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Introduction

Regulatory compliance of prescriptions is a key aspect of good performance of pharmaceutical validation within the hospital. Several irregularities has been detected in daily practice.

Objectives

Estimate the nature and prevalence of regulatory irregularities in prescriptions at Teaching hospital pharmacies in order to set an action plan.

Methods

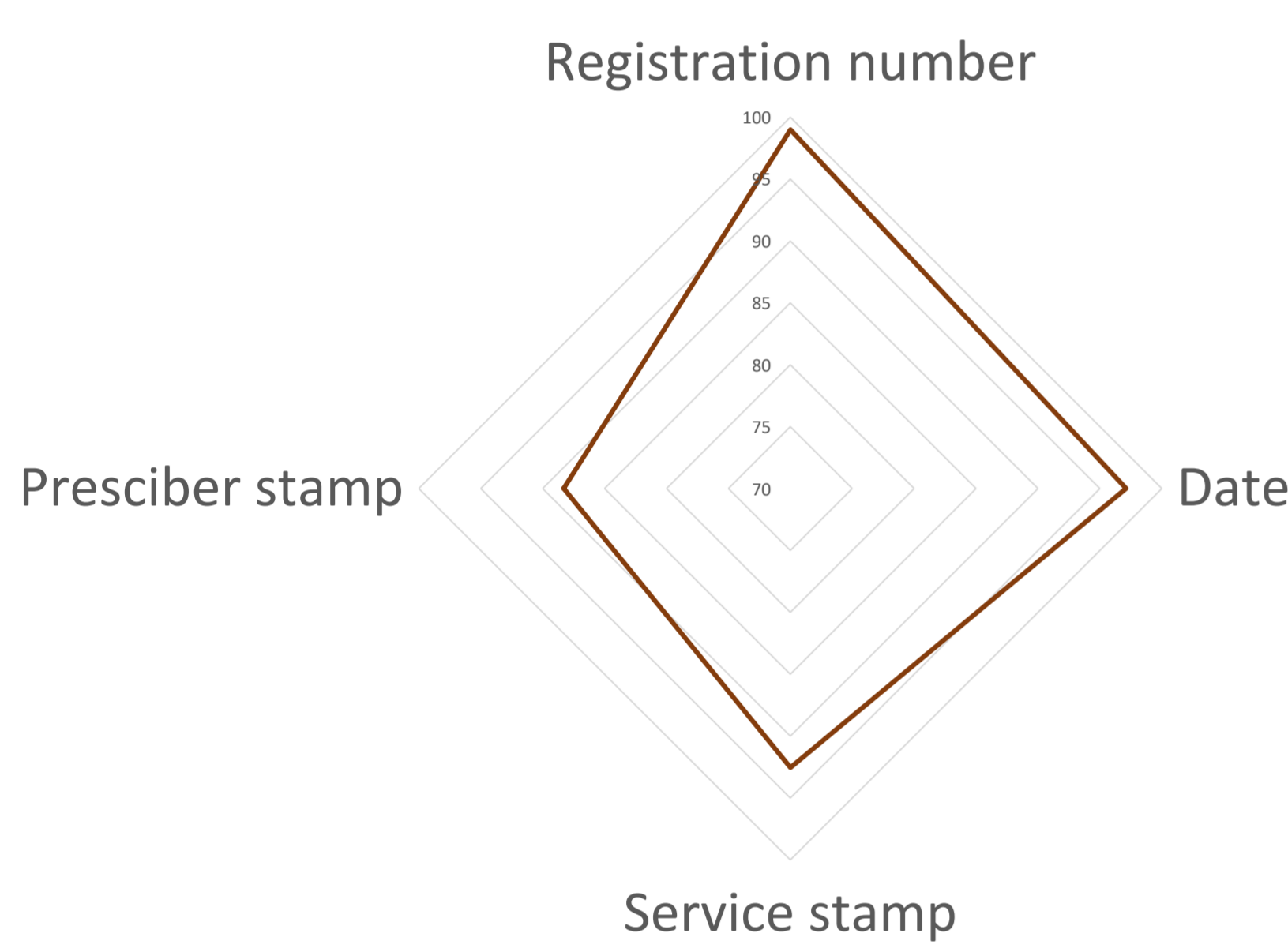
A one-day study (October 2017) conducted on all (out/in) patients prescriptions at the Teaching hospital. The patient registration number is verified systematically via a dedicated software ADMIS.

