

- 1 Define the disease mechanism
- 2 Evaluate applicability of general classes of assay used in the field

Does the general class of assay model pathogenesis/disease mechanism?

- NO → Do not use PS3/BS3
- YES → 3

- 3 Evaluate validity of specific instances of assays

Were basic controls included?

- Normal/Negative/Wild type
  - Abnormal/Positive/Null
- AND

Were multiple replicates used?

YES

Were variant controls used?\*

- Known pathogenic
- Known benign

\*Or were variants tested that reach P/LP or B/LB without PS3/BS3 criteria?

NO

NO

YES → 4

Has the class of assay been:

- broadly accepted historically
- previously validated

OR

- provided as a kit with defined performance metrics, but where controls/replicates are not documented for the specific instance of the assay?

NO

YES

Do not use PS3/BS3

Max PS3\_supporting  
Max BS3\_supporting

- 4 Apply evidence to individual variant interpretation

Are the statistical analyses sufficient to estimate or calculate OddsPath?

NO

YES

Correlate the strength of evidence to the calculated OddsPath (Table 1)

Max PS3\_very\_strong  
Max BS3

How many total benign/pathogenic variant controls were used?

10 or less in total

At least 11 in total

Max PS3\_supporting  
Max BS3\_supporting

Max PS3\_moderate  
Max BS3\_moderate