



THE COST OF MEDICATION ERRORS IN PUBLIC HEALTH FACILITIES OF EASTERN REGION, GHANA.

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OBJECTIVE

Medication error is a preventable event that may lead to inappropriate medication use among patients. WHO revealed that more than fifty percent of medicines are sold, prescribed, dispensed, and administered inappropriately. There is paucity of evidence in Ghana highlighting cost saving interventions made by health care providers in medication errors. This study sought to document the burden of medication errors and its associated factors in public health facilities of the Eastern Region of Ghana

METHOD

One hundred and fifty (150) medication error forms, representing 10% each of submitted Medication error intervention forms from January to December 2018 by hospitals in the Eastern Region of Ghana were carefully selected and documented information indicating medication errors were reviewed and analyzed using SPSS vs 22. The financial costs of the medication errors and the interventions were estimated using the 2018 Ghana National Health Insurance Scheme Price list.

FIGURES

Fig 1. Categorization of medication error by types

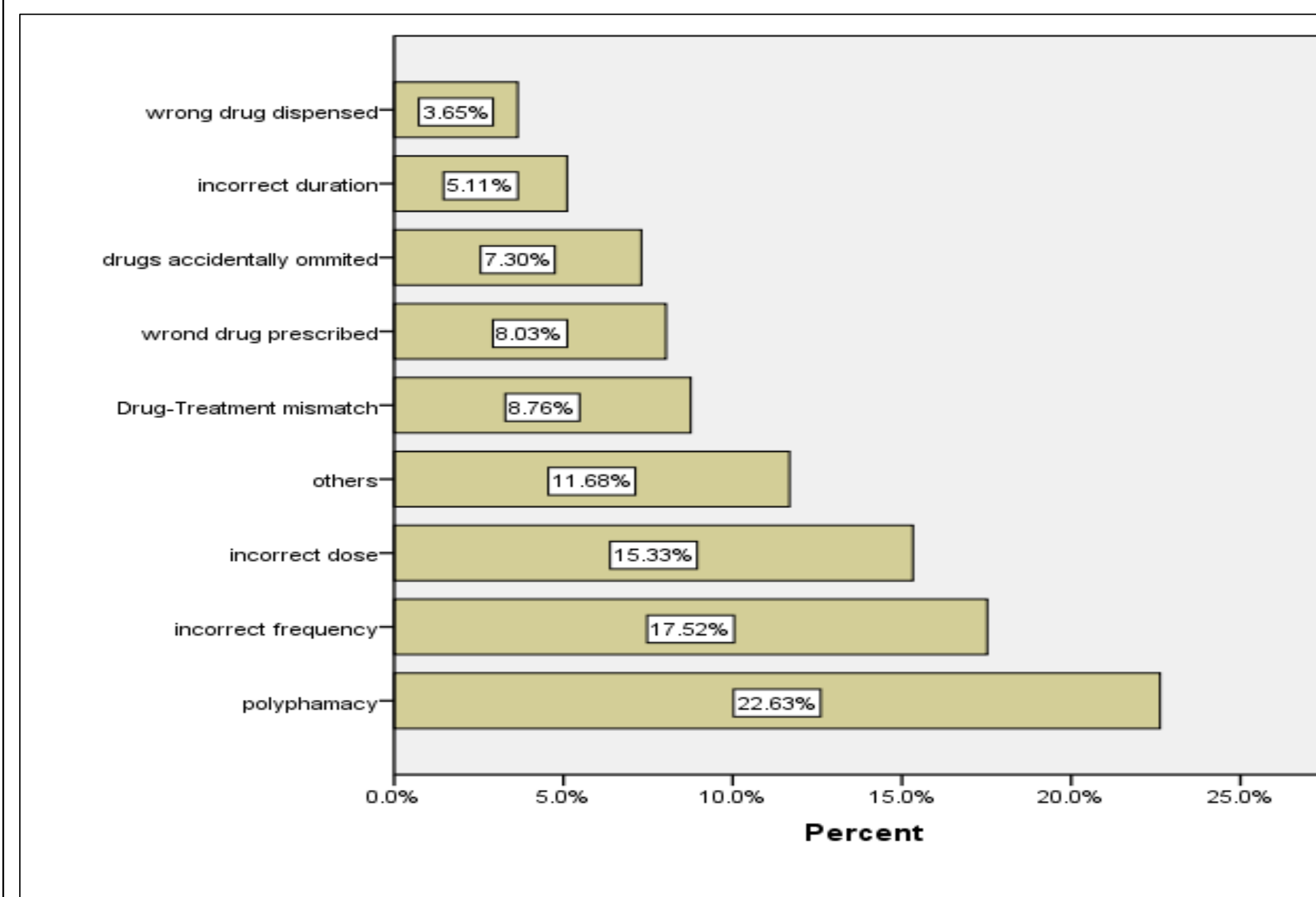
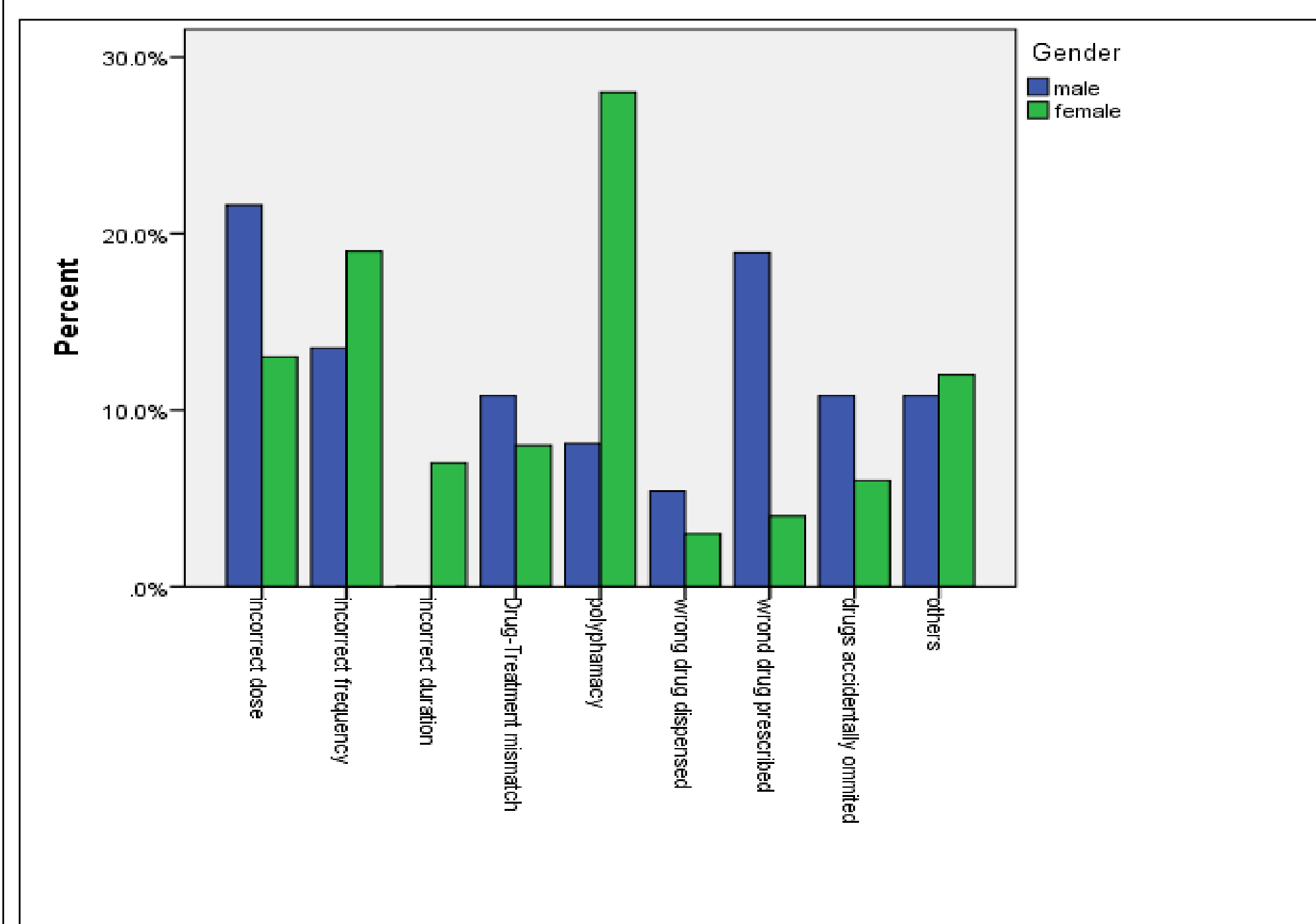


