

# CHRONIC KIDNEY DISEASE PATIENTS AND POLYPHARMACY: HOW TO OPTIMISE AND SIMPLIFY PRESCRIPTIONS?

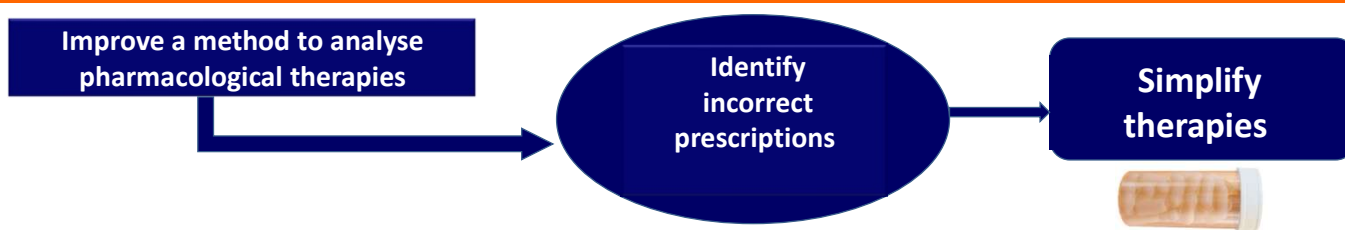


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## Background

Patients with **chronic kidney disease (CKD)** are often characterised by the concomitance of multimorbidity, which could cause complex drug prescriptions that lead to a higher risk of incorrect administration and serious drug–drug interactions (DDIs) and potentially inappropriate medications (PIMs). According to national recommendation No17 of the national health system (NHS), these patients need appropriate attention: a **multidisciplinary team** (clinical pharmacists–clinician–nurse) **should systematically re-evaluate pharmacological therapies** to simplify/harmonise treatments and increase patient adherence.

## Objectives



## Material and methods

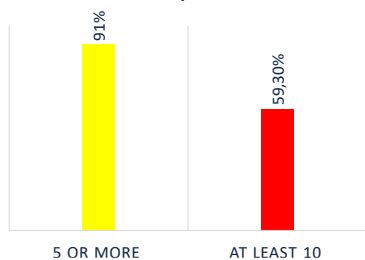
The method requires that the clinical pharmacist in the nephrological team collaborates to analyse 231 therapies of patients, in charge of the advanced renal disease clinic, using an already identified information and communication technology (ICT) tool(1). Drugs, classified by anatomical therapeutic chemical class (ATC), and dosage units (DU) were counted and DDIs were investigated. PIMs and dangerous drugs were identified by Beers criteria and STOPP criteria.

## Results

### Out of 231 patients' therapies:

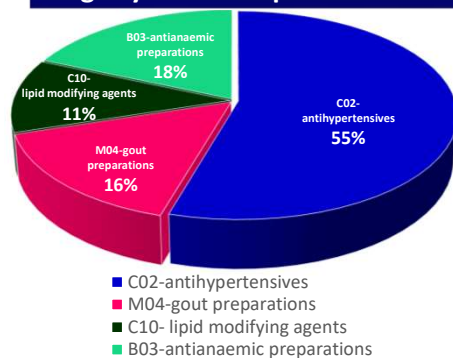
|             | Drug        | DU          |
|-------------|-------------|-------------|
| Total       | 2311        | 2695        |
| Patient/day | 10          | 12.1        |
|             | (±3.1 s.d.) | (±8.1 s.d.) |

### DU/DAY



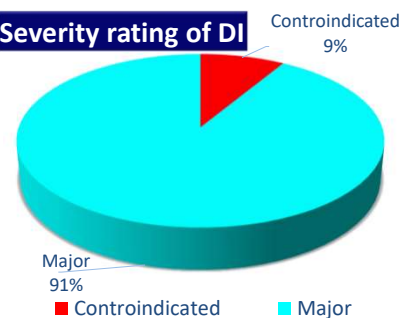
91% of patients were taking 5 or more DU/day and 59.3% at least 10

### Drugs By ATC most prescribed



| Criteria | Total PIMs | PIMs/patient (± s.d.) |
|----------|------------|-----------------------|
| STOPP    | 975        | 4.2 (± 2.2)           |
| Beers    | 571        | 2.4(± 1.7)            |

### Severity rating of DI



Drugs most responsible for DDIs were:

- Cardioaspirin
- PPIs
- Angiotensin receptor blockers
- Diuretics.

## Conclusion

Polypharmacy is associated with a high incidence of DDIs and an increased risk of mortality and hospitalisation. The use of the ICT tool and the clinical pharmacist who bring their contribution in terms of pharmacological and pharmacokinetic knowledge have significantly contributed to the improvement in prescriptive appropriateness and minimised the risk of adverse events.

## References and/or acknowledgements

1. Critical analysis of the information and communication technologies' (ICT) tools most used in clinical practice by the pharmacist. Masucci S, Cerutti E, Riba M, Gasco AL (EAHP Congress 2019).