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Deborah Hilton

Deborah Hilton Statistics Online, Australia

The number needed to treat statistic may improve the understanding of likelihood to benefit or be harmed as a result of treatment options?

Statement of the Problem: Physiotherapists utilize evidence-based physiotherapy/medicine principles routinely and hence need to interpret literature and research evidence being outcomes reported in systematic reviews and randomized controlled trials quickly and efficiently. Subsequent decision-making involves using this evidence in conjunction with their professional expertise and experience as it relates to individual patients. Various statistics and summary measures are reported in the literature and outcomes may be continuous or dichotomous in nature and hence reported statistics vary. Commonly calculated statistics include the relative risk, relative risk reduction and absolute risk reduction. The number needed to treat [NNT] statistic is another option that may aide interpretation and this describes the number who need to be treated with the intervention for one to improve whom would not have improved otherwise with control treatment. While reported to varying degrees in the scientific literature more recently it can be efficiently and reliably calculated using one of many downloadable spreadsheets.

Methodology: The Australian Physiotherapy Evidence Database (PEDro) was searched in order to locate a selection of physiotherapy research articles that reported various dichotomous outcomes that could be converted to the NNT statistic for the purpose of this analysis.

Findings: The NNT statistic for nine studies with a PEDro score 6 was calculated using the Internet-based downloadable spreadsheet on the PEDro website. For six studies, the NNT point estimates ranged from 2 to 4 (95% confidence interval 1-10). One study had a NNT of 8, while two other studies produced number needed to harm values.

Conclusion & Significance: The NNT can be calculated quickly and efficiently using Internet-based calculators and/or other decision-making tools, and may be an alternative that provides readily interpretable information to assist in conveying the likely benefits (and/or risks) of treatment to patients.

Biography

Deborah Hilton has qualifications of BPhty and an MPH. Her dissertation was an analysis of the Australian Diabetes Screening Study, and this was published in the Medical Journal of Australia.

deborah.hilton@gmail.com

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