The quantitative and qualitative analysis of prescriptions is done via SPSS software v23 and Excel 2016. The analysis of multivariate data is made by Kiviatt Diagrams. Reglementary assessment of the prescriptions complies with article 27 of current Tunisian pharmaceutical Act (N°73-55) [1] and recommendations of the drug circuit security commission (ORMEDIMS) [2]

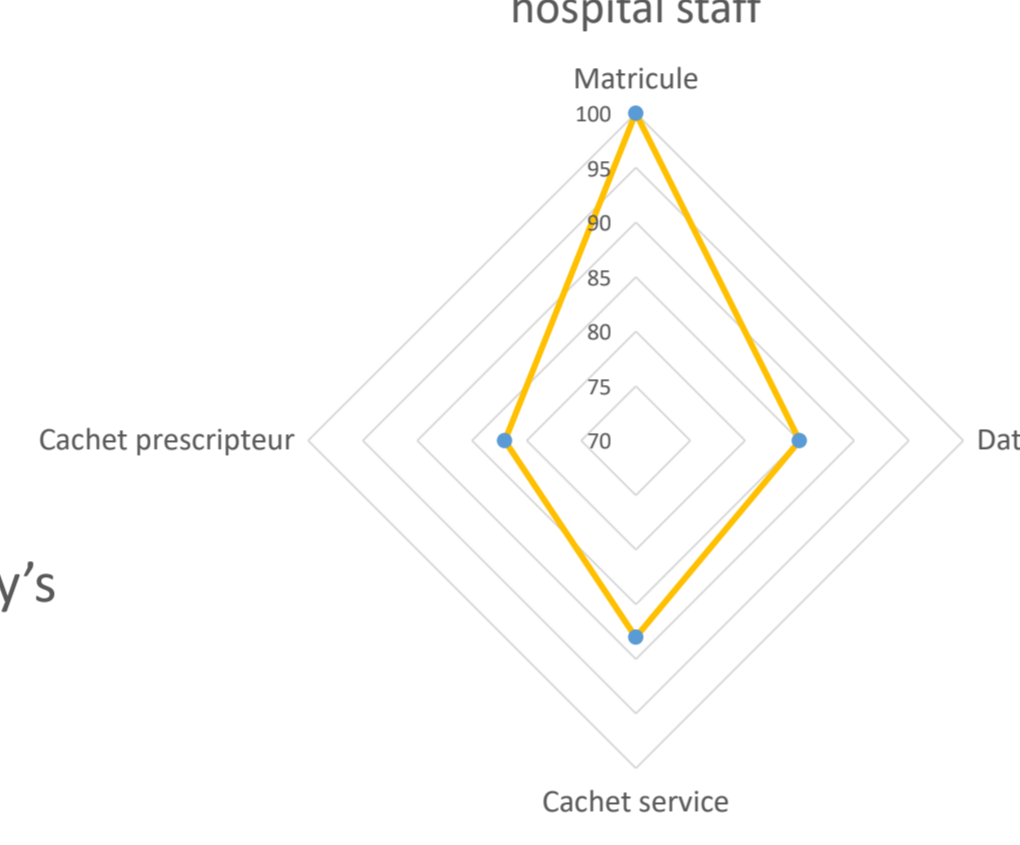
Results and discussion

The analysis was based on 590 prescriptions of which 393 are from the external pharmacy and 197 from hospitalized patients. The prescriptions were completely delivered in 80% of the cases. 95% of the validated prescriptions pharmaceutically are from the hospitalized services against 73.7% for prescriptions resulting from the consulting services. All the prescriptions bear the correct registration number corresponding to the right patient, treatment duration was present in 100% of the cases.

