Describing the Appropriate Use of Proton Pump Inhibitors Among the Geriatric Population in an Outpatient Clinic Based Setting

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Background

- Proton pump inhibitors (PPIs) are the second momedication class and most common potentially in medication (PIM) class prescribed to Canadian se
- PPI's are identified as a PIM class in the geriatric by Beers Criteria and STOPP/START criteria (stro recommendation, high-quality evidence) due to sl long term adverse effects
- These adverse effects include falls and fractures, including *Clostridioides difficile* and community ad pneumonia (CAP), and acute interstitial nephritis
- While it is well documented that PPI use has bee increasing in seniors, little is known about the appropriateness of PPI use in the geriatric outpat population

Methods

Design & Location

 Retrospective cross-sectional chart review at Cer Okanagan Senior Health and Wellness Center (S

Inclusion criteria

- Patients referred to SHWC with a best-possible n history (BPMH) completed between Oct 4, 2017 a 2021
- Documented use of a PPI on clinic BPMH

Exclusion criteria

 For patients referred to SHWC more than once study period, only the first referral was included

Definition

"Appropriate PPI"

 A PPI prescribed at the correct dose for one of th indications: GERD with refractory symptoms upon discontinuation, GERD with inadequate control w H2RA, erosive esophagitis, current peptic ulcer d (PUD) treatment or past PUD with risk factors for (NSAID, anticoagulant, dual antiplatelet therapy of corticosteroid use)





Interior Health

	Purpose		
ost common happropriate seniors	 To assess the appropriateness of population of ambulatory geriatric impact of an interdisciplinary clinic 		
c population	Objectives		
ong short and	 Primary objective To determine the proportion of Plane 		
, infections cquired (AIN).	 appropriate in an outpatient geria Secondary objectives To determine the proportion of pain inappropriate PPIs that underwend between clinic admission and discussion 		
tient	 To describe the proportion of patient that have risk factors for adverse term PPI use 		
	 To describe the 1-year hospitalization 		
	related adverse effects in clinic pa		
ntral	Patient Characteristics		
SHVVC)	Characteristic		
medication	Mean age, years (SD)		
and Mar 11,	Mean number of medications (SD)		
and Mar 11,	Mean number of medications (SD)		
and Mar 11,	Mean number of medications (SD) Female (%)		
and Mar 11,	Mean number of medications (SD) Female (%) Median Rockwood clinical frailty sco		
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and Mar 11, during the he following with an disease r recurrence	 Mean number of medications (SD) Female (%) Median Rockwood clinical frailty score Patients that had risk factors for adverse effects with long term PPL u Falls Osteoporosis Fragility fractures Infection - CAP Infection - C. difficile Acute interstitial nephritis 		
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^a Rockwood clinical frailty score: 4 mildly frail, 6 moderately frail and

f PPI therapy in a c patients and the ic on their use

PI use that is atric population

- atients taking nt deprescribing
- scharge
- ients taking PPIs effects from long

ation rate for PPIatients taking PPIs

	N = 280		
	79.6 (7.7)		
	7.8 (3.3)		
	168 (60%)		
orea	5 (IQR 4,5)		
use:			
	165 (58.9%)		
	86 (30.7)		
	80 (28.6%)		
	29 (10.4%)		
	4 (1.4%)		
	1 (0.4%)		
	13 (4.6%) 172 (61.4%) 95 (33.9%)		
4-5 is 7-9 s	classified as severely frail.		

Results

Primary

	PPI use determined to be app				
	Secondary Outcom				
	Appropriate indications for PP				
	 Refractory GERD upon disc 				
	 GERD with inadequate confidence 				
	Erosive esophagitis (Barret				
	• Peptic ulcer disease (PUD)				
	 PUD with current NSAID us 				
	 PUD with anticoagulant use 				
	 PUD with corticosteroid or or 				
	Secondary Outcome				
	Inappropriate PPIs that underv				
	or discontinuation with the clin				
	Secondary Outco				
	Patients hospitalized one year				
	 PPI related¹ 				
	Patients hospitalized one year				
	• All				
1					
	¹ Falls, fractures, AKI, acute i				
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	 ¹ Falls, fractures, AKI, acute i Limitations Inherent limitations of retrost missing information and inatimplemented Small sample size Only captured data from hetoen the conclusions In the SHWC outpatient gere were determined to be apprended to b				
	 ¹ Falls, fractures, AKI, acute i Limitations Inherent limitations of retrostimissing information and inational implemented Small sample size Only captured data from heteron and inational indications In the SHWC outpatient gerowere determined to be apprended The SHWC healthcare team inappropriate PPIs through Overall, 43% (52/121) of hoteron for reasons associated with The outpatient geriatric popies or discontine Future initiatives are required 				

Outcome (n = 280)						
	Ν	%				
oropriate	94	33.6				
ne – Appropriate PPIs (n = 94)						
l use:						
continuation of PPI	45	47.9				
trol using an H2RA	2	2.1				
t's or unspecified)	20	21.2				
treatment	4	4.2				
Se	16	17				
9	9	9.6				
dual antiplatelet use	3	3.2				
e – PPI Deprescribing (n = 186)						
went dose reduction	76	40.9				
ne – Hospitalizations (n = 280)						
r post-BPMH	52	18.6				
r post-BPMH	121	43.2				

interstitial nephritis, CAP, C. difficile

spective chart review design, including ability to ascertain if changes were

ealth records within a local geriatric clinic

riatric clinic, approximately 1/3 of PPIs ropriate

n intervened on approximately 40% of dose reduction or discontinuation

ospitalizations one year post-BPMH were PPI adverse effects

nuation should be a priority target for nuation of inappropriate PPIs

ed to determine the most effective