



Improving Medication Safety In Oncology; The Impact of Pharmacist Led Intervention on Rational PPI Prescribing

Haider Hikman¹, Omar Akhlaq Bhutta², Sajjad Ullah^{*}

Shaukat khanum Memorial Cancer Hospital and Research Centre, Peshawar.

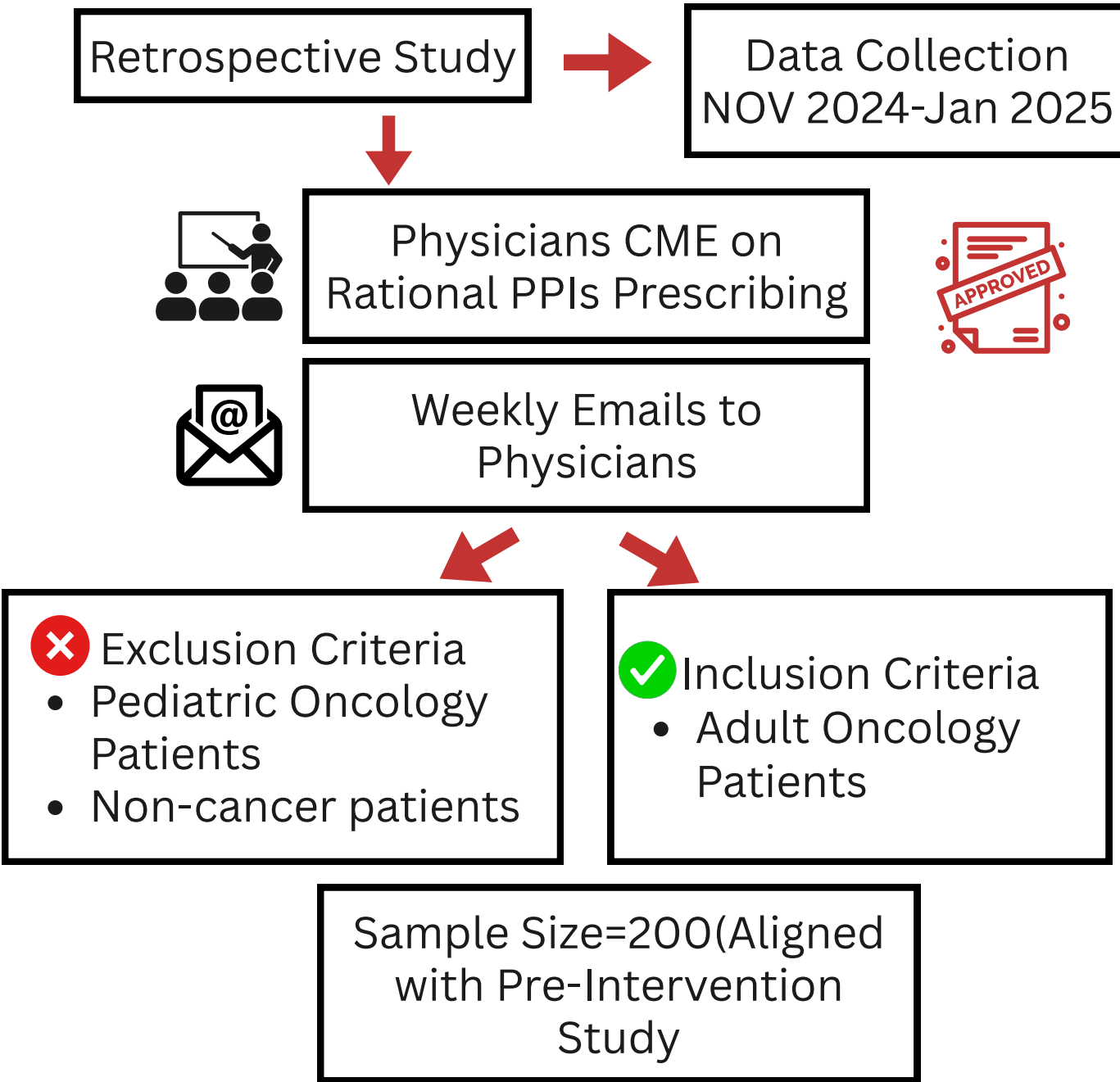
Introduction

- (Proton Pump Inhibitors)PPIs are widely prescribed globally (23.4%) and in Pakistan (72.6%), yet concerns over long-term safety highlight the need for rational use and deprescribing. In cancer patients, frequent NSAID and corticosteroid use increases GI risk, but irrational and prolonged PPI therapy leads to unnecessary exposure and potential adverse effects.

Aims & Objectives

- The **aim** of this study was To evaluate the effectiveness of pharmacist-led interventions in improving rational PPI prescribing in a specialized cancer hospital.
- Assess the impact of interventions on PPI prescribing per AGA guidelines.
 - To Identify adverse events from inappropriate prolonged PPI use.
 - Evaluate economic benefits from reduced irrational PPI prescription.

