

# RISK ASSESSMENT OF PRESCRIBING ERRORS ON MEDICAL PRESCRIPTIONS IN MALTA AND GERMANY

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## INTRODUCTION

Errors on a medical prescription may lead to erroneous dispensing by the pharmacist. A risk assessment of causes that might lead to dispensing errors in Malta and Germany was undertaken.

## AIMS

To assess root causes in the medical use process that have the potential to lead to reduced detection of prescribing errors on medical prescriptions from a pharmacist perspective.

## METHOD

Interviews with medical practitioners were conducted in Malta and in Germany to identify root causes of prescribing errors.

Two questionnaires, one for physicians and one for pharmacists were developed and validated by 16 experts.

Both professions were asked to assess root causes for errors that were discussed in physician's interviews and to rank potential prescribing errors on a scale of 1 (low score) - 4 (high score) by multiplying their probability and severity to get an overall 'Risk Priority Number' (RPN) (1 - 4 low risk) (6 medium risk) (8 - 16 high risk).

## RESULTS

- Two hundred and four medical practitioners (104 Malta, 100 Germany) and 189 pharmacists (86 Malta, 103 Germany) answered the questionnaire respectively .
- Interruption rates while consulting with a patient as a root cause of prescribing errors showed a statistically significant difference among physicians ( $p < 0.001$ ) with 63 in Malta (66%) compared to 32 (32%) in Germany. The interruptions among pharmacists also showed a statistically significant difference ( $p = 0.02$ ) with higher interruption rates in Malta (47%,  $n = 40$  Malta; 32%,  $n = 33$  Germany).
- Prescribing errors due to illegible handwriting (average RPN of 6.81 for medical practitioners, 7.95 for pharmacists) and the use of abbreviations (average RPN 5.29 medical practitioners; 5.81 pharmacists) were rated as the two most common risks among medical practitioners and pharmacists leading to potential dispensing errors in Malta (Figure 1).
- German medical practitioners' and pharmacists' most common risks were the omission of duration of use from the prescription and longer duration of short-term use drugs (average RPN 6.42 and 6.21 medical practitioners; 6.08 and 7.6 pharmacists, respectively)

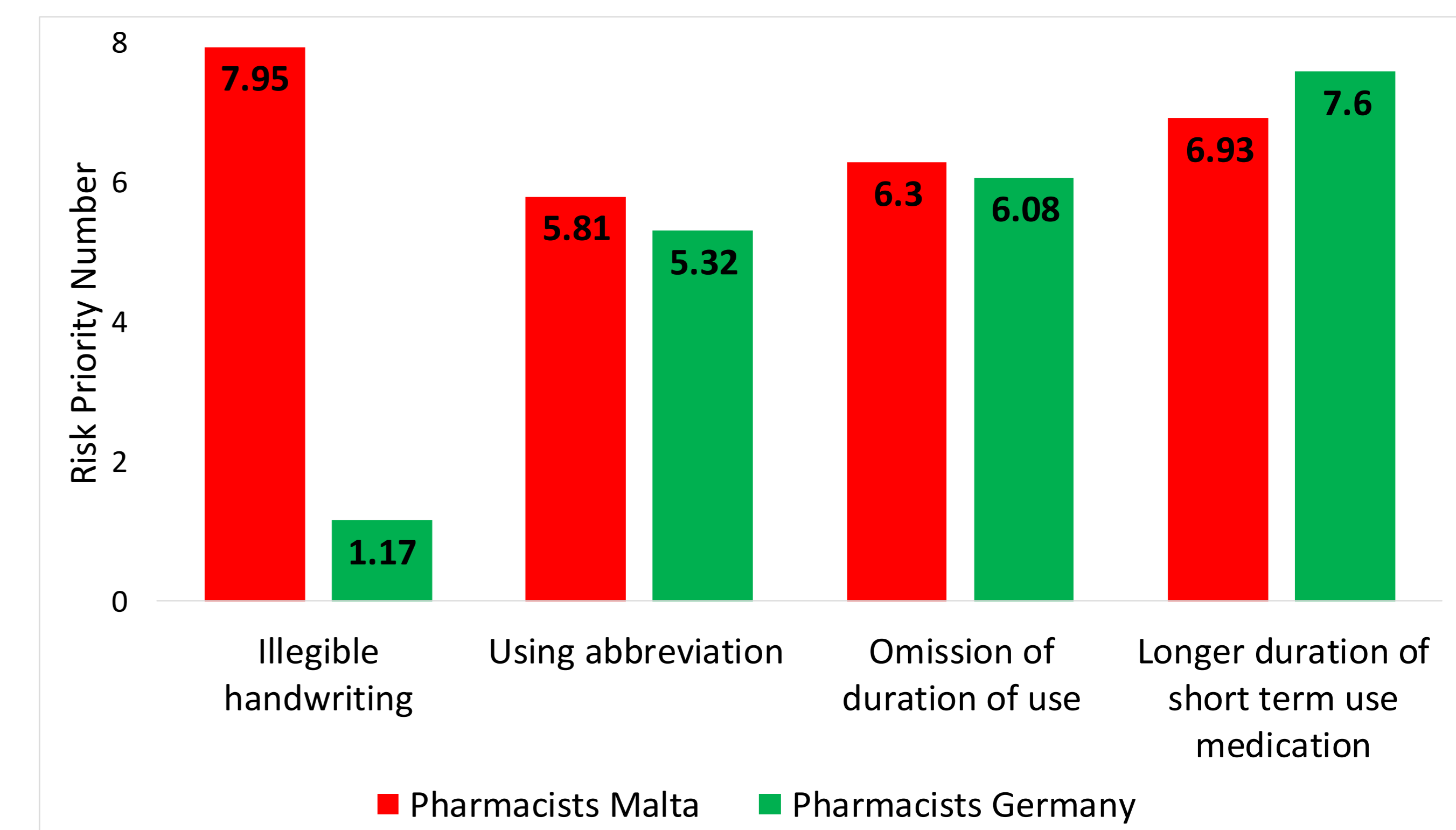


Figure 1: Pharmacists Potential Prescribing Errors Rating

## CONCLUSION

In Malta, the physician's handwriting is viewed as the main source of prescribing errors. This error is not an issue in Germany as prescriptions are issued electronically. The awareness of medical practitioners and community pharmacists can be increased to avoid future errors. Specific risk minimisation strategies on the basis of identified prescribing error risk should be addressed to reduce risks in the specific country.