Fig 2. Type of medication error by gender



TABLES 1

DIAGNOSIS	COST OF MEDICATION ERROR (GHC)	COST SAVINGS AFTER INTERVENTION (GHC)
Diabetes	15,848.56	15,454.1
Hypertension	853.04	276.62
Gastro Intestinal Disorders	212.11	132.75
Urinary Tract infections	415.29	231.56
Respiratory Tract Infection	450.78	325.08
*Others	720.75	501.78
TOTAL	18,500.53	16,921.89

*Others include: Septic Arthritis, vagina candidiasis, cellulitis, dermatitis, musculoskeletal pain, furunculosis, pruritis, Retroviral Infection, Lumbago, Insomnia, hyperthyroidism
GHC = Ghana cedis, 1 USD = 5.39 GHC

RESULTS

The highest incidence (46.5%) of medication error occurred among 20 – 59 years old patients. Medication errors among female were significantly higher (73%) than their male counterparts (27%). Patient's aged 20 – 59 years with acute illness were significantly associated with prescription error (chi square = 29.288 and p-value = 0.004) and these included; incorrect dosage, incorrect frequency of administration, polypharmacy and drug-treatment mismatch contributing about two thirds (69.7%) of all prescription errors. An estimated cost of Ghc18,500.53 (USD 3,432.38) of errors was documented and Ghc16,921.89 (USD 3,139.49) was saved after the intervention. The medical consequences of increased adverse effects and deaths associated with the identified errors were prevented.

CONCLUSION

The study demonstrates significant cost savings intervention to medication error. This warrants further studies to explore the financial contribution of medication errors to health care budget in Ghana.

KEY RECOMMENDATIONS

- Conduct further studies to explore economic burden of medication errors as a percentage of total health care budget
- Provide continuous health system support and ensure adherence to medicine use guidelines, policies and treatment protocols.
- Develop an intervention program to help monitor and appropriately avert economic and clinical burden associated with medication errors at our various health facilities.