



INTRODUCTION

FOREWORD

The Health Network Laboratories Handbook has been developed for use by all of our clients. The format and content are designed for your ready reference and as a tool to answer as many questions as possible. Please feel free to call the main laboratory, at 877-402-4221 (toll free), when unanswered questions regarding specimen requirements, test availability, and specimen handling arise.

The staff of Health Network Laboratories is committed to providing you with accurate information and courteous service. We will strive to exceed your requirements and provide you, as our customers, with quality laboratory information.

MISSION STATEMENT

Health Network Laboratories is a multi-regional leader in laboratory medicine providing high-quality, courteous, and responsive service to our customers. Our staff of dedicated professionals works to ensure accurate, expert, cost-effective, and timely clinical information for the treatment and medical management of patients.

QUALITY STATEMENT

Our commitment is to quality in everything we do. This can only be achieved if all employees and clinicians strive to provide services that conform to clearly stated requirements. Employees and clinicians are dedicated to continuous improvement in the way work is performed. Our attitude shall embrace the concepts of “Conformance to requirements,” “Prevention,” “No error is acceptable,” and “Do it right the first time.”

SERVICE PROMISE

We promise to provide you with personalized, quality laboratory services. We will listen and respond to your needs with compassion, honesty, and integrity.



CONTENTS

General Information and Services

Section 1

| | |
|--|------|
| Department of Pathology | 1.1 |
| Performance Improvement | 1.5 |
| Provider/License/Accreditation Information | 1.6 |
| Patient Service Centers | 1.7 |
| Customer Care/Courier Services | 1.8 |
| Supplies | 1.9 |
| Laboratory Requisitions | 1.10 |
| Result Reporting | 1.13 |
| Release of Protected Health Information Request Form | 1.14 |
| Critical Values | 1.15 |

Billing

Section 2

| | |
|--|------|
| Billing | 2.1 |
| Participating Insurances | 2.2 |
| Reflex Confirmatory Testing | 2.3 |
| Microbiology ID and Susceptibility CPT Codes | 2.15 |

Specimen Collection, Preparation & Handling

Section 3

| | |
|---|------|
| Patient Identification | 3.1 |
| Procedures for Venipuncture | 3.2 |
| Procedure for Blood Culture Collection | 3.4 |
| Procedure for Skin Puncture and Blood Collection From Infants | 3.5 |
| Specimen Processing and Transport | 3.8 |
| 24-Hour Urine Collection | 3.9 |
| Clinician Cytobrush/Spatula Collection Protocol | 3.10 |
| Special Handling Instructions for Coagulation Studies | 3.11 |
| Minimum Specimen Requirements for Newborn/Pediatric/Adult | 3.13 |
| Difficult Draw Patients | 3.14 |
| Specimen Rejection | 3.15 |
| Specimen Identification Fax Form | 3.16 |
| Missing Information Fax Form | 3.17 |
| Specimen Retention/Test Additions | 3.18 |

Alphabetical Test Listing

Section 4

| | |
|--------------------------|--|
| Individual Test Listings | |
|--------------------------|--|

Alternate Name Index

Section 5

Reflex Testing Algorithms

Section 6

Test Listing Index

Section 7

Panels/Profiles

Section 8



PERFORMANCE IMPROVEMENT

Health Network Laboratories has a diagnostic service based on the development and adoption of test procedures having a high degree of clinical predictive value and efficiency. All services are provided by well-trained technologists/technicians to assure the highest degree of technical accuracy. Health Network Laboratories' staffs of M.D. /Ph.D. technical directors and technical specialists with advanced certifications are available to solve any technical problem, as well as to introduce new and innovative techniques.

Health Network Laboratories has a planned and systematic process designed to monitor and evaluate the ongoing and overall quality of patient care. This process includes pre analytic (specimen collection), analytic (specimen processing/ testing), and post analytic (result reporting) procedures. Health Network Laboratories takes pride in its Customer Care Program and has a well-defined Service Recovery Process to respond to our clients' requirements.

An integral part of the Performance Improvement Plan is quality control. Test results are continuously monitored for reliability, precision, and accuracy. Health Network Laboratories voluntarily participates in one or more federal, state, or independent proficiency testing programs. These programs are administered by the College of American Pathologists (CAP), the American Association of Clinical Chemistry (AACC), the American Association of Blood Banks (AABB), the American Association of Bio analysts (AAB), and the Commonwealth of Pennsylvania.



