

MANAGEMENT OF SOLID ORAL PHARMACEUTICAL FORMS WITH UNIT DOSE

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BACKGROUND AND IMPORTANCE

The Unit Dose (UD) allows to minimize mistakes during therapy prescription, preparation and administration. As pointed out in references from US Institute for Safe Medication Practices (ISMP), FDA and UK National Health Service (NHS), manipulation of solid oral pharmaceutical forms, if incorrectly managed, can lead to drug instability, local skin reaction, therapy mistakes or failure, thus prejudicing patients' and health workers' safety. Consequently, during UD therapies validation, hospital pharmacists have to evaluate prescriptive appropriateness which includes checking of prescribed pharmaceutical forms. In case of incorrect prescriptions, pharmacists have to intervene by writing annotation about every single drug and patient, proposing prescription modification and alternative pharmaceutical forms.

AIM AND OBJECTIVES

Aim of this work is to demonstrate that such intervention is significant in reducing errors in solid oral pharmaceutical forms manipulation.

MATERIAL AND METHODS

All UD-managed patients' therapies were analyzed over a period of 1 year (01/04/2021-31/03/2022) and, for every patient, the annotations written by the pharmacists were examined. Those annotations were categorized in 5 subgroups, according to the typology of the potential error due to incorrect manipulation:

- NOT TRITURABLE (NT);
- NOT DIVISIBLE (ND);
- NOT OPENABLE (NO) for capsules;
- INDETERMINABLE (IN);
- LOW RANGE THERAPEUTIC INDEX (LRTI).

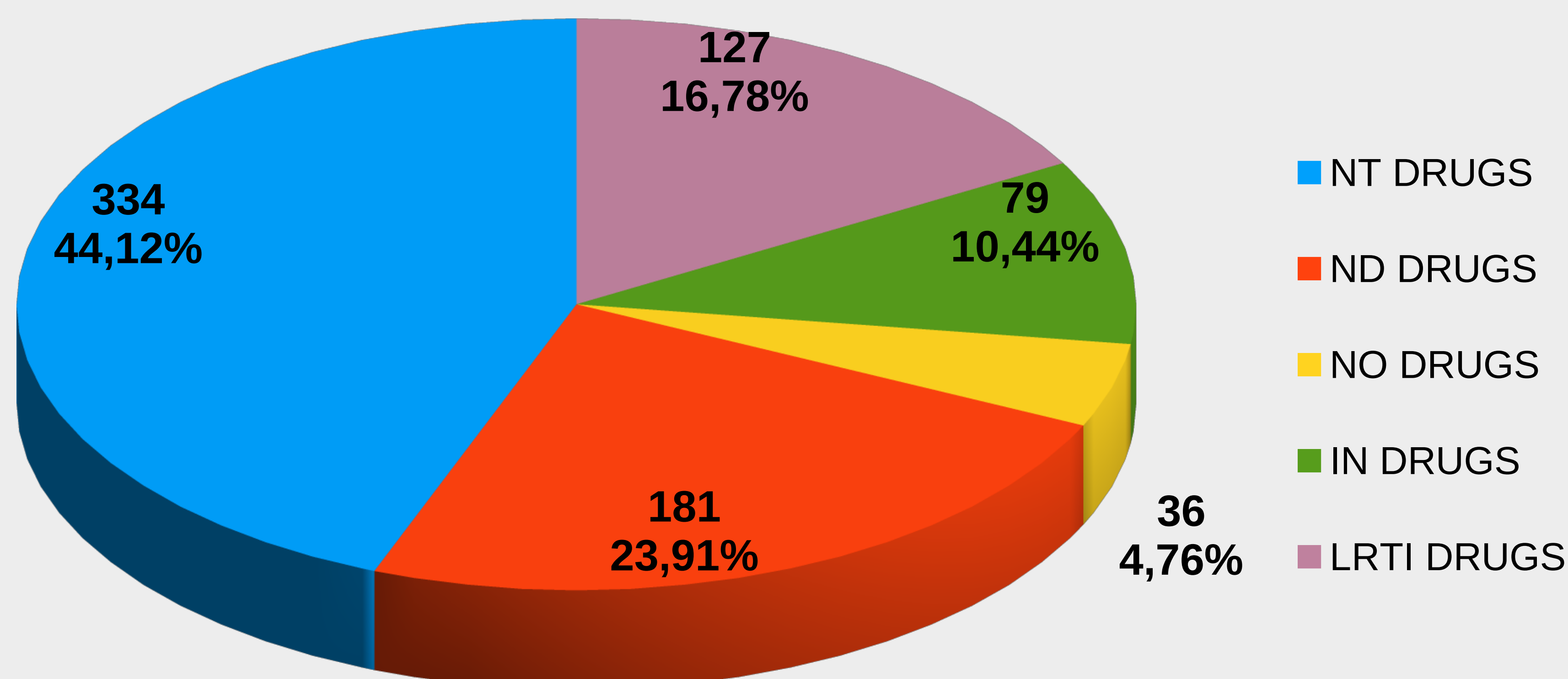


The fifth subgroup, although not referable to the Raccomanazione-19, relates to potential mistakes caused by the division of low range Therapeutic Index drugs.

RESULTS

Over the studied period, 12.798 patients were hospitalized under DU regimen. Those patients received 145.536 prescriptions, whose 6,8% (9.833) had an annotation by the pharmacists regarding incorrect prescription. Particularly in 757 (5,91%) patients an alternative dose/pharmaceutical form was suggested, according to the 5 subgroups we studied:

- 334 (44,1%) for NT drugs;
- 181 (23,9%) for ND drugs;
- 36 (4,8%) for NO drugs;
- 79 (10,4%) for IN drugs;
- 127 (16,8%) for LRTI drugs;



CONCLUSION AND RELEVANCE

The analysis showed that UD regimen and the role of the pharmacist were crucial to avoid potential adverse events in 5,91% of patients, due to unaware errors intercepted during the evaluation and validation of drugs prescription.

REFERENCES AND/OR ACKNOWLEDGEMENTS

- ISMP. Oral dosage form that should not be crushed. <https://www.ismp.org/recommendations/do-not-crush>
- FDA Best Practices for Tablet Splitting. <http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/ucm184666.htm>
- NHS Swallowing pills <http://www.nhs.uk/conditions/swallowing-pills/Pages/swallowing-pills.aspx>