

# RETROSPECTIVE ANALYSIS OF CLINICAL PHARMACIST INTERVENTIONS AND IMPLEMENT INTERPROFESSIONAL COLLABORATION FOR REDUCING PRESCRIBING ERRORS IN ONCOLOGY CARE SETTING.

A. Ali<sup>1</sup>, A. Siddiqui<sup>1</sup>, S. Mazhar<sup>1</sup>, O.A. Bhutta<sup>1</sup>

<sup>1</sup>Shaukat Khanum Memorial Cancer Hospital and Research Centre, Department of Pharmacy, Lahore, Pakistan.

## BACKGROUND

Prescribing errors are common and can harm patients, often linked to junior doctors' limited training. With growing complexity in prescribing, clinical pharmacists play a key role in reducing errors through real-time support and education, improving patient safety.

## OBJECTIVE

To assess the impact of clinical pharmacist interventions on reducing prescribing errors in oncology inpatients, identify common error types and drugs involved, and analyze specialty-specific trends to enhance collaborative, safer prescribing.

## METHODS

This retrospective observational study was conducted at Shaukat Khanum Memorial Cancer Hospital, Lahore, over one year (January–December 2024). It included inpatients receiving medication with documented pharmacist interventions. Outpatient cases, undocumented interventions, and those without physician responses were excluded.

## HYPOTHESIS

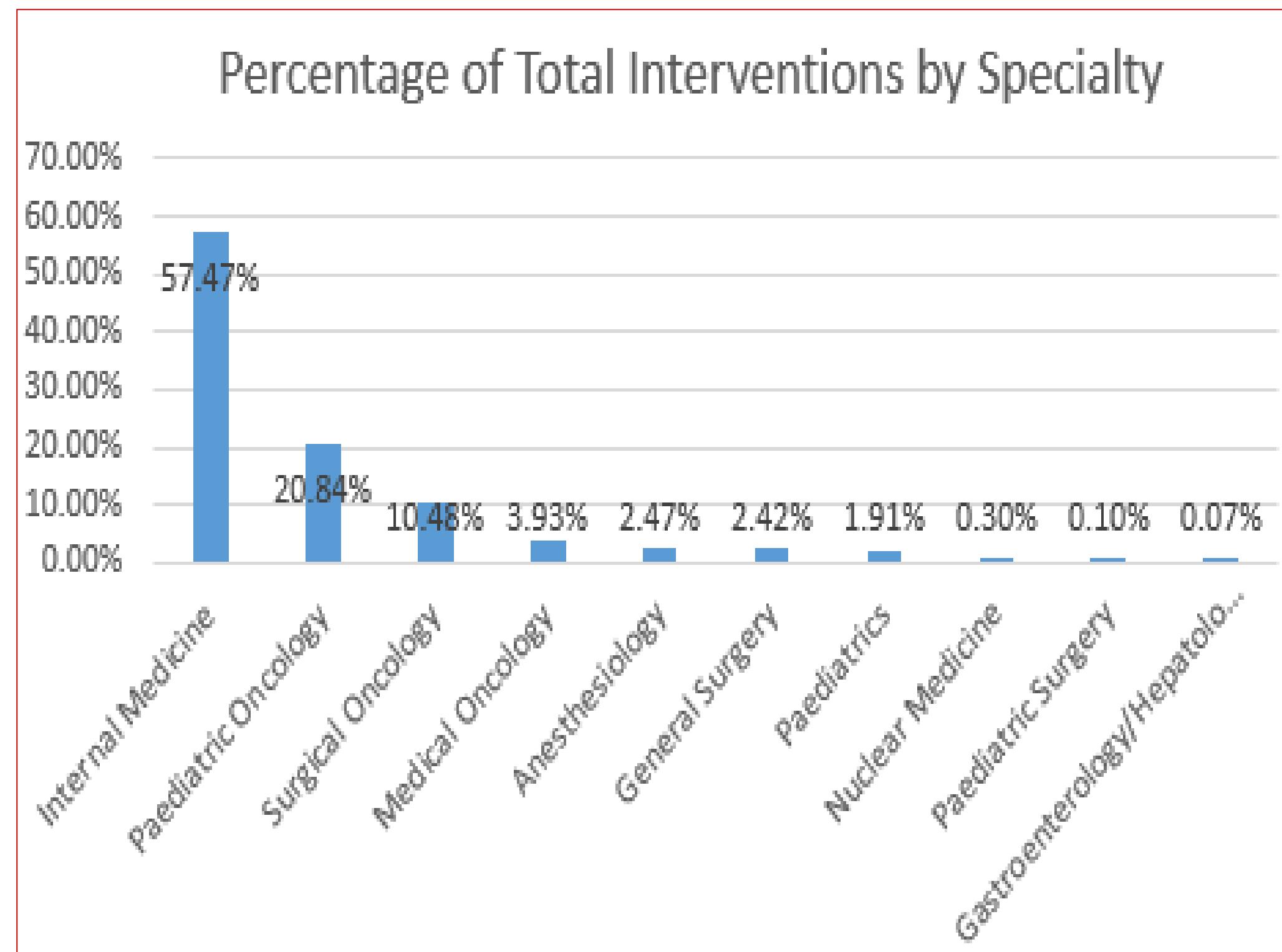
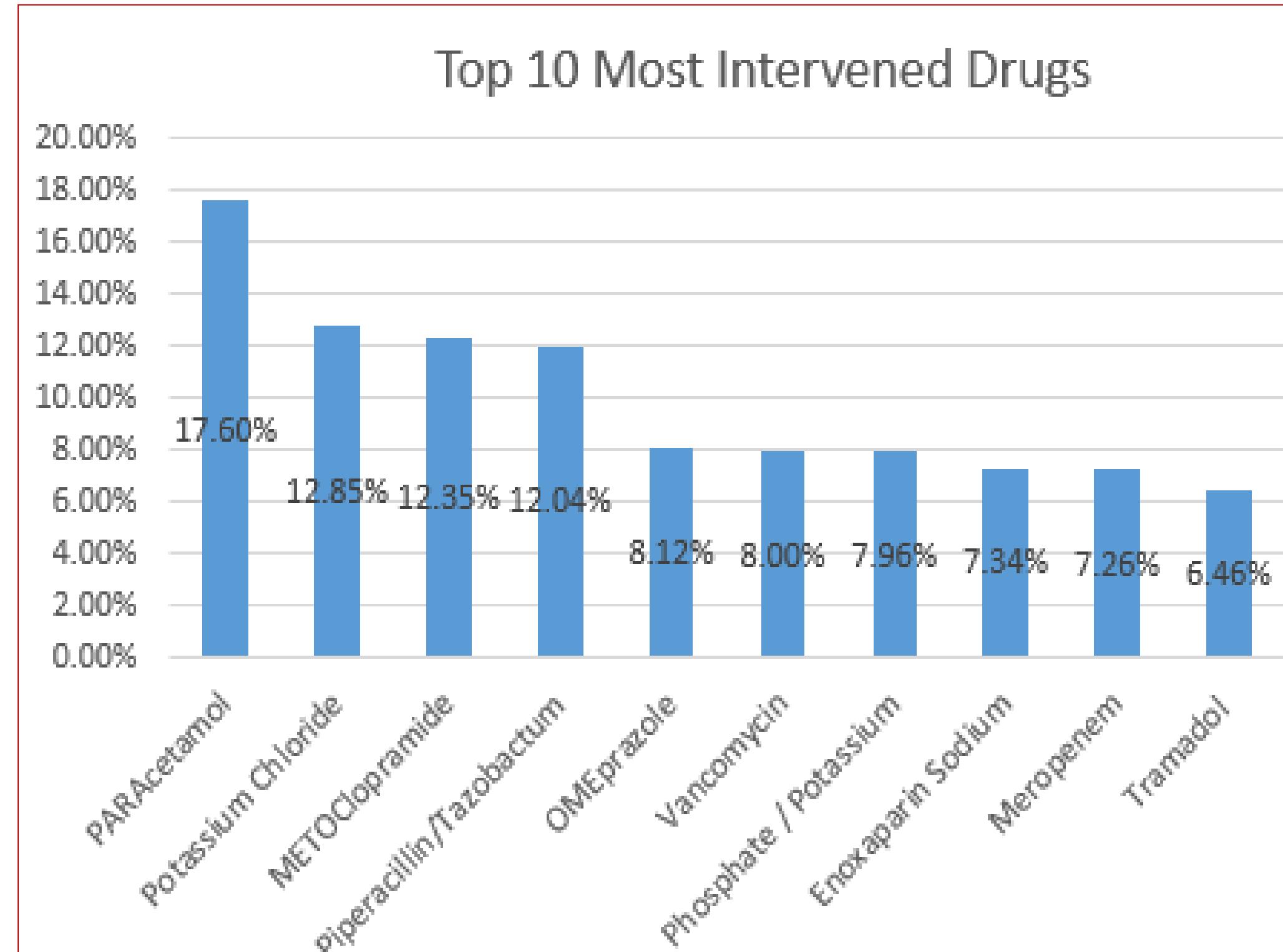
Specific categories of prescribing errors occur more frequently in the oncology care setting, suggesting that identifiable patterns exist which can be targeted through focused clinical pharmacist interventions to improve prescribing practices.

