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Laboratory Bulletin

DATE:	March 7, 2022
TO:	All Zones
FROM:	Genetics and Genomics, Alberta Precision Laboratories
RE:	Lynch Syndrome *MSH2* testing by Multiplex Ligation-dependent Probe Amplification (MLPA)

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Key Message

Effective March 7, 2022 the Molecular Genetics Laboratories in the North and South will reflex to *MSH2* Multiplex Ligation-dependent Probe Amplification (MLPA) for Lynch syndrome orders where MSH2 or MSH6 - deficient immunohistochemistry (IHC) is indicated on the requisition and testing did not identify a likely pathogenic or pathogenic variant.

How this will impact you

- Current Lynch syndrome genetic testing does not detect the *MSH2* exon 1-7 inversion
- This inversion can be detected by MLPA
- MLPA will be performed as a reflex test when sequencing does not detect a likely pathogenic or pathogenic variant **and** IHC revealed absence of MSH2 or MSH6. IHC information must be included on the requisition.

Action Required

- IHC results must be included on the requisition to ensure the appropriate testing is completed for each patient. When IHC results are not provided, no reflex testing will be performed.
- If IHC results are not available at the time the test is requested please provide this information to the laboratory by fax when available.
- For patients with previous Lynch syndrome testing where a pathogenic or likely pathogenic variant was not detected whose tumour was MSH2 or MSH6 deficient, you may contact the lab to discuss whether additional testing is indicated. A new blood sample may be required for additional testing.

Questions/Concerns

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Approved by

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