

Procalcitonin Testing

Effective January 21, 2015, ACL Laboratories will expand the testing sites for Procalcitonin (Test Order Code PCT) testing to all Aurora hospital sites. Procalcitonin (PCT) is currently run onsite at all Illinois Rapid Response Labs and at St. Lukes Medical Center in Wisconsin.

Procalcitonin is a calcitonin precursor that normally is produced in the thyroid. Typically, procalcitonin is seen in concentrations that are < 0.1 ng/mL. However, procalcitonin is produced in large concentrations by other body tissues in patients with systemic inflammation, particularly those caused by bacterial infections such as sepsis. Immunosuppression, including neutropenia, does not affect the production of this biomarker. Higher levels tend to correlate with more severe infections, and may be prognostic of mortality risk.

Procalcitonin is generally low in viral infections, chronic inflammatory disorders, autoimmune processes, and localized infections. Procalcitonin levels tend to be significantly elevated in bacterial infections, particularly in sepsis where levels greater than 2.0 ng/mL and often greater than 10 ng/mL, are seen.

Interpretation of PCT Values in Critically Ill Patients

Systemic Inflammatory response syndrome, severe sepsis, and septic shock are categorized according to the criteria of the consensus conference of the American College of Chest Physicians/Society of Critical Care Medicine. These ranges are provided for reference purposes only.

PCT Concentration	Interpretations	Risks or Options for Further Action
PCT ≤ 0.5 ng/mL	Systemic infection (sepsis) is not likely. Local bacterial infection is possible.	<p>Low risk for progression to severe systemic infection (severe sepsis/septic shock).</p> <p>Caution: PCT levels below 0.5 ng/mL do not exclude an infection.</p> <p>If PCT is measured very early after a bacterial challenge (< 6 hours), the PCT value may still be low. PCT should then be reassessed 6-24 hours later.</p>
PCT 0.6 – 2.0 ng/mL	Systemic infection (sepsis) is possible, but other conditions are known to elevate PCT as well.	<p>Moderate risk for progression to severe systemic infection (severe sepsis/septic shock).</p> <p>Monitor patient closely both clinically and by reassessing PCT within 6-24 hours.</p>
PCT > 2.0 ng/mL	Systemic infection (sepsis) is likely unless other causes are known.	High risk for progression to severe systemic infection (severe sepsis/septic shock).
PCT > 9.9 ng/mL	Important systemic inflammatory response, almost exclusively due to severe bacterial sepsis or septic shock.	High likelihood of severe sepsis or septic shock.

Other non-infectious conditions can also lead to elevations of procalcitonin, including severe trauma, major burns, multi-organ failure, or major surgery. Also, patients with medullary thyroid carcinoma may have elevations in procalcitonin.

The sample type for procalcitonin testing must be constant throughout the course of patient testing; therefore, the only sample type that will be acceptable for procalcitonin assays will be heparinized plasma. Refer to ACL's Directory of Services (DOS) acllaboratories.com/test-catalog/ for more information.

