

Evaluation of Duplicate Medication Orders at a Tertiary Care Hospital

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Background

- Duplicate medication orders are a potential source of preventable errors with significant effects on patient care.¹
- Under the Joint Commission Standard MM.05.01.01, a pharmacist reviews the appropriateness of all medication orders for medications to be dispensed in the hospital.
 - Element performance 8, review for therapeutic duplication, under this standard was the top issue (11%).²
- Pharmacist interventions may potentially reduce the number of therapeutic duplications.¹

Purpose

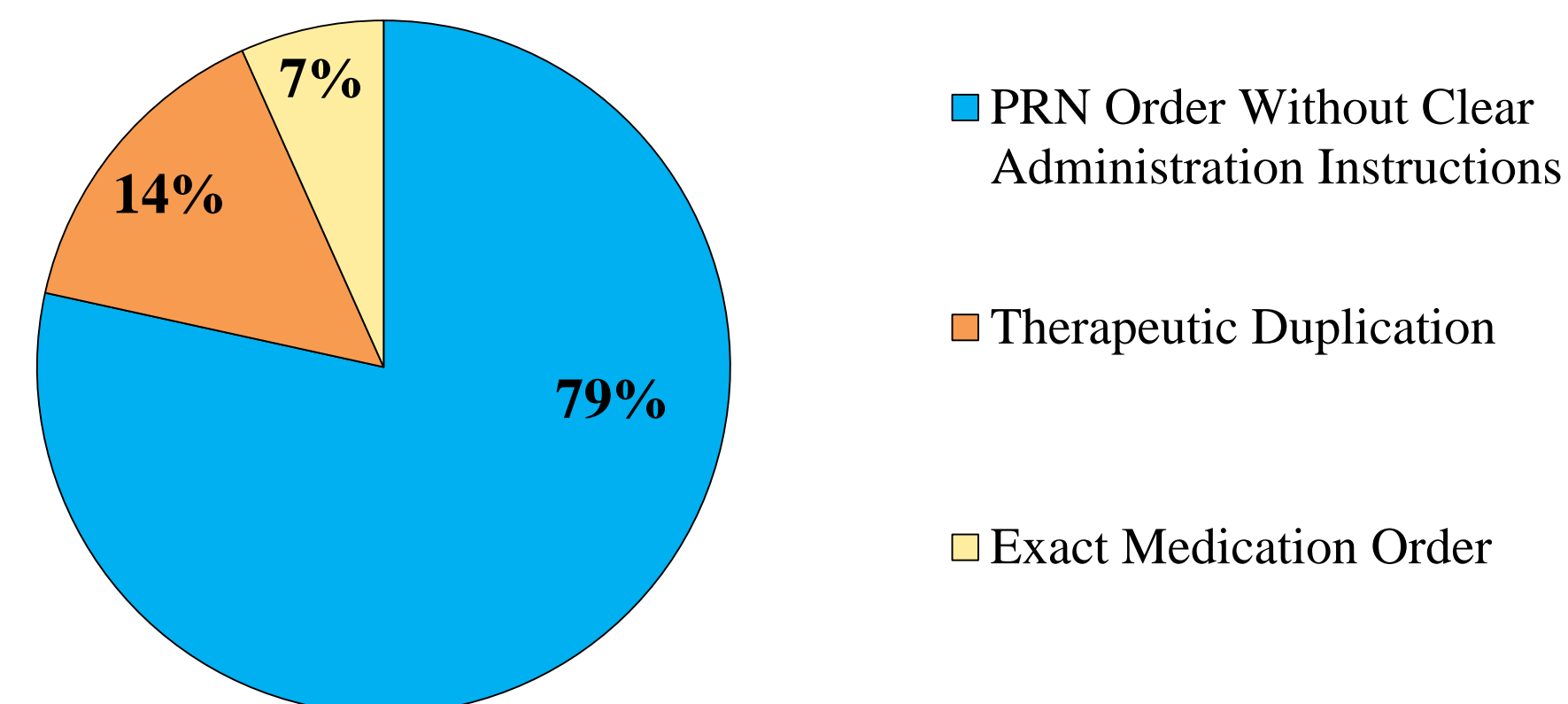
- To determine the incidence and characteristics of duplicate medication orders in a tertiary care hospital

Methods

- On four consecutive Fridays at a pre-specified time, a report of active medication profiles for all inpatient units in the hospital were generated for retrospective review of duplicate medications.
- The computerized physician order entry system was referenced when further analysis of the active medication profile was needed by the evaluator.
- Duplicate medication orders were defined as:
 - PRN orders without clear administration instructions
 - Exact medication order duplications
 - Therapeutic duplications determined by clinical judgement of the evaluator
- The total number of duplicate medication orders per hospital unit was collected to compare:
 - ICU floors to non-ICU floors
 - Therapeutic class
 - Entering provider
 - Order origination

