

# The Many Faces of the Laboratory Test Guide

**PI Summit, 2025**

Noah Hoffman, MD, PhD

Head, Informatics Division

Laboratory Medicine and Pathology

University of Washington



# Disclosures

- None

**ARUP** LABORATORIES

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Test Updates Hotlines New Tests CPT Updates

## Quality testing to ensure the best results and care

We are a worldwide leader in innovative laboratory research and development, with an extensive test menu of highly complex and unique medical tests.

Search the test directory

Find a test by name, code, CPT, disorder, or keyword  Search

Browse Tests A-Z

**UCSF** Health Clinical Laboratories

Home | History | Help | Sign In

Find a test by name, number, synonym, CPT or LOINC  Search Browse A-Z

UCSF Clinical Laboratories Test Director

Welcome to the UCSF Clinical Laboratories Test Menu... where every sample is precious! Please use the search box in the upper right hand corner to find a test or to browse an alphabetical listing of our menu. If a desired test is not listed in the laboratory manual, please contact the laboratory at 415-353-1667 and ask to speak to a laboratory medicine resident, Medical/Section Director, or our send-out staff to inquire if the test is available. Federal CLIA regulations require that we receive written permission from the laboratory before sending a specimen. If the test is available at one of our approved, CLIA certified reference laboratories, it may be ordered in APOx as a Miscellaneous Outside Lab Test (MOLT). When ordering a MOLT, please include the exact name of the test and the name of the laboratory to which it will be sent.

New(2) Updated(6)

Home COVID-19 General Information COVID-19 RT-PCR COVID-19 Serology Test Menu Test Selection Support (ARUP Consult) General Information Pediatric Minimum Draw Volumes Contact Us Downtime Documents

The Royal Treatment

**MAYO CLINIC** LABORATORIES

MayoACCESS | MayoLINK Register | My Dashboard

TEST CATALOG ORDERING & RESULTS SPECIMEN HANDLING CUSTOMER SERVICE EDUCATION & INSIGHTS CONTACT SEARCH

Search test name  A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

**HENRY FORD HEALTH**

This Electronic Lab User's Guide is applicable to Legacy Henry Ford Locations Only

Welcome

We are pleased to present the Laboratory User's Guide (eLUG). The purpose of the guide is to provide information about our laboratories and a comprehensive test catalog with information regarding specimen collection and handling.

We value your suggestions and look forward to working with you. Please feel free to call us or members of our Laboratory Customer Service Center at (313) 916-LABS (5227), if you need assistance.

In the event of a Downtime, test requisitions can be found here.

Blood / Body Fluid Specimens	Tissue/Cytology Specimens	Phlebotomy Instructions
Specimen Collection Instructions Additives Critical Values HFHS Lab Formulary (CETAC) Autopsy Info - Adults Commonly Ordered Genomic CPT and Test Code Chart Test Catalog	Specimen Collection Instructions Autopsy Info - Adults *New* Proper Label Placement on Sample Tubes Vacutainer Processing Instructions Commonly Ordered Genomic CPT and Test Code Chart Test Catalog	Order of Draw Specimen Labels *New* Proper Label Placement on Sample Tubes Vacutainer Processing Instructions Commonly Ordered Genomic CPT and Test Code Chart Test Catalog

Skip the LAB Wait!

To order cards for patient area  
1. Visit the Digital Print store and sign in with CorpID here.  
2. Search "Lab Card" in the upper right corner.  
3. Select the card, select quantity.  
4. Enter your quantity and cost center and finalize your order.

Recent Test Catalog Changes

April 2025	Jan 2025	Feb 2025	Mar 2025
October 2024	November 2024	December 2024	
July 2024	August 2024	September 2024	

**HEALTH FAIRVIEW**

Home | History | Help | Sign In

Find a test by name, number, synonym, or CPT  Search Browse A-Z

M Health Fairview Laboratory Test Directory

Welcome to the M Health Fairview Laboratory Test Directory. Please find available tests by using the search bar or navigating via the search categories on the right side of the screen.

The laboratories of M Health Fairview serve as M Health Fairview Reference Laboratory (MRL) which support the Fairview Health System and its partners as a premier integrated laboratory system by providing:

- High quality, accessible, cost effective, comprehensive services
- Innovative clinical laboratory practice
- Educational resources for its healthcare practitioners
- Accesible diagnostic information in response to customer needs

Recognized regionally and nationally, the laboratory offers a full range of testing services, from acute care support to unique reference diagnostic testing, with a strong emphasis on quality, accuracy and timeliness.

Services include: routine and complex testing, 24-hour clinical pathology and technical consultation, cost competitive pricing, cutting-edge technologies, educational opportunities, and special project assistance.

**M Health Fairview Reference Laboratory (MRL)**  
For client questions, contact MRL Laboratory Solution Center at 651-232-3500; fax 651-232-3370  
1700 University Ave W, 7th Floor West, St. Paul, MN 55104

**Patient Pricing Inquiries:**  
Requester Contact Information  
Patient and UMP/FV Care Team Fairview Consumer Line at 612-672-1048  
MRL Outreach Client dept-mrl-business-assessment@fairview.org  
Research research@fairview.org

New(0) Updated(2466)

Test Code	Test Name	Performing Lab	Synonyms	Cpt Codes
LAB9005	HDV genotype (Lab Approved Request) (YH)	YNS MAIN LAB		0000000
LAB9006	Epitope and antigen plus sequencing panel with CNV detection (YH)	YNS NON INTERFACED REFERENCE LAB	Prevention 7957	81479
LAB9011	Serology serology/immunology (LMH YH)	YNS NON INTERFACED REFERENCE LAB		8152610
LAB9012	NTCA antibody IgG (YH)	YNS NON INTERFACED REFERENCE LAB		81251
LAB9013	HMOC antibody IgG (LMH YH)	YNS NON INTERFACED REFERENCE LAB		81250
LAB9014	Cytokine panel (BH GLH LMW Q YH)	YNS MAIN LAB	ARUP001394	8125013
LAB9014	Cytokine panel (BH GLH LMW Q YH)	YNS AREP LAB	ARUP001394	81250, 81329
LAB9028	Dexoytetracycline sensitivity (LMH YH)	YNS NON INTERFACED REFERENCE LAB	DEM001	8172649
LAB9029	Thiopurine methyltransferase and uridine hydrolyze genotyping (YH)	YNS MAYO LAB	NIST01715MT	90401
LAB9030	Acute serology (LMH YH)	YNS NON INTERFACED REFERENCE LAB		8152612
LAB9031	Hepatitis C and RNA genotype 1 NS3 drug resistance	YNS MAIN LAB	ICV GENOTYPE NS3	0000043

**Children's Healthcare of Atlanta**

Home | History | Help | Sign In

Find a test by name, number, synonym, CPT or LOINC  Search Browse A-Z

CHOA Laboratory Test Directory

News from Children's Healthcare of Atlanta Laboratories

It is Children's policy, approved by the system-wide Lab Stewardship Committee, that "free" testing, defined as a test for which the performing referral lab does not charge the hospital, patient's insurance, or patient, CANNOT be sent out on CHOA inpatients, unless the test is:

1. a clinical test performed in a laboratory under its CLIA license, AND
2. not available elsewhere, AND
3. equally and readily available to ALL CHOA patients under an institutional account.

Orders for tests that do not meet these criteria must be collected in the outpatient setting in which CHOA lab serves as a "pass-through" to the receiving referral lab. CHOA will charge a standard phlebotomy processing fee if a CHOA phlebotomist collects the specimen. Please direct any questions to Dr. Elizabeth Weinzierl at 404-765-4552 or elizabeth.weinzierl@choa.org. The policy can be found here on the Careforce website.

Laboratory Policy 2307.5108: Reference Lab Testing Rules, Exceptions and Algorithms

March 2025 Lab Updates: See One Epic Update

New(1) Updated(86)

Careforce Connection  
Pathology & Laboratory Services  
Laboratory Turnaround Times and Priorities for Inpatients

Children's Healthcare of Atlanta  
© 2025 ARUP Laboratories. All rights reserved.

**labcorp**

Test Menu

Test Menu

Explore our test menu

Our comprehensive test menu includes both specialty and general laboratory testing services.

Use a keyword, test name or test number

Use a keyword, test name or test number

Login to Order

Test Directory

Welcome to the Quest Diagnostics Test Directory

Search for tests and educational resources with confidence. Filter by specialty or test category, and compare tests side-by-side.

WATCH THE VIDEO | LEARN MORE | FREQUENTLY ASKED QUESTIONS | SPECIMEN COLLECTION & TRANSPORT GUIDE | TEST GUIDES

We'd love your feedback! Take a brief survey.

Search for Tests, Diseases, or Conditions  All Specialties  Enter search terms, Test Code or CPT  SEARCH

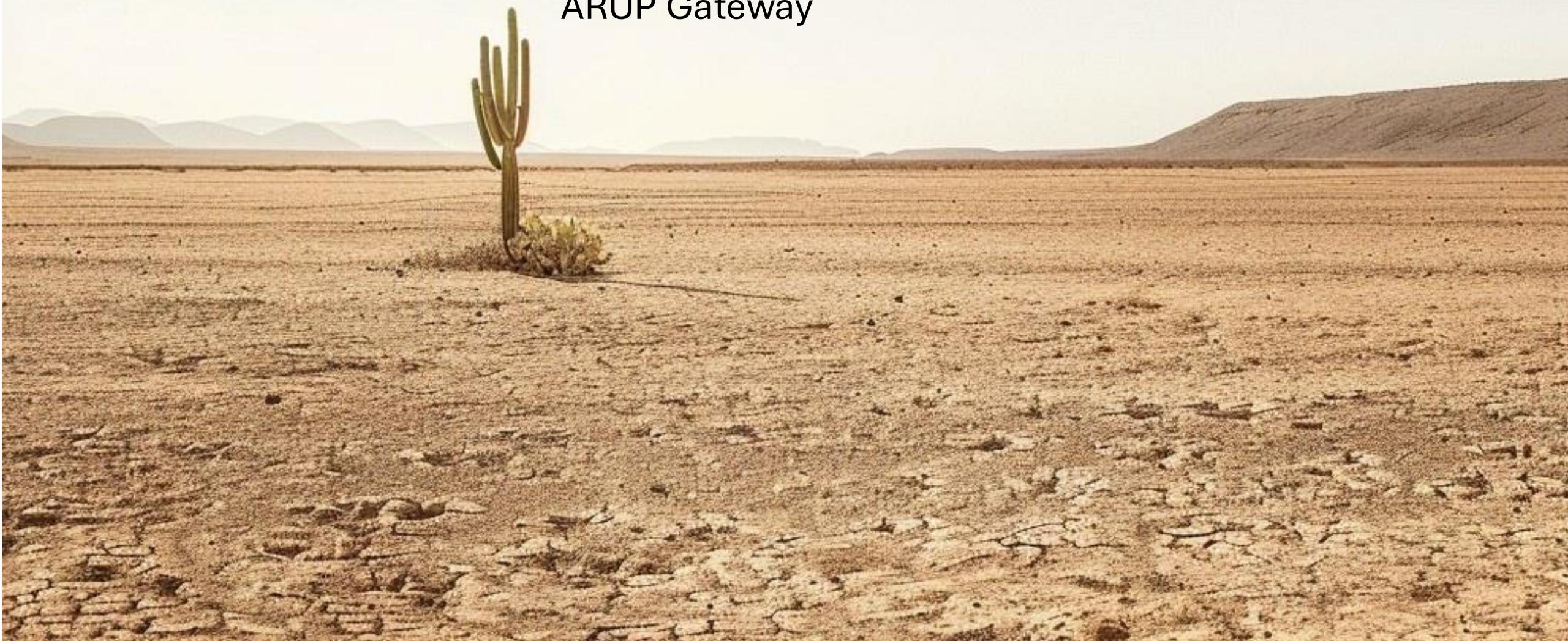
Our Test Directory includes detailed information, guides and references for many of our tests. This includes test and result codes, specimen collection requirements, specimen transport considerations, and methodology.

Recently Viewed  New Tests  New Test Guides   
Electron Microscopy  Apolipoprotein B This test is used to assess risk for ischaemic heart disease  SHOW ^  Take a brief survey!

.Increase the strength of your search!

# Lab test catalog application market survey

ARUP Gateway



UW Medicine Laboratory Test x +

testguide.labmed.uw.edu

Home Laboratory Medicine & Pathology UW Medicine

text or code Search

# UW Medicine Laboratory Test Guide

Search text or code  within other orders

Search clinical laboratory tests offered by the Department of Laboratory Medicine at the University of Washington

(OLTG)

- History
- Design philosophy
- Implementation
- Workflows and Features

Department Home  
Licenses &  
Accreditation  
Specialty Testing  
Genetics & Solid  
Tumors  
Molecular  
Hematopathology  
Flow Cytometry  
Immunology  
Molecular  
Microbiology  
Red Cell Disorders  
Virology  
Specimen Collection  
Critical Values  
Notifiable Conditions

**Staff Links**

Staff Only Test  
Guide

# Departmental Website Integration

The screenshot shows a web browser window for the "Dept. of Laboratory Medicine" at [dimp.uw.edu](http://dimp.uw.edu). The page features the UW Medicine logo and navigation links for About, Jobs, Faculty & Staff, Find Tests, Diagnostic Services, Education, Research, Events, News, and Contact. A search bar is highlighted with a red box. Below the navigation is a banner image of a lab technician working with test tubes. To the right of the banner are four call-to-action boxes: Academic Programs, Find Tests, Pay Your Bill, and Make a Gift. The main content area includes sections for "About the Department of Laboratory Medicine & Pathology" and "IN THE NEWS". The "Department Highlights" section mentions celebrating Medical Laboratory Professionals Week from April 20-26, 2025. The "Upcoming Events" section lists the "Lab Med Clinical Research Conference" on May 7, 2025.