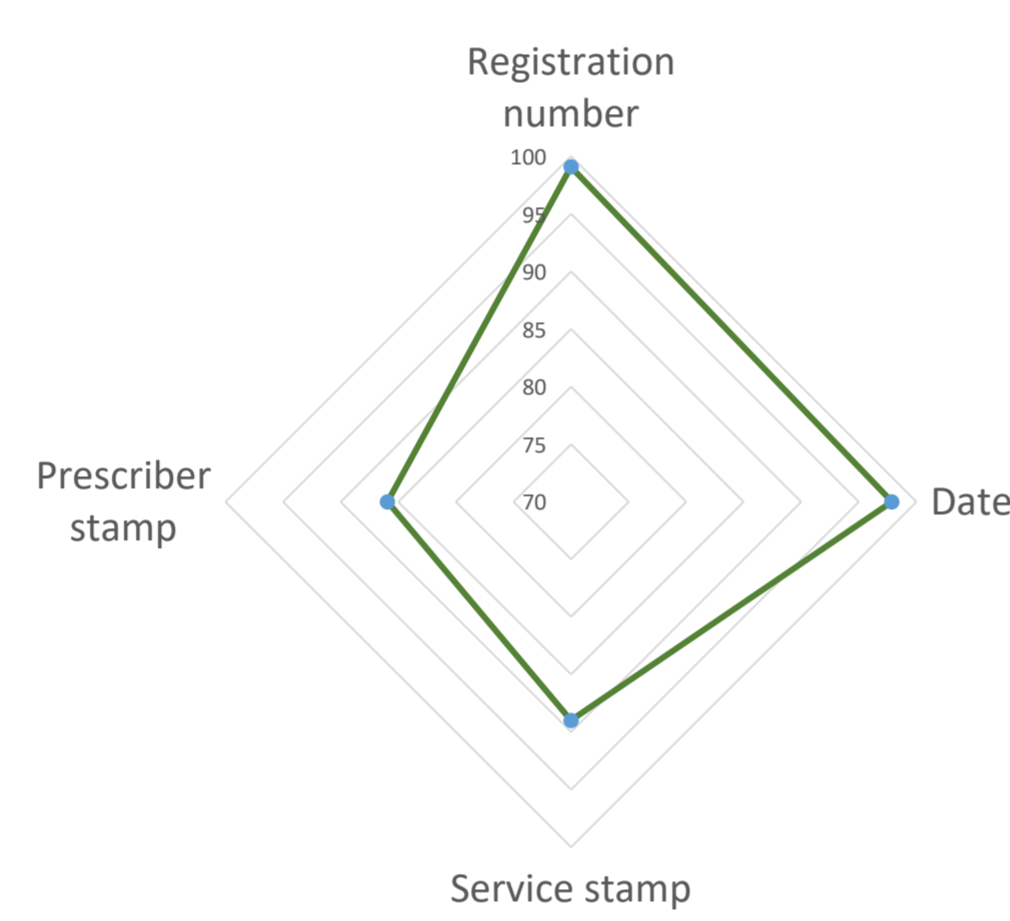
Validity rates for all prescriptions



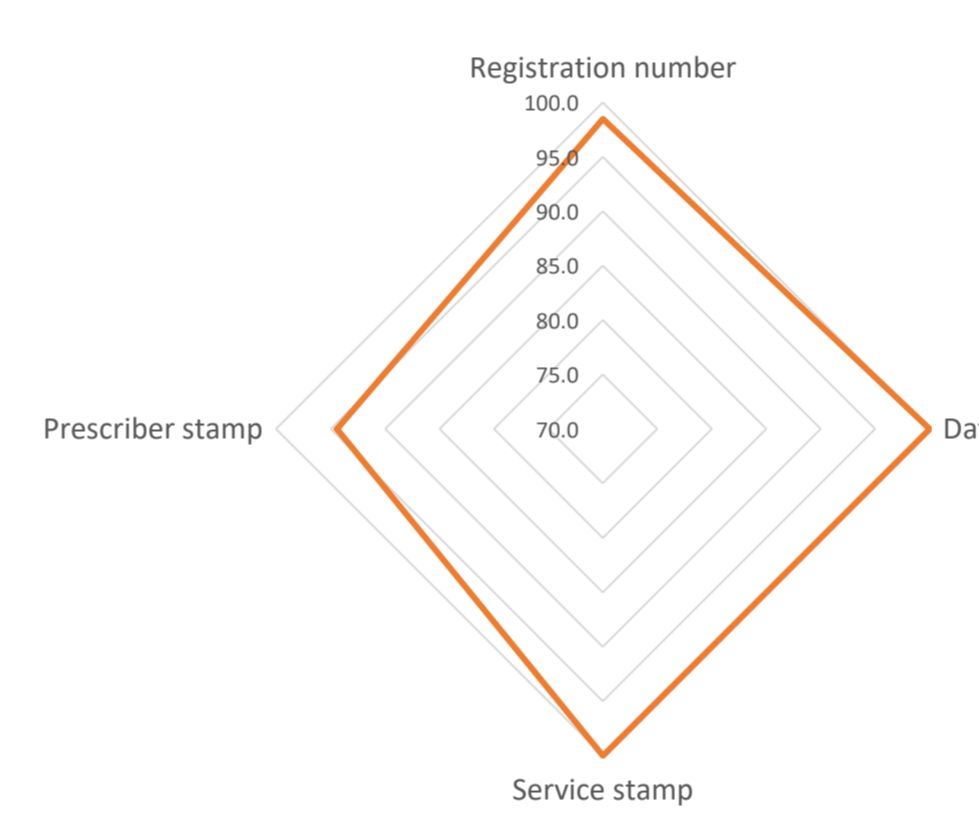
Validity rates for prescriptions to treat working hospital staff



