

EVIDENCE-BASED PRACTICE CHARACTERIZED BY NUMBER NEEDED TO TREAT AS PHARMACIST'S BASIC RESPONSIBILITY

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ABSTRACT

Objective : This article was designed to discuss the concept of number needed to treat (NNT) as part of the principle of evidence-based medicine (EBM).

Design and Methods : Studies that assess drug therapy of selected common diseases were evaluated with respect to study design and applied statistical methods. Based on the data in each study, NNT was calculated to assess the clinical efficacy of the drug therapy. Studies were identified by using PubMed. Other relevant articles were retrieved from journals pertinent to the topic.

Results : Since the literature search was restricted to randomized controlled trial, the results of many of the studies showed statistically significant differences ($P < 0.05$). Based on the absolute risk reduction data contained in each study, the authors calculated NNT. The number of studies whose NNT range is equal to or less than ten was 19/35 (54%).

Conclusion : It was found in this NNT analysis that a substantial number of drugs generally used for chronic diseases are clinically effective based on published studies. Pharmacists, in order to make drug therapy decisions based on the best evidence, must understand the concepts and application of statistical data such as NNT. This type of understanding will enhance the pharmacist's ability to communicate with physicians and other health professionals.