UW Medicine  
LABORATORY MEDICINE & PATHOLOGY

Search this site  Find a laboratory test

ABOUT JOBS FACULTY & STAFF FIND TESTS DIAGNOSTIC SERVICES EDUCATION RESEARCH EVENTS NEWS CONTACT

VIEW OUR VIROLOGY LAB'S COVID-19 DASHBOARD  
Researchers in the Virology Lab process tests for coronavirus

Academic Programs

Find Tests

Pay Your Bill

Make a Gift

About the Department of Laboratory Medicine & Pathology

The Department of Laboratory Medicine & Pathology is a regional resource for clinical laboratory services required for innovative patient care, research and educational programs. We combine the sophisticated testing and informatics capabilities of fully accredited laboratories with the resources of an academic institution in its delivery of clinical and anatomical pathology services. Recognized for excellence in clinical training, world-class research initiatives, and a commitment to community service, we serve the five-state WWAMI region: WA, WY, AK, MT, and ID.

Read More

IN THE NEWS

Department Highlights

CELEBRATING MEDICAL LABORATORY PROFESSIONALS WEEKS APRIL 20 – 26, 2025!

The Department of Laboratory Medicine & Pathology would like to recognize and thank all of our staff during Medical Laboratory Professionals Week!

NEWS

Upcoming Events

Lab Med Clinical Research Conference: Emily Helm - Investigating Unexpected Results Upon Implementation of a Newer GP1b Assay

Wed, May 7, 2:30 p.m.  
Magnuson Health Sciences Center Rr (HSRR)

EVENTS & SEMINARS

# DLMP website integration

The screenshot shows a web browser window for the UW Medicine Laboratory Test Guide. The URL is [dlmp.uw.edu/test-guide?query=cbc](http://dlmp.uw.edu/test-guide?query=cbc). The page title is "Find a Laboratory Test". A search bar at the top contains "cbc". Below it is a table listing 32 results for "cbc" in laboratory tests. The columns are "Code", "Name", "Specimen", and "Comments". Some entries include "Red Cell Disorders Laboratory" and "Trauma Panel".

Code	Name	Specimen	Comments
CBD	Complete Blood Count w/Differential	Blood	
CBC	Complete Blood Count	Blood	
CBANC	CBC w/absolute Neutrophil	Blood	
TRAUM6	Trauma Panel	Blood	
LVOPD1	Liver Transplant, Outpatient Panel with Differential	Blood	
LPVO6	Liver Transplant Post(Op Panel 6	Blood	
ESP3	Emergency Stroke Panel	Citrated Whole Blood	
LUPOX1	Lung Transplant, Post-Op Extended Panel	Blood	
LVLTF2	Liver transplant, Long Term Follow-up	Blood	
LVOPP1	Liver Transplant, Outpatient Panel	Blood	
CBCT	CBC, T Cell Subsets	Blood	
HLPRS	Heart/ Lung Transplant (Pre): Recipient - Stat	Blood	
TRAUP6	Trauma Panel, Pediatric	Blood	
DP...	DP...	DP...	

The screenshot shows a web browser window for the DLMP website. The URL is [dlmp.uw.edu/test-guide/view/CBD](http://dlmp.uw.edu/test-guide/view/CBD). The page title is "Complete Blood Count w/Differential". It includes tabs for General Information, Interpretation, Ordering & Collection, Processing, Performance, and Billing & Coding. The "General Information" tab is active. It displays details such as Lab Name (CBC, Diff/Smear Evaluation), Lab Code (CBD), Epic Name (CBC with Diff), and a Description of the test. A "Components" table lists the following:

Code	Name
WBC	WBC
RBC	RBC
HB	Hemoglobin
HCT	Hematocrit
MCV	MCV
MCH	MCH

# Links to test-specific pages from EHR

CBC with Diff

Reference Links: • [UW Medicine Lab Test Guide](#)

Frequency: Morning draw  AM draw Once (Next Routine) Once (Timed) STAT

Starting  
5/3/2025  Today Tomorrow For  
1  Occurrences Hours Days Weeks

First Occurrence  
 Include Now As Scheduled

 Accept  Cancel

# Laboratory test catalog features



Obligatory iceberg cliche

Search  
Public Test Information

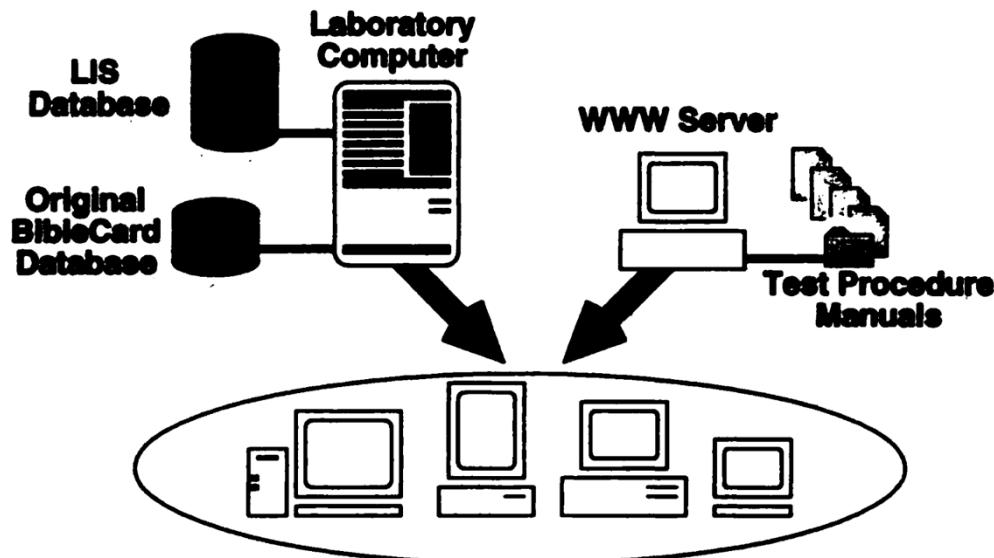
Everything else

Activity or workflow	ordering providers	nursing	reference lab clients	lab directors	lab/path residents	processing/phlebotomy	client support services	lab staff
Discovery, selection								
Interpretation								
Customer support								
Ordering instructions, forms								
Specimen collection, handling								
Receiving, stability, processing								
Interface configuration								

# History

## BibleCard: Network-Based Virtual Database for Laboratory Information

James S. Fine,<sup>1</sup> Aaron K. Ching, Joe B. Schneider, Darcy Pollum, Michael L. Astion



X Window. Macintosh. Microsoft Window. Character-based

Fig. 1. BibleCard architecture: three databases with access from four distinct display devices.

The LIS is from SunQuest Information Systems (Tucson, AZ). Again, all programs are written in MUMPS, and this system operates on a VAX 4000. Data elements appropriate to the BibleCard system residing in the test definition file include test name, test mnemonic, units, collection-tube type, and reference ranges (age- and sex-defined). The database in this system is maintained by the department's programming staff.

# Then and now

Netscape: BibleCard for Lab Test CA

Back Forward Home Reload Images Open Print Find Stop  
What's New? What's Cool? Handbook Net Search Net Directory Newsgroups

Lab Test Information for:

**CALCIUM**

Mnemonic: CA  
Test name: CALCIUM  
Specimen type: BLOOD  
Collection info: 10 mL SST or RED TOP TUBE (GREEN TOP - ok)  
MICRO 1 MICROTAINER (SST)  
Frequency: DAILY  
Available STAT? YES  
*without approval*  
Unit: mg/dL  
Reference range:

MALE		FEMALE	
Age	Range	Age	Range
All	8.9-10.2	All	8.9-10.2

To view more information about this test, click one of the following topics:  
[Principle](#) [Specimen](#) [Calculations](#) [More Ranges](#) [Info](#) [References](#)

http://www.labmed.washington.edu/TestMenu/CA.info.html?print

Fig. 4. Laboratory test information concerning calcium as seen through BibleCard.

**Calcium**

tabbed view

**General Information**

Lab Name Calcium  
Lab Code CA  
Epic Name Calcium

**Components**

**Interpretation**

Method Spectrophotometric  
Reference Units: mg/dL  
Range Female Male  
Age Range Age Range  
0- 8.9-10.2 0- 8.9-10.2

Effective date: 03/01/2015

**Ordering & Collection**

Specimen Type Blood  
Collection HMC and UWMC Onsite Locations

- Preferred: 4 mL blood in LIME GREEN PST tube
- Also Acceptable: 4 mL blood in ORANGE RST, GOLD SST, RED TOP or GREEN TOP tube
- Pediatric: 1 Full LIME GREEN MICROTAINER
- Unacceptable: GRAY TOP

Offsite Clinic or Other Locations

- Preferred: 4 mL blood in GOLD SST tube
- Also Acceptable: 4 mL blood in ORANGE RST or LIME GREEN PST, RED TOP or GREEN TOP tube
- Pediatric: 1 Full LIME GREEN MICROTAINER
- Unacceptable: GRAY TOP

# An enduring philosophy

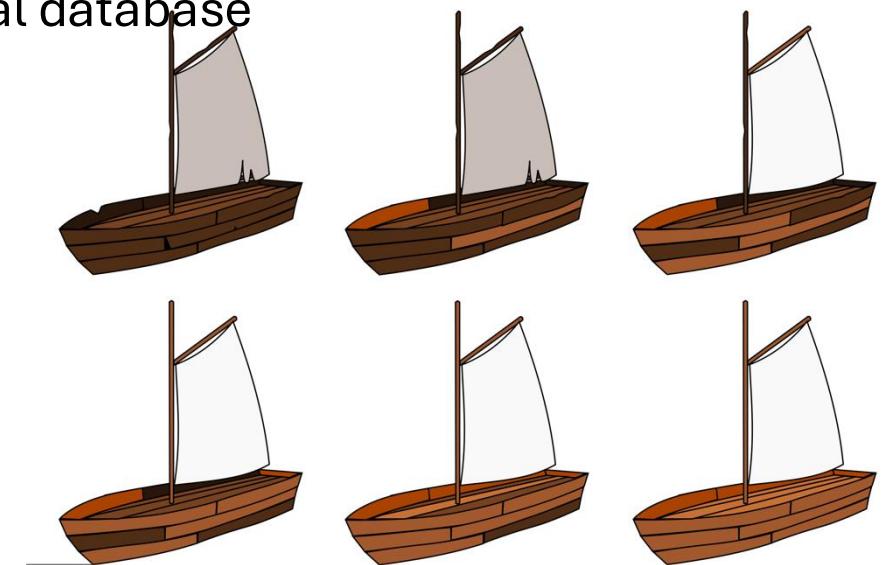
- Address operational needs not supported by the LIS
- Serve both laboratory and external users
- Provide an intuitive search interface
- Avoid duplication of data by aggregating from multiple systems
- Operationalize content management
- Emphasize user experience