PROVIDER LICENSE/ACCREDITATION INFORMATION

Health Network Laboratories is federally licensed under the Clinical Laboratory Improvement Act (CLIA) and is approved by both Medicare and Medicaid. The Division of Toxicology is certified by the Commonwealth of Pennsylvania and Occupational Safety and Health Association (OSHA) to perform lead analyses.

The following agencies accredit and/or inspect Health Network Laboratories:

- American Association of Blood Banks (AABB)
- College of American Pathologists (CAP)
- CAP Forensic Drug Testing (CPA/FDT)
- New Jersey Department of Health, Public Health and Environmental Laboratories
- Pennsylvania Department of Health, Bureau of Laboratories

Please refer to the list provided of accreditation and license information for each of our main laboratories.

| Testing Location | Accreditation & License |
|---|---|
| Health Network Laboratories 2024 Lehigh Street, Allentown, PA 18103-4798 | CAP: 6792301 CAP/FDT: 6792302 CLIA: 39D0919598 MD State: 1479 NJ State: 00025195 PA State: 024655A |
| Health Network Laboratories 1200 S. Cedar Crest Boulevard Allentown, PA 18103 | CAP: 1308701 CLIA: 39D0657491 PA State: 000549A |
| Health Network Laboratories 1627 West Chew Street Allentown, PA 18102 | CAP: 1307901 CLIA: 39D0657483 PA State: 000169A |
| Health Network Laboratories 2545 Schoenersville Road Bethlehem, PA 18017-7300 | CAP: 1307101 CLIA: 39D0189995 PA State: 000600A |
| Health Network Laboratories 900 Route 168 Turnersville, NJ 08012 | CAP: 1209501 CLIA: 31D0117454 NJ State: 00018578 |
| Health Network Laboratories 1200 Walnut Bottom Road Carlisle, PA 17015-776 | CLIA: 39D1072932 PA State: 030357A |



PATIENT SERVICE CENTERS

Laboratory services are available to any licensed physician, dentist, podiatrist, or other person authorized by law to use the findings of laboratory examinations upon written receipt of tests requested and ICD-10 codes or symptoms.

Federal regulations require that we obtain, within 30 days of a verbal request, written authorization for every test we perform. You will be asked to forward a signed order, via fax or mail, for all verbal requests. The use of standing orders is permitted in connection with an extended course of treatment. Orders must be dated and current (executed within six months) and include diagnosis information in ICD-10 code format, test frequency, and an expiration date.

PATIENT SERVICE CENTER locations and information can be found on the Health Network Laboratories web site. Go to: www.healthnetworklabs.com for additional details.



CUSTOMER CARE/COURIER SERVICE

CUSTOMER CARE

The Customer Care Department at Health Network Laboratories is your direct personal link to our laboratory, 24 hours/day, 7 days/week. Our representatives are committed to assisting you with information concerning:

- Test and specimen requirements
- Test results or test status
- Add or cancel test requests
- Supply requests
- Patient Service Center information
- Problem solving
- Technical support
- Phlebotomy service

Toll Free: 1-877-402-4221

COURIER SERVICES

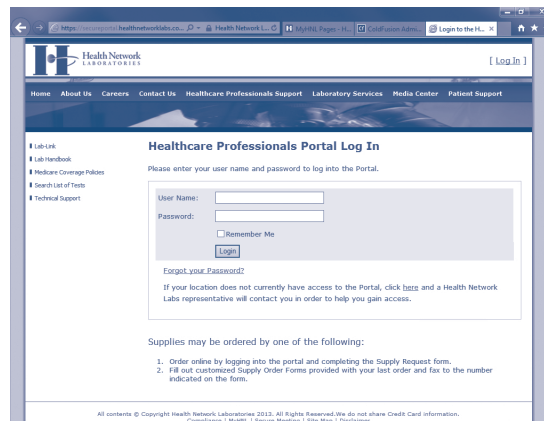
Courier service is available to provide you with both scheduled and unscheduled service for the transport of specimens and the delivery of reports and supplies. Our couriers are trained in client response, driver education, and safety. In addition to being provided with two-way cellular telephones for instant communication, our drivers and dispatchers utilize the latest technologies for route management and specimen tracking to ensure pickups and deliveries are made in the most expedient and efficient manner. During transport, specimens are stored in appropriate containers assuring their integrity upon arrival at the testing location. All materials are handled according to OSHA guidelines.

The Courier Services dispatcher can be reached by phone at 877-402-4221 (toll free).