Validity rates for external pharmacy's prescriptions



Validity rates for inpatients' prescriptions

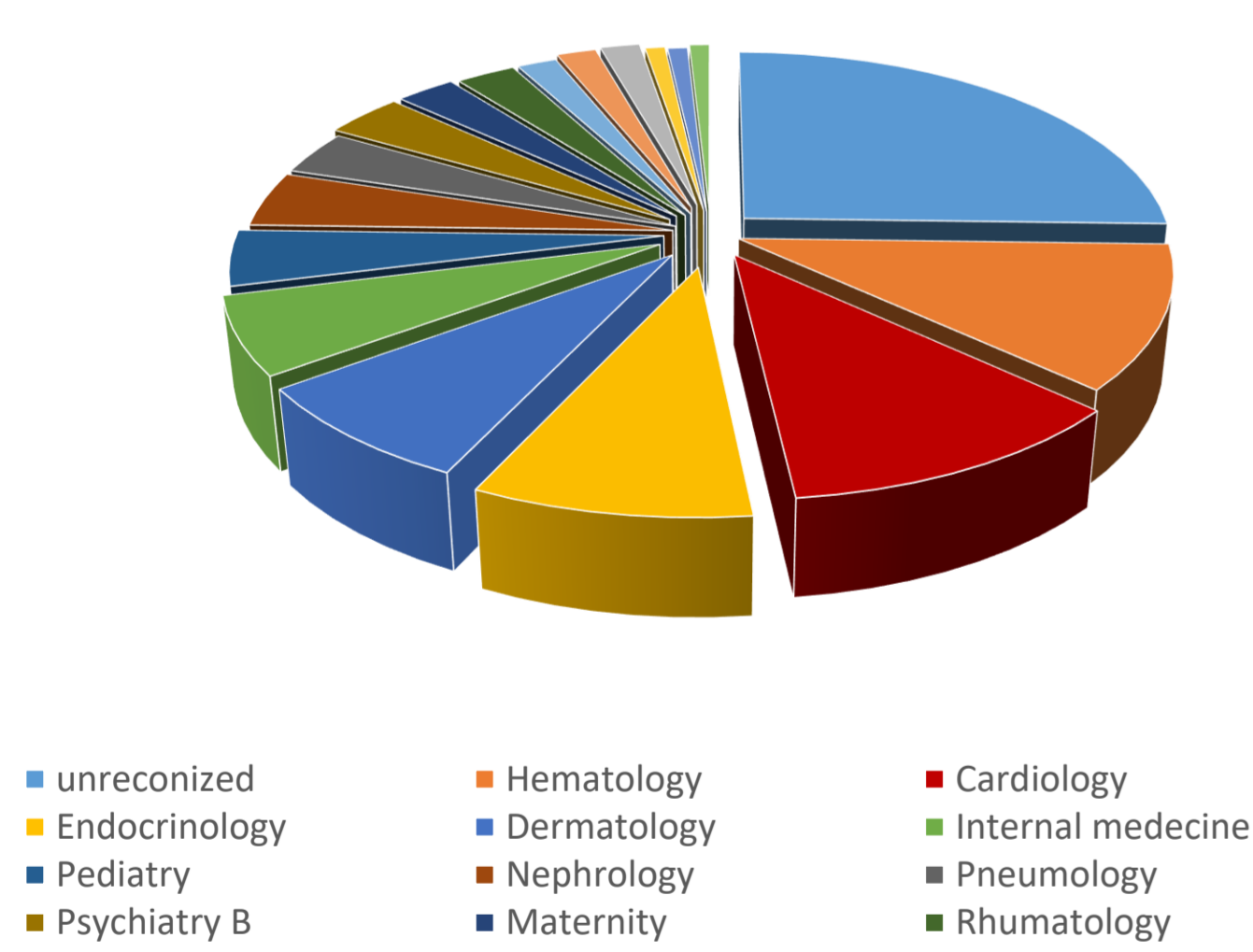


Validity rates diagrams from all hospital pharmacies

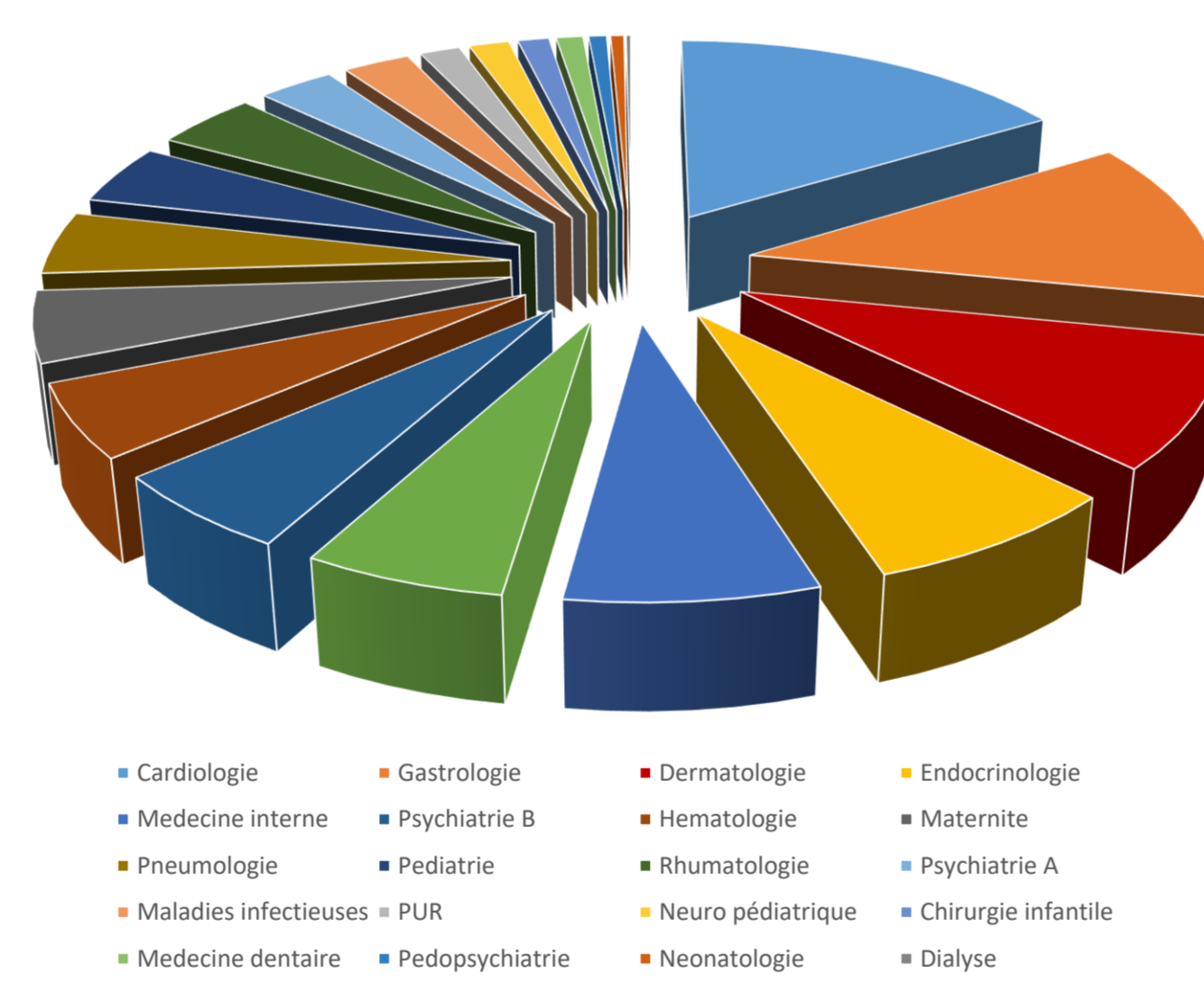


The non-conformity (absence / illegibility) is due to the prescriber's stamp in 11,9%, the date of prescription in 3.1% of cases and the seal of the service in 7,5% of all cases corresponding to 11% of outpatients.

