one: the remaining 21% ^{223}Ra was used in the fourth line or higher. Thirty-seven patients completed six treatment cycles and 26 stopped treatment before completing six cycles because of side effects or worsening performance status: ^{223}Ra mean dose was 4.6 MBq (SD=0.7). Fifteen per cent of patients had more than a 40% reduction in PSA levels at the end of treatment. According to Kaplan–Meier estimation, median OS and PFS were 10.0 (95% CI: 8.1 to 11.9) and 5.0 (95% CI: 4.1 to 5.9) months, respectively. Six- and 12 month OS rates were 76% and 39%, respectively. Patients receiving all six cycles experienced the major benefit from the therapy. In addition, nine patients were given ^{223}Ra at least 1 month prior to death. Forty-nine per cent of patients suffered haematological adverse effects such as thrombocytopaenia and neutropaenia, three patients grade 3 or 4 toxic effects and 24% of patients showed gastrointestinal side effects such as diarrhoea, nausea and vomiting in grade 1–2. Fourteen patients reported a worsening of their bone pain.

Conclusion PFS and OS observed in this study are lower than those reported in the clinical trial. This could be explained by a worse performance status and that approximately half of the patients had been heavily pre-treated, ^{223}Ra receiving as a third line or higher. ^{223}Ra was well tolerated, the adverse effects being clinically manageable.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-192 IDENTIFYING MEDICATION HISTORY ERRORS AT HOSPITAL ADMISSION USING THE LUND INTEGRATED MEDICINES MANAGEMENT MODEL

¹E Abood*, ²T Eriksson, ³H Al Temimi. ¹Uppsala University, Department of Pharmaceutical Biosciences, Uppsala, Sweden; ²Lund University, Department of Clinical Pharmacology, Lund, Sweden; ³Medical City, Department of Clinical Pharmacy, Baghdad, Iraq

10.1136/ehjpharm-2019-eahpconf.341

Background An accurate medication history list is an integral part of patient assessment at hospital admission.

Purpose The objective of the study was to describe the frequency, type and predictors of unintentional medication errors and to evaluate the quality of the clinical pharmacy services, focusing on the acceptance of the recommendations made by the clinical pharmacist.

Material and methods A descriptive study was conducted at two internal medicine wards at a teaching hospital using Lund Integrated Medicines Management (LIMM)-based medication reconciliation. The study pharmacist conducted medication interviews for patients shortly after hospital admission to obtain the most accurate pre-admission medication history list. This list was compared with the medication list in the patient's medical chart. Intended addition, withdrawal of a drug, or changes to the dose/dosage form in the patient's medical list was considered as medication discrepancies. However, medication discrepancies were considered as medication errors based on no identified clinical reason.

Results A total of 114 patients were included in this study. Over two-thirds of the study patients (73.6%) experienced 215 medication errors identified by a clinical pharmacist conducting medication reconciliation. Most errors were omission (87.9%). Cardiovascular agents followed by NSAID were

commonly in error (53%) and (10.2%) respectively. In a logistic regression model, age (OR, 1.055: 95% CI: 1.010 to 1.102), female gender (OR, 3.468: 95% CI: 1.232 to 9.761) and number of medications at admission (OR, 0.810: 95% CI: 0.681 to 0.963) were predictors for medication history errors at admission.

Conclusion Medication errors at the time of hospital admission are common and undetected. A structured approach such as LIMM-based medication reconciliation at the hospital is needed to detect these errors.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Eriksson T, et al. The hospital LIMM- based clinical pharmacy service improves the quality of patient medication process and save time. *Eur J Hosp Pharm* 2012;19:375–2.

Hellstrom LM, et al. *Impact of the Lund Integrated Medicines Management (LIMM) model on medication appropriateness and drug-related hospital revisits*. *Eur J Clin Pharmacol* 2011;67:741–52. The author would like to thank Tommy Eriksson for his permission to use the LIMM-model as a tool in conducting the study.

Conflict of interest Corporate-sponsored research or other substantive relationships:

The study was supported, in part, by a grant from the Swedish Pharmaceutical Society, which is a non-profit organisation aimed at providing support for pharmaceutical research and education. The funding source had no role in the design and conduct of the study.

4CPS-193 A THEORETICALLY BASED CROSS-SECTIONAL SURVEY ON THE BEHAVIOURS AND EXPERIENCES OF CLINICAL PHARMACISTS CARING FOR CHRONIC KIDNEY DISEASE PATIENTS

¹F Al Raiisi, ¹F Al Raiisi*, ¹D Stewart, ²C Ashley, ³M Fahmy, ¹S Cunningham. ¹Robert Gordon University, Pharmacy and Life Sciences, Aberdeen, UK; ²University College of London, School of Pharmacy, London, UK; ³Oman College of Health Sciences, Pharmacy College, Muscat, Oman

10.1136/ehjpharm-2019-eahpconf.342

Background Chronic kidney disease (CKD) is a comorbid condition with high economic burden. Patients need multiple medications and pharmacists provide care that improves outcomes. A systematic review published in 2012¹ and an update in 2018² reported that pharmacists are often poorly integrated within the multidisciplinary CKD team with little description of the practice of pharmacists.

Purpose To describe behaviours and experiences of clinical pharmacists providing care to patients with CKD.

Material and methods This was a cross-sectional online survey using questionnaire items relating to influences on behaviours grounded in the Theoretical Domains Framework (TDF). The questionnaire was reviewed for face/content validity and the subjected to think aloud testing then piloting. Items included; demographics, clinical practice and prescribing practice. The Bristol Online Survey Tool was used with a link emailed to members of a national renal pharmacy group (n=147). The study was approved by a university ethics committee.

Results Responses were received from 36 persons, female (n=25), qualified as pharmacist for >10 years (n=19) and registered active NMPs (n=24). Services provided to inpatients and outpatients are described in the table 1.