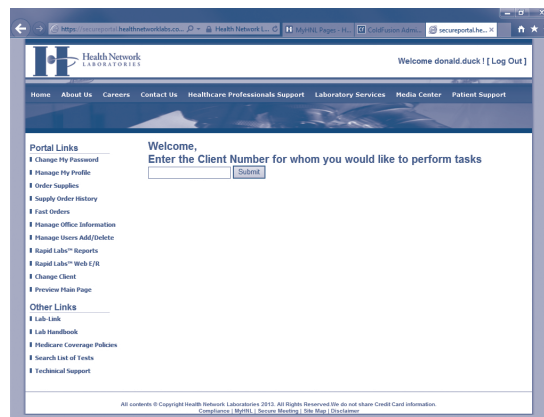
Health Network Laboratories provides specimen collection supplies for testing performed at our laboratory only. All supplies will be provided in compliance with Stark Law regulations.

Supplies may be ordered using the following methods:

1. Order online at www.healthnetworklabs.com. Click on “Healthcare Professionals Portal” in the upper right hand corner of the screen. Follow the instructions to “Log In”:



Upon successful entrance, select the Portal Link, “Order Supplies”:



OR

2. Fax a completed HNL Supply Request Form to:
484-425-5121 (PA Clients)
856-232-8022 (NJ Clients)

The most current, client-customized Supply Request Forms are provided with each delivered order.

HNL is committed to expediting your order within three to five business days.



LABORATORY REQUISITIONS

LABORATORY REQUISITIONS

Manual requisitions are to be used to request tests by all customers, except for those placing electronic orders. These electronic users shall revert to a manual requisition during computer down times. Incomplete or illegible requisitions cannot be processed. It is essential that the appropriate information be printed legibly in ballpoint pen. Each specimen or series of specimens must be accompanied by a completed requisition.

Patient Demographics

The demographic data **required** on each requisition sent to the laboratory is:

- Patient Name: Last, First, Middle Initial
- Address
- Phone Number
- Gender
- Date of Birth
 - The laboratory computer calculates the age of the patient based on the birth date given and in conjunction with the gender information, assigns the corresponding normal range.
- Social Security Number
- Collection Date
- Collection Time
- STAT/FASTING/NON-FASTING
 - *Check applicable box.*
- Call Results To/Fax Results To
 - *Indicate if results are to be called/faxed and the number desired.*
- Duplicate Report To
 - *If an additional copy of a test report needs to be sent to a physician other than the ordering physician, please indicate by last name, first name, and physician location.*
- Comments
 - *Indicate any other preferences not mentioned above*

Billing Information

- Bill Insurance
 - Check box and provide **complete insurance** information including guarantor/ subscriber name if patient is not the subscriber or attach a copy of patient's insurance **card** (front and back).
- Bill My Account
 - Check box and complete **only when** your HNL account is to be billed.
- Bill Patient (Self Pay)
 - Check box and complete **only when** your **patient** is to be directly billed. Provide complete name and address of person who is responsible for payment.

(continued)



LABORATORY REQUISITIONS

Health Network Laboratories Billing Requirements

| Requisition Prompt | Type of Billing | | | | | | |
|--------------------------------------|-----------------|---------|----------|----------|-----------|---------|-----|
| | Account | Patient | Medicare | Medicaid | 3rd Party | PPO/HMO | W/C |
| Patient Demographics | | | | | | | |
| Name | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Address | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Phone Number | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sex | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Date of Birth | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Social Security Number | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Collection Date/Time | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Billing Information | | | | | | | |
| Insurance Company Name & Address | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Insurance Company Policy ID Number | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Insurance Company Group Number | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Medical/Medicaid Recipient ID Number | | | | ✓ | | | |
| Guarantor Name | | ✓ | | | | | |
| Guarantor Address | | ✓ | | | | | |
| W/C Claim Number | | | | | | | ✓ |
| W/C Insurance Carrier Name & Address | | | | | | | ✓ |
| ICD-10 Codes | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

✓ indicates required information
 W/C indicates Workers' Compensation

794 Roble Road • Allentown, PA •
 18109-9110
 Toll Free 1-877-402-4221
www.healthnetworklabs.com



LABORATORY REQUISITIONS

Advanced Beneficiary Notice (ABN)

*Medicare patients should be asked to read and sign HNL's Advanced Beneficiary Notice when it is believed that Medicare is likely to deny payment for a particular test. Medicare may deny payment for: Limited Coverage Tests if it is determined that it is not reasonable and necessary under their Limited Coverage Policies, tests ordered which are non-FDA investigational or research tests, or tests ordered as a part of routine screen or annual physical. HNL will only seek reimbursement directly from the Medicare patient if they have been notified in advance of the testing that Medicare is likely to deny payment and if they have signed the Advanced Beneficiary Notice. Please refer to HNL's **Guide to HGSA Medicare Services Limited Coverage Policies**. Please submit the signed Advanced Beneficiary Notice with the laboratory orders.*

ICD-10 Code

Complete the ICD-10 code section located above the test menu with the appropriate code/symptom to enable quick and accurate processing of claims.

