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Poster #14

Graphical abstract and plain language summary usage patterns in nephrology and gastroenterology publications

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Introduction

- Graphical abstracts (GAs) and plain language summaries (PLSs) improve accessibility and understanding of clinical data for experts and patients[1–3]
- GPP 2022 guidelines endorse publication enhancements, especially PLSs[4]
- Despite this, a previous analysis of the use of GAs and PLSs in Parkinson's disease publications found that their use was limited, even though patient engagement in the therapy area is high[5,6]

Objectives

- Assess GA and PLS use patterns in nephrology and gastroenterology journals in order to investigate their uptake in these therapy areas, including use over time to assess the impact of GPP 2022 guidance
- Assess the author instructions and information provided by journals regarding GA and PLS

Research design & methods

- Journal Selector (Sylogent, an Anju Software Company) was used to identify journals that published gastroenterology and nephrology literature using the major Medical Subject Headings "gastroenterology and hepatology" and "nephrology"
- PubMed was then used to screen these journals to identify those that had published ≥40 articles per the following criteria:
  - Filters "Clinical Trial", "Clinical Trial, Phase III" and "Randomized Controlled Trial"
  - Publication date: December 1st, 2019 to October 1st, 2023
  - 'Hepatology'-only journals were excluded
- Selected journals were then assessed manually to determine the following:
  - Whether GAs and PLSs were permitted by the journal
  - The numbers of articles with GA and/or PLS (in freely available articles only)
  - Availability and detail of instructions for authors regarding GA and PLS use
  - Journal use of social media (Facebook, X, YouTube and LinkedIn)

Share your thoughts!

Please take a moment to share your experience with publication enhancements and publication metrics. We'd greatly appreciate your feedback which we plan to analyze and continue our research in evaluating use of publication extenders.

Analysis conclusions

- Despite the offering of GAs in both therapy areas, uptake was higher in nephrology (50%) than gastroenterology (16%)
  - Both were higher than the prior analysis in Parkinson's disease where only 1 GA was identified among 103 articles[5]
  - Most, but not all, journals with identified GAs communicated requirements to authors in their guidelines and many provided templates. Some of the journals with the most GAs provided the least guidance, suggesting that journal Editors are guiding GA use at later stages of the publication process
  - GAs were consistently in front of paywalls and openly accessible
- Use of GAs appears to be increasing over time in gastroenterology, which may be due in part to endorsement in the GPP 2022 guidelines
  - There appeared to be a minor trend of decreasing use in nephrology; however, the analysis may have been confounded by the small numbers of articles per month compared to gastroenterology
- PLS uptake was low across both therapy areas, but higher in nephrology
  - This is consistent with the prior analysis in Parkinson's disease where only 6 PLSs were identified among 103 articles[5]
  - Very few journals mentioned PLS in their author guidelines, suggesting that journal policy underlies the underutilization of PLS

Discussion

- The GPP 2022 guidelines were first published in August 2022, and it may be that this is too recent for this current analysis to capture any meaningful change, due to long publication development and lead times, and the time required for journals to enact policy changes
- Our analysis was also limited to two therapy areas and trends may differ in other therapy areas
  - GAs appear more popular with journals than PLSs. This may be due to the available option of publishing PLSs as standalone content in dedicated journals, rather than as short, abstract-like content like GAs. It could also reflect beliefs about the relative benefits of GAs and PLSs, or that patients and the general population are not considered a target audience for these publications

Recommendations

- The benefits of communicating data to non-specialists or in plain language should be discussed with authors
- Selection of target journals that offer GA and PLS should be encouraged. Assessment of whether these are offered by a journal should include reviewing recent issues as well as the author instructions
- If journals that host the primary publications do not offer PLS, it is encouraged to submit a PLS to a PLS journal that links to the primary publication
- Looking to the future, generative artificial intelligence tools will be useful in helping to generate PLS and GA content

