

## Parkinson’s Disease Version 2.0 NINDS CDE Project Neuropathology Subgroup Summary

The NINDS Parkinson’s disease (PD) v2.0 CDE Neuropathology Subgroup considered neuropathology CDEs and data collection to be within their purview. Neuropathology is the study of diseases of the nervous system (brain, spinal cord, nerve network) and eyes. “The pathologic feature that correlates with signs and symptoms of PD is neuronal loss in the substantia nigra with dopaminergic denervation of the striatum. Neuronal degeneration in the substantia nigra preferentially affects the ventrolateral cell group that projects to posterolateral putamen and is accompanied by formation of Lewy bodies composed of aggregated  $\alpha$ -synuclein. Some patients with PD are found at autopsy to have other pathologic processes, such as multiple system atrophy, progressive supranuclear palsy and cerebrovascular disease (vascular Parkinsonism). The peripheral autonomic nervous system is also affected.” (Dickson, 2018)

The subgroup wanted to recommend a neuropathology data form that is commonly used. After determining that the NINDS CDE Neuropathology CRF from v1.0 has not been used, the subgroup decided to recommend the commonly used National Alzheimer’s Coordinating Center (NACC) Neuropathology Data Form.

The NACC Neuropathology Data Form is periodically updated and improved as scientific knowledge increases. Additionally, the form is well known to many neuropathologists involved in neurodegenerative disease research.

The NACC Neuropathology Data Form is used to collect a selected set of pathological features at autopsy and is applicable to all Parkinson’s disease subgroups.

### Summary of Recommendations

Instrument Name	Subdomain	Classification
National Alzheimer’s Coordinating Center (NACC) Neuropathology Data Form	Other Clinical Data	Supplemental

The NACC Neuropathology Data Form is the most widely used standard for the neuropathological assessment of neurodegenerative diseases.

The NACC Neuropathology Data Form does not include some Parkinson’s disease syndromes and may be burdensome, but it is a living document and has the option to indicate a particular pathology was ‘not assessed’.