James Fine with a PDP-11



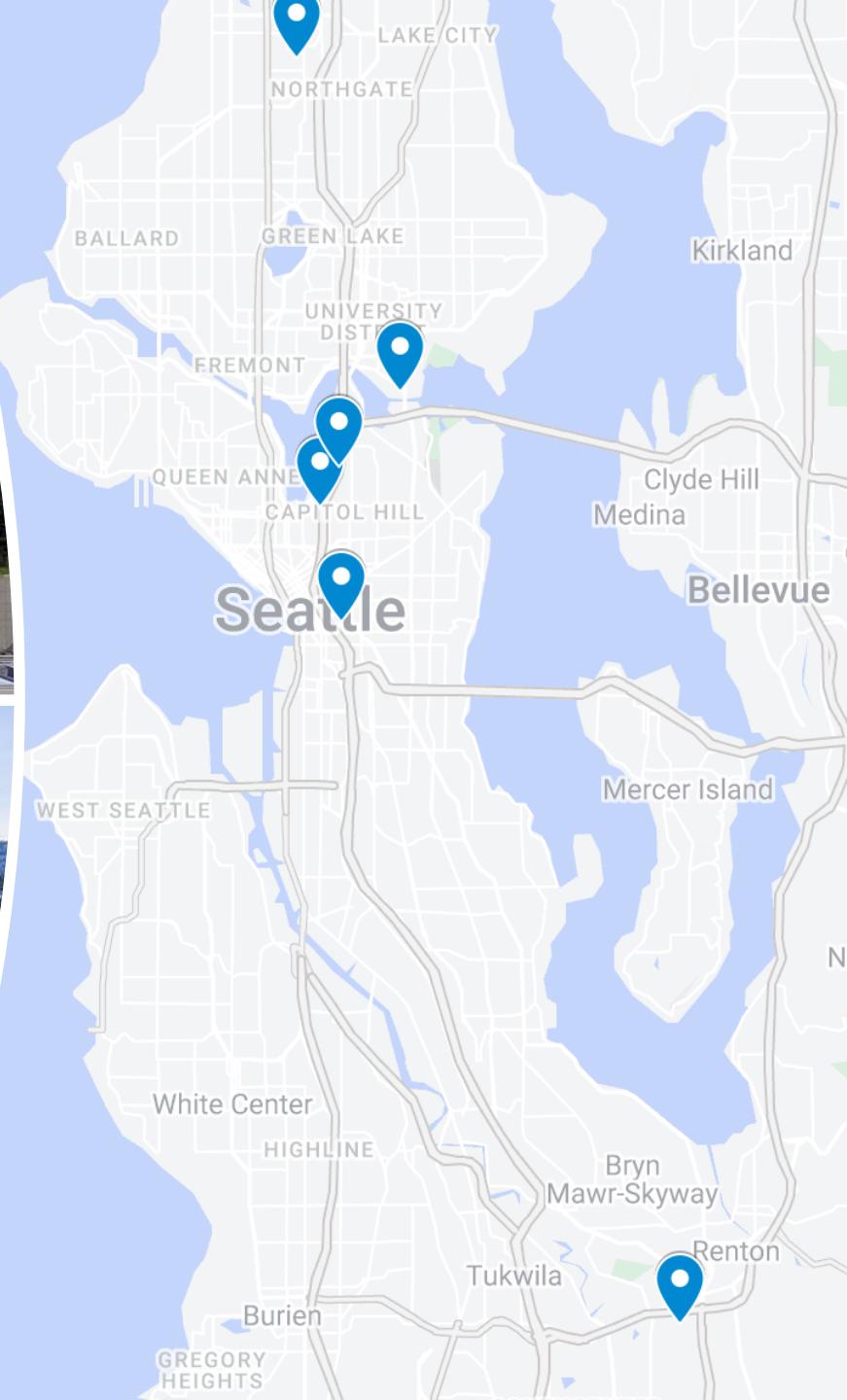
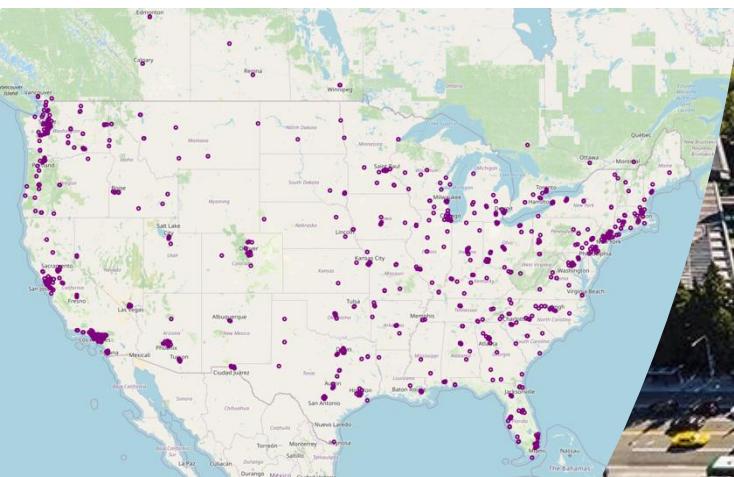
# 30 years of Online Test Guide (OLTG) History

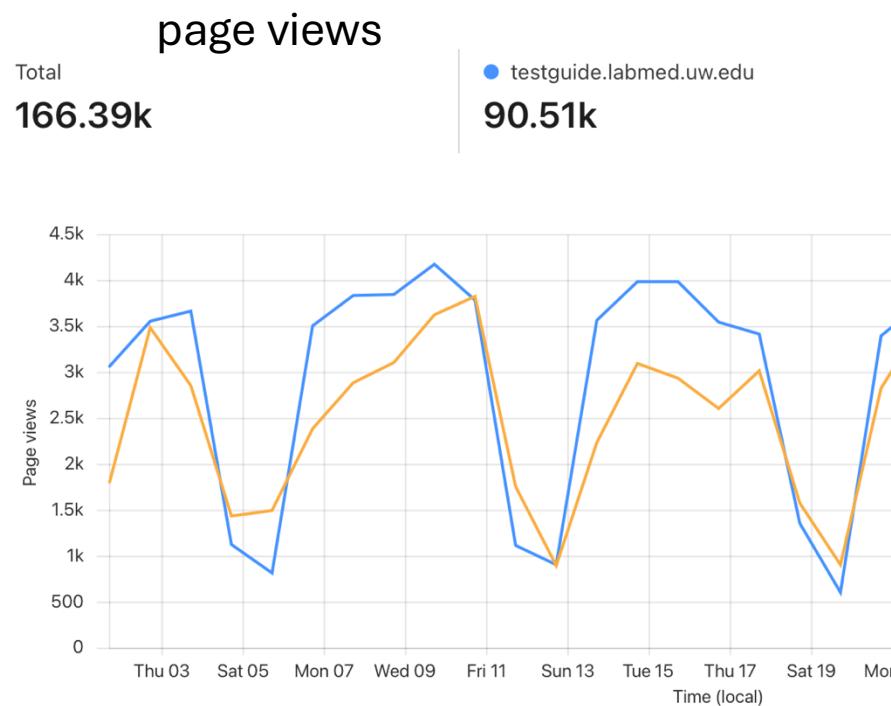
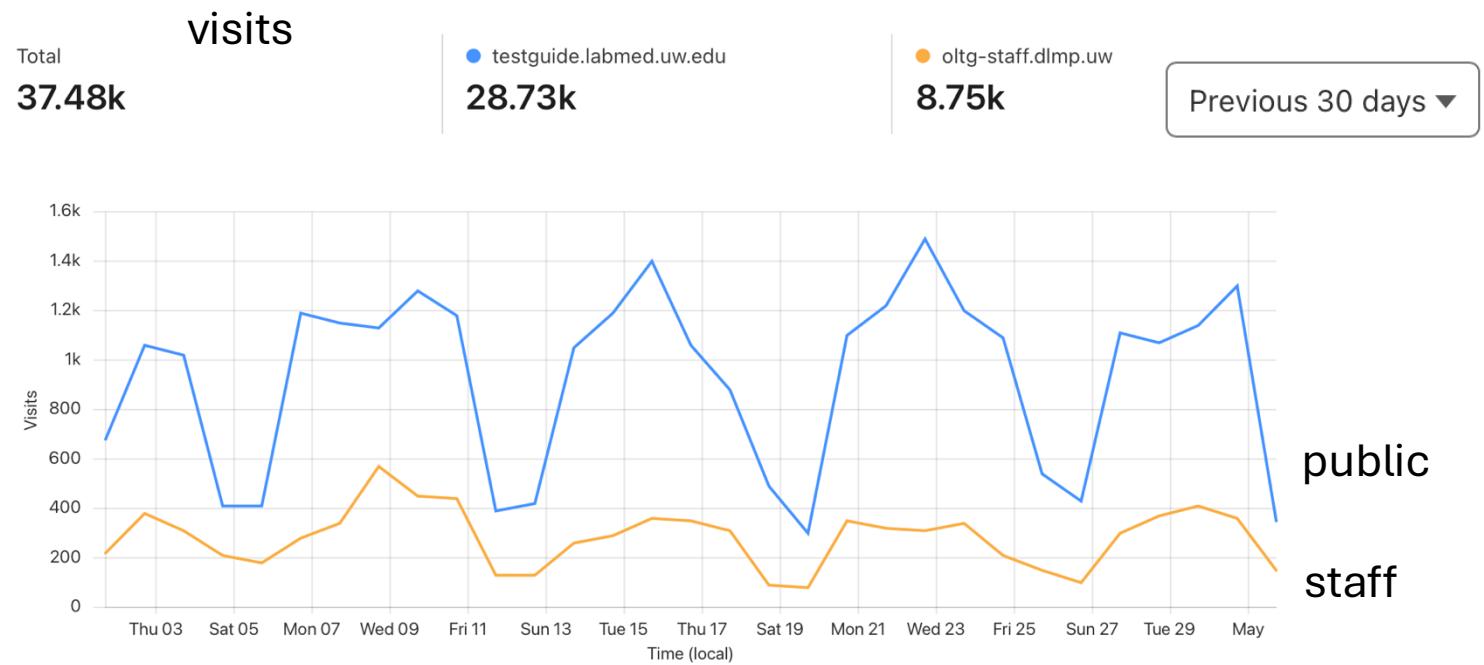
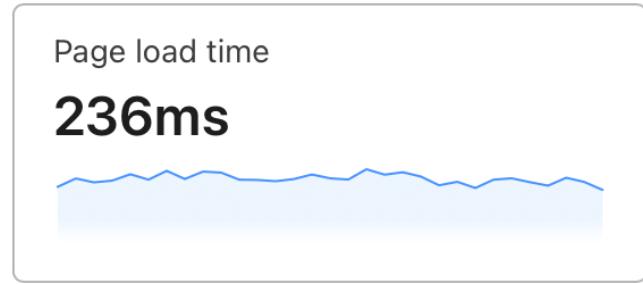
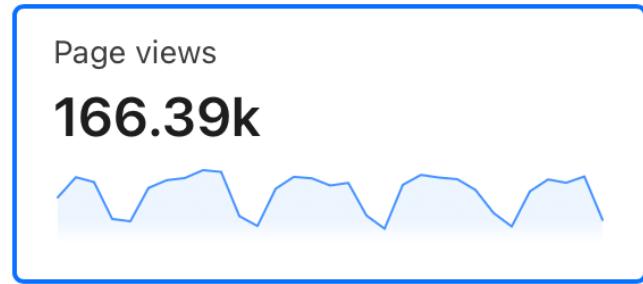
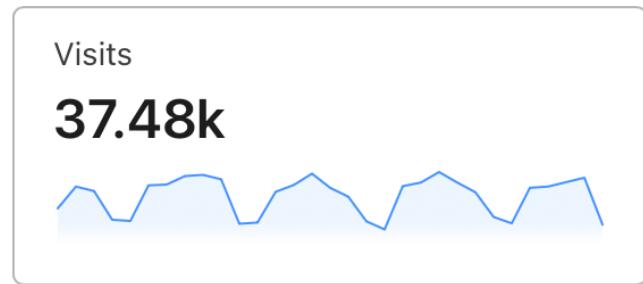
- Central Processing Area (CPA) Bible (ca 1969)
  - Consolidation of processing services and test information
  - Circular file of 5x8 index cards
- “BibleCard” (ca. 1994)
  - “Network-Based Virtual Database for Laboratory Information”
  - Written in MUMPS for Mosaic and Netscape browsers
  - Data shared from Sunquest database
- First modern web application (Dave Chou and Jerry Davis, ca 2002)
  - Consolidation into a single, well-defined schema in a relational database
  - MS-SQL database, IIS/ASP web application
  - Content management process controls
  - Daily import from Sunquest
- LAMP stack rewrite (Tom Ekberg, ca 2011)
  - Python wsgi application, Postgresql
  - Expanded database schema
- Current version (2016 - present)
  - Updated schema with an emphasis on change management



# UW Clinical Laboratory Footprint

- UW Medicine is the primary academic healthcare system in the 5-state WWAMI region
- 3 hospitals
- Hospital-based and primary care clinic sites throughout Puget Sound
- Fred Hutchinson Cancer Center
- Regional and national outreach testing





