To determine if the interpretation of the p-value as "the probability that the drug is not effective" is valid or invalid, we need to understand what a p-value actually represents in the context of hypothesis testing.

A p-value is the probability of observing a test statistic as extreme as, or more extreme than, the one observed, \*\*assuming that the null hypothesis is true\*\*. In this case, the null hypothesis (H₀) would typically be that the drug has no effect on decreasing vision loss in people with Macular Degeneration, i.e., the drug is not effective.

Given this definition:

- The p-value of .04 means there is a 4% chance of observing the data (or more extreme data) if the drug truly has no effect (null hypothesis is true).

Now, let's evaluate the interpretation:

\*\*Interpretation:\*\* "The probability that the drug is not effective."

This interpretation is \*\*invalid\*\* because:

- The p-value does not tell us the probability that the null hypothesis (the drug is not effective) is true. It tells us the probability of the data given that the null hypothesis is true. These are fundamentally different concepts. The probability that the null hypothesis is true is not something that can be directly calculated from the p-value in a frequentist framework.

- The correct interpretation should focus on the probability of the observed results under the null hypothesis, not on the truth of the hypothesis itself.

Therefore, the correct answer to this question is:

\*\*(B) Invalid.\*\*