

Plasma Cell Proliferative Disorder, High Risk with Reflex Probes, Diagnostic FISH Evaluation, Bone Marrow

Test ID: PCPDS

Explanation:

On the effective date, the lab will discontinue the limited progression panel for secondary abnormalities and instead evaluate for the presence of both primary and secondary high-risk cytogenetic abnormalities to align with current guidelines.

Current Algorithm

Pre-analysis plasma cell sorting will be performed to determine if sufficient plasma cells are present within the provided specimen at an additional charge.

This test includes a charge for the probe application, analysis, and professional interpretation of results for 1 probe set (2 individual fluorescence in situ hybridization [FISH] probes). Additional charges will be incurred for all reflex or additional probe sets performed. Analysis charges will be incurred based on the number of cells analyzed per probe set. If an insufficient number of plasma cells are available for analysis, no analysis charges will be incurred.

This test is performed using either the diagnostic or follow-up analysis algorithm.

If sufficient plasma cells are identified, the diagnostic plasma cell high-risk FISH panel includes testing for the following abnormalities using the FISH probes listed:

1p deletion/1q gain, CDKN2C/1q22 probe set

t(14q32;var) or IGH rearrangement, IGH break-apart probe set

-17/17p-, TP53/D17Z1 probe set

If an IGH rearrangement is identified, appropriate reflex testing will be performed in an attempt to identify the translocation partner using the FISH probes listed:

New Algorithm

Pre-analysis plasma cell sorting will be performed to determine if sufficient plasma cells are present within the provided specimen at an additional charge.

This test includes a charge for probe application, analysis, and professional interpretation of results for 1 probe set (2 individual fluorescence in situ hybridization [FISH] probes). Additional charges will be incurred for all reflex or additional probe sets performed. Analysis charges will be incurred based on the number of cells analyzed per probe set. If an insufficient number of plasma cells are available for analysis, no analysis charges will be incurred.

If sufficient plasma cells are identified, the plasma cell high-risk FISH panel includes testing for the following abnormalities using the FISH probes listed:

1p deletion/1q gain, CDKN2C/1q22 probe set

t(14q32;var) or IGH rearrangement, IGH break-apart probe set

-17/17p-, TP53/D17Z1 probe set

If an IGH rearrangement is identified, appropriate reflex testing will be performed in an attempt to identify the translocation partner using the FISH probes listed:

t(4;14)(p16.3;q32) IGH::FGFR3 fusion, FGFR3/IGH probe set

t(11;14)(q13;q32) or IGH::CCND1 fusion, CCND1/IGH probe set

t(4;14)(p16.3;q32) IGH::FGFR3 fusion, FGFR3/IGH probe set

t(11;14)(q13;q32) or IGH::CCND1 fusion, CCND1/IGH probe set

t(14;16)(q32;q23) IGH::MAF fusion, IGH/MAF probe set

t(14;20)(q32;q12) IGH::MAFB fusion, IGH/MAFB probe set

If sufficient plasma cells are identified, the follow-up plasma cell high-risk FISH panel includes testing for the following abnormalities using the FISH probes listed:

1p deletion/1q gain, CDKN2C/1q22 probe set

t(8q24.21;var) or MYC rearrangement, MYC break-apart probe set

-17/17p-, TP53/D17Z1 probe set

Follow-up testing is determined by the results of either previous PCPDS / Plasma Cell Proliferative Disorder, High Risk with Reflex Probes, Diagnostic FISH Evaluation, Bone Marrow or MPCDS / mSMART, Plasma Cell Proliferative Disorder, FISH, Bone Marrow testing, reported at this laboratory.

Appropriate ancillary probes may be performed at consultant discretion to render comprehensive assessment. FISH probes for enumeration of chromosomes 3, 7, 9, and 15 will only be performed at the laboratory's discretion to resolve or confirm concerns of hyperdiploidy. Any additional probes will have the results included within the final report and will be performed at an additional charge.

t(14;16)(q32;q23) IGH::MAF fusion, IGH/MAF probe set

t(14;20)(q32;q12) IGH::MAFB fusion, IGH/MAFB probe set

Appropriate ancillary probes may be performed at consultant discretion to render comprehensive assessment. FISH probes for enumeration of chromosomes 3, 7, 9, and 15 will only be performed at the laboratory's discretion to resolve or confirm concerns of hyperdiploidy. Any additional probes will have the results included within the final report and will be performed at an additional charge.

Questions

Contact Joshua Couchene, Laboratory Resource Coordinator at 800-533-1710.