Results

Key: Yes; No; Unknown; 1 Submission; 2 Revision; 3 Acceptance

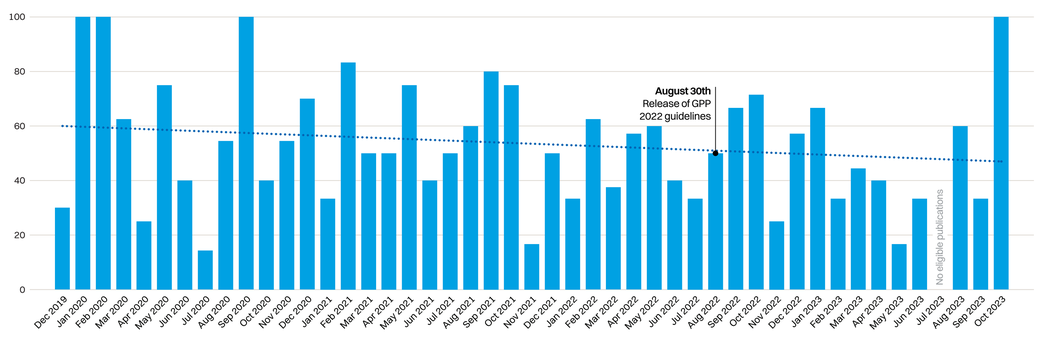
	Nephrology								Gastroenterology																							
	Am J Kidney Dis	Blood Purif	BMC Nephrology	Clin J Am Soc Nephrol	Int Urol Nephrol	J Am Soc Nephrol	Kidney Int	Nephrol Dial Transplant	Aliment Pharmacol Ther	Am J Gastroenterol	BMC Gastroenterol	Clin Colorectal Cancer	Clin Gastroenterol Hepatol	Clin Transl Gastroenterol	Dig Dis Sci	Dis Colon Rectum	Endoscopy	Gastroenterology	Gastrointest Endosc	Gut	Inflamm Bowel Dis	Int J Colorectal Dis	J Crohns Colitis	J Gastroenterol Hepatol	J Gastrointest Surg	J Pediatr Gastroenterol Nutr	Lancet Gastroenterol Hepatol	Neurogastroenterol Motil	Scand J Gastroenterol	Surg Endosc	World J Gastroenterol
Journal impact factor	13.2	3.0	2.3	9.8	2.0	13.6	19.6	6.1	7.6	9.8	2.4	3.4	12.6	3.6	3.1	3.9	9.3	29.4	7.7	24.5	4.9	2.8	8.0	4.1	3.2	2.9	35.7	3.5	1.9	3.1	4.3
Social media presence	■	◆	◆	■	◆	■	■	■	■	■	■	■ ‡	■	◆	■	■	■	■	◆	■	■	◆	◆	■	■	■	■	■	◆	◆	◆
Publish publication enhancement? GA	■	–	■	■ *	–	■ *†	■ *	■	■	■	■	■	■	■	■	■	■	■	–	■	■	–	■	■	–	■	■	■ *	■	■	–
In guidelines	◆	◆	■	■	◆	■	■	■	■	■	■	■	■	■	■	◆	◆	■	◆	◆	■	◆	■	■	◆	◆	■	■	■	◆	◆
Freely available	■	–	–	■	–	■	■	■	■	■	–	■	■	■	■	■	■	■	■	■	–	–	■	■	–	–	■	–	–	–	–
Template provided	–	■	◆	◆	–	■	■	■	■	■	◆	◆	■	■	◆	–	–	■	–	–	■	–	◆	■	–	–	–	–	◆	–	–	–
PLS	■	■	–	■	–	■	■	■	■	–	–	–	–	–	■ §	–	–	–	–	–	■ §	–	–	–	–	–	–	–	–	–	–	–
In guidelines	◆	■	◆	◆	◆	◆	◆	◆	■	◆	◆	◆	◆	◆	◆	◆	◆	■	◆	◆	■	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Freely available	■	–	–	–	–	–	◆	–	■	–	–	–	–	–	■	–	–	–	–	–	■	–	–	–	–	–	–	–	–	–	–	–
When requested by journal?	–	–	–	2	–	2	2	1	2	1	–	1	–	3	1	–	–	–	–	–	1	–	1	2	–	–	–	1	1	–	–	–
2019–2023 Total clinical articles	48	45	84	67	77	55	40	75	92	93	96	43	136	51	71	53	127	85	105	78	40	40	44	73	40	50	114	62	44	239	53
Open access articles	21	13	84	63	14	44	30	68	34	28	96	11	60	51	14	4	47	55	14	44	20	10	40	8	9	40	18	11	14	74	53
Clinical data articles with a publication enhancement GA	8			61		34	30	35	20	9			19	2	1	3	23	34	8	1	1		8			7		5		4	
PLS	13						6								1						6										

- In nephrology journals, 75% (6/8) offered GAs and 75% (6/8) offered PLSs
- Across 337 articles, 49.9% (168/337) had GAs and 5.6% (19/337) had PLSs

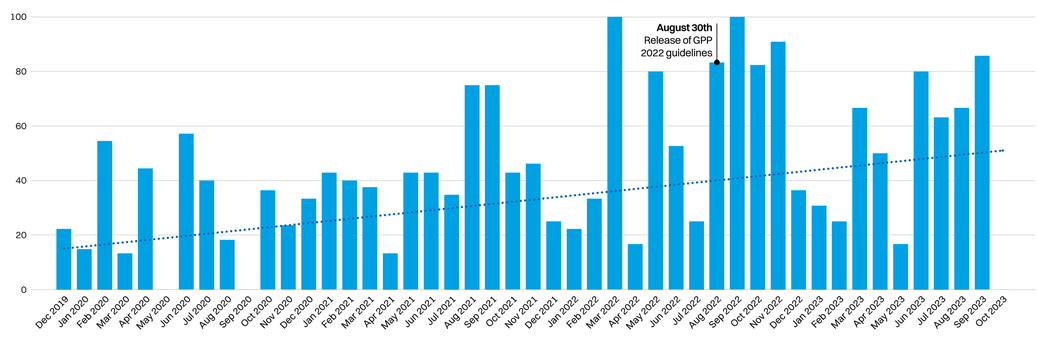
- In gastroenterology journals, 83% (19/23) offered GAs, and 9% (2/23) offered PLSs
- Across 756 articles, 19% (145/756) had GAs and 1% (7/756) had PLSs

*Required. †Was made mandatory c.2020. ‡No activity. §Reported interchangeably as lay summary/PLS. GA, graphical abstract; PLS, plain language summary.

% of eligible published articles with a graphical abstract – Nephrology



% of eligible published articles with a graphical abstract – Gastroenterology



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