

Review of use and characteristics of plain language summaries (PLS) in hematology

Ramsey Samara, PhD*; Janice Hodge, MLIS*; Amanda Steele, PhD
Terumo BCT, Inc., Lakewood, Colorado, USA

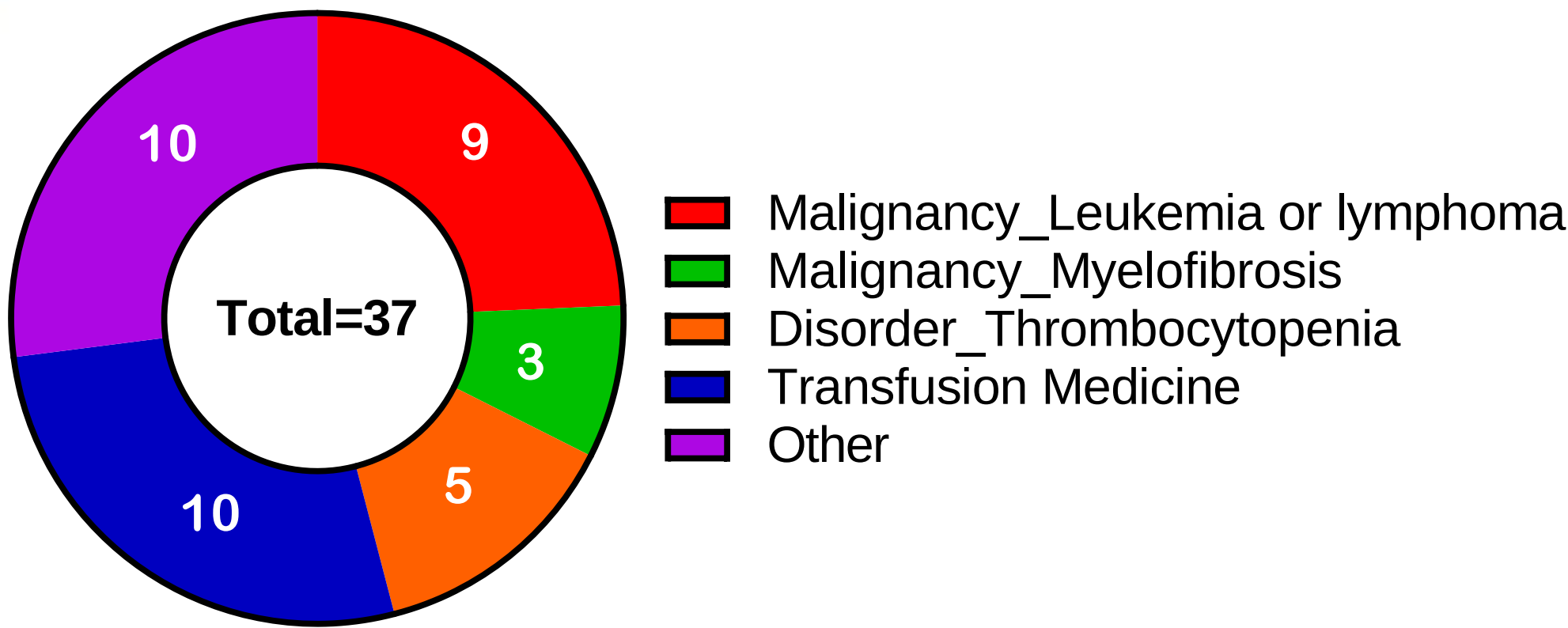
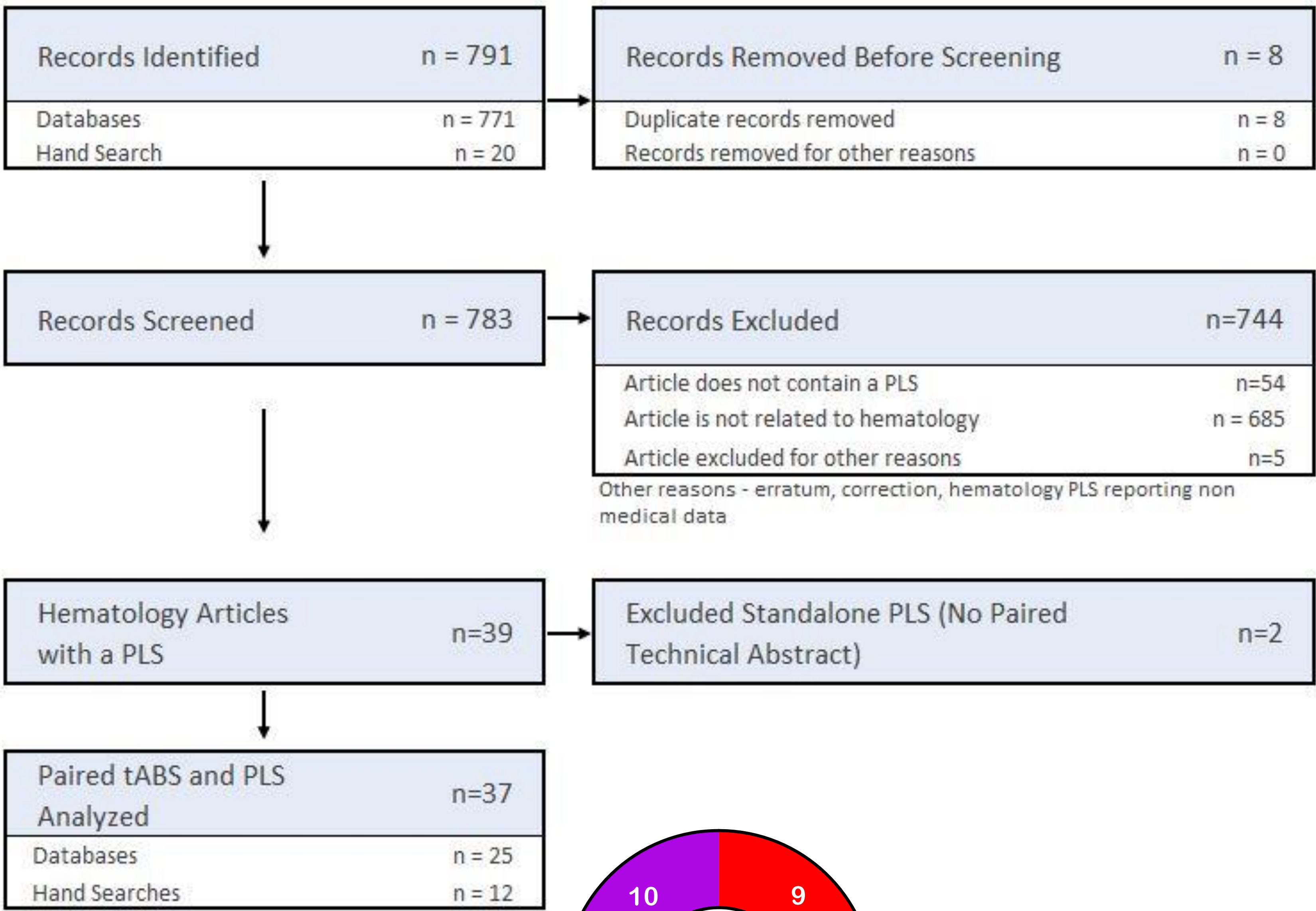
*Equal contribution