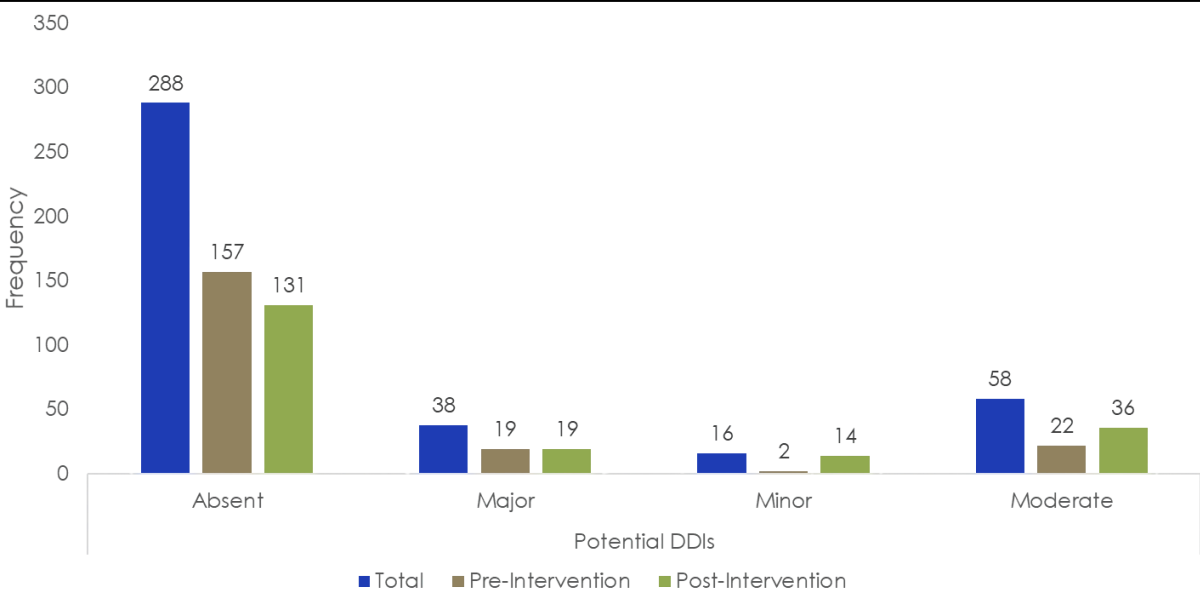
Methodology



Results

Variables		Pre-Intervention	Post-Intervention
Gender	Male	61.50%	55.50%
	Female	38.50%	44.50%
Setting	OPD	177(88.5%)	175(87.5%)
	IPD	23(11.5%)	25(12.5%)
Chemotherapy	Yes	143 (71.5%)	65 (32.5%)
	No	57 (28.5%)	135 (67.5%)
Clinical Specialty	Internal Medicine	76 (38%)	83 (41.5%)
	Radiation Oncology	65 (32.5%)	54 (27%)
	Medical Oncology	41 (20.5%)	40 (20%)
	Surgical Oncology	10 (5%)	13 (6.5%)
	Orofacial Pain Medicine	3 (1.5%)	5 (2.5%)
	Palliative Care	5 (2.5%)	5 (2.5%)
Indication Documented	Yes	101(50.5%)	156(78%)
	No	99(49.5%)	44(22%)

Variables	Categories	Total	Pre-Intervention	Post-Intervention	Sig.
		Median (IQR)	Median (IQR)	Median (IQR)	
Total PPI Cost	All Cases	308 (441)	396 (490)	308 (462)	<0.001**
Total PPI Cost	Internal Medicine	308 (462)	245 (542.5)	330 (539)	0.428
	Medical Oncology	308 (259)	368 (280)	270 (154)	<0.001**
	Orofacial Pain Medicine	660 (249.5)	980 (1575)	660 (44)	0.393
	Palliative Care	575 (720)	1050 (560)	330 (352)	0.095
	Radiation Oncology	367.5 (294)	490 (438)	231 (308)	<0.001**
	Surgical Oncology	308 (367.5)	490 (613)	308 (154)	0.232



Conclusion

Pharmacist-led interventions improved rational PPI prescribing, increasing documented indications to 78% and reducing inappropriate use to 39.9%. These outcomes highlight pharmacists' vital role in enhancing medication safety and cost-effectiveness.

References

- AGA Clinical Practice Update on De-Prescribing of Proton Pump Inhibitors: Expert Review Targownik, Laura E. et al. Gastroenterology, Volume 162, Issue 4, 1334 – 1342
- Turner, J.P., et al., Deprescribing proton pump inhibitors. Australian Journal of General Practice, 2022. 51(11): p. 845-848
- Hálfðánarson, Ó., et al., Proton-pump inhibitors among adults: a nationwide drugutilization study. Therap Adv Gastroenterol, 2018. 11: p. 1756284818777943.

Figure-2: Pre-Post Comparison of AGA 10 BPA in PPI Prescribing

