Results In total, over the three years, 41 TdP-cases were identified of which 19 cases were secondary to the acquired long QT-syndrome (52.6% females, mean age of 74 ± 12 years). This corresponds with an incidence of 0.159 TdP-cases per thousand patients per year (‰/y) in a hospital population. Most common risk factors were infection (n = 16) and hypertension (n = 14). Most of the patients (n = 17) were treated with at least one QTc-prolonging drug of whom 12 patients with ≥ 1 QTc-prolonging drug of list 1 of Crediblemeds. The most frequently involved QTc-prolonging drugs were amiodarone (n = 6), sotalol (n = 4) and furosemide (n = 4). Fifteen patients had an electrocardiogram in a 24-hours interval before the TdP with a prolonged QTc-interval (≥ 450/470 ms). All the patients had a RISQ-PATH score ≥ 10.

Conclusions Although the incidence of 0.16‰/y might seem low, extrapolated to the complete in-hospital population in Belgium, this means that approximately 173 possibly lethal TdP-cases can be expected in Belgian hospitals each year, illustrating the importance of QTc-monitoring procedures. The RISQ-PATH score was able to predict the described TdP-cases and can be used to prevent TdP in the future.

Telemonitoring based feedback improves adherence for non-vitamin K antagonist oral anticoagulants in patients with atrial fibrillation. — L. Desteghe[1,2], J. Vijgen[2], D. Dilling-Boer[2], P. Koopman[2], J. Schurmans[2], P. Dendale[1,2], H. Heidbuchel[1,2] *([1]Faculty of Medicine and Life Sciences, Hasselt University, Hasselt, Belgium, [2]Heart Center, Jessa Hospital, Hasselt, B).*

Objectives Effective therapy with non-vitamin K antagonist oral anticoagulants (NOACs) requires strict therapy adherence. Data on interventions to monitor and/or improve adherence to NOAC therapy are almost absent. The aim of this study was to investigate the effect of in-person feedback, based on telemonitoring of medication intake, on adherence to NOACs in patients with atrial fibrillation (AF).

Methods 48 AF patients (24 male; mean age 72 ± 9 years; 24 patients on a once daily (OD) NOAC (rivaroxaban) and 24 on a twice daily (BID) NOAC (apixaban)) were enrolled in a randomized, single-blind, crossover, controlled trial. The Medication Event Monitoring System (MEMS, WestRock, Switzerland) was used to measure NOAC adherence. Patients were randomized to 3 months each of a purely observation phase and a feedback phase, in random order. Adherence data was checked on weekdays through telemonitoring. During the feedback phase, patients received a phone call in case of an 'unprotected day'. Taking adherence (i.e. proportion of prescribed doses taken), regimen adherence (i.e. proportion of days with the correct number of doses taken) and number of unprotected days were calculated based on the MEMS data. An 'unprotected day' was defined as three or more consecutive missed doses for a BID NOAC and one or more missed doses for a OD NOAC. Patients were also contacted when they took excess doses during the prior 24 hours.

Results No patient stopped OAC treatment, although one was switched to VKA after three months due to a venous thrombus (i.e. persistence = 98%). Already under active telemonitoring observation, adherence was very high, with a taking adherence of 97.4% and a regimen adherence of 93.8%. Nevertheless, adherence was further improved through direct feedback: taking adherence increased with an absolute 1.6% to 99% ($P < 0.001$) and regimen adherence with 3% to 96.8% ($P = 0.001$). The number of unprotected days in a 3 month period decreased from 2.6 to 1.5 ($P = 0.125$). Both during the observation and the feedback phase, taking adherence was higher with the OD NOAC ($P < 0.001$ and $P = 0.018$, respectively) although unprotected days were similar ($P = 0.272$ and $P = 0.251$, respectively).

Conclusions Telemonitoring revealed an unexpectedly high adherence to NOACs in an elderly unselected population. This may be related to highly motivated patients but certainly also to the sense of being watched. Nevertheless, telemonitoring based feedback further optimized the adherence. This may be a valuable approach in selected patients deemed poorly adherent in clinical practice.

Effect of individualised education on knowledge, symptom profile and quality of life of patients with atrial fibrillation. — L. Desteghe[1,2], L. Engelhard[1], J. Vijgen[2], D. Dilling-Boer[2], P. Koopman[2], J. Schurmans[2], P. Dendale[1,2], H. Heidbuchel[1,2] *([1]Faculty of Medicine and Life Sciences, Hasselt University, Hasselt, Belgium, [2]Heart Center, Jessa Hospital, Hasselt, B).*

Objectives Education of patients with atrial fibrillation (AF) is an important aspect to optimize the management of these patients. However, the best strategy to provide education is not known. The aim of the study was to investigate the effect of tailored education on the knowledge level, symptom burden and quality of life of patients with AF.

Methods A prospective randomized controlled trial was set up to evaluate the effect of individualised education using the Jessa Atrial fibrillation Knowledge Questionnaire (JAKQ). The validated JAKQ contains 8 questions about AF in general, 5 questions about oral anticoagulation therapy and either 3 questions about vitamin K antagonists or non-vitamin K antagonist oral anticoagulants. A total of 67 hospitalized or ambulatory AF patients were included.