

#### 4CPS-362 NONAGENARIANS VERSUS NON-NONAGENARIANS IN THE HIP FRACTURE PATIENT: FROM A PHARMACOTHERAPEUTIC POINT OF VIEW

JM Del Río Gutiérrez\*, A Pau Parra, P Lalueza Broto, J Mestre Torres, Á Arévalo Bernabé, JC Juárez Giménez, MDM Villar Casares, MQ Gorgas Torner. *Vall D'hebron Hospital, Pharmacy, Barcelona, Spain*

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**Background and importance** Population aging is associated with a major hospitalisation rate in nonagenarians; therefore, it is necessary to describe them and analyse any peculiarities.

**Aim and objectives** To describe the pharmacotherapeutic profile of nonagenarians versus non-nonagenarians in a cohort of hip fracture patients.

**Material and methods** In a retrospective cohort, all hip fracture patients hospitalised in a third level hospital between 9 January 2020 and 5 March 2020 were included. Numerous variables were collected, related to hip fracture (type of fracture and surgery date), biodemography (age, sex, origin and destination on discharge), medical history (dementia, Charlson index and hospitalisation stay), clinical analyses (urea, creatinine and glomerular filtrate) and medication (polypharmacy, anticholinergic burden (according to Duran and Cols equation) and drugs potentially involved with fractures). Continuous variables were expressed as medians (interquartile range) or as means (SD). A descriptive study and a hypothesis contrast test were conducted between nonagenarians and non-nonagenarians. Stata IC14 was used.

**Results** 99 patients were included of whom 73 were women and 36.4% were nonagenarians. Mean age in the nonagenarians and non-nonagenarians was  $93 \pm 2.73$  and  $86.2 \pm 6.83$  years, respectively. Hospitalisation stay was similar in both groups (13 days (9–6) in <90 years old vs 12 days (9–17) in  $\geq 90$  years old). No significant differences were found for the biodemographic and clinical variables. The glomerular filtrate was higher in the non-nonagenarian group (74 (53–85) mL/min vs 46.5 (36.5–63) mL/min). Minor polypharmacy was found in the nonagenarian group ( $7.6 \pm 2.9$  in  $\geq 90$  years vs  $8.3 \pm 3.6$  drugs in <90 years ( $p=0.33$ )). The anticholinergic burden was minor in the nonagenarian group (16.7% with high anticholinergic burden vs 28.5%,  $p=0.14$ ). No differences were found regarding the number of drugs that could increase the risk of a hip fracture (1.5 (1–3) in <90 years vs 2 (1–4) in  $\geq 90$  years).

**Conclusion and relevance** Comparing nonagenarians and non-nonagenarians, these results suggest that patients aged >90 years do not need a different clinical approach, in contrast with that expected in an older population. With evidence of deterioration in renal function in nonagenarians, extra vigilance is needed for drugs excreted in this way.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of interest** No conflict of interest

#### 4CPS-363 DOES PATIENT CENTRED CARE PRACTICE IMPROVE MEDICATION ADHERENCE OF PATIENTS WITH TYPE 2 DIABETES MELLITUS?

T Leka\*. *West Middlesex University hospital, Pharmacy department, London, UK*

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**Background and importance** Research has shown that patient centred interactions promote adherence and lead to improved health outcomes. The fundamental characteristics of patient centred care (PCC) were identified as (a) patient involvement in care and (b) the individualisation of patient care. The use of a numeric rating scale to measure the presence of these characteristics allows quantification from the patient perspective. Effective PCC practices were related to communication, shared decision making and patient education. The NICE guideline (CG76), the American Diabetic Association (2011) and the European Association for the Study of Diabetes (2015) recommended PCC to every person living with type 2 diabetes. However, there is a lack of empirical data for assessing the implementation of PCC and its relation to medication adherence in type 2 diabetic patients.

**Aim and objectives** The aim of the study was to assess and measure the implementation of PCC and its effect on medication adherence.

**Material and methods** We surveyed 224 type 2 diabetic patients attending our hospital diabetic clinic. We used the NICE self-reporting questionnaire to measure adherence and belief about medicine (BMQ), satisfaction with the information about medicines and illness perception to assess PCC. Univariate and multivariable logistic regression models were used to calculate the relation between adherence and PCC practice.

#### Results

- Patients who were given adequate opportunity to be involved in decision making about their treatment were found to be more adherent with adjusted RR of 0.33 (95% CI 0.13 to 0.84,  $p=0.020$ ).
- Patients who have understanding about their illness and medicine were found to be more adherent with adjusted RR of 0.34 (95% CI 0.13 to 0.88,  $p=0.026$ ).
- Patients who are concerned about the side effects of diabetic medicines were found to be less adherent with RR of 1.17 (95% CI 0.45 to 3.02,  $p=0.038$ ).

**Conclusion and relevance** Our survey results indicated that there was a statistically significant relation between PCC practice and medication adherence. We recommend PCC to be practised by doctors, pharmacists and diabetic specialist nurses to improve medication adherence in diabetic patients.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

The NICE guideline (CG76), the American Diabetic Association (2011) and the European Association for the Study of Diabetes (2015).

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#### 4CPS-364 PERSONALISED QT RISK ASSESSMENT—TO INFORM MEDICATION PRESCRIBING?

M Hallaert\*, V Grootaert, S Desmet. *Az Sint-Jan, Pharmacy, Bruges, Belgium*

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**Background and importance** QTc interval prolongation can lead to Torsades de Pointes (TdP) which can result in sudden cardiac death. Several risk factors (certain drugs and patient related factors) can produce QT prolongation. AzCERT<sup>1</sup> categorises these drugs. In our hospital, the pharmacist provides 'QT advice' for each prescription of a QT drug with a known risk of TdP (CredibleMeds list KR). In 2019, the

pharmaceutical guideline for giving QT advice was adjusted in collaboration with cardiologists.

