Reflex NTRK molecular testing for soft tissue sarcoma

This standard operating procedure is aimed for guidance of the specialist pathology team with greater Manchester working within GMOSS MDT.

Recent advances in understanding the genetic landscape of soft tissue sarcoma have resulted in the development of new targeted therapies for a small sub-set of patients. Identification of actionable molecular alterations, such as *NTRK* mutations, now allow for the use of targeted therapies that can expand treatment options and improve outcomes.

High-quality diagnostic biopsies remain critical, not only for histological diagnosis, but also to enable comprehensive molecular testing and potentially access to targeted therapies.

Testing at diagnosis will increase the ability for eligible patients to be able to access these target therapies when required in a timely manner. This will also reduce the amount of reexamination of tissue required by pathology and the need to obtain archived tissue.

Radiologists/Endoscopists/Surgeons

Soft tissue sarcoma suspected by Radiologists/Endoscopist/Surgeons carrying out a biopsy

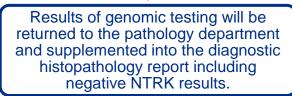


Pathologists

Soft tissue sarcoma confirmed by GMOSS pathology on biopsy or resection



NGS Sarcoma panel including NTRK fusion requested by pathology cc report to pathologist and responsible clinician.



Histopathology report including supplemental NGS Sarcoma panel results must be forwarded to the referrer

- If soft tissue sarcoma is confirmed, the following should be requested: NGS
 Sarcoma panel including NTRK should be requested. The request form can be found on the NW GLH website by clicking through the following: Documents and Forms –
 Test request forms Cancer Solid
 Tumour Tumour Request Form
- Sample requirements can be found on the request form. Once prepared, the sample and form should be sent to the NW GLH in Manchester (address can be found on the request form)



Eligibility for NTRK molecular testing for soft tissue sarcoma

Please note: this list is based on the Test Directory v10 published in October 2024 and is subject to change. The latest test directory can be accessed here and should be checked regularly. The amended list below is also not exhaustive.

Excluded Diagnoses

Bone Sarcoma

Desmoid-Type Fibromatosis

Giant cell tumour

Eligible sarcoma subtypes for NTRK testing include:

- Leiomyosarcoma
- Well/ de-differentiated liposarcoma
- Pleomorphic liposarcoma
- Undifferentiated pleomorphic sarcoma
- Myxofibrosarcoma
- MPNST
- Spindle cell sarcoma
- Undifferentiated sarcoma NOS
- Angiosarcoma
- Round cell sarcoma NOS
- Epithelioid sarcoma
- GIST wildtype for KIT and PDGFRA mutation

NB not an exhaustive list



Example form for NTRK molecular testing for soft tissue sarcoma (not version controlled, latest version on website)

NW GLH website for up-to-date link to request form.

