

**PORTER HOSPITAL  
LABORATORY SERVICES DIRECTORY**

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**PORTER HOSPITAL  
115 PORTER DRIVE  
MIDDLEBURY, VERMONT 05753**

**SECTION 1  
GENERAL INFORMATION**

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**TELEPHONE EXTENSION LISTINGS**

Porter Laboratory:		388-4747 or Ext. 747
Medical Director:	Maureen Harmon, MD	FAHC: beeper 802-847-1000 #2916 FAHC Office: 802-847-3736 Porter Hospital Laboratory: 388-4747
Administrative Director:	Julie C. Vest, MT (HEW)	388-4716 or Ext. 716
Laboratory Supervisor:	Dawne Myers, MT (ASCP)	388-4717 or Ext. 717
LIS Manager:	Deborah H. Ploof, MT (ASCP)	388-4719 or Ext. 719
Physician Office Coordinator	Dawn Smith, MT (ASCP)	388-8869 or Ext. 869

**LABORATORY SECTIONS**

Blood Bank	Ext. 361
Chemistry/Hematology/Urinalysis	Ext. 249; 363
Cytology	802-847-5136 (FAHC)
Microbiology	Ext. 365
Pathology Hot Seat	802-847-3795 (FAHC)
Specimen Receiving	Ext. 248
Phlebotomy	Ext. 385

**LICENSURE/ACCREDITATION**

US Department of Health & Human Services (HHS) CLIA #47D0091900  
College of American Pathologists (CAP), Lab Number: 11835-01

**INTRODUCTION**

This guide describes the policies and procedures observed during the normal operation of the clinical laboratory. It provides information regarding the submission of test requests, laboratory capabilities and laboratory reports. Although we have attempted to make the guide as comprehensive as possible and practical, it is virtually impossible to cover all situations. We encourage you to contact the laboratory staff for answers to any questions not found in this guide. We also welcome all comments and suggestions that you might have regarding the operation of the laboratory.

**LABORATORY HOURS**

**Collection and Performance of Routine Tests**

Performance of Routine Tests:

7:00 a.m. to 9:00 p.m., Weekdays  
7:00 a.m. to 3:00 p.m., Weekends and Holidays

Outpatient collection:

7:00 a.m. to 7:00 p.m., Weekdays  
8:00 a.m. to 2:00 p.m., Saturdays

Inpatient Collection:

As needed but routine collections are 6:30 a.m., 10:00 a.m., 2:00 p.m., 4:00 p.m., 6:00 p.m. Daily

**CONSULTATION**

Pathology services are contracted through Fletcher Allen Health Care, Department of Pathology. A pathologist is always available for consultations. A pathologist is on site at Porter Hospital Laboratory on Thursday and alternate Wednesdays and is available via phone or beeper at other times. Call the Porter Laboratory to obtain a pathology consult.

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## **REQUESTS FOR TESTING**

A physician as defined in Medical Staff By-laws must authorize requests for laboratory testing. Limited health practitioners may utilize the laboratory under the supervision of a physician.

- Tests may be added within 5 days of sample collection by phoning the laboratory. **The sample will be checked for sufficient quantity, stability of test(s) requested, and required storage before the test will be added.** You will need to fax us an order with diagnosis code for the added test(s).

## **REPEAT TESTING**

Specimens are generally held 5 days after test completion. If laboratory results do not match the clinical condition please call laboratory supervisor at 388-4717 to arrange repeat testing at no charge.

## **STANDING ORDERS**

For a Standing Order to be considered valid by Porter Hospital Laboratory, we must have a written order on file with the ordering physician or their designee's signature.

When initiating a standing order, please fill out a Porter Laboratory. If a standing order is phoned in to our lab or received via prescription pad, etc., we will fill out the Porter Laboratory Fax/Verbal Requisition with the information we received. The form will then be faxed back to the ordering physician to complete any missing information and for physician's (or designee's) signature. Once Porter Laboratory receives this completed form, the order will be entered into our Standing Order system.