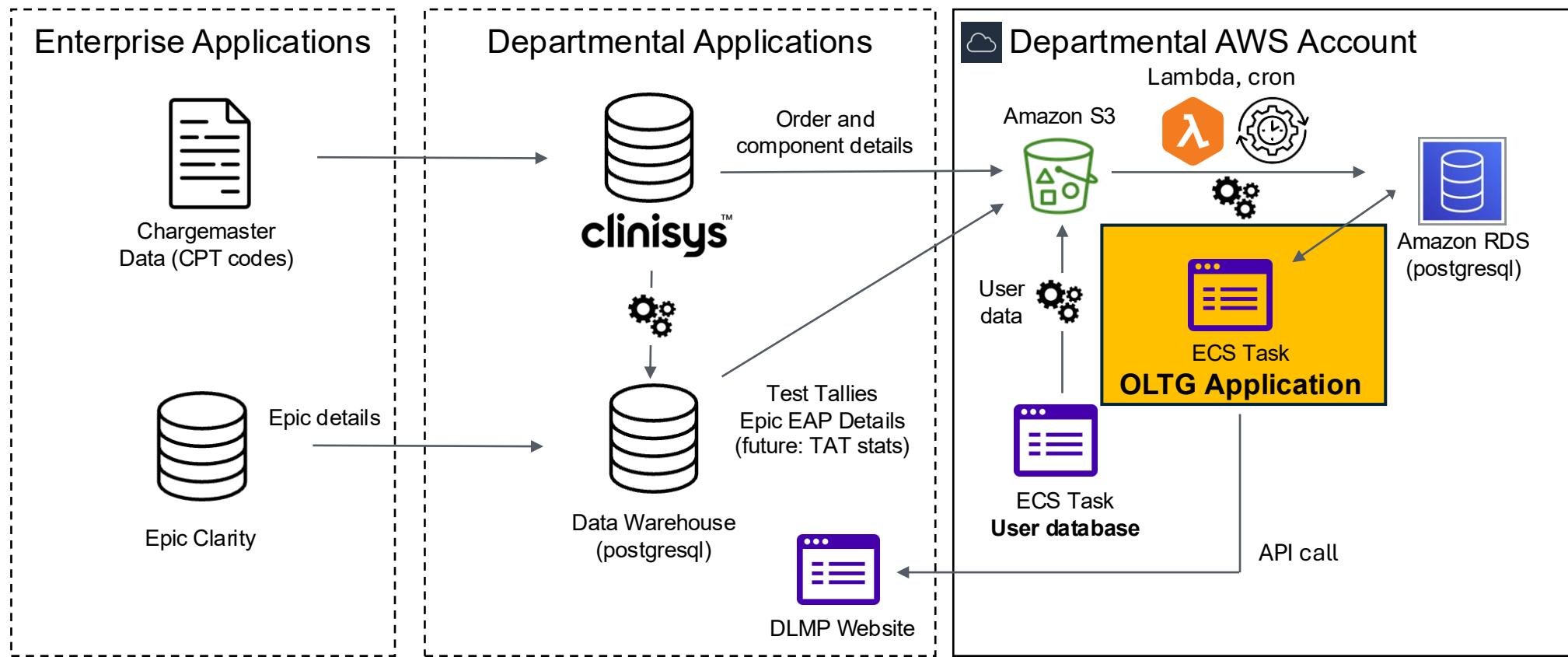
# Implementation

# Language and stack

- Back end
  - Python
  - Flask web framework
  - Postgresql database
- Front end
  - Bootstrap 5 CSS
  - HTMX
  - Sprinkles of vanilla javascript
- Hosting
  - AWS ECS (Elastic Container Service), RDS (database), S3 (file storage)
  - AWS Cognito integration with enterprise SSO (SAML2)



# OLTG System Architecture

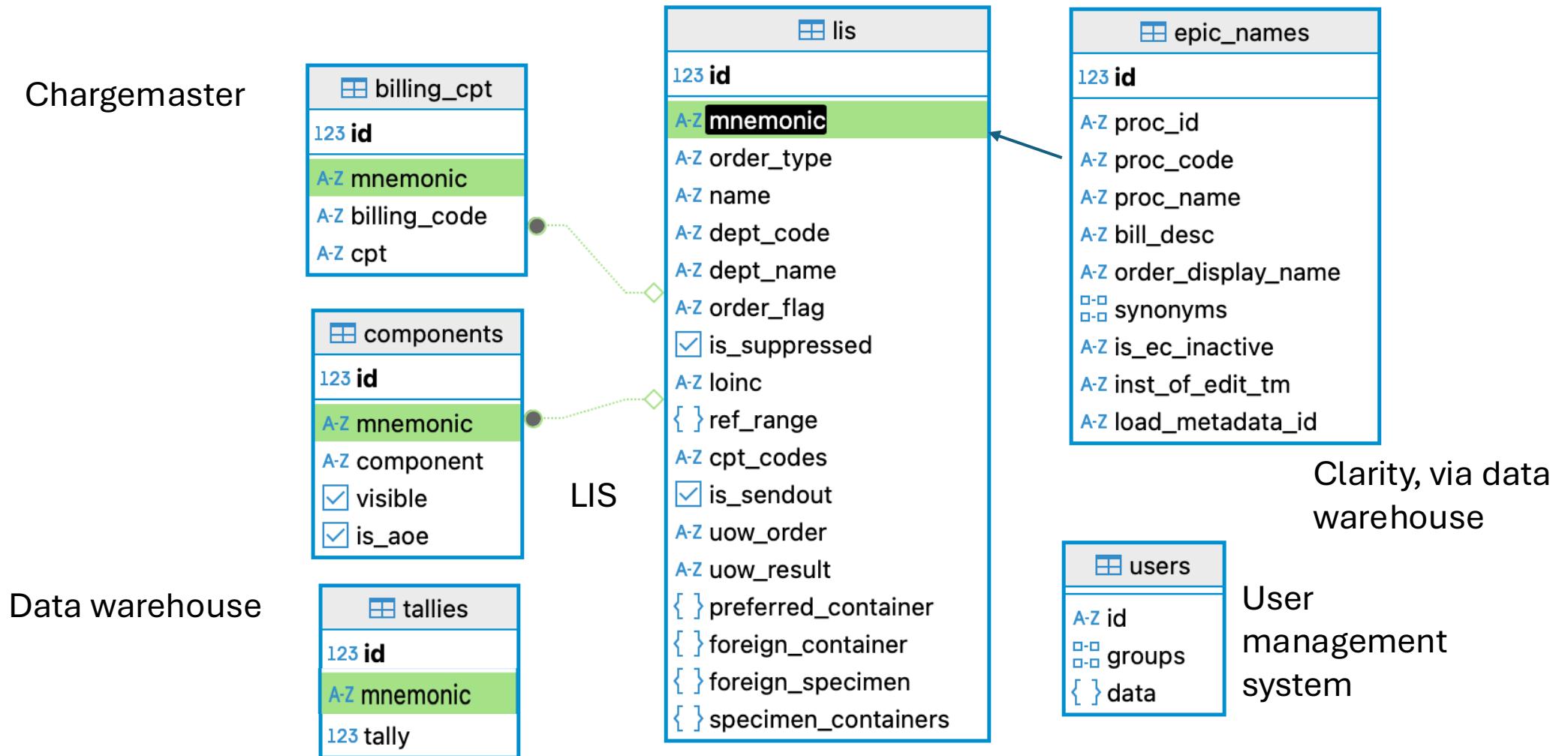


Initially on local infrastructure

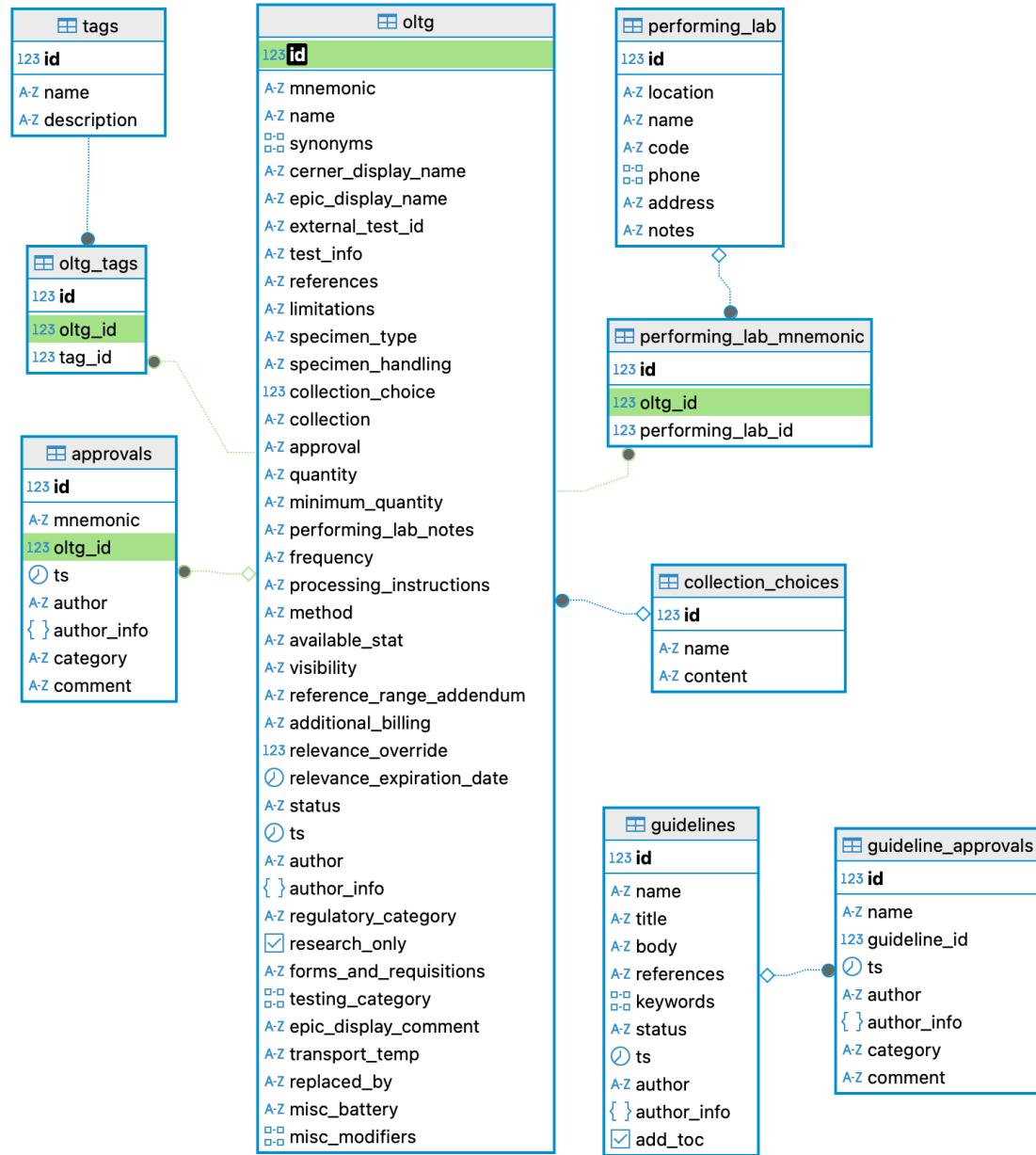
First departmental app migrated to AWS 2018

Move to AWS ECS stack 2022

# Data imported from external sources of truth



# Manually maintained schema



# Our menu extends beyond the LIS

- “Defined” tests
  - correspond to batteries and components defined in the LIS
  - identified by an alphanumeric code
  - May be in-house or sendout
- “Numbered” tests
  - no corresponding record in LIS
  - numeric code (by convention)
  - “undefined” sendouts
  - Portions of the AP catalog
- Guidelines
  - Free-form content
  - Can be linked to one or more test records

# Guideline pages provide unstructured content



Department Home  
Licenses &  
Accreditation  
Specialty Testing  
Genetics & Solid  
Tumors  
Molecular  
Hematopathology  
Flow Cytometry  
Immunology  
Molecular  
Microbiology  
Red Cell Disorders  
Virology  
Specimen Collection  
Critical Values  
Notifiable Conditions

Staff Links

Staff Only Test Guide

## Specialty Testing in Immunology

The Clinical Immunology Laboratory at the University of Washington is a CLIA-certified and CAP-accredited laboratory with more than 40 years of experience performing both routine and esoteric serologic testing. The laboratory is overseen by two board-certified clinical pathologists and two board-certified rheumatologists, who also provide clinical interpretation of test results. The laboratory is staffed by highly trained Medical Laboratory Scientists that are credentialed by the American Society for Clinical Pathology. The laboratory performs a wide range of assays to aid in the diagnosis, management, and monitoring of problems associated with immunological disorders.

### Detection of Anti-Merkel Cell Polyomavirus Antibodies

We perform a multiplexed immunoassay that detects and quantifies Merkel cell polyomavirus small T (SmT) oncoprotein antibodies. SmT antibodies are present in the blood of 50% of patients when they have clinically detectable Merkel cell carcinoma (MCC). In patients who make oncoprotein antibodies, titers are expected to decrease significantly within 3 months of successful treatment of MCC. A significant rise in titer or stabilization above 2000 STU may be associated with persistent or recurrent MCC. Select the test below to learn more.

- [Anti Merkel Cell Panel \[AMERK\]](#)

### Monoclonal Gammopathy Diagnosis and Monitoring

We offer serum and urine gel electrophoresis and immunofixation to detect, monitor, and quantitate monoclonal gammopathies. We also can perform an immunoshift assay to remove the interference from the therapeutic monoclonal antibody daratumumab when it comigrates with a patient's monoclonal component. Additionally, we offer testing for serum free light chains, total IgA, total IgM, total IgG, and blood/serum/plasma viscosity. Select a test type below to learn more.

- [Protein Electrophoresis Reflexive Panel \[ELPP\]](#)
- [Myeloma, Minimal Residual Protein Detection Panel \[ELPMCP\]](#)
- [Protein Electrophoresis Reflexive Panel, 24hr Urine \[UELPP\]](#)
- [Free Light Chains \[FLC\]](#)
- [Immunoglobulin G \[IGG\]](#)
- [Immunoglobulin A \[IGA\]](#)
- [Immunoglobulin M \[IGM\]](#)
- [Viscosity, Whole Blood \[WBVSG\]](#)
- [Viscosity, Plasma \[PLVISG\]](#)
- [Viscosity, Serum \[SRVISG\]](#)

### Autoimmune Testing

## Autoimmune Encephalitis Testing Recommendations

### Autoimmune encephalitis

Acute and subacute encephalitis are a debilitating group of inflammatory disorders of the brain with a complex differential diagnosis. They often develop as a rapidly progressive encephalopathy, usually in less than 6 weeks, with memory deficits or altered mental status. In the past 10 years, an increasing number of non-infectious, mostly autoimmune, encephalitis cases have been identified. Termed "autoimmune encephalitis", these conditions have a wide variety of clinical manifestations including behavioral and psychiatric symptoms, autonomic disturbances, movement disorders and seizures.

