

# What Clinicians / HCPs Need to Know About Validated BBM Tests



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## Informed Decision-Making:

*Empower patients to make more informed decisions about BBM testing*



Engage the patient and their caregiver/care partner in discussion about the recommended plan in light of the advantages and disadvantages



Explain the likely alternative outcomes and implications (e.g., what would a positive result mean for their care)

Review test results with the patient and their support system



Consider other needs that should be taken into account and can impact decisions about BBM testing and DMT eligibility (e.g., APOE genotype, cardiovascular risk factors, anticoagulant use, etc.)

## Accuracy of Diagnostic Test:

*Sensitivity and specificity are indicators used to characterize the accuracy of a diagnostic test*



**Sensitivity and specificity are indicators used to describe the accuracy of a diagnostic test:**

- **Sensitivity:** How often does the test correctly identify patients who have AD pathology?
- **Specificity:** How often does the test correctly identify patients who **do not** have AD pathology?



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## Predictive Values:

*Predictive values indicate the likelihood that AD pathology is present or absent for a patient (i.e., positive results are actually positive)*



**Positive and negative predictive values are used to describe the performance of a diagnostic test in a clinical context**



**PPV is the likelihood that a patient with a positive test has AD pathology**

- A high PPV **“rules in”** (i.e., confirms) the presence of AD pathology



**NPV is the likelihood that a patient with a negative test does not have AD pathology**

- A high NPV **“rules out”** (i.e., excludes) the presence of AD pathology

## Predictive Values & Prevalence:

*Predictive values change in relation to the prevalence of Alzheimer's disease in the test population*



**Both NPV and PPV are dependent on the prevalence of Alzheimer's disease in a given population:**

- Different populations (i.e., AD clinics, nursing homes, or the general population) have varying likelihoods of AD pathology



- AD prevalence varies according to factors including age, race / ethnicity, family history, APOE genotype, cognitive impairment, and the general nature of cognitive symptoms



- In clinics where there is a high likelihood of people with AD pathology, predictive value of BBM testing is higher
- Generally, as the prevalence of AD pathology decreases, a given diagnostic test's ability to predict a patient's likelihood of having AD pathology also decreases