2015 CPT Code Changes

ACL Test Code	Test Description	2014 CPT Code	2015 CPT Code	Medicare HCPCS
U6AMCF	6-ACETYLMORPHINE CONFIRMATION (HEROIN METAB)	80102	80356	G6058
ACTM	ACETAMINOPHEN	82003	80329	G6039
ALC	ALCOHOL, QUANTITATIVE	82055	80320	G6040
AMTYP	AMITRIPTYLINE & NORTRIPTYLINE	80152 / 80182	80335	G6030 / G6037
UAMPCF	AMPHETAMINE CONFIRMATION	80102	80325	G6042
UAMPH	AMPHETAMINES SCREEN	80101	80301	G0434
UBRBCF	BARBITURATE CONFIRMATION	80102	80345	G6043
UBAR	BARBITURATES SCREEN	80101	80301	G0434
DMBARB	BARBITURATES, DRUG MANAGEMENT	82205	80345	G6043
UBSALT	BATH SALTS, URINE	80100	80371	G0431
UBNZCF	BENZODIAZEPINES CONFIRMATION & QUANTITATION	80154	80346	G6031
UBNZ	BENZODIAZEPINES SCREEN	80101	80301	G0434
DMBENZ	BENZODIAZEPINES, DRUG MANAGEMENT	80154	80346	G6031
BENZTR	BENZTROPINE	80299	80375	80299
UBUPM	BUPRENORPHINE & METABOLITES	83925	80348	G6056
DMCARS	CARISOPRODOL, DRUG MANAGEMENT	83805	80369	G6052
CLORPR	CHLORPROMAZINE, QUANTITATIVE (THORAZINE)	84022	80342	G6057
CLOMPR	CLOMIPRAMINE & METABOLITE	80299	80335	80299
CLONO	CLONAZEPAM	80154	80346	G6031
UCTHC	COCAINE & CANNABINOID SCREEN	80101 x2	80301	G0434
UCOCCF	COCAINE METABOLITE CONFIRMATION	80102	80353	G6044
UCOCA	COCAINE SCREEN	80101	80301	G0434
DESPA	DESIPRAMINE	80160	80335	G6032
DEXMT	DEXAMETHASONE	80299	80375	80299
DHT	DIHYDROTESTOSTERONE	82651	80327	G6047
DOXEPN	DOXEPIN & METABOLITE	80166	80335	G6034
UEIA1	DRUG 5 TESTS W/ BENZO & BARB	80101 X5	80301	G0434
DMABUS	DRUG ABUSE PANEL - DRUG MANAGEMENT	80101 X5	80301	G0434
UCONF	DRUG CONFIRMATION, OTHER DRUG CLASS	80102	80375	G6058
UDINV	DRUG INVESTIGATION	80100	80303	G0431
DMPNL1	DRUG MANAGEMENT PANEL 1	83840 / 83925	80358 / 80361 / 80365	G6053 / G6056
DMPNL2	DRUG MANAGEMENT PANEL 2	80171 / 83805 / 83925	80369 / 80362 / 80355 / 80354 / 80366 / 80367 / 80373	80171 / 82543 / G6052 / G6056

ACL Test Code	Test Description	2014 CPT Code	2015 CPT Code	Medicare HCPCs
UEIA8	DRUG MEDICAL PANEL & ALCOHOL	80101 X9	80301	G0434
UEIA2	DRUG MEDICAL TEST PANEL	80101 X7	80301	G0434
UEIA2T	DRUG MEDICAL TEST PANEL	80101 X8	80301	G0434
UEIA4	DRUG MEDICAL TEST PANEL	80101 X5	80301	G0434
UEIA7	DRUG MEDICAL TEST PANEL	80101 X7	80301	G0434
UCOMP	DRUG SCREEN COMPLETE	80100	80303	G0431
DRUGU	DRUG SCREEN, URINE	80101 X8	80301	G0434
UXTCS	ECSTASY SCREEN	80101	80301	G0434
UETH	ETHANOL SCREEN URINE	80101	80301	G0434
UEGLUC	ETHYL GLUCURONIDE SCREEN, URINE	80101	80302	G0434
FELBA	FELBAMATE	82491	80299	80299
DMFENT	FENTANYL, DRUG MANAGEMENT	83925	80354	G6056
FLT3	FLT3 BY PCR	81245 / 81479	81245 / 81246	81245 / 81246
FLUNS	FLUNITRAZEPAM	80154	80346	G6031
FLUOX	FLUOXETINE & NORFLUOXETINE	80299	80332	80299
FLUPH	FLUPHENAZINE	84022	80342	G6057
DMGABA	GABAPENTIN, DRUG MANAGEMENT	80171	80355	80171
GHBSE	GAMMA-HYDROXYBUTYRIC ACID, SERUM	82491	80375	G0434
GHBUR	GAMMA-HYDROXYBUTYRIC ACID, URINE	82491	80375	G0434
HCV	HEPATITIS C SCREENING W/ REFLEX *	86803	86803	G0472
U6AMSC	HEROIN METABOLITE SCREEN	80101	80301	G0434
HPVHR	HPV, HIGH RISK TYPES	87621	87624	87624
N/A	HPV, TYPES 16/18	87621	87625	87625
N/A	IHC, ADDITIONAL ANTIBODIES PER SPECIMEN	88343	88341	88341
N/A	IIMMUNOHISTOCHEMISTRY, MULTIPLEX STAIN	88342 / 88343	88344	88344
N/A	IMMUNOHISTOCHEMISTRY, PIN COCKTAIL STAINS	88342 / 88343	88344	88344
IMPR	IMIPRAMINE & DESIPRAMINE	80160 / 80174	80335	G6032 / G6036
N/A	IN SITU HYBRIDIZATION, KAPPA/LAMBDA STAINS	88365 x2	88368 / 88369	88368 / 88369
LORAZE	LORAZEPAM	80154	80346	G6031
UTHCCF	MARIJUANA METABOLITE CONFIRMATION	80102	80349	G6058
UTHCSC	MARIJUANA METABOLITE SCREEN W/ CONFIRMATION	80101	80301	G0434
MECONR	MECONIUM DRUG PANEL W/ REFLEX	80101 X9	80301	G0434
DMMEP	MEPERIDINE, DRUG MANAGEMENT	83925	80362	G6056
UMTHCF	METHADONE CONFIRMATION	80102	80358	G6053
UMETH	METHADONE SCREEN	80101	80301	G0434
DMMETD	METHADONE, DRUG MANAGEMENT	83840	80358	G6053
UMQSC	METHAQUALONE SCREEN	80101	80301	G0434
MLH1	MLH1 PROMOTOR METHYLATION	81479	81288	81288
NICOTR	NICOTINE & METABOLITES	83887	80323	G6055
UNIC	NICOTINE, URINE SCREEN	80100	80303	G0431
NORTRP	NORTRIPTYLINE	80182	80335	G6037
OLANZ	OLANZAPINE	80299	80342	80299
UOPICF	OPIATE CONFIRMATION, INCLUDES OXYCODONE	80102	80361 / 80365	G6056