Test Menu

Check the test you require to the left of the test name. There is space available for other tests, which can be used for tests not listed on the requisition form.

Note:

*If drawing specimens in your office/facility, please note the specimen **collection key** located at the bottom of HNL's Laboratory Requisition (HNL-02). This key corresponds to the letter code located on the far right of each individual test pre-printed on the requisition. Or call our Customer Care Department at 877-402-4221 (toll-free).*

Note:

Physicians and other health care practitioners authorized to order tests should order tests medically necessary for the care and treatment of their patients. The Office of the Inspector General of the United States Health and Human Services Department takes the position that any physicians or other health care practitioners who order medically unnecessary tests may be subject to civil penalties under laws and regulations relating to Medicare, Medicaid, and other federally funded health care programs.



RESULTS REPORTING

RESULT REPORTING

Test reports will be delivered by courier, U.S. mail, or electronically printed via remote printer/fax/Internet access. STAT and critical results are provided via telephone and/or fax. The mechanism for delivery will be arranged to meet the needs of the client.

Results are available to patients upon request. **A Release of Protected Health Information Request Form** (next page) may be required.

There are several different types of reports that can be generated by HNL. Please contact your laboratory sales representative to discuss available options.



RELEASE FORM

RELEASE OF PROTECTED HEALTH INFORMATION REQUEST FORM

Date: _____

Patient Name (Print): _____ DOB: _____

Med Rec #: _____ SS #: _____

Requested by (Print): _____ Signature: _____

Relationship to Patient:

Type of Record: Self Parent Guardian Other _____

Date(s) of Record: Billing Clinical Lab Result(s) Pathology

Date needed by: _____ (HNL may take up to 30 days to compile your record request)

Please indicate where records are to be sent: _____

Comments:

HNL USE ONLY

Received by: _____

Date Request received: _____

Date Completed: _____

Date Record Sent: _____

Record Released by: _____

*Under certain circumstances HNL has the right to refuse this request.
 This request is not to be used for disclosure to anyone other than the patient or his/her representative.*

Health Network Laboratories®
Critical Values
 Approval Date: May 30, 2017

| Analyte | Low Limit | High Limit |
|--|--|--|
| Acetaminophen | | >150 µg/mL |
| Amikacin | | Trough: >10 µg/mL |
| Ammonia | | >100 µmol/L |
| Amylase | | >300 units/L |
| Base Deficit, Cord Blood, Arterial | | >15.9 |
| Bilirubin, Total | Call all outpatient neonatal bilirubins | <1 day: >10.0 mg/dL 1 to <2 days: >13.0 mg/dL ≥ 2 days: >15.0 mg/dL Call all outpatient neonatal bilirubins |
| Calcium | <6.0 mg/dL | >13.0 mg/dL |
| Calcium, Ionized, Whole Blood | <3.0 mg/dL | >6.5 mg/dL |
| Calcium, Ionized, Serum (Out-patient only) | <0.79 mmol/L | >1.57 mmol/L |
| Carbamazepine, Total | | >15 µg/mL |
| Carbamazepine, Free | | >4.0 µg/mL |
| Carboxyhemoglobin | | >20.0 % |
| CO ₂ content | <15 mEq/L | |
| CSF Protein | | >75 mg/dL |
| CSF Glucose | <40 mg/dL | >400 mg/dL |
| Differential(WBC) | <ul style="list-style-type: none"> ❖ Elevated band count ≥25% ❖ Presence of ≥3.0 immature (blast) cells (1st time only) Hematopathologist review to follow ❖ Microorganisms (Intracellular or Extracellular) present on peripheral blood smear | |
| Digoxin | | >2.5 ng/mL |
| Fibrinogen | <101 mg/dL | |
| Gentamicin | | Peak: >12.0 µg/mL Trough: >2.0 µg/mL |
| Glucose | <40 mg/dL | >400 mg/dL |
| Hemoglobin | 0-3 days: <12.0 g/dL 4-60 days: <9.0 g/dL >60 Days: <8.0 g/dL | 0-3 days: >22.0 g/dL 4-60 days: >20.0 g/dL >60 Days: >21.0 g/dL |
| Heparin Level (Unfractionated) | | >0.7 units/mL |
| Lactate | | >4.0 mmol/L |
| Lithium | | >2.0 mmol/L |
| Magnesium | <1.0 mg/dL | >5.0 mg/dL |
| Osmolality, serum | <250 mOsm/kg | >325 mOsm/kg |
| pO ₂ | <60 mmHg | |
| pCO ₂ | <20 mmHg | >60 mmHg |