Within the autoimmune encephalitis category, certain subcategories have been associated with specific antibodies, although identification of the specific antibody is not a requirement for diagnosis.

Conventional neurological evaluation and standard diagnostic tests (MRI, CSF, EEG studies) prevail in the initial assessment of autoimmune encephalitis. The presence of CSF pleocytosis (>5 cells per mm<sup>3</sup>) can also lend support to the diagnosis. Per most recent guidelines, this must be coupled with exclusion of other causes (i.e. toxicology, metabolic, infectious) for a diagnosis of autoimmune encephalitis to be made. The preliminary diagnosis and decision for initiating treatment of autoimmune encephalitis cases are often not dependent on antibody status. The detection of specific autoantibodies aids in the establishment of a definitive diagnosis of autoimmune encephalitis (versus "possible" or "probable" categories).

### Tests available

The University of Washington Laboratory Formulary Committee in combination with the Department of Neurology has recommended starting with focused testing strategies (i.e. specific antibodies) if considering these diagnoses.

[NMDA Receptor IgG Antibody with Reflex, CSF \(Sendout\) \[RCNMDA\]](#) is the preferred first-line test for autoimmune encephalitis.

The most common (40-60%) of these disorders is NMDA-receptor autoimmune encephalitis. Anti-NMDA receptor encephalitis is associated with CSF IgG antibodies against the GluN1 subunits of the glutamate NMDA receptor. The disease predominantly affects young individuals (95% younger than 45 years) with a female sex predominance of 4:1. Approximately half of women older than 18 years had an underlying tumor, usually an ovarian teratoma.

[NMDA Receptor IgG Antibody with Reflex, Serum \(Sendout\) \[RNMDAG\]](#) is offered if CSF is unavailable. Serum testing for NMDA-receptor antibodies can have clinical false positives. CSF testing is preferred over serum.

Search

myeloma

within other orders

## Guidelines

### Guidelines and Recommendations

Specialty Testing in Immunology

Thoracic Oncology Reflex (THOR) Panel

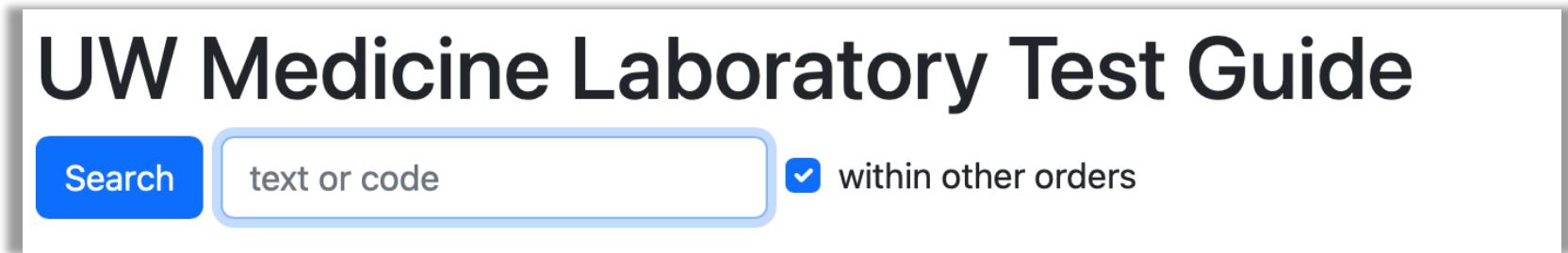
12 tests matching query "myeloma"

Code	Name	Specimen
ELPP	Protein Electrophoresis Reflexive Panel	Blood
FLC	Free Light Chains	Serum
IFIX	Immunofixation	Blood
ELPMCP	Myeloma, Minimal Residual Protein Detection Panel	Serum
UELPP	Protein Electrophoresis Reflexive Panel, 24hr Urine	Urine
UELPPR	Protein Electrophoresis Reflexive Panel, Random Urine	Urine
UIFXGR	Immunofixation, Random Urine	Urine
UIFIXG	Immunofixation, Urine	Urine
DASHFT	Daratumumab Specific Immunofixation	Serum
423	Neoplasia IFISH [UWMC Cytogenetics and Genomics]	Bone Core, Bone Marrow, Cerebral Spinal Fluid
543	Neoplasia G-banded Chromosome Analysis and Karyotyping [UWMC Cytogenetics and Genomics]	Bone Core, Bone Marrow, Cerebrospinal Fluid
IFIXNR	Immunofixation, No MD Review	Blood

## “Numbered” mnemonics

# Search fields

- Order Name
- Order code (mnemonic)
- External test ID (for sendouts)
- Synonyms
- LOINC
- CPT
- Chargemaster billing codes
- UW client interface order and result codes





# UW Medicine Laboratory Test Guide

Search

cbc

 within other orders

## Guidelines and Recommendations

### Red Cell Disorders Laboratory

32 tests matching query "cbc"

Code	Name
CBD	Complete Blood Count w/Differential
CBC	Complete Blood Count
CBANC	CBC w/absolute Neutrophil
TRAUM6	Trauma Panel
LVOPD1	Liver Transplant, Outpatient Panel with Differential
LVPO6	Liver Transplant Post_Op Panel 6
ESP3	Emergency Stroke Panel
LUPOX1	Lung Transplant, Post-Op Extended Panel
LVLTF2	Liver transplant, Long Term Follow-up
LVOPP1	Liver Transplant, Outpatient Panel
CBCT	CBC, T Cell Subsets
HLPRS	Heart/ Lung Transplant (Pre): Recipient - Stat
TRAUP6	Trauma Panel, Pediatric
PEP	Post Exposure Prophylaxis
TR6EHP	Trauma Hemorrhage Panel
CBCDT	CBC, Differential, Smear Evaluation and T Cell Subsets
KBP1	Kidney Transplant, Basic Panel 1
PPRE1	Pancreas Transplant, Pre Recipient Panel 1
HBTHLI	Hb Disorder Thalassemia Reflex Pnl w/CBC
HPO	Heart Transplant, Post_Op Procedure Panel
HPOC1	Heart Transplant (Post_Op Clinic ) Panel 1
HPOCO	Heart Transplant, Post_Op Biopsy Panel
IOSHCT	Intraosseous Hematocrit and Hemoglobin
IPO	Intestine Transplant, Post_Op Panel

Department Home

Licenses &amp; Accreditation

Specialty Testing

Genetics &amp; Solid Tumors

Molecular Hematopathology

Flow Cytometry

Immunology

Molecular Microbiology

Red Cell Disorders

Virology

Specimen Collection

Critical Values

Notifiable Conditions

## Staff Links

### Staff Only Test Guide

Code	Name
CBD	Complete Blood Count w/Differential
CBC	Complete Blood Count
CBANC	CBC w/absolute Neutrophil
TRAUM6	Trauma Panel
LVOPD1	Liver Transplant, Outpatient Panel with Differential
LVPO6	Liver Transplant Post_Op Panel 6
ESP3	Emergency Stroke Panel
LUPOX1	Lung Transplant, Post-Op Extended Panel
LVLTF2	Liver transplant, Long Term Follow-up
LVOPP1	Liver Transplant, Outpatient Panel
CBCT	CBC, T Cell Subsets
HLPRS	Heart/ Lung Transplant (Pre): Recipient - Stat
TRAUP6	Trauma Panel, Pediatric
PEP	Post Exposure Prophylaxis
TR6EHP	Trauma Hemorrhage Panel
CBCDT	CBC, Differential, Smear Evaluation and T Cell Subsets
KBP1	Kidney Transplant, Basic Panel 1
PPRE1	Pancreas Transplant, Pre Recipient Panel 1
HBTHLI	Hb Disorder Thalassemia Reflex Pnl w/CBC
HPO	Heart Transplant, Post_Op Procedure Panel
HPOC1	Heart Transplant (Post_Op Clinic ) Panel 1
HPOCO	Heart Transplant, Post_Op Biopsy Panel
IOSHCT	Intraosseous Hematocrit and Hemoglobin
IPO	Intestine Transplant, Post_Op Panel



# UW Medicine Laboratory Test Guide

Search

cbc

 within other ordersSearch as staff  Show all codes

## Guidelines and Recommendations

### Red Cell Disorders Laboratory

143 tests matching query "cbc"

Code	Name
CBD	Complete Blood Count w/Differential
CBC	Complete Blood Count
CBANC	CBC w/absolute Neutrophil
TRAUM6	Trauma Panel
LVOPD1	Liver Transplant, Outpatient Panel with Differential
PRIMH	Primate Center Hematology Panel [Orders from Primate Center ONLY]
LVPO6	Liver Transplant Post_Op Panel 6
ESP3	Emergency Stroke Panel
LUPOX1	Lung Transplant, Post-Op Extended Panel
LVLTF2	Liver transplant, Long Term Follow-up
CBCEHP	CBC Hemorrhage Panel
LVOPP1	Liver Transplant, Outpatient Panel
CBCT	CBC, T Cell Subsets
HLPRS	Heart/ Lung Transplant (Pre): Recipient - Stat
TRAUP6	Trauma Panel, Pediatric
CR1004	CR1004_ACTU
PEP	Post Exposure Prophylaxis
VE86	VEU Study Panel 86
TR6EHP	Trauma Hemorrhage Panel
CR5279	Research Corey Panel 5279
VE77	VEU Study Panel 77
CBCDT	CBC, Differential, Smear Evaluation and T Cell Subsets

# Search results are sorted by order volume

Search

cbc



within other orders

## Guidelines and Recommendations

Red Cell Disorders Laboratory

32 tests matching query "cbc"

Tally	Code	Name	Specimen
217761	CBD	Complete Blood Count w/Differential	Blood
144164	CBC	Complete Blood Count	Blood
23891	CBANC	CBC w/absolute Neutrophil	Blood
3321	TRAUM6	Trauma Panel	Blood
2423	LVOPD1	Liver Transplant, Outpatient Panel with Differential	Blood
863	LVPO6	Liver Transplant Post_Op Panel 6	Blood
727	ESP3	Emergency Stroke Panel	Citrated Whole Blood
582	LUPOX1	Lung Transplant, Post-Op Extended Panel	Blood
135	LVLTF2	Liver transplant, Long Term Follow-up	Blood
62	LVOPP1	Liver Transplant, Outpatient Panel	Blood

# Content management

# CAP requirements for content management

## COM.10000 Policy and Procedure Manual

- All Common (edition date 2024-12-26)
- Phase: 2
- Policy/procedure: yes

### Requirement

A complete policy and procedure manual is available in a paper-based, electronic, or web-based format at the workbench or in the work area.

► expand

## GEN.20375 Document Control

- Laboratory General (edition date 2024-12-26)
- Phase: 2
- Policy/procedure: yes

### Requirement

The laboratory has a document control system to manage policies, procedures, and forms that are subject to CAP accreditation.

► expand

## GEN.40050 Distribution of Specimen Collection Manuals

- Laboratory General (edition date 2024-12-26)
- Phase: 1
- Policy/procedure: no

### Requirement

The specimen collection manual is available at all locations where specimens are collected.