ACL Test Code	Test Description	2014 CPT Code	2015 CPT Code	Medicare HCPCS
UOPIA	OPIATE SCREEN	80101	80301	G0434
DMOPI	OPIATES, DRUG MANAGEMENT	83925	80361	G6056
UOXY	OXYCODONE SCREEN	80101	80301	G0434
QNEMB	PENTOBARBITAL	82205	80345	G6043
UPCPCF	PHENCYCLIDINE CONFIRMATION	80102	83992	G6058
UPCP	PHENCYCLIDINE SCREEN	80101	80301	G0434
PBALIN	PREGABALIN	82542	80366	G0434
UPRPCF	PROPOXYPHENE CONFIRMATION	80102	80367	G6058
UPRPSC	PROPOXYPHENE SCREEN	80101	80301	G0434
PCA3	PROSTATE CANCER BIOMARK	81479	81313	81313
RISPER	RISPERIDONE & METABOLITE	80299	80342	80299
RUFN	RUFINAMIDE	80299	80339	80299
ASA	SALICYLATE	80196	80329	G6038
UK2	SYNTHETIC CANNABINOID URINE, NONFORENSIC	80101	80302	G0434
UTHC	THC SCREEN	80101	80301	G0434
UTLC	THIN LAYER CHROMATOGRAPHY DRUG SCREEN	80100	80303	G0431
DMTRAM	TRAMADOL, DRUG MANAGEMENT	82542	80373	82542
DESYRL	TRAZODONE	80299	80338	80299
VALPFR	VALPROIC ACID FREE & TOTAL	80164 x2	80164 / 80165	80164 / 80165

*NEW: MEDICARE COVERAGE FOR SCREENING PURPOSES – BENEFICIARIES BORN BETWEEN 1945 AND 1965

Tolerance Changes

Effective January 21, 2015, ACL Laboratories will implement changes to the glucose and lactose tolerance tests. The changes will involve new test order codes and the location and appearance of the test results as identified in the chart below.