Background

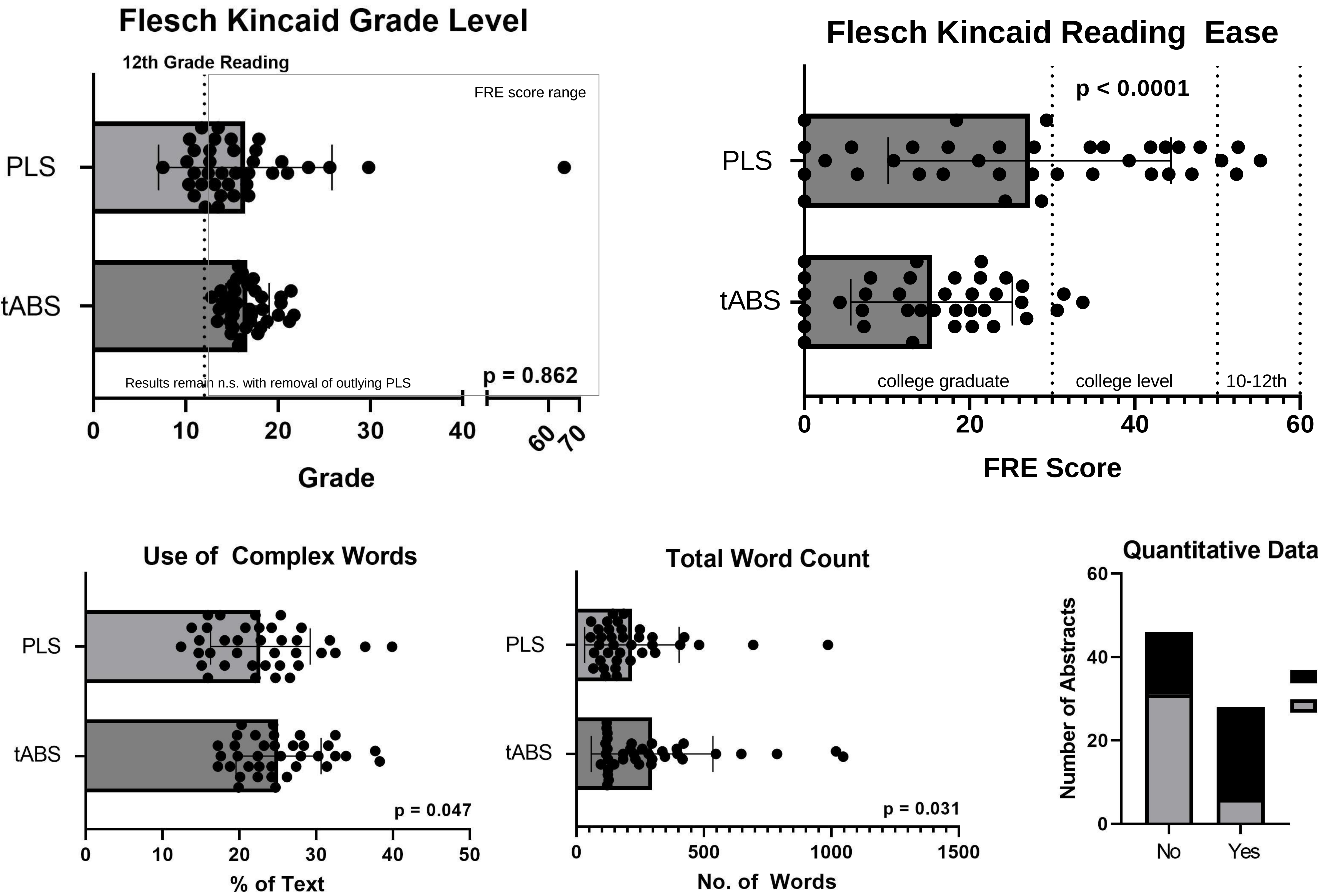
- Plain language summaries (PLS) are clear, concise summaries of clinical and scientific studies written in a way that makes the information accessible to a wide audience.
- The NIH recommends a target reading level of 6-7th grade for health-related material¹.
- Hematology is the study blood and blood related diseases – including malignancies like lymphoproliferative disorders and myelofibrosis, heritable disorders such as sickle cell disease, transfusion medicine, and others.
- Target audiences for PLS may include patients, families, and care givers who have a vested interest in understanding a medical condition or treatment options. Given the diverse patient groups included in the hematology field effective use of PLS can provide important health information to patients and families.
- We evaluated the frequency of hematology-related PLS and compared their readability, using the Flesch-Kincaid readability score, to technical abstracts (tABS).

Methods

We conducted a structured review to identify peer-reviewed articles with discoverable PLS in Medline/EMBASE using the term “plain language summary.” The EMBASE search was supplemented with hand searches to find articles in hematology where the PLS may not be in an indexed field. References were reviewed in DistillerSR for relevance to hematology and the presence of a PLS. The Flesch-Kincaid ease of reading score and grade level were measured using MS Word and text characteristics quantified using <https://www.analyzemywriting.com/>. Statistical significance was determined using a paired T-test.



Results



There were no significant differences in the median word length, median sentence length, and use of passive voice between the PLS and tABS.

Summary and Conclusions

- The PLS have significantly fewer words (PLS mean =218, tABS mean = 296) and report quantitative data less frequently than tABS. However, PLS have a similar grade level reading score as the tABS. While higher than the NIH recommendation, the grade levels of the PLS here are consistent with consumer-oriented health material on sites like Wikipedia, the Mayo Clinic, and WebMD.¹
- A new secondary analysis found that the PLS had a significantly higher mean FRE score than the tABS, indicating that the PLS were more readable on average. However, there was a wide range of FRE scores suggesting that authors could benefit from more consistent guidance for writing using plain language.
- The hematology-related PLS were rare and 33% were not discoverable using indexed fields and a structured search method. Improving discoverability with standalone PLS and the use of indexed fields would help patients be able to access the information.
- Hematology, like other fields, would benefit from broader awareness of plain language principles and resources to improve impactful communication with patients and other non-specialist audiences.
- There is an opportunity for industry sponsors and publishing professionals to better leverage PLS to increase health information exchange with patients and families.

¹ Hutchinson, Nora et al. *Examining the Reading Level of Internet Medical Information for Common Internal Medicine Diagnoses* The American Journal of Medicine, Volume 129, Issue 6, 637 – 639

² Flesch, Rudolf. "How to Write Plain English". University of Canterbury. Archived from the original on July 12, 2016. Retrieved April 14, 2023.