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| Title (in title case) | The Accuracy Of Network Meta-Analysis Feasibility Predictions Based On Data Included Only In The Abstracts Of Trial Publications |
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| Abstract (do not indent; must include OBJECTIVES, METHODS, RESULTS, CONCLUSION unless a Conceptual Papers submission) Abstract has a 300 maximum word count | OBJECTIVES: Network meta-analysis (NMA) is an effective technique for comparing multiple treatments simultaneously but requires treatment regimens and outcomes to be reported consistently across trials. Time-consuming data extraction from full texts is needed to confirm whether a network can be created. We propose a time-saving method that uses data from publication abstracts to determine whether an NMA might be feasible. METHODS: A recent systematic literature review (SLR) with NMA comparing efficacy and safety of two antiretroviral therapies for HIV was used as the gold standard. Using an Evidence Mapper tool (www.evidencemapper.co.uk), abstracts from the 206 studies included in the SLR were indexed by fields including each comparison, trial name and reported outcomes. A network-feasibility tool assessed the possibility of creating a connected network including efavirenz and dolutegravir. The accuracy of the abstract-predicted networks for each outcome were compared to those in the published SLR. RESULTS: Viral suppression at 48 and 96 weeks, CD4 cell count at 48 and 96 weeks, discontinuations and treatment-related adverse event rates were the most commonly reported outcomes in both the full texts and abstracts. The abstract-only sensitivity for predicting networks for these outcomes was 92% to 100%. The accuracy of less commonly reported outcomes was lower, with overall sensitivities of 25% to 100% and specificities of 33% to 100%. Specificity was 100% for 15 of the 23 outcomes. Time taken from identifying relevant publications to network prediction for the abstract-only method was 98 hours compared to an estimated 600 hours with full data extraction. CONCLUSIONS: Although this method cannot confirm that an NMA is feasible, it could create a network of sufficient accuracy for common outcomes to identify when an NMA cannot be undertaken. When NMA is feasible, subsequent data extraction can be quicker by focusing on those interventions and outcomes that can be compared. |