

Analysis of research report paper

Literature, Russian Literature



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The article that has been considered for review here is “ A review of the efficacy of dexamethasone in the prevention of postoperative nausea and vomiting”. (Warren & King, 2008) What statistical procedures are mentioned in the study? The article is basically a collection of statistical methods applied in 13 researches conducted and published on the same topic. The procedures involved in the selection of those 13 articles out of several articles of same topic included a specification of requirements and a collection of test question. All articles which passed both tests were considered as appropriate candidates for review. Additionally the results of each research article were filtered based on the probability criteria equaling or less than 0. 5. (Warren & King, 2008) Any such results were considered to be statistically significant. Sampling of data was the general statistical procedure followed in all the 13 articles. A sample number of people satisfying different conditions were tested in each research and the results were just a summary of the observed results found in each patient. (Warren & King, 2008) What conclusions did the study reach? Are the conclusions appropriate? Why or why not? Most of the surgical procedures that have been used in all the researches under review have been linked with very high numbers of incidents of PONV. However, the conclusions of study of all the results of the articles under consideration indicate that surgical procedures have shown a decreased number of PONV incidents overall. (Warren & King, 2008) Graphical and pictorial representation like histograms and Charts are used to represent the number of PONV incidents that have occurred with respect to each research published and hence making a total

count of 13 numbers. The research also concluded that the reduction of nausea after any surgical procedures is very less with the used of dexamethasone and therefore has provided a negative result with regard to the initial assumption of nausea reduction with the usage of dexamethasone. (Warren & King, 2008) However, it is also to be noted that the details related to nausea were studied only in 4 of the 13 articles and also only 2 of the remaining 9 articles showed a decrease in nausea. The conclusion also states that the people belonging to the control groups of dexamethasone required a very minimal amount of anti-emetics when compared to non-dexamethasone groups. The conclusion also states that only less than 10mg of dexamethasone was given for every patient indicating the minimal usage of it. So, as an overall conclusion to the initial question based on which the research was conducted, the answer for that question is that dexamethasone indeed reduces the number of PONV incidents and it has a greater effect in reducing vomiting sensations in the patient post-surgery than in reducing the nausea. (Warren & King, 2008) The conclusions are appropriate because, they were based after examining the results of research done on more than 1500 patients, 1688 to be precise, indicating the stability of the results obtained with the majority of the patients. The conclusion about nausea is also appropriate because of the manner in which all the articles were selected, which is explained above, and the probability criteria being 0.05. So, with only two articles showing expected results out of the 13 under research, it can be acceptable that nausea is not reduced with the usage of dexamethasone. (Warren & King, 2008) Are the findings statistically significant? Why or why not? Describe the process you used to make this

determination and provide the level of significance No. The findings are not statistically significant. The process that is used to come to this conclusion is the null hypothesis. To carry out this process, the question under consideration “ does dexamethasone have an effect on preventing PONV following general anesthesia, compared with a placebo of sodium chloride? “, (Warren & King, 2008) is kept as the null hypothesis. Since the conclusions of the research conducted provide positive answers to the question, except for a single exception in the case of nausea, it can be concluded that the null hypothesis failed to get eliminated or disproved and hence it allows for an exploration for further analysis. So, on a concluding note, it could be said that since statistically the hypothesis failed to be disproved, it is not statistically significant and it is more or less practically significant. The level of significance was set at $p = 0.05$. References Warren A & King L. (2008) A review of the efficacy of dexamethasone in the prevention of postoperative nausea and vomiting. *Journal of Clinical Nursing* 17, 58-68