It is Porter Hospital Laboratory's policy that standing orders be reviewed on at least an annual basis. Standing orders expire at the end of duration stated on original request and/or automatically expire one year from date of original request. As standing orders near their expiration date, the lab will send the ordering physician a reminder request asking for renewal, revision or cancellation of the current standing order. No renewal will be sent if patient has not had standing order testing collected by lab in the last 3 months prior to expiration of order.

## **QUALITY ASSURANCE**

We believe that the first assurance of quality is a qualified staff. Our laboratory is fully staffed with board certified medical technologists and medical laboratory technicians, along with a highly skilled support staff of clerks and phlebotomists. The laboratory is directed by a board certified pathologist and supervised by a team of experienced technologists.

Our extensive quality control program includes proficiency testing of samples from the College of American Pathologists. College of American Pathologists (CAP) accredit us.

## **REFERENCE LABORATORIES**

The Porter Hospital Laboratory is equipped and staffed to provide on-site performance of many procedures. Requests for tests not performed at Porter Hospital Laboratory are transferred via private courier to reference laboratories recommended by the pathologist and approved by the medical staff and administration. Reference laboratories presently used are

- Fletcher Allen Health Care, Burlington, VT, Vermont State Laboratory, Burlington, VT
- Vermont-New Hampshire Regional Blood Services Center, American Red Cross, Burlington, VT
- Laboratories in the Northeast Community Laboratory Alliance (NECLA) including
  - o Fletcher Allen Hospital of Vermont (FAHC) in Burlington, Vermont
  - o Mayo Medical Laboratories in Rochester, Minnesota and Mayo New England in Andover, MA.

## **SUPPLIES**

Porter Hospital provides specimen preservatives, transport media, blood collecting tubes, needles (butterflies not provided), and related supplies at no charge to physicians' offices using our services. Please contact the Porter laboratory at 388-4747 for supplies or complete a Porter Supply Order Form.

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**COURIER**

Porter Hospital operates a courier route south to Brandon and north to Vergennes and Bristol. Please contact Porter laboratory at 388-4747 for more information.

**ORDERING PRIORITIES**

When ordering laboratory work, it is essential that you indicate the urgency. A test may be requested either **STAT** or **ROUTINE**. When a test is requested **STAT**, the laboratory must be notified by telephone (Ext. 747). Notification will assure that the test request will be given priority immediately upon arrival. Clearly mark on requisition the testing needed **STAT**.

**STAT TESTS**

A STAT laboratory test is one that is necessary to select treatment in an acutely ill patient. Please remember that a STAT request is a medical emergency and the laboratory will interrupt whatever it is doing to expedite completion. The following list includes all tests performed on an emergency (STAT) basis. In certain special cases other tests may be emergencies; the test may be obtained by special arrangement with a pathologist. A pathologist is on call 24 hours a day and may be reached by calling the laboratory.

**Blood Bank**

ABO and Rh type  
Cord blood evaluation  
Type and screen with or without compatibility testing

Compatibility test  
Transfusion reaction workup

**Coagulation Studies**

Bleeding time  
Fibrinogen (Referred to FAHC)  
Prothrombin time (PT)

D-Dimer, Sensitive  
Partial thromboplastin time (PTT)

**Hematology**

CSF, cell count and differential  
Autodifferential or Manual Differential

CBC & any component within a CBC  
Sedimentation rate

**Chemistry**

Acetaminophen  
Amylase, serum  
Bilirubin, total  
Calcium  
Chloride  
Digoxin  
Electrolytes  
Glucose (blood or CSF)  
Lithium  
Phenobarbital  
Protein, total on CSF  
Sodium  
Troponin

Alcohol (Ethanol)  
BHB-Beta-hydroxybutyrate  
BNP  
Carbamazepine  
Creatinine, serum or urine  
Dilantin  
Gentamicin  
HCG, Beta [Quantitative]  
Magnesium  
Potassium  
Salicylate  
Theophylline  
Urea Nitrogen