Health Network Laboratories®
Critical Values
 Approval Date: May 30, 2017

| Analyte | Low Limit | High Limit |
|---------------------------------|--|---|
| pH | <7.20 | >7.55 |
| pH, Cord Blood, Arterial | <7.00 | |
| Phenobarbital | | >40 µg/mL |
| Phenytoin, Total | | >25.0 µg/mL |
| Phenytoin, Free | | >3.0 µg/mL |
| Phosphorus | <2.0 mg/dL | <1 year: >11.0 mg/dL ≥ 1 year: >8.0 mg/dL |
| Platelets | <30 thousand/µL (10 ⁹ /L) | >1,000 thousand/µL (10 ⁹ /L) |
| Procainamide + NAPA | | >30 µg/mL |
| Potassium | < 3.0 mmol/L | > 6.0 mmol/L |
| INR | | > 4.9 |
| PTT | | ≥ 95.0 seconds* <i>* range varies with reagent lot</i> |
| Quinidine | | >10.0 µg/mL |
| Salicylate | | >30.0 mg/dL |
| Sodium | <120 mmol/L | >155 mmol/L |
| Sperm | If present in urine of females < 18 years and ALL female Nursing Home Residents. | |
| Theophylline | | >25.0 µg/mL |
| Tobramycin | | Peak: >12.0 µg/mL Trough: >2.0 µg/mL |
| TCO ₂ | <15 mmol/L | >40 mmol/L |
| Troponin I | | >0.78 ng/mL |
| Urea Nitrogen | | 0-16 years: >49 mg/dL Adult: >99 mg/dL |
| Uric Acid | | >13.0 mg/dL |
| Valproic Acid, Total | | >125 µg/mL |
| Valproic Acid, Free | | >15 µg/mL |
| Vancomycin | | Peak: >60.0 µg/mL Trough: >20.0 µg/mL |
| WBC | | >30.0 thousand/µL (10 ⁹ /L) |
| Absolute Neutrophil Count (ANC) | <1.5 thousand/µL (10 ⁹ /L) | |

Health Network Laboratories®
Microbiology Critical Values
Approval Date: May 30, 2017

| TEST | CALL |
|-----------------------------------|---|
| AFB, Mycobacteria, TB Culture | Positive smears and cultures |
| Blood Culture | Positive Gram stains and Critical Update- Positive Nucleic Acid Test (NAT) |
| Bordetella pertussis, PCR | B. pertussis detected |
| Clostridium difficile Toxin Assay | Positives called to nursing homes |
| Cerebral Spinal Fluid Culture | All Gram stains and positive bacterial cultures, |
| CSF Comprehensive PCR Panel | Bacteria: Escherichia coli K1, Haemophilus influenza, Listeria monocytogenes, Neisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae Yeast: Cryptococcus gattii / neoformans Viruses: Cytomegalovirus (CMV), Enterovirus, Herpes simplex virus 1 (HSV-1), Herpes simplex virus 2 (HSV-2), Human herpesvirus 6 (HHV-6), Human parechovirus, Varicella zoster virus (VZV) |
| Eye Culture | S. aureus, S. pneumoniae, Fusarium, Gram negative organisms and viral isolates |
| India Ink | Encapsulated yeast |
| Mycology Culture | Blastomyces dermatitidis, Histoplasma capsulatum, Paracoccidioides brasiliensis, Coccidioides immitis, Penicillium marneffeii and Sporothrix schenckii |
| Susceptibilities | Methicillin resistant S. aureus (MRSA) Penicillin resistant S. pneumoniae Vancomycin resistant Enterococci (VRE) Extended spectrum beta lactamase producers (ESBL) and carbapenemase producers |
| Synovial Fluid Culture | Positive Gram stains and positive cultures |
| Viral Respiratory Specimens, PCR | Influenza A/B and RSV detected |
| Wound/ Fluid Cultures | Beta Streptococci Group A isolates in sterile sites only |