



## DIAGNOSTIC ACCREDITATION PROGRAM

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# Laboratory Medicine Proficiency Testing: Reportable Measurands by Service

**measurand** A quantity intended to be measured. The specification of a measurand requires knowledge of the kind of quantity, description of the substance carrying the quantity, including any relevant component, and the chemical entities involved.<sup>1</sup>

Measurand includes the specific examination/analyte, the methodology and the sample type.

**Example:** A lab offers creatinine by Jaffe method and creatinine by Enzymatic method; and both methods are performed on serum and urine, the lab must monitor both creatinine methods with commercial PT programs covering both sample types.

DAP reportable measurands require participation in a commercially available proficiency testing (PT) program, and are subject to the DAP PT monitoring program.

All measurands not listed below are considered non-reportable and are not subject to the DAP PT monitoring program, but PT performance will be considered during the facility assessment by DAP accreditation assessment officers and/or peer assessors.

Non-reportable measurands must participate in proficiency testing activities as deemed appropriate by the laboratory medical director. This could involve participation in commercially available PT programs or the development of alternate assessment procedures.

All measurands performed by non-laboratory personnel as point-of-care testing are considered non-reportable at this time.

### Anatomic Pathology

All class II immunohistochemistry (IHC) testing, where programs are available.

### Chemistry

- 1,25-diOH Vitamin D
- 17-Hydroxyprogesterone
- 25-OH Vitamin D
- 5-HIAA
- Acetaminophen
- ACTH
- Albumin
- Aldosterone
- Alkaline phosphatase
- Alpha 1-antitrypsin
- Alpha-fetoprotein (AFP)
- ALT
- Ammonia
- Amphetamine
- Amylase
- Androstenedione
- Anti-deaminated gliadin peptide (anti-DGP), IgA and IgG
- Anti-DNA antibody double stranded
- Anti-gliadin antibody (IgA)
- Anti-Müllerian hormone

- Antineutrophil cytoplasmic antibody (ANCA, anti-MPO, anti-PR3)
- Antinuclear antibody (ANA)
- Anti-streptolysin O, (ASO) quantitative
- Anti-tissue transglutaminase (tTG), IgA and IgG
- Anti-TPO antibody
- Apolipoprotein A1
- Apolipoprotein B
- Arsenic
- AST
- Barbiturates
- Benzodiazepines
- Beta-hydroxybutyrate (BHB)
- Bilirubin, direct
- Bilirubin, total
- Blood gases – pCO<sub>2</sub>
- Blood gases – pH
- Blood gases – pO<sub>2</sub>
- BNP / NT-proBNP
- CA 125
- CA 15-3
- CA 19-9
- CA 27.29
- CA 72-4
- Calcitonin
- Calcium, ionized
- Calcium, total
- Cannabinoids
- Carbamazepine
- Catecholamines
- Ceruloplasmin
- Chloride
- Cholesterol, HDL
- Cholesterol, LDL
- Cholesterol, total
- CK-MB
- CO<sub>2</sub>, total
- Cocaine derivatives
- Complement C3
- Complement C4
- Copper
- Cortisol
- C-peptide
- C-reactive protein (CRP)
- Creatine kinase (CK)
- Creatinine
- Cyclic Citrullinated peptide (CCP)
- Cyclosporine
- DHEA / DHEA sulfate
- Digoxin
- Erythropoietin
- Estradiol
- Ethanol
- Extractable nuclear antigens, screen and antigens (SS-A/Ro, SS-B/La, RNP, Sm, Scl-70 and Jo1)
- Fentanyl
- Ferritin
- Fetal fibronectin (fFN)
- Folate
- Follicle-stimulating hormone (FSH)
- Gamma-glutamyl transferase (GGT)
- Gentamicin
- Glucose
- Growth hormone (GH)
- Haptoglobin
- Hemoglobin A1C
- Homocysteine
- Human chorionic gonadotropin (hCG)
- IgA
- IgD
- IgE – allergen specific
- IgE, total
- IgG
- IgM
- Insulin
- Insulin-like growth factor (IGF-1)
- Iron, total
- Kappa/lambda light chains
- Lactate
- Lactate dehydrogenase (LD)
- Lead, blood
- Lipase
- Lipoprotein (a)
- Lithium
- Luteinizing hormone (LH)
- Magnesium
- Mercury
- Metanephrines
- Methadone
- Methadone metabolite (EDDP)
- Methamphetamine
- Methotrexate
- Methylenedioxy-methamphetamine (MDMA)
- Mycophenolic acid (MPA)
- Occult blood – automated/manual
- Opiates
- Osmolality
- Oximetry
- Oxycodone
- Parathyroid hormone (PTH)
- Phenobarbital
- Phenytoin
- Phosphorus
- Potassium
- Prealbumin
- Progesterone
- Prolactin
- Prostate specific antigen (PSA), free
- Prostate specific antigen (PSA), total
- Protein electrophoresis, including urine Bence Jones proteins
- Protein, total
- Renin
- Rheumatoid factor (RF)
- Salicylate
- Selenium