New Test Order Codes

Tolerance	Current Panel Test Order Code	New Panel Test Order Code	Components of Tolerance (remain the same)
Glucose, 2 Hour Gestational	GTT2HB	2GLUT	Fasting, 1 hour, 2 hour specimens
Glucose, 3 Hour Gestational	GTT3	3GLUT	Fasting, 1 hour, 2 hour, 3 hour specimens
Lactose	LACTOL	LTOL	Fasting, 30 minute, 60 minute, 90 minute, 120 minute specimens

Changes in Location and/or Appearance of Test Results:

Test results for the new Glucose Tolerance test order codes will display differently as compared to the current test code display. Currently, all components of the tolerance display together under the same test order code with a single collection date/time. The new glucose tolerance test order codes will display a test result for each collection time and will appear as separate test results on the laboratory report.

If you have any questions about these changes, please contact Janet Halverson, 920.451.5609, Janet.halverson@aurora.org.

Cleveland Clinic Test Order Codes

Old Test Order Code(s)	CCL New Test Order Code	Test Description	Specimen Type	CCL Preferred Volume	Collection Tube Type	Specimen Transport
GSFEAR/ GOOSEF	GOOSE	Allergen, Epidermals and Animal Proteins, Goose Feathers IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
APPLER/ APPLE	APPLES	Allergen, Food, Apple IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
CHOCOR/ CHOCO	CACAO	Allergen, Food, Cacao (Chocolate) IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
N/A	CINAMN	Allergen, Food, Cinnamon IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
CONUTR/ COCNUT	COCONT	Allergen, Food, Coconut IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
CRANR	CRANBY	Allergen, Food, Cranberry IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
EGGYKR/ EGGYOK	EGYOLK	Allergen, Food, Egg Yolk IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
LETUCR/ LETUC	LETUCE	Allergen, Food, Lettuce IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
N/A	LINSED	Allergen, Food, Linseed IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
LOBSTR/ LOBTER	LBSTER	Allergen, Food, Lobster IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
MALTR/ MALTF	MLTIGE	Allergen, Food, Malt IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
OYSTER/ OYSTR	OYSIGE	Allergen, Food, Oyster IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
FMHR/ HELMIN	HELMN	Allergen, Fungi and Molds, Helminthosporium halodes IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
FMFMR/ MONILI	FUSAR	Allergen, Fungi and Molds, Fusarium proliferatum IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
GRASR	GRASS	Allergen, Grass Panel IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
MWFESR/ MEDOWF	MFESCU	Allergen, Grass, Meadow Fescue IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
N/A	SWVERN	Allergen, Grass, Sweet Vernal Grass IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
HDUSGR/ HOUSEG	DUSTG	Allergen, House Dust Greer IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
BEECHR/ BEECHT	BEECH	Allergen, Tree, Beech IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated

Old Test Order Code(s)	CCL New Test Order Code	Test Description	Specimen Type	CCL Preferred Volume	Collection Tube Type	Specimen Transport
WILOWR/ WILOWT	WILLO	Allergen, Tree, Willow IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
CKLRUR/ COKLBR	COKBUR	Allergen, Weed, Cocklebur IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
GIRAGR/ RAGGNT	GRAGWD	Allergen, Weed, Giant Ragweed IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated
GOLDR/ GOLDRD	GOLDEN	Allergen, Weed, Goldenrod IgE, ImmunoCAP	Serum or Plasma	0.1 mL	Gold Gel	Refrigerated

ACL Laboratories Specimen Handling During Inclement Weather

All Winter Temperatures:

- Keep specimens and lockbox(s) indoors until leaving for the night. The lockbox with specimens should be placed outside at the last possible moment to ensure optimal specimen integrity.

Very cold days; 0-10°F without wind-chill:

- Keep specimens and lockbox(s) indoors until leaving for the night. The lockbox with specimens should be placed outside at the last possible moment to ensure optimal specimen integrity.
- Wrap specimens – in a towel or padding
- Inform ACL Logistics of any early closures or cancellations

Extreme cold; below 0°F without wind-chill:

- Keep specimens and lockbox(s) indoors until leaving for the night. The lockbox with specimens should be placed outside at the last possible moment to ensure optimal specimen integrity.
- Wrap specimens – in a towel or padding
- Inform Logistics of any early closures or cancellations
- ACL Logistics will implement an internal process that alters routing in order to reduce the pickup window in half. It is imperative that ACL Logistics is notified of any site operating hour changes.

