|  |  |  |
| --- | --- | --- |
|  | **Present** | **Absent** |
| **Condition, e.g. Disease** | D | DC |
| Note: **C** = Complement, i.e. DC = 1 – D | | |

Sensitivity – Probability of a + test result, given the presence of a disease -

Specificity – Probability of a - test result, given the absence of a disease -

Positive predicted value =

Negative predicted value =

Prevalence of disease =

False Positive (+ test; no disease) = = **1 – Specificity**

False Negative (- test; diseased) = = **1 - Sensitivity**

**Disease Given a Positive Test**

**No Disease Given a Negative Test**

|  |  |  |
| --- | --- | --- |
|  | **H0 = True** | **H1 = True** |
| **Fail to Reject H0** | Correct Decision | **Type II Error** or |
| Failure to reject a false H0 |
| False Negative |
| Failing to detect an effect that’s present |
| **Reject H0** | **Type I Error** or | Correct Decision |
| Incorrect rejection of a true H0 |
| False Positive |
| Detecting an effect that’s not present |