**Microbiology/Serology**

Culture processing  
Strep A Antigen (Rapid Method)  
Parasite Exam on Blood (Sent to Reference Lab)  
RSV antigen test  
C. Difficile Toxin

Influenza (Rapid Method)  
Mono test for infectious mononucleosis  
Preparation of Gram stained smears  
Spinal fluid culture/Gram stain of sediment

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**PREPARING REQUISITIONS**

General Instructions

Laboratory examinations of any type will be done only upon receipt of a properly completed, legible laboratory request form and a labeled specimen container when applicable. Requesters are responsible for the proper submission of request forms and specimens.

Completion of Requisition

A completed requisition that has been printed, typed or imprinted in a clear and legible manner with the following information, must accompany all test requests:

- Patient's full name (last name written first)
- Patient's birth date
- Patient's gender
- Name of requesting physician/medical practitioner
- Signature of requesting physician/medical practitioner
- Specimen source
- Time and date of collection
- Clinical Diagnosis, narrative or ICD9 code
- Specific test(s) requested
  - o Only standard names, and in rare instances, the most common standard abbreviations are acceptable.

**CALL RESULTS**

The following results are called:

Critical Values

Critical values will be called to the ordering physician as soon as the results are available. (See the Critical Values list Appendix A.)

STAT Results

If you need a test done "STAT" please indicate clearly on the requisition and notify the laboratory by calling 388-4747. Notification will assure that the test request will be given priority immediately upon arrival. Results will be called as soon as testing is complete. Please see STAT list that follows.

Call or Fax Results Requests

If you need results called or faxed to your office, please check the appropriate box on the requisition and supply the phone number. These results will be called or faxed to your office as soon as possible after the completion of the testing.

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**REFLEX TESTING**

Reflex testing is testing performed as a result of initial test results which are used to further identify significant diagnostic information required for appropriate patient care.

The Office of Inspector General has issued guidelines regarding reflex testing for laboratories. These guidelines state that we must disclose to physicians which tests are subject to reflex and allow the physician to decline reflex testing if it is not medically necessary. It is our laboratory policy to list tests subject to reflex on our requisitions and to allow physicians the opportunity to decline the reflex if they believe it is not medically necessary. All reflex testing is reviewed and approved by our laboratory pathologist on an annual basis. All of our clients will be notified of changes in our reflex policy. Our current list of tests performed at Porter Laboratory and subject to reflex is on the following page.

It is the policy of Porter Hospital Laboratory to perform reflex tests automatically when the following conditions are met:

1. You order a test listed in the following chart and
2. The initial test result meets the criteria listed in the chart for prompting a reflex test.

**PORTER HOSPITAL LABORATORY TESTS SUBJECT TO REFLEX**

**Some tests are referred to reference laboratories**

- For reflex testing information for test performed at FAHC check their website at: [www.fletcherallen.org](http://www.fletcherallen.org)
- For reflex testing information for test performed at MAYO check their website at: [www.mayomedicallaboratories.com](http://www.mayomedicallaboratories.com)

Porter Hospital Laboratory bills for the reflex tests it performs using the CPT code listed in the following chart. You have the option of declining reflex testing by writing in the name of the test in the box on the front (bottom, right) of the laboratory requisition. The tests subject to reflex testing are also listed on the back of the Porter Laboratory Requisition.

