Epilepsy Autoimmune Evaluation Algorithm, Spinal Fluid

The following tests are always performed:

- Radioimmunoprecipitation Assay (RIA)
  - Glutamic Acid Decarboxylase (GAD65) Antibody Assay, Spinal Fluid
  - Neuronal Voltage-Gated Potassium Channel-Complex (VGKC) Autoantibody, Spinal Fluid

- Immunofluorescence Assay (tissue IFA)
  - Antineuronal Nuclear Antibody-Type 1 (ANNA-1), Spinal Fluid
  - Antineuronal Nuclear Antibody-Type 2 (ANNA-2), Spinal Fluid
  - Antineuronal Nuclear Antibody-Type 3 (ANNA-3), Spinal Fluid
  - Purkinje Cell Cyttoplasmic Antibody, Type 2 (PCA-2), Spinal Fluid
  - Purkinje Cell Cyttoplasmic Antibody, Type Tr (PCA-Tr), Spinal Fluid
  - Amphiphysin Antibody Assay, Spinal Fluid
  - Collapsin Response-Mediator Protein-5 Neuronal (CRMP-5-IgG), Spinal Fluid
  - Anti-Glia / Neuronal Nuclear Antibody-Type 1 (AGNA-1), Spinal Fluid
  - Dipeptidyl-Peptidase-Like Protein-6 (DPPX) Antibody by Immunofluorescence, Spinal Fluid
  - Metabotropic Glutamate Receptor 1 (mGluR1) Antibody by Immunofluorescence, Spinal Fluid

- Immunofluorescence Assay (cell binding; CBA)
  - NMDA-Receptor Antibody by CBA, Spinal Fluid
  - AMPA-Receptor Antibody by CBA, Spinal Fluid
  - GABA-B-Receptor Antibody by CBA, Spinal Fluid
  - Contactin-Associated Protein-Like-2 (CASPR2)-IgG, Spinal Fluid
  - Leucine-Rich Glioma Inactivated Protein-1 IgG, Spinal Fluid

- Immunofluorescence Assay (cell binding; CBA)
  - Antineuronal Nuclear Antibody-Type 1 (ANNA-1), Spinal Fluid
  - Antineuronal Nuclear Antibody-Type 2 (ANNA-2), Spinal Fluid
  - Antineuronal Nuclear Antibody-Type 3 (ANNA-3), Spinal Fluid
  - Purkinje Cell Cyttoplasmic Antibody, Type 2 (PCA-2), Spinal Fluid
  - Purkinje Cell Cyttoplasmic Antibody, Type Tr (PCA-Tr), Spinal Fluid
  - Amphiphysin Antibody Assay, Spinal Fluid
  - Collapsin Response-Mediator Protein-5 Neuronal (CRMP-5-IgG), Spinal Fluid
  - Anti-Glia / Neuronal Nuclear Antibody-Type 1 (AGNA-1), Spinal Fluid
  - Dipeptidyl-Peptidase-Like Protein-6 (DPPX) Antibody by Immunofluorescence, Spinal Fluid
  - Metabotropic Glutamate Receptor 1 (mGluR1) Antibody by Immunofluorescence, Spinal Fluid

If IFA pattern suggests:
- ANNA-1, ANNA-2, PCA-2, CRMP-5 IgG, or amphiphysin antibody; or if IFA pattern is indeterminate
- Collapsin response-mediator protein-5 IgG (CRMP-5-IgG) Western blot
- Dipeptidyl-peptidase-like protein-6 (DPPX) antibody by cell binding assay
- Dipeptidylpeptidase-like protein-6 (DPPX) antibody by immunofluorescence titer assay
- Amphilphysin antibody Western blot
- Neuromyelitis optica (NMO)/aquaporin-4-IgG fluorescence-activated cell sorting (FACS) assay
- Metabotropic glutamate receptor 1 (mGluR1) antibody by cell binding assay
- Metabotropic glutamate receptor 1 (mGluR1) antibody by immunofluorescence titer assay
- Purkinje cell cytoplasmic antibody, type 1 (PCA-1)
- AMPA-receptor antibody IF titer assay
- NMDA-receptor antibody IF titer assay
- GABA-B-receptor antibody IF titer assay

If pattern suggests:
- AMPA-receptor antibody and AMPA-receptor antibody, CBA are positive
- NMDA-receptor antibody and NMDA-receptor antibody, CBA are positive
- GABA-B-receptor antibody and GABA-B-receptor antibody, CBA are positive