

**So, if the majority of older patients have mixed dementia, is it NOT worthwhile to attempt to make a diagnosis?**

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Con: Any clinically useful taxonomy of disease must purvey a clear terminology that can be apprehended by the public as well as health care providers. At the same time, the taxonomy must accurately reflect the core etiological factors to enable appropriate treatment. Thus, diagnostic guidelines need to negotiate between the pragmatic need of a clear communication and the etiological complexities. For example, within the field of Alzheimer's disease (AD), the development of the diagnostic system has evolved along these lines, moving from a purely syndrome-driven to a biomarker-driven diagnosis as recently proposed by the AA-NIA consensus group. The AA-NIA criteria are categorical and limited in scope, relying exclusively on markers of abnormal beta-amyloid and pathologic tau, and is categorical in nature, ignoring often observed co-morbidities such as cerebrovascular changes. However, the limited scope is prudent since the focus on key dimensions is well supported by research evidence, offers a complexity that is clinically manageable, and thus strikes a balance between a pragmatic heuristic value and complex pathologies. An alternative dimensional system that considers dementia to evolve indifferently from different degrees of a myriad of pathologies would be boundless and non-intelligible. Any useful categorical system must evolve along the lines of evidence on key pathologies and their interrelationship. Precision medicine offers such a perspective without necessarily giving up a categorical classification system but rather moving towards a more refined subclassification of a particular diagnosis in order to accurately reflect variants of etiological factors, and thus enable appropriate therapeutic decision making.