remaining patients had irregular HR. The average BP was 130/78 mmHg. A total of 36 (34.9%) patients were referred to the doctor – 17 (47.2%) had HR problems, 14 (38.9%) had high BP and 5 (13.9%) of them had both (HR and BP) problems. One patient gave a feedback.

**Conclusion:** Screening in pharmacies appears to be an effective way to detect at-risk patients in a timely manner. To make the benefits even greater, there would be a need for screening in as many pharmacies as possible, on a regular basis, and with cooperation and feedback from doctors.

**Keywords:** atrial fibrillation, screening, pulse check, pharmacy, prevention