Assessment and Categorization of Medication Errors in a Veterinary Teaching Hospital

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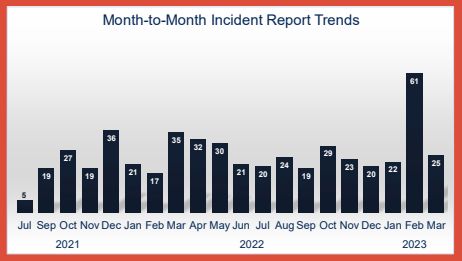
INTRODUCTION

- Medication errors are a leading cause of medical error in human medicine, with millions of patients impacted annually[1]
- Studies have shown that medication errors are the most common type of medical error to occur in veterinary hospitals[2,3]
- Medication errors, especially those that lead to drug waste, can be costly – both to the patient in the form of adverse drug events and to the healthcare system in the form of increased medical cost[4]
- Pharmacist intervention can assist with reducing medication errors and drug waste by assessing for appropriateness of medication orders, monitoring drug waste, limiting access to high-cost and infrequently used medications, and ensuring sufficient background knowledge/training is provided for medication-related tasks[5]

METHODS

- A retrospective study was completed reviewing incident reports from 2021 through the present, corresponding discretionary adjustment data, and documented pharmacist interventions
- Descriptive analyses were used to categorize the most frequent types of medication errors, identify the most common medications involved in errors, and attempt to identify the correlation of variables with the occurrence of medication errors

RESULTS



Number of incident reports submitted by Month and Year

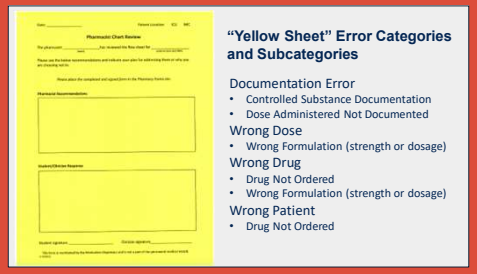
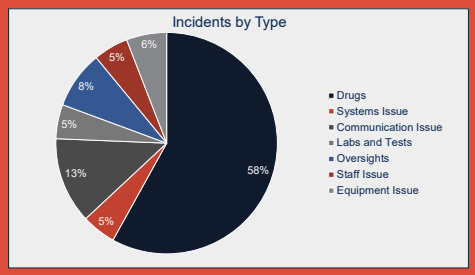
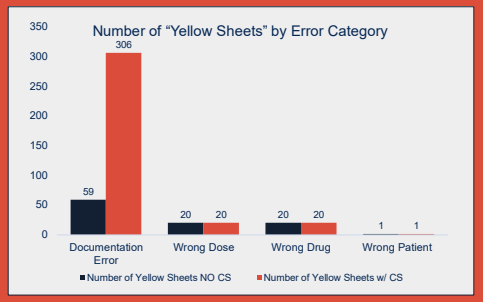


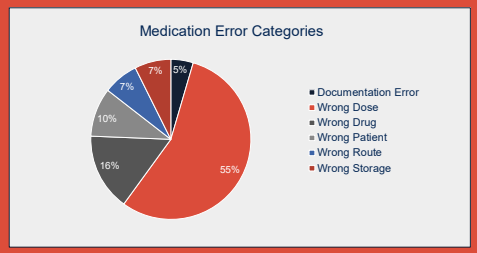
Image of a blank "Yellow Sheet" and Error Categories and Subcategories for "Yellow Sheets"



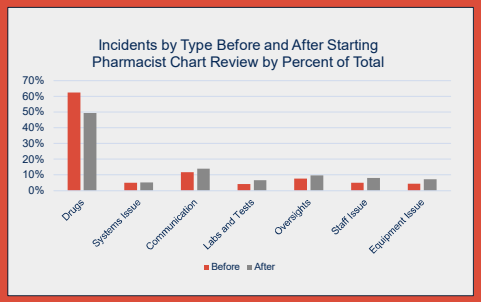
Over half of all Incident Reports involved Medication Errors



Number of "Yellow Sheets" by Error Category – Controlled Substance Documentation made up over 75% of all "Yellow Sheet" errors



Of the Incident Reports that contained Medication Errors, over half involved administration of a Wrong Dose

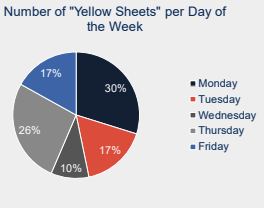


The number of Incident Reports involving Medication Errors reduced after implementation of "Yellow Sheets" for chart review

High risk meds	Number of Incident Reports
Cytarabine	6
Euthanasia	6
Hydromorphone	6
Alfaxalone	9
Ketamine	9
Midazolam	10
Buprenorphine	13
Dexmedetomidine	14
Maropitant	14
Vaccines	14
Fentanyl	18
Butorphanol	20
Methadone	24
Gabapentin	27
TOTAL High Risk Incidents	**190**
TOTAL Incidents	**190/348**

"High Risk Medications" were those for which incident reports were submitted over 5 times during the period between July 19, 2021 and January 2, 2023. Over 50% of the total 348 incident reports submitted included these medications

Day of the Week	% YS/Census
Monday	18.96%
Tuesday	9.21%
Wednesday	7.56%
Thursday	11.86%
Friday	12.44%



"Yellow Sheets" are most likely to be distributed on Mondays

AIMS

Current:

- Assess the types of medication errors that frequently occur within a veterinary teaching hospital
- Identify the specific medications that are most frequently involved
- Determine what trends contribute to the most common types of medication errors
- Determine if "Yellow Sheets" helped to decrease Medication Error incidents

Future:

- Determine the impact that student involvement has on incident reporting and adverse events
- Categorize and assess medication errors that occur in private practice

CONCLUSIONS

- 58% of all Incident Reports included Medication Errors
- Over half of the Medication Errors reported involved a Wrong Dose
- Incident Reports involving Medication Errors decreased after the implementation of "Yellow Sheets"
- "Yellow Sheets" are most likely to be handed out on Mondays
- Controlled Substance Documentation was the most frequently cited error via "Yellow Sheet"

REFERENCES

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5. Rodziewicz TL, Houseman B, Hipskind JE. Medical Error Reduction and Prevention. [Updated 2022 May 1]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK499956/

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