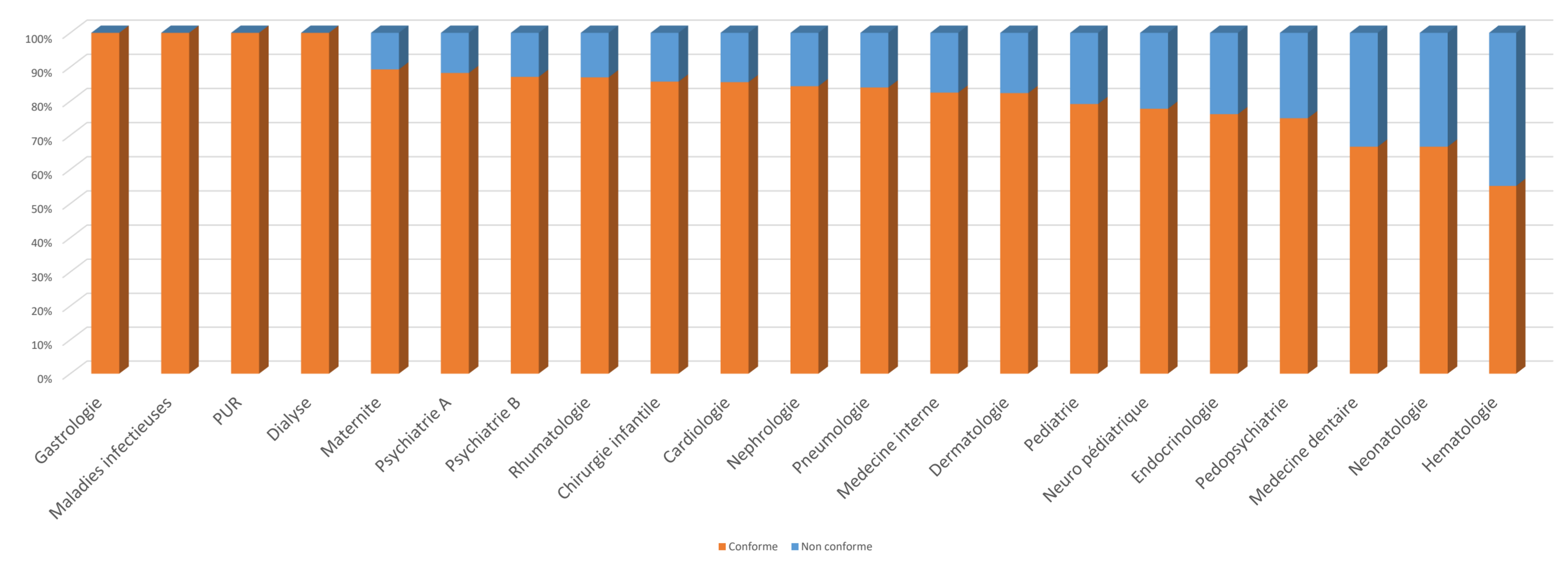
Non-conformity prescriptions by clinical wards



