

Table 1 Advantages and disadvantages of methods for comparative effectiveness research

Research Method	Advantages	Disadvantages
Randomized controlled trials	Yield more definitive results than any other method	Expensive (costs can exceed \$100 million) Takes a long time to conduct Typically studies efficacy rather than effectiveness Narrowly defined patient population, so results may not be generalizable Objectivity of industry-sponsored RCTs is questionable
Systematic reviews	Relatively inexpensive Can reconcile apparently discrepant findings of RCTs	Current information may be too sparse Available studies may be of insufficient quality Available studies may be too different to compare or reconcile Studies of treatments often exclude patients (those with other health problems, the elderly) that may be of interest
Claims analysis	Relatively inexpensive	Because patient's health status often determines treatment, results may be misleading. Maintaining privacy of medical records could pose a barrier to research Data not detailed enough to permit some investigations Long-term studies sometimes difficult to conduct because patients move from one health plan to another
Medical registries	Usually collect a broader range of outcomes than claims databases	Potentially expensive Recruiting patients and physicians may be difficult. Maintaining long-term patient follow-up can be difficult. Registries focused on a specific treatment may be biased. Difficult to determine which data elements to collect.
Modeling	Once developed, a model can be used to predict the effects of a treatment at relatively low cost.	Can reduce the time required to determine treatment effectiveness Models that simulate real-world medical care may be too complex to be transparent. Will likely require large amounts of data Just being developed; cannot be used in the near future