

PROJECT NARRATIVE

In contrast to the current questionnaire based screening tools for autism spectrum disorders (ASD) that suffer from vast amounts of false positives, and a host of demographic, socio-economic and interpretative biases, we aim to validate the ASD Co-morbid Risk (ACoR) score, that estimates ASD risk via sophisticated pattern discovery on the longitudinal medical history of individual patients. Computation of ACoR requires no new blood-work, laboratory tests, questionnaires or psychiatric/cognitive consults, and may be carried out purely from the history of past medical encounters at no additional administrative burden or resource utilization. ACoR outperforms the current tool M-CHAT/F in preliminary studies, and on account of functional independence, the two scores may be combined to further boost performance to either boost positive predictive value up to 100% or sensitivity up to 50% with no loss in current specificity.