Number of prescriptions by clinical wards



Non conformities rate by clinical ward

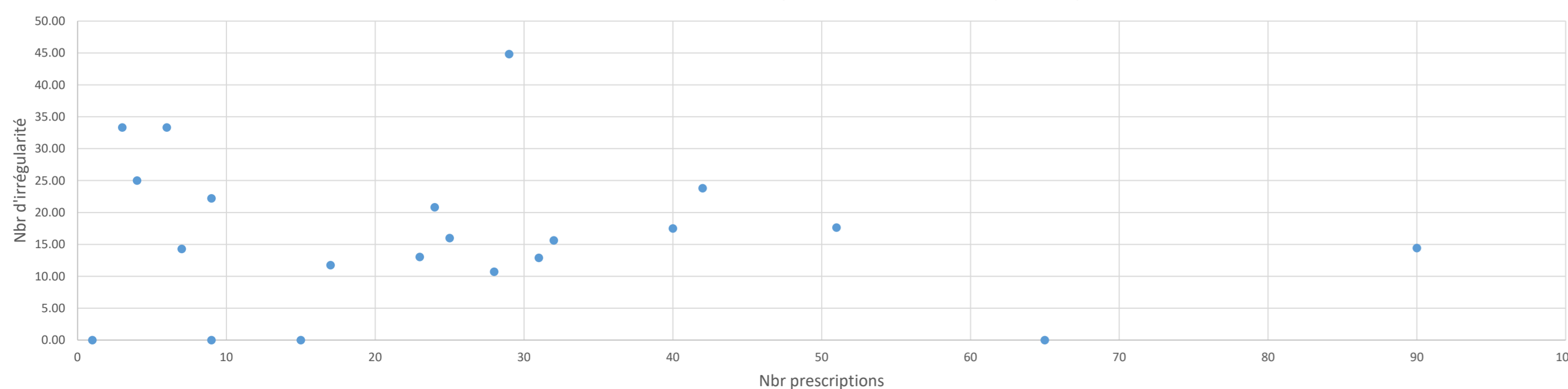


The origin of the non-compliance issued mainly from the hematology department (11.4%), followed by cardiology (10.5%) and endocrinology (8.8%) and in 25% of cases the service is unidentifiable.

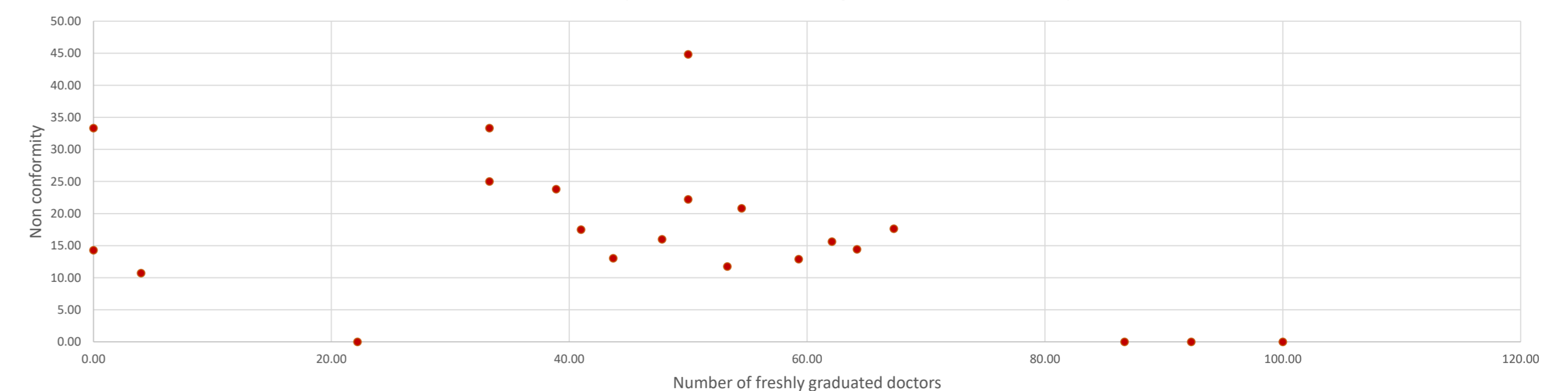
The statistical study showed the lack of correlation between the number of prescriptions and the rate of irregularity and between the quality of prescribers (senior, intern) and non-compliances. (Spearman coefficient calculation).

Consequently, official letters are sent to all physicians reminding them about reglementary requirements for medical prescribing. An evaluation is planned within a year.

Correlation of non conformity with number of prescriptions



Correlation of non conformity with number of graduated doctors per clinical service



Conclusion

Regulatory validation of prescriptions is a preliminary and essential step in pharmaceutical validation. A critical analysis of the irregularities makes it possible to establish a plan of action with specific procedures and proves periodically necessary as an indicator of the good functioning of the system.

Bibliography

- Art 27 Loi N°73-55 du 3 Août 1973
- ORMEDIMS. Les recommandations de la commission de sécurisation du circuit du médicament, v01, 2010.