Extreme Summer Temperature: excess of 95°F:

- Keep specimens and lockbox(s) indoors until leaving for the night. The lockbox with specimens' should be placed outside at the last possible moment to ensure optimal specimen integrity.
- Inform ACL Logistics of any early closures or cancellations

Please call ACL Logistics with any questions or concerns at 1.800.877.7016, option #3.

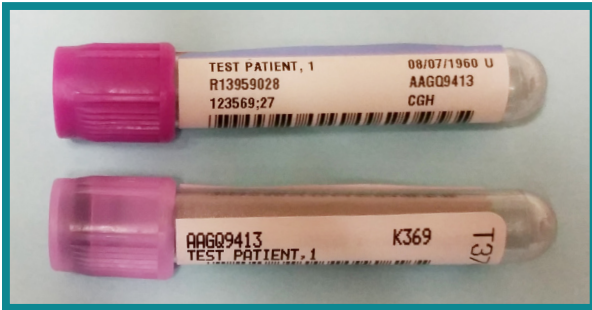
Specimen Identification and Labeling

All specimens submitted to ACL for testing must be appropriately labeled. This requirement assures positive identifications and optimum integrity of patient specimens from time of collection until testing is completed and results reported. Clients will be notified of inappropriately labeled specimens. Unlabeled or incompletely labeled specimens will not be tested (see Specimen Rejection Criteria below).

Specimen Labels

Proper positioning of the patient label is important for automated laboratory testing instruments. If not positioned properly, test results could be delayed.

- Patient labels need to be positioned directly below the specimen tube cap.
- For 13 x 75 tubes: Hold tube horizontally with the cap facing left. Align the patient label as close to the top of the cap as possible.



- For 13 x 100 tubes: Hold the tube horizontally with the cap facing left. Align the patient label with the top of the manufacturer's label on the tube. (no higher).



- If your patient label is >2 inches long, you will need to trim the label to fit properly on the 13 x 75 tube. **DO NOT wrap label to bottom of the tube.**

The College of American Pathologists (CAP) requires that primary specimen containers are labeled by at least **2 identifiers** (Standard Requirement: CAP GEN.40491).

1. The patient's name (full last name, then full first name or initial) is always required.
2. The second patient identifier may be one of the following:
 - Date of birth (month/date/year)
 - Other unique patient identifier that is also on the test requisition, e.g. hospital or patient ID code or file number
 - ACL requisition number or specimen barcode label
 - Other barcode labels can be used if barcode matches the unique identifiers on the printed requisition (the barcode does not need to be human readable)

Each specimen must have a securely affixed label with the following information:

- the patient's full name written exactly as it appears on the test requisition (e.g., Doe, Jane)
- a second patient identifier as noted above
- date and time of collection

If the label is hand-written, use a ballpoint pen—do not use a felt tip pen. If glass slides are submitted, use a pencil for labeling the frosted end—two identifiers are preferred although patient's name (full last name, then full first name or initial) alone is acceptable.

When using an electronically generated ACL Laboratories test requisition, place the label lengthwise on the tube.

Transfer tubes: When submitting a specimen in a container other than the primary tube used to collect the sample (e.g., transfer vials), also indicate specimen type on the label (e.g., serum, plasma, urine, etc.).

Cultures: When submitting specimens for microbiological testing (e.g., cultures, bacterial antigen, microscopic examination), for non-blood specimens, the anatomic source of the sample and the specific organism(s) to be detected, if any, should be specified.

Surgical Specimens: Include patient's name (full last name, then full first name or initial), date of birth, age, sex, physician name and location, specimen type or source.

Specimen Rejection Criteria

Specimens will be rejected and the tests and charges canceled under the following conditions:

- Unlabeled or incompletely labeled specimens
- Name on specimen does not match name on requisition or electronic order
- Leaking specimen
- Broken container
- Incorrect specimen submitted for test requested
- Insufficient volume (QNS)
- Improper specimen transport temperature
- Age of the specimen (test dependent)
- Hemolysis (test dependent)
- Specimens received with no written or electronic order