

Online Supplementary Material

Ripple T, Baker WL, Pabilonia MS, White MC, Coleman CI. The effects of barley-derived soluble fiber on serum lipids. *Ann Fam Med*. 2009;7(2):157-163.

<http://www.annfammed.org/cgi/content/full/7/2/157/DC1>

Supplemental Appendix. Methods

Validity Assessment

The use of double-blinding is an inherent control of bias and was therefore used to assess the methodological quality of included trials.

Data Abstraction

Through use of a standardized data abstraction tool, 2 reviewers (M.P., R.T.) independently collected data, with disagreement resolved through discussion or by a third investigator (C.I.C.). The following information was obtained from each trial: author identification, year of publication, study design and afore-mentioned methodological quality criteria, source of study funding, study population (including study inclusion and exclusion criteria), sample size, duration of patient follow-up, β -glucan dose and formulation used, use of concurrent dietary modification, and effect on lipid parameters (total cholesterol, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol, and triglycerides).

Statistical Analysis

Studies of poorer methodological quality, such as open-label or crossover trials, may exhibit inaccurate treatment effects. Excluding them may result in increased internal validity but could reduce the external validity of the analysis. In addition, the selection of a random- vs fixed-effects model in meta-analysis is controversial. The use of a random-effects model in the calculation of confidence intervals results in wider intervals and thus a more conservative estimate of treatment effect when compared with a fixed-effects model. To reconcile these issues, sensitivity analysis was conducted whereby the meta-analysis was reanalyzed excluding studies that were not double-blind or used crossover methodology, and finally the primary analyses were rerun using a fixed-effects model (Mantel-Haenszel). Additionally, subgroup analyses were conducted to assess the effect of using or not using concurrent dietary modifications and to assess the effect on only hypercholesterolemic patients.