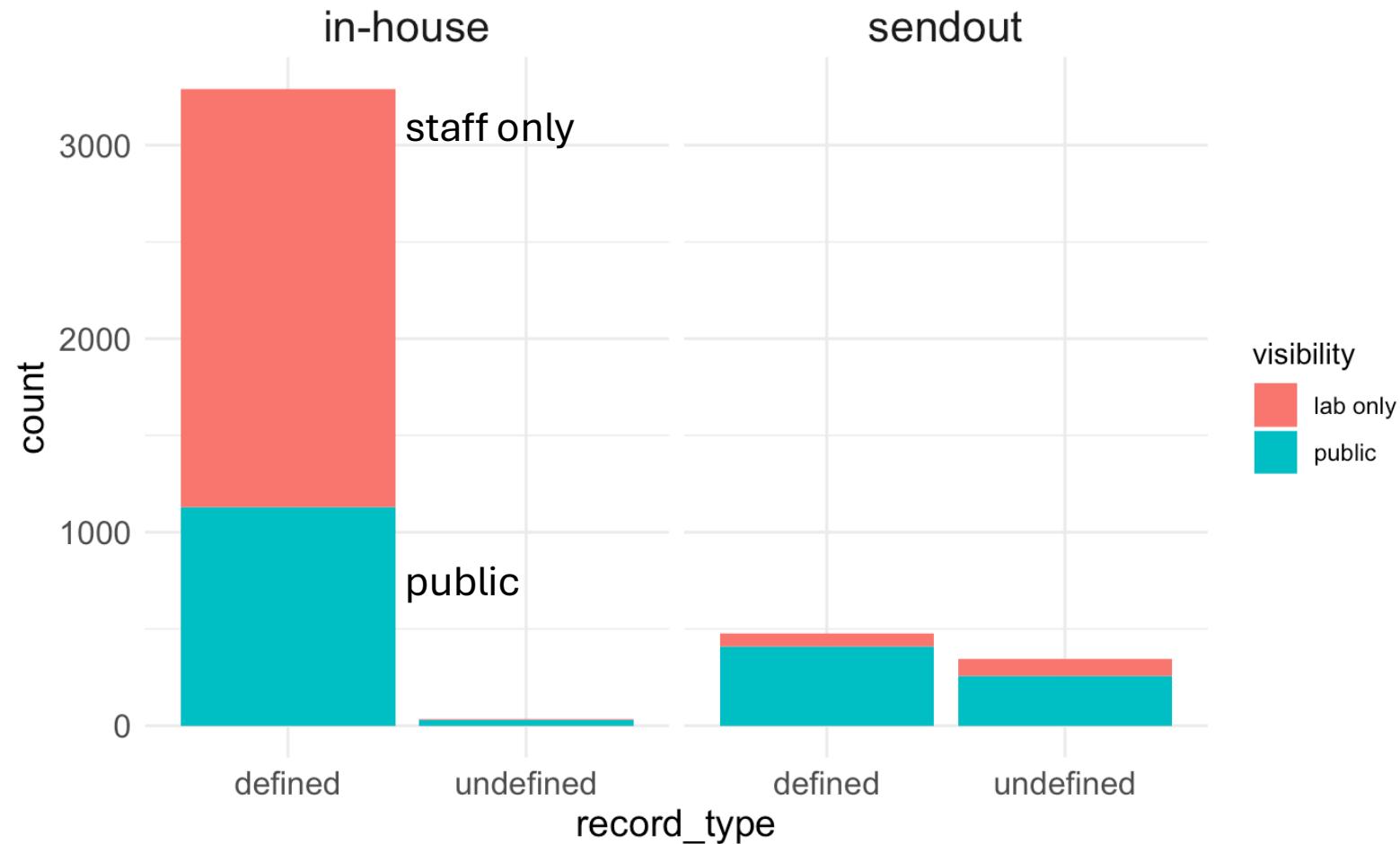
▼ expand

### Note

Locations include areas within the hospital (phlebotomy draw stations, nursing stations, operating room, emergency room, endoscopy and interventional radiology, and out-patient areas) and to areas outside of the hospital (eg, physician offices or other laboratories).

It is acceptable for this information to be electronically available to users rather than in print format; there is no requirement for a paper-based specimen collection manual. Electronic manuals have the advantage of more accurately reflecting current requirements.

# Mo tests, mo problems



(limited to active, orderable tests)

# Content management

- Data aggregation from multiple sources
- “Document Control”
  - Authorship, approval, publication workflows
  - Periodic review, content audits
- Structured data
  - Collection instructions
  - Performing labs
  - Tags

# Content management actions

## UW OncoPlex Cancer Gene Panel

Version 28334 - This is the currently published version - last saved Sep 30, 2024 at 17:46 by greenwj

[view other version ▾](#)

[compare other version ▾](#)

[edit](#)

[edit pre-analytical data](#)

[publish](#)

[delete](#)

[approve, review or comment](#)

[tabbed view](#)

### General Information

**Lab Name** UW OncoPlex Cancer Gene Panel

**Lab Code** OPX

**Epic Name** Order using "UW Genetics and Solid Tumor Test Request"

See [tip sheet](#) for more information (internal link).

# Comparison of versions

**UW OncoPlex Cancer Gene Panel**

Version 28334 - This is the current version.

[view other version](#) [compare other version](#) [edit](#) [edit pre-analytical data](#)

**General Information**

archive: Dec 18, 2017 at 02:04 by unknown (4441)  
draft: Jan 22, 2019 at 08:45 by lwilliam (8972)  
draft: Feb 14, 2019 at 13:09 by asmcfadd (9083)  
archive: Sep 06, 2019 at 09:21 by cpritch (10655)  
archive: Jun 26, 2020 at 11:20 by lwilliam (13942)  
draft: Jul 16, 2020 at 09:22 by lwilliam (14140)  
archive: Jul 16, 2020 at 10:20 by lwilliam (14146)  
archive: Oct 01, 2020 at 16:14 by lwilliam (14787)  
archive: Jan 12, 2022 at 12:30 by konnick (17997)  
archive: Mar 21, 2022 at 19:57 by rkwon2 (18467)  
archive: Mar 22, 2022 at 18:08 by rkwon2 (18493)  
archive: Apr 05, 2022 at 18:08 by rkwon2 (18597)  
archive: Apr 19, 2022 at 13:25 by rgaulin (18670)  
archive: May 31, 2022 at 14:03 by tinalock (18964)  
archive: Nov 01, 2023 at 22:24 by ngh2 (23980)  
archive: Dec 01, 2023 at 15:31 by nkruumm (24414)  
archive: Jun 04, 2024 at 11:40 by tinalock (26793)  
archive: Jun 12, 2024 at 11:12 by tinalock (26850)   
★ published: Sep 30, 2024 at 17:46 by greenwj (28334)

**Synonyms**: ADCA1A, ADCA1Z, ADCC5, ADL1, ADL2, ADRAKAS1, ASXL2, ATM, ATR, ATRX, AURKA, AURKB, AXIN2, A

## OPX version 26850 (archive) vs 28334 (published)

version 26850 (archive)	difference	version 28334 (published)
	<b>frequency</b>	
Results within 4-6 weeks, from sample receipt in laboratory.	Typical Turnaround: 4 weeks *Turn around times may vary based on factors such as tissue acquisition and insurance preauthorization.  Results within 4-6 weeks, from sample receipt in laboratory.	Typical Turnaround: 4 weeks *Turn around times may vary based on factors such as tissue acquisition and insurance preauthorization.
	<b>ts</b>	2024-10-01 00:46:18.487503
	<b>author</b>	greenwj tinalock
tinalock		greenwj

# Modification and approval

## Drafts

The most recent drafts saved since the most recently published version are shown below.

## OLTG entries

- The **most recent draft** for each page is listed below, in addition to any drafts with approvals or comments.
- Select one or more checkboxes and submit using the button below to publish the **most recent draft** version of each.

**Publish Selected**

Filter by Performing Lab

Approved Only

Microbiology - HMC [10]

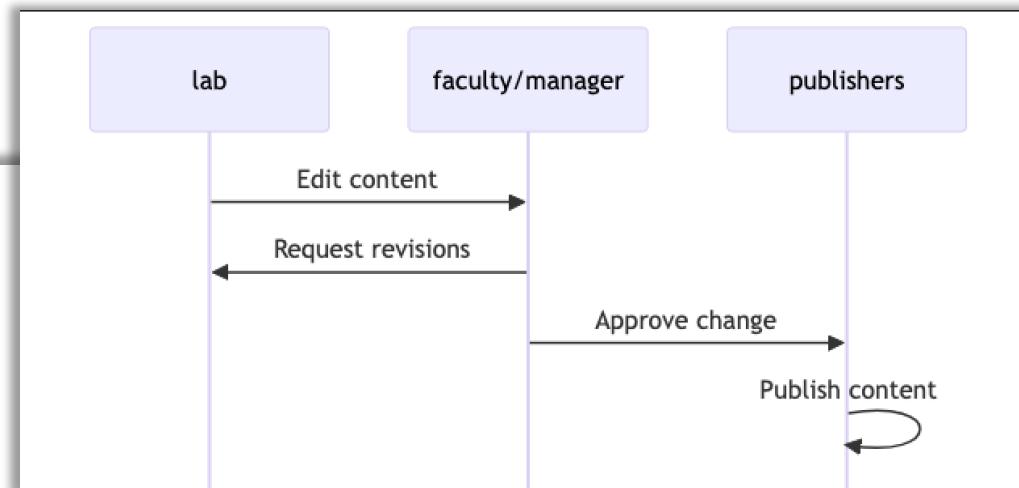
- NCVRPD | SARS CoV 2 (COVID 19) Qualitative Rapid PCR (ED & Inpatients only)** | Main Lab - UW-NW, Microbiology - UW-MT, Fred Hutch Alliance Lab - FHCC, Microbiology - HMC
  - Version last edited Mar 20, 2025 at 16:31 by **Sarah J Jensen** (sjjensen) manager in micro
- MTBP | Respiratory TB PCR** | Microbiology - HMC
  - Version last edited Apr 21, 2025 at 09:57 by **Anju Thomas** (anjuk) mls2 in central\_admin
- MTBPC | Respiratory MTB Complex PCR** | Microbiology - HMC
  - Version last edited Apr 21, 2025 at 11:11 by **Anju Thomas** (anjuk) mls2 in central\_admin
- ✓ Apr 22, 2025 at 11:36 Ferric C Fang** (fcfang) faculty in micro
  - Comment: None
- RIFPC | (no title)** | Microbiology - HMC
  - Version last edited Apr 21, 2025 at 12:18 by **Anju Thomas** (anjuk) mls2 in central\_admin
- ✓ Apr 22, 2025 at 11:37 Ferric C Fang** (fcfang) faculty in micro
  - Comment: None
- SKINF | Skin, Hair, Nail or Vesicle Fungal Culture with KOH Exam** | Microbiology - HMC, Microbiology - UW-MT
  - Version last edited Apr 24, 2025 at 11:58 by **Lynda N Bui** (lyndabui) mls\_lead in micro

## Guidelines

Approved Only

**blood\_collection\_tubes** | Blood Collection Tubes

- Version 953 last edited Apr 02, 2025 at 09:46 by **Anju Thomas** (anjuk) mls2 in central\_admin



# Approvals

## UW OncoPlex Cancer Gene Panel

Version 28334 - This is the currently published version - last saved Sep 30, 2024 at 17:46 by greenwj

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[General Information](#) [Interpretation](#) [Ordering & Collection](#) [Processing](#) [Performance](#) [Billing & Coding](#) [Staff Only](#) [Approvals](#)

### Approvals

revision (status)	date	author	role	divisions	category	comment
8972 (draft)	Jan 22, 2019 at 15:57	Lara G Williamson (lwilliam)	compstaff	central_admin, informatics	ⓘ	LW: my reviews are complete.
9083 (draft)	Feb 25, 2019 at 10:25	Andrew S McFaddin (asmcfadd)	genetic_counselor	genetics	ⓘ	Edits complete and ready for director review
10655 (archive)	Sep 06, 2019 at 09:22	Colin C Pritchard (cpritch)	faculty	genetics	✓	
14140 (draft)	Jul 16, 2020 at 09:22	Lara G Williamson (lwilliam)	compstaff	central_admin, informatics	ⓘ	Rewrote bill-only table file's hyperlink to file in MediaLab.
14146 (archive)	Jul 16, 2020 at 10:20	Lara G Williamson (lwilliam)	compstaff	central_admin, informatics	ⓘ	Converted inline text instances of "UW-OncoPlex" with UW-OncoPlex™, as approved by email from genetic counselor Angela Jacobson
14787 (archive)	Oct 01, 2020 at 16:14	Lara G Williamson (lwilliam)	compstaff	central_admin, informatics	ⓘ	Added GYNPTH, Gynecological Oncology Pathway to synonyms.
17997 (archive)	Jan 12, 2022 at 12:30	Eric Q Konnick (konnick)	faculty	genetics	✓	
17997 (archive)	Mar 02, 2022 at 15:18	Christina M Lockwood (Tina) (tinalock)	faculty	genetics	✓	
18467 (archive)	Mar 22, 2022 at 11:20	Eric Q Konnick (konnick)	faculty	genetics	✓	
18670 (archive)	Apr 19, 2022 at 13:26	Rebecca S Gaulin (rgaulin)	manager	genetics	✓	updated gene names: ZFTA/c11orf95 , H3-3A (aka H3F3A), H3-3B (aka H3F3B), and H3C2 (aka HIST1H3B).
18670 (archive)	May 03, 2022 at 14:39	Christina M Lockwood (Tina) (tinalock)	faculty	genetics	✓	
18964 (archive)	May 31, 2022 at 14:03	Christina M Lockwood (Tina) (tinalock)	faculty	genetics	✓	
26793 (archive)	Jun 04, 2024 at 11:40	Christina M Lockwood (Tina) (tinalock)	faculty	genetics	✓	
26850 (archive)	Jun 12, 2024 at 11:12	Christina M Lockwood (Tina) (tinalock)	faculty	genetics	✓	Updated nomenclature
★ 28334 (published)	Oct 09, 2024 at 16:15	Christina M Lockwood (Tina) (tinalock)	faculty	genetics	✓	Updated TAT

## Review Tests

This page may be used to identify records for tests that are in need of review. One or more departments, testing categories, and visibility can be selected. To make a selection, place the mouse over the selection, press and hold the Ctrl key then click the left mouse button (and release).

### Visibility:

external  
internal  
hidden  
obsolete

## Visibility

The Visibility field is maintained by CAST. Each test has only one visibility. The meanings are as follows:

- external - visible to the public
- internal - visible only to staff
- hidden - not normally searchable except by OLTG admins and CAST
- obsolete - tests that are not available.

Only Numbered Tests:

The "Numbered" Tests are defined in the OLTG only and are maintained by CAST. A numbered test has a mnemonic consisting entirely of the digits 0-9.

