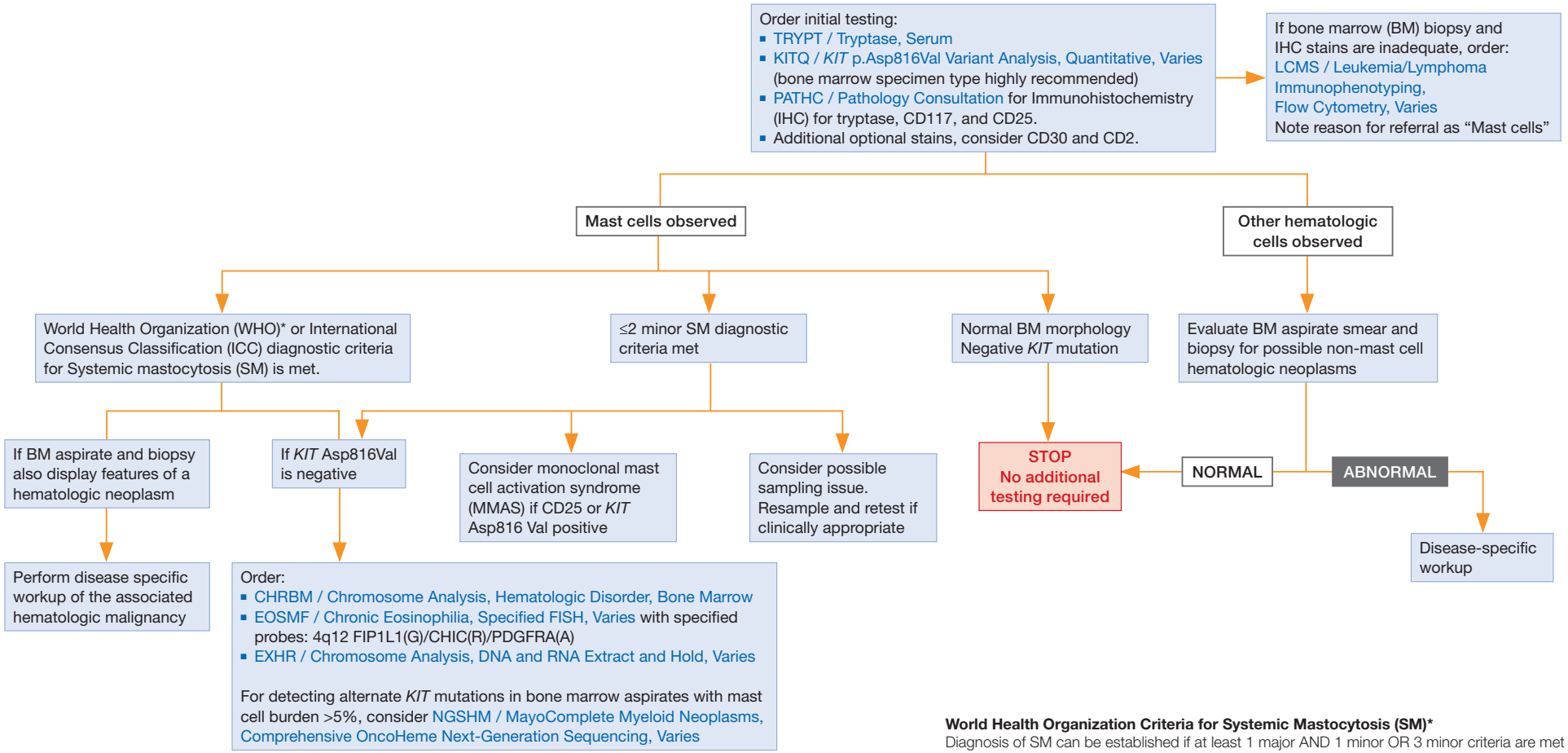
MAYO CLINIC LABORATORIES

Mast Cell Disorder: Diagnostic Algorithm, Bone Marrow



World Health Organization Criteria for Systemic Mastocytosis (SM)*
Diagnosis of SM can be established if at least 1 major AND 1 minor OR 3 minor criteria are met

International Consensus Classification of Systemic Mastocytosis (SM)^
Diagnosis of SM can be established if at least 1 major OR 3 minor criteria are met

– Major criteria
Multifocal dense infiltrates of mast cells (MC) in bone marrow (BM) biopsies or in section of other extracutaneous organs

– Minor criteria
1. More than 25% of all MCs are atypical (type I or II) or spindle–shaped
2. *KIT* Asp816Val point mutation present
3. MCs exhibit CD2 or CD25
4. Baseline serum tryptase is >20 ng/mL, unless there is an associated myeloid neoplasm, in which case this parameter is not valid.

References:
* Khoury JD, Solary E, Abla O, et al. The 5th edition of the World Health Organization Classification of Haematolymphoid Tumours: Myeloid and Histiocytic/Dendritic Neoplasms. Leukemia. 2022;36(7):1703-1719. doi:10.1038/s41375-022-01613-1
^Arber DA, Orazi A, Hasserjian RP, et al. International Consensus Classification of Myeloid Neoplasms and Acute Leukemias: integrating morphologic, clinical, and genomic data. Blood. 2022;140(11):1200-1228. doi:10.1182/blood.2022015850