BACKGROUND AND OBJECTIVES

• An association between particular blood types and vulnerability towards certain diseases has been researched.
• This association between blood types and disease has been translated into a range of blood type diets.
• Blood type diets are designed specifically for each blood type and claim to improve health and decrease the risk of disease.
• There are many blood type diet authors and millions of books in print over the last decade.

Evidence of the health benefits associated with blood type diets was examined in a systematic review based on the PICO question,
“In humans grouped according to blood type (Population), does adherence to a specific diet (Intervention) improve health and/or decrease the risk of disease (Outcome) compared with non-adherence to the diet (Comparison)?”

METHODS

A systematic review was developed according to the principles of the Cochrane Collaboration:

• Literature search: Performed by two independent reviewers
• Sources: The Cochrane Library, MEDLINE, Embase (searched until Oct 2012)
• Types of studies included: Randomised controlled trials, controlled clinical trials, cohort studies, case-control studies and case-series.
• Quality assessment of the evidence: GRADE methodology

RESULTS

From 1415 articles initially identified, only one study [2] met the inclusion/exclusion criteria (Figure 1). This study assessed the variation in LDL (low-density-lipoprotein) cholesterol responses of different MNS blood types to a low fat diet. However, this was a comparison of the results from across intervention arms of the MNS blood types, demonstrating a significant difference in the responses between the intervention arms of the combined MM and NN blood types and the MN blood type.

DISCUSSION

• Studies comparing responses between intervention groups are useful to demonstrate a heterogeneous response according to genotypic variation, yet these results do not validate the health effects of blood type diets.
• Another systematic review [3] has considered the relationship between genetic variations and lipid response, concluding that evidence is limited and the effects of genetic variation are not consistent, sometimes conflicting.
• To validate the health benefits of a promoted diet (ie. a blood type diet), studies must focus on the outcome of an experimental group (adhering to the diet) compared with a control group (continuing with a standard diet), within a specific population (ie. grouped according to blood type).

CONCLUSION

• No direct evidence was found to validate the health claims associated with blood type diets.