**Choose one or more of the options below: the search will return results meeting any of the selected criteria.**

Sunquest Department:

Ambulatory Lab Testing  
Blood Bank  
Blood Bank -OLD  
Central Lab Virology

## Lab department

The departments names and corresponding codes originate from Sunquest. The Sunquest 'data dictionary' specifies these in LBI(5) and calls these the department name and the laboratory department code, respectively.

Testing Category:

Chemistry  
Coagulation  
Genetics  
Genetics (Biochemical)

## Testing category

# Generate a list of tests by category for periodic review

Status	Mnemonic	Name	Dept Name	Lab Name	Category	External Test ID	Reviewed	Reviewer
current	AMBPCT	Acanthamoeba and Balamuthia species PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Phlebotomy		2025-03-26	Stephen J Salipante
current	ASEQID	AFB ID by Sequence Analysis	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2024-10-11	Stephen J Salipante
current	ASPDNA	Aspergillus fumigatus DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2025-03-26	Stephen J Salipante
elapsed	BCTDNA	Bacterial PCR reflex NGS	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2025-03-26	Stephen J Salipante
current	BRTDNA	Bartonella DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-26	Stephen J Salipante
current	BSEQID	Bacteria ID by Sequence Analysis	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2024-10-11	Stephen J Salipante
current	BWGSID	Bacterial ID by Whole Genome Sequencing	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2024-09-19	Stephen J Salipante
current	COCDNA	Coccidioides DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Immunology		2025-03-26	Stephen J Salipante
current	CRYDNA	Cryptococcus DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-26	Stephen J Salipante
current	ENBDNA	Enterobacteriales DNA Detection	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2025-03-26	Stephen J Salipante
current	FUNDNA	Fungal PCR reflex NGS	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-27	Stephen J Salipante
current	HISDNA	Histoplasma DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-26	Stephen J Salipante
current	LEGDNA	Legionella DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-26	Stephen J Salipante
current	LSDNA	Leishmania species DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-26	Stephen J Salipante
current	MAVDNA	Mycobacterium avium complex DNA Detection	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-27	Stephen J Salipante
current	MCHDNA	Mycobacterium chimaera DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-27	Stephen J Salipante
current	MECPCR	mecA by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2024-09-19	Stephen J Salipante
current	MPLDNA	Mycoplasma and Ureaplasma DNA Detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-26	Stephen J Salipante
current	MSEQID	Mold ID by Sequence Analysis	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2024-10-11	Stephen J Salipante
current	MTBWGR	MTB Resistance by Whole Genome Sequencing	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2024-09-19	Stephen J Salipante
current	MUCDNA	Mucorales DNA detection by PCR	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-26	Stephen J Salipante
current	NGS16S	Bacterial detection by 16S NGS	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2025-03-27	Stephen J Salipante
elapsed	NGSENB	Enterobacteriales DNA Detection by Next Gen Seq	Micro Molecular Diag	Microbiology, Molecular Diagnostics	Microbiology		2022-11-22	Stephen J Salipante
elapsed	NGSHSP	hsp65 DNA Detection by Next Gen Seq	Micro Molecular Diag	Microbiology, Molecular Diagnostics			2022-11-23	Stephen J Salipante

Tests requiring review are highlighted

UI for editing  
includes  
detailed inline  
instructions

[Save as draft](#)

[Save and Publish](#)

[Cancel](#)

## Quantity

0.5 mL serum

## Minimum Quantity

0.4 mL serum

## Transport Temp

Refrigerated

## Specimen Handling

B

I

T<sub>x</sub>

**Outside Laboratories:** Centrifuge sample and transfer serum to a separate plastic vial. Refrigerate serum.

**Stability:** Refrigerated (preferred): 10 days; Frozen: 30 days; Ambient: Unacceptable.

**Reject Due To:** Gross hemolysis, gross lipemia, heat-inactivated specimen.

press shift+return to enter line break

## Quantity

## Free text

**quantity field in editing view = Quantity field in public view (same in both views).**

## Minimum Quantity

## Free text.

Field shows in *Ordering & Collection* section.  
***minimum\_quantity*** field in editing view =  
***Minimum*** field in public view.

## Transport Temp

**Transport temperature for outside clients.** This field is used to provide instructions to reference lab clients using the Atlas web portal and is not displayed in the public OLTG.

## Specimen Handling

Information for the person sending specimen.  
Instructions for orders, transport, etc (text,  
unlimited).

**specimen\_handling** field in editing view =  
**Handling Instructions** field in public view.

# Reducing reliance on free-text content

Home | UW Lab Medicine & Pathology Staff Only

text or code

Search

# Basic Metabolic Panel

[single page view](#)

[General Information](#) [Interpretation](#) [Ordering & Collection](#) [Processing](#) [Performance](#) [Billing & Coding](#)

## Ordering & Collection

**Specimen Type** Blood

**Collection** HMC and UW-MT Onsite Locations

- Preferred: 4 mL blood in LIME GREEN PST tube
- Also Acceptable: 4 mL blood in ORANGE RST, GOLD SST, RED TOP or GREEN TOP (Lithium Heparin)
- Pediatric: 1 Full LIME GREEN MICROTAINER
- Unacceptable: GRAY TOP or GREEN TOP (Sodium Heparin)

**Offsite Clinic or Other Locations**

- Preferred: 4 mL blood in GOLD SST tube
- Also Acceptable: 4 mL blood in ORANGE RST or LIME GREEN PST, RED TOP or GREEN TOP (Lithium Heparin)
- Pediatric: 1 Full LIME GREEN MICROTAINER
- Unacceptable: GRAY TOP or GREEN TOP (Sodium Heparin)

**Handling Instructions** Note: This battery cannot be added onto a specimen that was received more than 8 hours ago since it contains a CO2 test.

**Quantity** **requested:** 0.5 mL plasma/serum  
**minimum:** 0.3 mL plasma/serum

20842	NAK	Sodium & Potassium	Chemistry, Automated Panels	<p><b>HMC and UW-MT Onsite Locations:</b></p> <p><b>Preferred:</b> 4 mL blood in LIME GREEN PST tube</p> <p><b>Also Acceptable:</b> 4 mL blood in ORANGE RST, GOLD SST, RED TOP or GREEN TOP tube</p> <p><b>Pediatric:</b> 1 Full LIME GREEN MICROTAINER</p> <p><b>Unacceptable:</b> GRAY TOP or GREEN TOP (Sodium Heparin)</p> <p><b>Offsite Clinic or Other Locations:</b></p> <p><b>Preferred:</b> 4 mL blood in GOLD SST tube</p> <p><b>Also Acceptable:</b> 4 mL blood in ORANGE RST or LIME GREEN PST, RED TOP or GREEN TOP tube</p> <p><b>Pediatric:</b> 1 Full LIME GREEN MICROTAINER</p> <p><b>Unacceptable:</b> GRAY TOP or GREEN TOP (Sodium Heparin)</p>
23331	BMP	Basic Metabolic Panel	Chemistry, Automated Panels	<p><b>HMC and UW-MT Onsite Locations</b></p> <ul style="list-style-type: none"> <li>• <b>Preferred:</b> 4 mL blood in LIME GREEN PST tube</li> <li>• <b>Also Acceptable:</b> 4 mL blood in ORANGE RST, GOLD SST, RED TOP or GREEN TOP (Lithium Heparin)</li> <li>• <b>Pediatric:</b> 1 Full LIME GREEN MICROTAINER</li> <li>• <b>Unacceptable:</b> GRAY TOP or GREEN TOP (Sodium Heparin)</li> </ul> <p><b>Offsite Clinic or Other Locations</b></p> <ul style="list-style-type: none"> <li>• <b>Preferred:</b> 4 mL blood in GOLD SST tube</li> <li>• <b>Also Acceptable:</b> 4 mL blood in ORANGE RST or LIME GREEN PST, RED TOP or GREEN TOP (Lithium Heparin)</li> <li>• <b>Pediatric:</b> 1 Full LIME GREEN MICROTAINER</li> <li>• <b>Unacceptable:</b> GRAY TOP or GREEN TOP (Sodium Heparin)</li> </ul>
22535	BMPICR	Basic Metabolic Panel with Reflexive Ionized Calcium	Chemistry, Automated Panels	<p><b>HMC, UW-NW, and UW-MT Onsite Locations:</b></p> <p><b>Preferred:</b> 4 mL blood in LIME GREEN PST tube</p> <p><b>Also Acceptable:</b> 4 mL blood in ORANGE RST, GOLD SST, RED TOP or GREEN TOP (Lithium Heparin) tube</p> <p><b>Pediatric:</b> 1 Full LIME GREEN MICROTAINER</p> <p><b>Unacceptable:</b> GRAY TOP or GREEN TOP (Sodium Heparin)</p> <p><b>Offsite Clinic or Other Locations:</b></p> <p><b>Preferred:</b> 4 mL blood in GOLD SST tube</p> <p><b>Also Acceptable:</b> 4 mL blood in ORANGE RST or LIME GREEN PST, RED TOP or GREEN TOP (Lithium Heparin) tube</p> <p><b>Pediatric:</b> 1 Full LIME GREEN MICROTAINER</p> <p><b>Unacceptable:</b> GRAY TOP or GREEN TOP (Sodium Heparin)</p> <p><b>Note:</b> <i>Microtainer tubes</i> are acceptable for the BMP only. If an Ionized Calcium is reflexively ordered on a sample from a microtainer, the ionized calcium test will be cancelled and credited. See Microtainer section in Processing section below.</p>

# Standardized collection instructions can be shared by tests with similar requirements

## Collection Choices

New Entry

Click links to view the content of each entry

Search...

- [Automated Chemistry, serum or plasma](#)
- [General Genetics](#)
- [General Genetics\\_HD\\_SCA](#)
- [Genetics, cancer tissue, slides or block](#)
- [Genetics gene capture collection](#)
- [GLT, germline testing samples\\_Genetics](#)
- [Molecular Microbiology - direct specimens](#)

### Automated Chemistry, serum or plasma

#### HMC and UWMC Onsite Locations

- **Preferred:** 4 mL blood in LIME GREEN PST tube
- **Also Acceptable:** 4 mL blood in ORANGE RST, GOLD SST, RED TOP or GREEN TOP tube
- **Pediatric:** 1 Full LIME GREEN MICRO
- **Unacceptable:** GRAY TOP or GREEN Heparin)

#### Offsite Clinic or Other Locations

- **Preferred:** 4 mL blood in GOLD SST
- **Also Acceptable:** 4 mL blood in ORA LIME GREEN PST, RED TOP or GREEN
- **Pediatric:** 1 Full LIME GREEN MICRO
- **Unacceptable:** GRAY TOP or GREEN Heparin)

Search...

<a href="#">ALB</a>	Albumin
<a href="#">ALK</a>	Alkaline Phosphatase
<a href="#">ALT</a>	ALT (GPT)

-- no selection --

✓ **Automated Chemistry, serum or plasma**

General Genetics

General Genetics\_HD\_SCA

Genetics, cancer tissue, slides or block

Genetics gene capture collection

GLT, germline testing samples\_Genetics

Molecular Microbiology - direct specimens

Heparin)

# Performing lab database

## Performing Labs

New Performing Lab

Click on name to edit

sendout

<b>id</b>	<b>location name</b>	<b>code</b>	<b>phone</b>	<b>address</b>	<b>notes</b>
15	HMC Sendout				
16	HMC Sendout, Cast				
225	Sendout Adaptive Biotechnologies Laboratory	ADAPTV	888-552-8988	1165 Eastlake Ave E. Seattle, WA 98109	
64	Sendout Adaptive Biotechnologies [OFFLINE]	ADAPT	888-552-8988	1551 Eastlake Ave E. Ste 200 Seattle, WA 98102	Obsolete 10/2023 due to lab closing
187	Sendout Altius Institute for Biomedical Sciences		206-267-1096	2211 Elliott Ave Ste 410 Seattle, WA 98121	Email: info@altius.org
65	Sendout Ambry Genetics	AMBRY	866-262-7943	15 Argonaut Aliso Viejo, CA 92656	
204	Sendout American Red Cross Immunohematology Reference Laboratory	REDCRS	909-859-7410	100 Red Cross Circle Pomona, CA 91768	Fax: 909-859-7718 Email: PomonaRL@redcro
66	Sendout Ariosa Diagnostics, Inc. [OFFLINE]	ARIOSA	855-927-4672	5945 Optical Court San Jose, CA 95138	Now known as BioReference
212	Sendout ARUP forwards to Allermetrix Inc.	ARPALL	800-522-2787	400 Sugartree Lane, Suite 510 Franklin, TN 37064	

### performed\_sendout

- Sendout - Adaptive Biotechnologies Laboratory
- Sendout - Adaptive Biotechnologies [OFFLINE]
- Sendout - Altius Institute for Biomedical Sciences
- Sendout - Ambry Genetics
- Sendout - American Red Cross Immunohematology Reference Laboratory
- Sendout - Ariosa Diagnostics, Inc. [OFFLINE]
- Sendout - ARUP forwards to Allermetrix Inc.
- Sendout - ARUP Forwards to CD Laboratories, Inc. [OFFLINE]
- Sendout - ARUP forwards to Eurofins Viracor
- Sendout - ARUP forwards to NMS Labs
- Sendout - ARUP forwards to Quest Diagnostics Nichols Institute
- Sendout - ARUP forwards to University of Utah Immunodermatology Laboratory
- Sendout - ARUP Inc. at University Hospital
- Sendout - ARUP Laboratories forwards to Quest Diagnostics Infectious Disease
- Sendout - ARUP Laboratories, Inc.
- Sendout - Asuragen, Inc.
- Sendout - Athena Diagnostics
- Sendout - Baylor Miraca Genetics Laboratories, LLC
- Sendout - Billion to One, Inc.
- Sendout - Biochemical Genetics Laboratory, Duke University Medical Center
- Sendout - BloodCenter of Wisconsin Diagnostic Laboratories [OFFLINE]
- Sendout - Bloodworks Northwest
- Sendout - Bloodworks Northwest Central TSL/Immunohematology Reference Laboratory
- Sendout - Bloodworks Northwest Donor Testing Laboratory
- Sendout - Bloodworks Northwest Eastlake Genomics Laboratory

A few features...

