

DATE:	31 August 2026
TO:	All medical oncologists
FROM:	Molecular Pathology Program, Alberta Precision Laboratories
RE:	FGFR3 DNA and RNA fusion testing for erdafitinib in urothelial carcinoma

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Key Message

- Effective August 17, 2026, Next Generation Sequencing (NGS) testing will be available for FGFR3 testing on locally advanced and metastatic urothelial carcinoma for Erdafitinib therapy.
- Testing will be performed using the “Combined Cancer Biomarker DNA and Pan-Cancer Fusion RNA panel” with an expected turn around time of 14-21 business days.
- Testing will identify all qualifying FGFR alterations as indicated in the Canadian Drug Agency Recommendation for erdafitinib.

Background

- FGFR3 alterations (DNA and RNA) occur in ~20–30% of advanced, non-surgically resectable urothelial carcinomas (UC).
- Erdafitinib demonstrates a statistically significant overall survival benefit in FGFR3-altered UC.
- Erdafitinib is a targeted therapy towards FGFR3 alterations in UC and has received Canadian Drug agency, Alberta Ministerial and Alberta drug formulary approval.
- Testing for FGFR3 alterations (both DNA mutations and RNA fusions) can be performed at APL using the “Combined Cancer Biomarker DNA and Pan-Cancer Fusion RNA panel”.
- Testing can be ordered directly by Oncologists using the “Request for additional testing for Pathology sample” process in EPIC/ConnectCare.
- Results will be issued into the patient’s medical record via Epic for review with a test turnaround time of 14-21 business days from the time a specimen is received within the molecular pathology lab.

How this will impact you

- Medical oncologists who treat UC will be able to directly order FGFR3 testing for erdafitinib therapy for their locally advanced (unresectable) or metastatic patients.
- Testing is only approved for advanced cases (defined as clinical stage cT4 or cTxN+, unresectable or metastatic disease). **Testing on more confined tumor cases (muscle invasive or surgically resectable) will not be approved.**

Action Required

- **Oncologists:** Become familiar with the specific indications for erdafitinib utilization and appropriate ordering of the Combined Cancer Biomarker DNA and Pan-Cancer Fusion RNA panel. Familiarize yourself with the Request for additional testing for Pathology sample ordering process.
- Request for additional testing for Pathology sample ordering **must include the gene, drug, or urothelial carcinoma**. Recommended terms for ordering are listed below:
 - FGFR testing for urothelial carcinoma



- FGFR testing for erdafitinib therapy
- DNA/RNA testing for urothelial carcinoma
- DNA/RNA testing for erdafitinib

Effective: August 17, 2025

Questions/Concerns

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Approved by

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