- Sex hormone binding globulin (SHBG)
- Sirolimus
- Sodium
- T3, free
- T4, free
- Tacrolimus
- Testosterone
- Theophylline
- Thyroglobulin
- Thyroid-stimulating hormone (TSH)
- Tobramycin
- Total bile acid
- Total Iron-binding capacity (TIBC)
- Transferrin
- Triglycerides
- Troponin I/Troponin T
- Tryptase
- Unsaturated iron-binding capacity (UIBC)
- Urea
- Uric acid
- Urine albumin
- Valproic acid
- Vancomycin
- Vanillylmandelic acid (VMA)
- Vitamin A
- Vitamin B12
- Vitamin E
- Zinc

### Cytogenetics

- Cytogenetics – routine (chromosome analysis and karyotyping)
- Fluorescence in situ hybridization (FISH)
- Microarray analysis

### Hematology (includes Coagulation)

- |  |  |  |
|--|--|--|
| • Activated partial thromboplastin time (aPTT)           | PNH, CD4/CD8, CD34+, leukemia panel, lymphoproliferic panel    | • Mean platelet volume (MPV) – automated                         |
| • Anti-beta-2-glycoprotein (IgG, IgM)                    | • Glucose-6-phosphate dehydrogenase (G-6-PD)                   | • Platelet aggregation   |
| • Anti-cardiolipin antibody (IgG, IgM)                   | • Hematocrit (HCT) – automated                                 | • Platelet count – automated                                     |
| • Anti-thrombin activity/antigen                         | • Hemoglobin (Hb) – automated                                  | • Platelet distribution width (PDW) – automated                  |
| • Blood parasites (where thick blood films are examined) | • Hemoglobinopathy testing*                                    | • Protein C activity/antigen                                     |
| • Body fluid cell count – automated/manual               | • Heparin quantitation   | • Protein S activity/antigen                                     |
| • Cell identification / morphology                       | • Heparin-induced thrombocytopenia (HIT)                       | • Red cell distribution width (RDW) – automated                  |
| • D-dimer  | • Infectious mononucleosis                                     | • Reticulocyte count – automated                                 |
| • Erythrocyte count (RBC) – automated/manual             | • International normalized ratio (INR)                         | • Semen analysis – count, presence/absence, motility, morphology |
| • Erythrocyte sedimentation rate (ESR) – automated       | • Lamellar body count  | • Sickle cell screen by solubility                               |
| • Factor assays*   | • Leukocyte count (WBC) - automated/manual                     | • von Willebrand factor activity/ antigen                        |
| • Factor VIII Inhibitor                                  | • Lupus anticoagulant (e.g. dRVVT or other phospholipid assay) | • WBC differential – automated/manual                            |
| • Fibrinogen   | • Malaria – rapid antigen detection                            |  |
| • Flow cytometry testing (enumerated markers) –          | • Mean cell volume (MCV) – automated                           |  |

\*Categories indicated by an asterisk include all types of service that are offered in that category.

### Microbiology

- Acid fast stains
- Antimicrobial susceptibility testing
- Bacterial antigen detection
- Bacterial identification
- Enteric parasite identification
- Gram stains
- KOH preparation/ calcofluor white
- Molecular multiplex panels
- Mycobacterial identification
- Mycological antigen detection
- Mycological identification
- Nucleic acid amplification (NAA)
- Parasite antigen detection
- Viral antigen detection
- Viral identification
- Viral serology

### Transfusion Medicine

- ABO grouping
- Antibody identification
- Compatibility testing
- Direct antiglobulin test (DAT)
- Fetal maternal hemorrhage/fetal red cell detection – qualitative and quantitative
- Rh (D) typing
- Unexpected antibody detection

### References

1. Bureau International des Poids et Mesures (BIPM). *International Vocabulary of Metrology – Basic and General Concepts and Associated Terms* (VIM, 3<sup>rd</sup> edition, JCGM 200:2012)