AT THE FOREFRONT
UChicago Medicine

Clinical Pharmacogenomics Laboratory

To: Medical Staff, House staff, Nursing Staff, Patient Care Centers, and Outpatient Clinics

From:
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Subject: Clinical Pharmacogenomic (PGx) Testing Available for Routine Ordering

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Effective Date: 11/18/2026

Summary

Three pharmacogenomic (PGx) tests will be available for routine clinical ordering through the UChicago Medicine Clinical Pharmacogenomics Laboratory. These tests provide genetic information that may help guide medication selection and dosing and support the assessment of medication response and risk of adverse drug reactions.

Test Information and Estimated Turnaround Times (TAT)

Test (Code)	Clinical Use	Estimated TAT
DPYD Genotyping (DPYD)	Identifies selected DPYD variants associated with reduced dihydropyrimidine dehydrogenase (DPD) activity and increased risk of severe toxicity from fluoropyrimidines, including 5-fluorouracil (5-FU) and capecitabine.	1–5 business days
CYP2D6 Genotyping (CYP2D6)	Predicts CYP2D6 metabolizer phenotype to support medication selection or dosing and evaluation of altered response or adverse-effect risk. Relevant drug classes include opioids, antidepressants, antipsychotics, beta-blockers, and tamoxifen.	4–6 business days
Comprehensive Pharmacogenomics Panel (PGXCP)	Assesses multiple pharmacogenes to support prescribing decisions for medications with pharmacogenomic recommendations in drug labeling or Clinical Pharmacogenetics Implementation Consortium (CPIC) guidelines. Relevant areas include anesthesia, pain, cardiovascular, cancer, psychiatric, and common primary care therapies.	3–15 business days

Specimen and Ordering Information

- **Acceptable specimens**: EDTA whole blood (minimum 0.5 mL) or Isohelix buccal swab.
- **Buccal collection**: Use only Isohelix buccal swabs. Label the collection pouch with a printed patient label containing patient identifiers and the collection date/time.
- **Genes assessed**: DPYD and CYP2D6 are available as individual genotyping tests. The Comprehensive PGx Panel evaluates multiple pharmacogenes.

Interpretation and Clinical Considerations

PGx results should be interpreted in the context of the patient's clinical status, concomitant medications, and applicable drug-labeling recommendations or CPIC guidelines. Genetic results may help inform medication selection and dosing but do not independently determine medication response or predict all adverse drug reactions. These assays assess selected genetic variants and may not detect all rare or complex variants that could influence drug response.

For questions regarding test availability, specimen requirements, or clinical interpretation, please contact:

- The UCM Pharmacogenomics Lab at 773-795-2498.
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