An Assessment of Online Information Quality about Gastrointestinal Cancers

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Abstract
Background and Aim: Gastric cancer is an important malignancy worldwide due to high lethality, and it accounted for 20% of all cancers in 2017. Because the internet is increasingly used for health information, it is necessary to have tools that establish the quality of medical-related sites. Much of the information found on the Internet is non-compliant, posing a danger to patients and putting their lives at risk. The study aimed to evaluate the quality of the information about the treatment of gastric, hepatic, pancreatic, and colorectal cancer using the Brief Discern instrument and to test if the Brief Discern scores correlated with the websites' credibility, completeness, and accuracy. *Materials and Methods*: This study included the first 25 websites listed on Google for each cancer, employing the most common search terms. Web sources were assessed using the Brief Discern, a six-question tool derived from the DISCERN instrument, which was developed to help patients to assess the quality of written information concerning treatment. Brief DISCERN scores can range from 5 for the poorest websites to 30. Credibility, completeness, and accuracy of information were graded on a scale from 0 to 10. *Results*: The mean Brief DISCERN score of the study sample was 19.0 (SD=5.7). The subsamples had the following mean Brief DISCERN scores: gastric cancer 21.7 (SD=5.0); colorectal cancer 16.4 (SD=6.4); hepatic cancer 18.7 (SD=5.4), and pancreatic cancer 19.0 (SD=5.0). The Kruskal-Wallis test showed a statistically significant difference ($p=0.0137$). The Brief DISCERN scores were correlated with the credibility (rho=0.3059, $p=0.002$) and completeness scores (rho=0.3952, $p<0.0001$), but not with the accuracy scores (rho=0.1009, $p=0.3180$). *Conclusions*: The Brief DISCERN evaluation suggested an intermediate level of information quality. Statistically significant differences were observed between subsamples, gastric cancer having the highest score. Finally, the Brief DISCERN scores were weakly correlated with credibility and completeness.

Keywords: Gastrointestinal neoplasms; Consumer health informatics; Internet use; Data accuracy