<b>Initial Test</b>	<b>Reflex Criteria</b>	<b>Reflex Test(s)</b>	<b>Additional CPT Billed</b>
Culture, Bacterial	If 2 swabs submitted	Gram stain	87205
Culture, Bacterial	Positive culture	Pathogen identification	87077
Culture, Bacterial	Pathogen identification	Sensitivities	87186
Fluid Cell Count	> 5 WBC's present	Differential	89051
HIV Antibody	Positive by EIA	HIV by Western blot	86689
Thyroid Cascade	TSH done is done first. If outside normal range, a free T4 is ordered. If free T4 is not elevated and the TSH is <0.10 µ/ml a Total T3 is performed.	Free T4 Total T3	84436 84480
Urinalysis ordered as Routine UA	Positive protein, blood, nitrite or leukocyte esterase	Urine microscopic	81003 changed to 81001
Urinalysis order as If UA Positive, do Culture (UAPOS)	Positive Leukocyte Esterase <u>or</u> Nitrate or positive protein <u>or</u> blood on dipstick <b>and</b> 4 or more WBC/HPF	Urine Culture	81003 changed to 81001 & 87088 added

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**RESULTS REPORTING**

Individual patient reports are printed at least once daily (more frequently to certain accounts) and distributed by courier, fax, or mail. Each patient report includes patient's name, date of birth, sex, Porter medical record number, location code, clinician and the date the report was printed. With each test the date/time collected will print along with the normal ranges for the tests requested. A result that is outside the normal range may be flagged with an "H" or "L". Copies to other physicians or clinics will be done if fax number or complete address of physician/clinic is specified on requisition.

Any report containing results indicating the presence of a serious infectious disease (for example, HIV, tuberculosis, HCV) will be communicated to the ordering physician within a day of receipt via fax or printer.

**CUMULATIVE REPORTS**

Cumulative reports are printed and delivered via courier or mailbox for all patients discharged from the hospital as determined by the hospital information system (HIS). A cumulative report covers the testing collected during the admitted stay at Porter and is printed when all testing is completed. A report is sent to the Admitting, Attending, and Primary Care providers as documented on the Discharge report issued by the HIS. Primary Care providers not on staff will not receive reports.

**BILLING**

Porter Hospital can bill:	Your Office	Medicare
	Medicaid	Patient
	Patient's Insurance	

Current legislation requires laboratories to bill Medicare and Medicaid DIRECTLY for clinical laboratory tests performed for physician offices, clinics, and skilled nursing facilities.

- To bill **Medicare/Medicaid** you MUST provide the following information:

Patient Name and Sex	Patient Date of Birth (DOB)
Insured Name	Medicare or Medicaid Number
Diagnosis (ICD9)	Medicaid State and Effective Dates
- To bill **Insurance/Patient Billing** you MUST provide the following information by fully completing the highlighted areas of the laboratory requisition, and **have the patient sign where indicated on the requisition.**

Patient Name	Patient Sex
Patient Date of Birth (DOB)	Patient Address
Patient Phone Number	Insurance Company Name
Diagnosis (ICD9)	Insurance Group and Policy Numbers
- Federal regulations also REQUIRE that pathologists submit separate bills for their interpretation of certain tests (Cytology, Cytogenetics, and Surgical Pathology). These tests require all the information listed above under patient billing.

If you have questions about bills, please call:  
Patient Billing: PMC Business Office (802) 388-4729  
Pathology "Part B" Component (802) 847-8000

**BILLING FOR MICROBIOLOGY**

The price of a microbiology test includes processing of the sample, inoculation of the sample to media, incubation of the media and visual observation during the incubation period. Additional billing may be incurred for identification of pathogens. There is an additional charge for susceptibility testing, if that is indicated. The identification and susceptibility tests are associated with specific CPT billing codes and are not included as part of the price listed in the fee schedule.

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**APPENDIX A: CRITICAL VALUES CHART**

