

A critical review to nutrition clinical practice guideline

Background

Good nutritional status is crucial to health. In view of the importance of nutrition, many nutrition clinical practice guidelines (NCPGs) have been developed. However, the quality of these clinical practice guidelines are variable. To evaluate the quality of nutrition clinical practice guidelines (NCPGs) included in National Guideline Clearinghouse (NGC), explore the factors influencing the quality of NCPGs and provide recommendations and evidence for organizations that develop similar guidelines.

Methods

We searched the NGC website and selected all NCPGs. We used the Appraisal of Guidelines for Research & Evaluation II (AGREE II) and Reporting Items for practice Guidelines in Healthcare (RIGHT) instrument to assess the quality of included guidelines, and analyzed the Pearson correlation of the two instruments. We evaluated the degree of agreement by intraclass correlation coefficient (ICC) and used STATA 15.0 and SPSS 21.0 software to analyze the related data.

Conclusion

The quality of NCPGs is high, but there is still space for improvement. Future guidelines development can be reported based on the items of these two instruments, and more attention should be paid to the application of the guidelines.

Results

We included a total of 45 NCPGs. The median scores and range for each AGREE II domain were as follows:

- 1) scope and purpose (63.89%, 47.22% to 88.89%);
- 2) stakeholder involvement (52.78%, 11.11% to 77.78%);
- 3) rigour of development (58.33%, 27.08% to 86.46%);
- 4) clarity and presentation (69.44%, 27.78% to 88.89%);
- 5) applicability (41.67%, 12.5% to 70.83%); and
- 6) editorial independence (75.00%, 8.33% to 95.83%).

The report rates for each RIGHT domain were: basic information domain (69.00%); background domain (86.00%); evidence domain (84.00%); recommendations domain (81.00%); review and quality assurance domain (88.00%); funding, declaration and management of interests domain (71.00%); other information domain (68.00%). The item 9a, 9b with a highest reporting rate as 100%, item 1b with the lowest reporting rate 7%. The ICC values for nutrition guidelines using the AGREE II ranged from 0.874 to 0.987, and there was high correlation between reporting completeness of NCPGs by AGREE II and RIGHT instrument ($R = 0.629, P < 0.001$).

Categories	No. of guidelines (%)
Publication year	
2007-2013	17(37.8%)
2014-2017	28(62.2%)
Scope of guidelines	
treatment	17(37.8%)
nursing	6(13.3%)
prevention	7(15.6%)
prevention and treatment	9(20.0%)
treatment and nursing	2(4.4%)
evaluation and management	2(4.4%)
treatment and testing	1(2.2%)
testing	1(2.2%)
Funding	
internal funding	34(75.6%)
external funding	9(20.0%)
not reported	2(4.4%)
Evidence grading system	
GRADE system	20(44.4%)
Non-GRADE system	25(55.6%)
Type of development organisation	
non-profit organization	4(8.9%)
professional association	18(40.4%)
association	9(20.0%)
international institutions	8(17.8%)
expert panel	6(13.3%)
Target of guidelines	
disease	39(88.7%)
health care	6(13.3%)

Figure 1. Characteristic of 45 NCPGs

Cai YT¹, Yang KL¹, Sun Y¹, Gao Y², Chen J¹, Bu YX¹, Zhang JH³, Tian JH⁴

¹ School of Nursing, Lanzhou University, China

² School of Basic Medical Sciences, Lanzhou University, China

³ Traditional Chinese Medicine, Tianjin University, China

⁴ School of Basic Medical Sciences, Lanzhou University, China