# Tags

New Tag

Filter..

id (edit)	name (show mnemonics)	description
7	micro.platerounds-include	Mnemonics to always include in plate rounds app
2	mkrpt.category-exclude_pdf	Prevent messages from being routed to pdf-reports from the 1202 interface
8	mkrpt.category-keep_line_breaks	Do not use (replaced by mkrpt.format-keep_line_breaks)
6	mkrpt.category-molmicro_ngs	Molmicro NGS Tests
4	mkrpt.category-no_trim_pfx	Do not trim a common prefix from component names in mkrpt
9	mkrpt.format-keep_line_breaks	Preserve line breaks in result text. Applies to components.
1	mkrpt.template-genetics_ngs	Use the report_genetics_ngs template in mkrpt
3	mkrpt.template-genetics_other	Use the report_genetics_other template in mkrpt
5	pdfreport.cgat-queue	Queues reports for CGAT distribution

Problem:  
applications  
require arbitrary  
groupers to  
define testing  
categories

```
{  
  "pdfreport.cgat-queue": [  
    "BRCA12",  
    "SGN",  
    "CSQTP",  
    "CSQP",  
    "MEGDX",  
    "COSEQ",  
    "KMU",  
    "BROCOP",  
    "BROCA",  
    "BRCAAJ",  
    "CSQTS"  
  ]  
}
```

“Tags” can be used as groupers for use with external applications

## Tests with tag pdfreport.cgat-queue

Search to select tests to add...

Code	Name	Specimen
<button>remove</button>	BRCA12	BRCA1&2 Analysis
<button>remove</button>	BRCAAJ	BRCA1&2 Ashkenazi Mutations
<button>remove</button>	BROCA	BROCA Cancer Risk Panel
<button>remove</button>	BROCOP	BROCA Paired Tumor Panel
<button>remove</button>	COSEQ	ColoSeq - Lynch and Polyposis Panel
<button>remove</button>	CSQP	ColoSeq Polyposis
<button>remove</button>	CSQTP	ColoSeq Tumor Panel
<button>remove</button>	CSQTS	ColoSeq Tumor Single Gene
<button>remove</button>	KMU	Known Mutation Testing
<button>remove</button>	MEGDX	Megalencephaly Panel
<button>remove</button>	SGN	Single Gene Analysis

# Context-specific processing instructions

- Problem: Many low-volume sendouts are not defined in the LIS. Processing needs very explicit instructions on how to order these. Instructions differ based on specimen type.
- Solution: interactive decision support in the OLTG (ARUP sendouts)

## General Information

<b>Lab Name</b>	ARUP Miscellaneous Refrigerated Test (Sendout)
<b>Lab Code</b>	RARUPR
<b>Epic Name</b>	ARUP Miscellaneous Refrigerated Test (Sendout)
<b>External Test Id</b>	0098556
<b>Description</b>	<b>Test Information:</b> Miscellaneous sendout code for ARUP tests sent at refrigerated temperature. This code cannot be used for allergen testing. <b>Ordering Requirements:</b> Laboratory Medicine Resident (LMR) approval is required unless the test is specifically listed in the online test guide.

**Synonyms** 0098556

Components	Code	Name	Order Type	Notes
	RARURS	Refrigerated Specimen Type, ARUP Miscellaneous	test	
	RARURN	Refrigerated Test Name, ARUP Miscellaneous	test	
	RARURT	Refrigerated Test Code, ARUP Miscellaneous	test	
	RARURR	Refrigerated Result, ARUP Miscellaneous	test	

# Ordering a miscellaneous sendout

## KIT (D816V) Mutation by ddPCR, Quantitative (Sendout)

single page view

General Information

Interpretation

Ordering & Collection

Processing

Performance

Billing & Coding

### Processing

**Receiving Instructions** Refrigerate whole blood or bone marrow specimen.

**Sendouts:**

- Order ARUP Test: **3002956**
- Interfaced: **Yes** [Interface: 602, Department: ARPR]

**Stability:** Refrigerated (preferred): 7 days; Frozen: Unacceptable.

**Unacceptable Conditions:** Plasma, serum, FFPE tissue blocks/slides, or fresh or frozen tissue. Specimens collected in anticoagulants other than EDTA or sodium heparin. Clotted or grossly hemolyzed specimens.

**Misc Sendout**

Select a specimen type (others not allowed):

- LWBRF - LAV WB, REFRIG
- BMRF - BONE MARROW, REFRIG
- GWBRF - NA GREEN TOP, REFRIG

select specimen type

**Misc Sendout** Select a specimen type (others not allowed):

- LWBRF - LAV WB, REFRIG
- BMRF - BONE MARROW, REFRIG
- GWBRF - NA GREEN TOP, REFRIG

**Login:**

<b>Test Code</b>	<b>Modifier</b>	<b>Description</b>
RARUPR	BMRF	BONE MARROW, REFRIG

**Result-at-entry:**

<b>Component</b>	<b>Enter</b>	detailed instructions for order entry
RARURN (Test Name)	 copy	;KIT (D816V) Mutation by ddPCR, Quantitative (Sendout)
RARURS (Specimen Type)	 copy	BNM
RARURT (ARUP Test Code)	 copy	3002956

# Problem: availability during application or network downtime

## COM.10000 Policy and Procedure Manual

- All Common (edition date 2024-12-26)
- Phase: 2
- Policy/procedure: yes

### Requirement

A complete policy and procedure manual is available in a paper-based, electronic, or web-based format at the workbench or in the work area.

NOTE 6: Procedure manuals must be available to laboratory personnel when the electronic versions are inaccessible (eg, during laboratory information system or network downtime); thus, the laboratory must maintain paper copies, electronic copies on CD or other digital media, or have an approved alternative mechanism to access web-based files during network downtimes. All policies and procedures, in either electronic or paper form, must be readily available for review by the inspector at the time of the CAP inspection.

## Staff Links

[Public Test Guide](#)

[Staff Only Search \(preview\)](#)

[Guidelines](#)

[Recent Changes](#)

[Canned Queries](#)

[Compendium](#)

[Drafts](#)

[OLTG Instructions](#)

[Performing Labs](#)

[Collection Instructions](#)

[Format References](#)

[URL Report](#)

[Tags](#)

[Review Tests](#)

[OLTG Instructions](#)

[Performing Labs](#)

[Collection Instructions](#)

[Format References](#)

[URL Report](#)

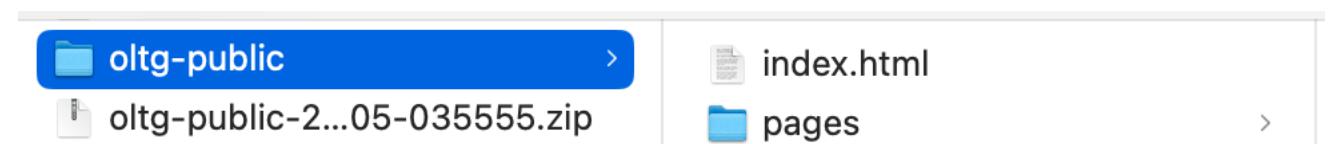
[Tags](#)

[Review Tests](#)

[New Mnemonic](#)

[Download: public | staff](#)

# Downloadable backups



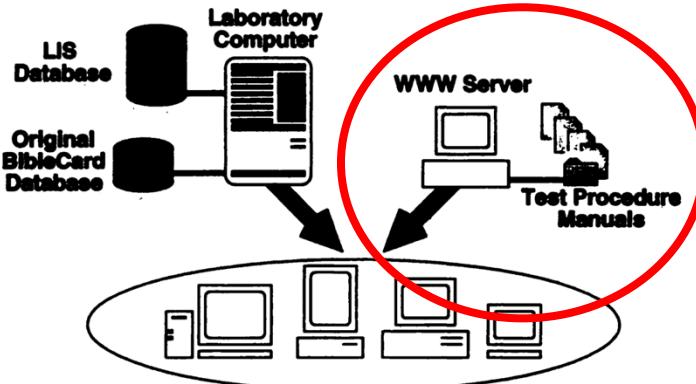
[Search](#) Offline Public Test Guide Page created May 05, 2025 at 03:55

## Public Test Catalog

This is an offline version of the Online Test Guide created May 05, 2025 at 03:55.

lyme			
Code	Name	Synonyms	
260	Borrelia Species by PCR (Sendout)	0055570, B. burgdorferi DNA detection, Borrelia burgdorferi, Lyme Disease, Lyme Disease PCR, Tick Borne Disease	
892	Lyme CNS Infection IgG with reflex to Antibody Index (Sendout)	Borrelia species, LNBAB, Lyme CNS Disease, Neuroborreliosis, Neuroinvasive Lyme Disease	
ARNAP3	Anti RNA Polymerase III	RNAP, RNAP3	
RLYMES	Lyme Disease Serology w/ Conf (Sendout)	B. burgdorferi, Borrelia burgdorferi, LYME, Lyme C6 Peptide Assay, Lymes, RLYM, Tick, Tick-borne, VlsE1/pepC10 Assay	
RLYMB	Lyme Disease Antibody, Immunoblot (Sendout)	Borrelia burgdorferi, Lyme Disease Antibody, Lyme Disease Antibody Western Blot, Lyme Disease ImmunoBlot Assay, Lyme ImmunoBlot, Lyme Western Blot, Western Blot Assay	

# Future: integration with procedure manuals



**X Window. Macintosh. Microsoft Window. Character-based**  
Fig. 1. BibleCard architecture: three databases with access from four distinct display devices.

- Content is extracted from procedure manuals
- Selected documents are used as inputs to an LLM along with a prompt.
- Ideas:
  - Generate content for the test catalog from procedure manuals.
  - Provide access to content from procedure manuals directly from OLIG
  - Compare content from both sources for verification.

## “Docsearch” Application

### Ask a Question or Search Documents

protein electrophoresis

Immunology

Advanced search options

Search

Feedback

Clear

Performed a keyword search. Please rephrase your query if you would like to ask a question. Hover over links for info.

H/S/K

+/- 11 / 0 / 11  
+/- 5 / 0 / 5  
+/- 4 / 0 / 4  
+/- 4 / 0 / 4

- IMM\_42\_Protein Electrophoresis by Sebia Procedure
- IMM\_174\_Electrophoresis and Immunofixation Coded Comments
- IMM\_506\_HYDRASHIFT 2.4 Daratumumab Immunofixation Electrophoresis by Sebia
- IMM\_43\_Immunofixation (IFix) by Sebia Procedure

### Ask a question using the selected documents.

Write a brief description of the indications and interpretation of serum protein electrophoresis for physicians and medical professionals to help guide test selection. Indicate in which circumstances immunofixation will be performed.

Model

gpt-4.1

Combine Documents



Use Entire Document



Answer

Feedback

Serum protein electrophoresis (SPEP) is indicated for the evaluation of suspected monoclonal gammopathies (such as multiple myeloma, Waldenström macroglobulinemia, or amyloidosis), unexplained hyperglobulinemia or hypogammaglobulinemia, monitoring known monoclonal proteins, or investigation of abnormal serum protein levels.

#### Interpretation:

- In healthy individuals, the serum separates into five regions: albumin, alpha-1, alpha-2, beta, and gamma globulins.
- A normal pattern shows appropriate proportions of each fraction; increased gamma globulin may indicate polyclonal gammopathy (e.g., chronic inflammation), while a sharply defined band ("M spike") in the gamma or beta region suggests a monoclonal immunoglobulin (M protein).
- Diminished fractions may indicate immune deficiency or protein-losing states.

#### Reflex to immunofixation:

Immunofixation electrophoresis (IFE) will be performed when a monoclonal protein ("M spike") is detected or suspected on protein electrophoresis, to determine the immunoglobulin heavy and light chain type (e.g., IgG kappa, IgA lambda). IFE may also be used when SPEP findings are equivocal but clinical suspicion of monoclonal gammopathy remains high.

# Key points

- A great deal of operational and technical complexity lies behind a deceptively simple public-facing user interface.
- Maintainability is a central challenge.
- Content management is a core capability.
- Connectivity with external sources of truth is critical for data reliability.

# Acknowledgments

- Dave Chou
- Jerry Davis
- Tom Ekberg
- Tuan Nguyn
- Lara Williamson
- Anju Thomas
- Caitlin Leptich