## DATA ANALYSIS

Pharmacist-documented prescribing errors from Jan–Dec 2024 were categorized and analyzed to identify trends and areas for improvement. Findings informed targeted educational sessions. Analysis was done using Microsoft Excel.

TABLE 1. ACCEPTED & REJECTED INTERVENTIONS

Interventions	Count	%
Accepted	33447	95.15
Rejected	1703	4.85
Total	35150	100



## RESULTS

A total of 371,811 medication orders were reviewed. 35150 orders intervened were answered.

Targeted 15-minute in-person educational sessions were conducted for physicians, focusing on avoiding common prescribing errors with the top 10 drugs. A total of 21 doctors participated, and all reported satisfaction in post-session feedback.

TABLE 2. INTERVENTION DISTRIBUTION

Type	No	%
Inappropriate Dose	11554	32.95%
Inappropriate Schedule	6576	18.75%
OTHER	2867	8.18%
Inappropriate Duration	2458	7.01%
Inappropriate Route	1747	4.98%
Inappropriate rate	1614	4.60%
Double Entry	1409	4.02%
Drug Disease Interaction	1169	3.33%
IV to PO switch	975	2.78%
Missing Instructions	843	2.40%
Better Therapeutic Choice / Equivalent	825	2.35%
Therapeutic duplication	812	2.32%
Dosage Type Error	607	1.73%
Drug Drug Interaction	467	1.33%
Pharmacokinetic problem	228	0.65%
Medication Mismatch	209	0.60%
Contraindication	199	0.57%
Wrong Indication	173	0.49%
Medication reconciliation	162	0.46%
Antibiotic spectrum is too broad	70	0.20%
Look-Alike, Sound-Alike Medication (LASA) Error	40	0.11%
Non-Formulary order	32	0.09%
Chemotherapy Intervention	10	0.03%
Dosage Calc	7	0.02%
Spectrum too broad	6	0.02%
Allergy	5	0.01%
Adverse Drug Reaction	4	0.01%
Short Expiry	2	0.005%

## CONCLUSION

Pharmacist interventions significantly reduce prescribing errors in oncology, highlighting the need for continued multidisciplinary collaboration and targeted prescriber education.