**Aim and objectives** To compare the feasibility and clinical relevance of QT advice guided by the original and adapted QT guideline.

**Material and methods** QT advice provided by the pharmacist was analysed. This retrospective analysis included: number of times QT advice was given according to the original (April 2018 to January 2019) and the adapted guideline (May 2019 to October 2019), number of QT drugs (defined as drugs on the CredibleMeds list KR) per prescription and QTc interval >500 ms (if known). For 1 month (15 May to 14 June 2019), the acceptance rate of the pharmaceutical advice, including the QT advice was registered.

**Results** Differences between the original and adapted guideline are: (1) threshold for advising an ECG (original:  $\geq 2$  prescribed QT drugs or 1 QT drug in combination with a drug that inhibits the metabolism of a QT drug; adapted:  $\geq 1$  prescribed QT drug) and (2) definition of a recent ECG (original: maximum 1 year old; adapted: during hospitalisation). If no recent ECG is available or the QTc interval is >500 ms, advice is given to the physician.

The number of times advice was given using the original and adapted guideline were 78 (8 advices/month) and 243 (41 advices/month), respectively. On average, using the adapted guideline, advice related to QTc interval  $\geq 500$  ms was given 5 times per month compared with once using the original guideline. The acceptance rate of QT advice was 40% with an overall acceptance rate of 79% for all pharmaceutical advices.

**Conclusion and relevance** Adapting the QT flow resulted in a fivefold increase in the number of times advice was given in relation to QT. The rather low acceptance rate may be explained by the fact that the pharmacist only selected patients on QT drug prescriptions. To enhance the number of times clinically relevant advice is given, patient related risk factors (hypokalaemia, age, gender, cardiovascular comedications) should be included. It is therefore necessary that personalised risk assessment systems help the pharmacist to identify patients at greatest risk for QT prolongation.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Arizona Center for Education and Research on Therapeutics. <https://www.credible-meds.org/>

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#### 4CPS-365 INTEGRATION OF THE HOSPITAL PHARMACIST INTO A MULTIDISCIPLINARY COMPLEX CHRONIC PATIENT CARE TEAM

N Galán Ramos\*, A Trujillano Ruiz, MA Morego Soler, V Cano Collado, MA Maestre Fullana, V Llodra Ortola. *Hospital Manacor, Farmacia, Manacor, Spain*

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**Background and importance** The integration of the hospital pharmacist into a multidisciplinary team is needed due to the increase in hospital admissions of complex chronic patients.

**Aim and objectives** To describe discrepancies and potentially inappropriate prescriptions (PIPs) of medications detected by the pharmacist, integrated into multidisciplinary team, in complex chronic patients (CCP) hospitalised in the chronic patient unit (CPU).

**Material and methods** This was a descriptive and prospective 5 month analysis (June to November 2019). We developed a protocol to standardise the pharmacotherapeutic plan review of all patients admitted to the CPU. We also developed a registry model of pharmaceutical interventions (PI). Anthropometric and demographic patient data were analysed (sex, age and number of chronic medications). A patient/care giver interview was conducted at hospital admission and the following PI were registered:

- Reconciliation: detection of unjustified discrepancies when comparing outpatient drug with hospital therapy.
- Adequacy: detection of PIPs using explicit/implicit criteria with CheckTheMeds software.

Individualised strategies based on the prescription's evidence of adequacy were communicated verbally and also by means of the electronic medical records.

**Results** 138 hospitalised CCP were included in the study, 58.7% men, with a mean age of  $82.25 \pm 9.4$  years. The average number of drugs administered per patient was  $10.83 \pm 5.5$ . For all prescribed drugs (1490), discrepancies were found for 623 (40.81%), meaning that 127 patients presented with discrepancies from which 56.02% were justified. The average reconciliation errors were  $4.5 \pm 2.9$  per patient and these were: omission (50%), different route of administration, different dose or frequency (36.9%), contraindicated drug (9.9%), duplicity (2.6%) and different drug (0.7%).

100% of patients had at least one PIP and the total number of PIPs was 481 (3.5/patient). The most common PIPs were related to drugs that increased the risk of falls (154 (32%)) and CNS related drugs (140 (29%)). PIPs related to greater duration than that indicated in the technical data sheet in the benzodiazepine group (83 patients) and duplicity (67 patients) were also detected.

**Conclusion and relevance** Pharmacist inclusion on the equipment allows an exhaustive review of pharmacological therapy, an important role in patient safety (polypharmacy, patient complexity, etc). The next step is to measure the results of the PI performed to measure the magnitude of the effect of the intervention.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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#### 4CPS-366 COMPARING THE MEDICATION PROCESS ACROSS COUNTRIES USING THE FUNCTIONAL RESONANCE ANALYSIS METHOD

CF Bech\*, TRH Andersen, T Graabaek. *Region Zealand Hospital Pharmacy, Clinical Pharmacy, Roskilde, Denmark*

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**Background and importance** The medication process in hospitals that comprises prescribing, dispensing, administration and monitoring is an interprofessional collaboration. This includes hospital pharmacists (HPs) in one or more stages, which improves patient safety and reduces costs. However, the use of HPs varies greatly between countries and so do the results of studies evaluating the benefit of HPs. The differences between the HP's role across countries has not yet been described on a tangible level.