Testing Area	Alerting Category	Test	Red Category: Complete Alert within 1 Hour	Orange Category: Complete Alert within 8 hrs. May be acceptable to defer between 9pm & 8am.	
<b>Blood Bank</b>	Always Red	Compatibility	Any compatibility problems.		
		Transfusion Reactions	Any transfusion reactions indicating incompatibility.		
<b>Chemistry</b>	Always Red	Alcohol	Above: 200 mg/dl		
		Bilirubin on Infant 0-30 days	Above: 15 mg/dl		
		Carbon Dioxide	Below: 10 mEq/L		
		Creatinine	>4.0 mg/dl with no previous critical or >4.0 mg/dl and >2.5 mg/dl higher than previous critical value		
		Digoxin	Above: 2.0 ng/ml		
		Gentamicin	Trough: >2.0 µg/ml Peak: >12.0 µg/ml		
		Glucose, CSF	Below: 30 mg/dl		
		Glucose	Below: 50 mg/dl Above: 500 mg/dl		
		Lithium	Above: 2.5 mEq/L		
		Ph (arterial) Blood Gases	Below 7.0 Above: 7.6		
		Potassium	Below: 2.8 mEq/L Above: 6.0 mEq/L		
		Sodium	Below: 120 mEq/L Above: 160.0 mEq/L	"Orange" if repeated within 24 hrs. and improving	
		1 <sup>st</sup> Time in a Cardiac Series	Troponin	Above: 0.1 ng/mL	
		Red on First Instance, <sup>1</sup> Orange Thereafter. Most dangerous when first detected, but providers should have these results as condition is being treated.	Acetaminophen	Above: 100 µg/ml	
	Calcium		Below: 7.0 mg/dl Above: 13.0 mg/dl		
	Carbamazepine		Above: 15 µg/ml		
	Magnesium		Below: 0.8 mg/dl Above: 5.0 mg/dl		
	Phenobarbital		Above: 50 µg/ml		
	Phenytoin		Above: 30 µg/ml		
	Salicylate		Above: 30 mg/ml		
Theophylline	Above: 20 µg/ml				
Valproic	Above: 150 µg/ml				
<b>Coagulation</b>	Always Red	INR	Above: 4.0		
		PTT	Above: 90 sec.		

<sup>1</sup> First instance = No critical value in the same result range (high versus low) in the past 5 days

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Testing Area	Alerting Category	Test	Red Category: Complete Alert within 1 Hour	Orange Category: Complete Alert within 8 hrs. May be acceptable to defer between 9pm & 8am.
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<b>Hematology</b>	Always Red	Hemoglobin	Below: 8 mg/dl	Above: 18 g/dl	
		Hematocrit	Below: 24 %		Above: 60 %
		Leukocytes	Below: 1,000 / $\mu$ L		
		Abs. Neutrophil	Below: <500 / $\mu$ l		
	Red on first instance,* orange thereafter.	Leukocytes	Above: 50,000 / $\mu$ L		
		Platelets	Below: 20,000 / $\mu$ L or 50% decrease in count <50,000 / $\mu$ L		
			Above: 1,000,000 / $\mu$ L		
Blast cells	1st time or >20%				

<b>Microbiology</b>	Always Red	Blood cultures	Growth of any organism(s)	
		Gram stain	Positive gram stains from: CSF & Joint Fluid	
		CSF Cultures	Growth of any organism(s)	
		Culture	Growth of Group A streptococcus (from other than throat)	Growth of Enteric Pathogen
			Growth of Group B streptococcus from newborns	Positive culture for N. gonorrhea
		Positive Rapid Testing	RSV Influenzae A or B	Growth of VRE or MRSA

<b>Reference Laboratory Reporting</b>	Always Red	Any Test Deemed Critical by Reference Lab	Any Critical Value called from a Reference Lab		
	Orange 1 <sup>st</sup> Time* so providers can initiate treatment within the next few hours. Routine Thereafter.				Positive HIV WB (new diagnosis)
					Positive B. pertussis by PCR
					Positive Acid Fast Stain/ Isolate
					Positive Parasites in Blood or Feces
					Positive Chlamydia or GC DNA Probes
				Any Significant Findings <sup>2</sup> called from a Reference Lab.	

\*First instance = No critical value in the same result range (high versus low) in the past 5 days

\*Significant microbiology findings are defined as "infectious disease related results that are needed promptly to avoid potentially serious health consequences for the patient" or, in the case of contagious diseases, "potentially serious health consequences to others exposed to the patient if not acknowledged and/or treated by the physician."