Results

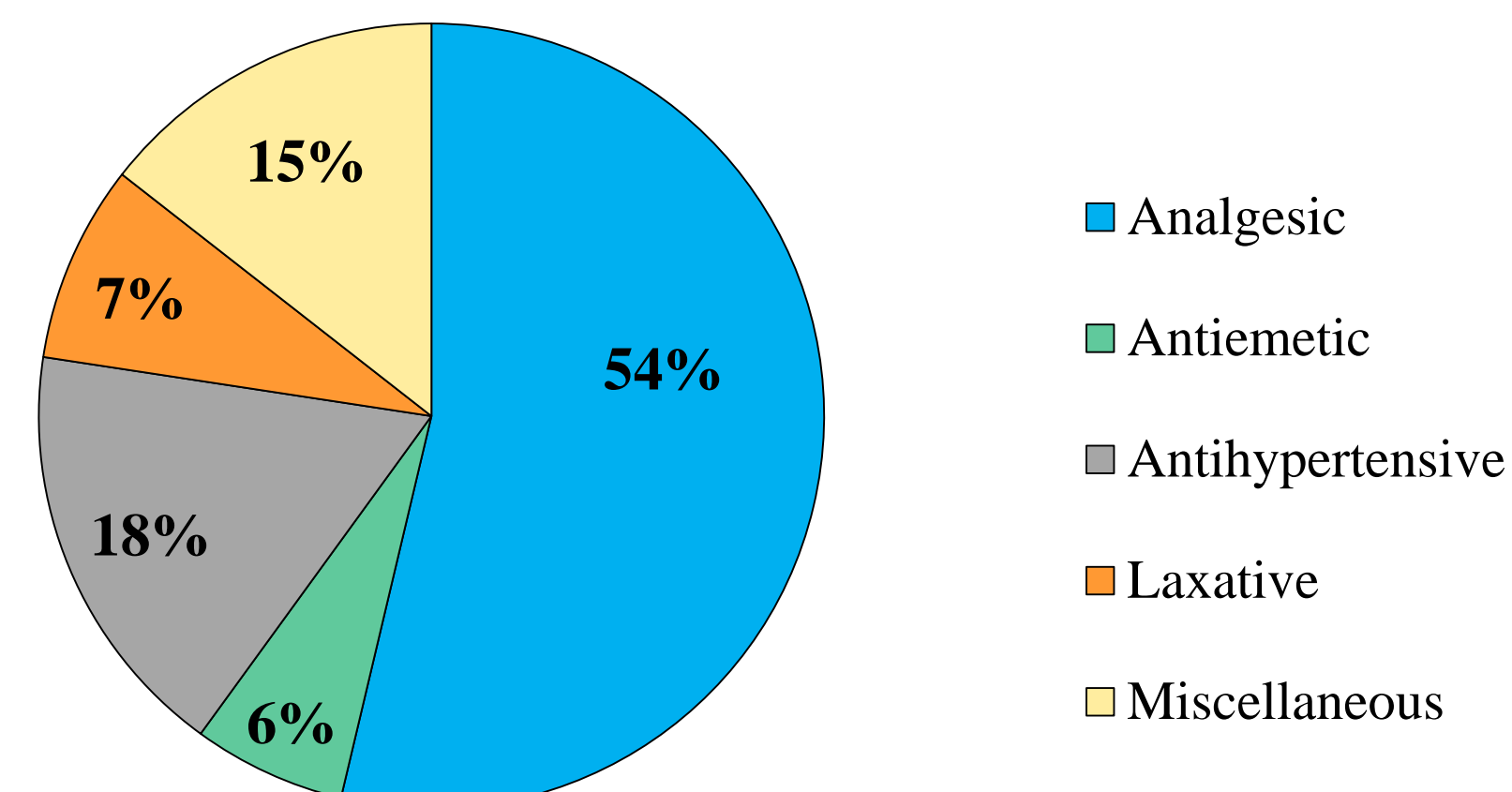
Type of Duplicate Order as Percentage of all Duplicate Orders



Percentage of Duplicate Medication Orders

	Total Orders	Number of Duplicates	Percentage
ICUs	5,582	74	1.33 %
Non-ICUs	12,962	188	1.45 %
Total	18,544	262	1.41%

Duplicate Medication Orders by Therapeutic Class



Results (continued)

- A total of 18,544 orders were reviewed during the data collection period, averaging 4,366 orders per day.
- There were a total of 262 duplicate medication orders with a duplication rate of 1.41%.
- Analgesic medications and PRN medications without clear administration instructions consisted of the highest percentage of duplicate medication orders.
- The average number of total duplicate orders was similar for ICUs and non-ICUs, with 14.8 and 15.7 duplicate orders per unit, respectively.
- Physician residents contributed to the highest number of duplicate medication orders compared to other physician types.
- Duplicate orders originating from a order set occurred less frequently than orders that originated from a single order.

Conclusions

- This evaluation confirmed a low incidence of duplicate medication orders within the hospital.
- PRN medication orders and analgesic agents composed the majority of the institution's duplicate medication orders.
- By understanding the extent of duplicate medication orders within the institution, future educational initiatives can be implemented in targeted areas.

Disclosures

- None of the authors have any relevant financial disclosures.

References

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