Appendix 1.

Clinical Algorithms (Flow Charts)

The following Clinical Algorithms are recommended to guide gene panel testing selection in patients with suspected genetic epilepsy, in alignment with the initial GTAC Report (Jain 2018) and this report. The genes listed met ClinGen "Definite" or "Strong" as of January 2018.

Flow Chart 1a: For patient and test selection in patients with suspected genetic epilepsy.



Note: suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenarios.

Flow Chart 1b: For patient and test selection in patients with suspected genetic epilepsy – FOCAL EPILEPSY (Panel 1).



Note: The suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenarios.

Flow Chart 1c: For patient and test selection in patients with suspected genetic epilepsy – PROGRESSIVE MYOCLONIC EPILEPSY (Panel 2).



Note: The suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenarios.

Flow Chart 1d: For patient and test selection in patients with suspected genetic epilepsy – EARLY INFANTILE EPILEPTIC ENCEPHALOPATHY (Panel 3).



Note: The suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenarios.

Flow Chart 1e: For patient and test selection in patients with suspected genetic epilepsy – CHILDHOOD ONSET EPILEPSY (Panel 4).



Note: The suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenarios.

Flow Chart 1f: For patient and test selection in patients with suspected genetic epilepsy – BRAIN MALFORMATION (Panel 5).



suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenarios.

Flow Chart 1g: For patient and test selection in patients with suspected genetic epilepsy – ACTIONABLE / STAT OPTION GENES (Panel 6).



Note: The suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenario

Flow Chart 1h: For patient and test selection in patients with suspected genetic epilepsy – COMPREHENSIVE (Panel 7).



Note: The suggested flow chart is to be used in conjunction with this document. The ordering clinician has flexibility in determining which panel to use in consultation with a Genetic/Metabolic specialist in situations where the presentation may not fit within the defined scenario