

REPORTING OF TEST RESULTS

ABBEVILLE GENERAL HOSPITAL

Two of our main objectives in the laboratory is generating accurate results and repoting them to the proper clinician in a safe-guarded and timely manner. This procedure has been streamlined over the years with the creation of the Electronic Medical Record and the Laboratory Information System (LIS). Our policy for reporting and distributing lab results is outlined below.

GENERAL POLICY

DISTRIBUTION OF REPORTS

CONFIRMATION REQUESTS (REFLEX TESTING)

CORRECTED REPORTS

PANIC VALUES

REFERENCE RANGES

1. GENERAL POLICY

It is the goal of the laboratory to establish and maintain procedures to assure that test results are transmitted to the users accurately, in a time frame that is appropriate to the user's needs, and at the same time maintaining patient confidentiality and security of the report.

The results of laboratory tests can only be reported to the requesting physicians or their designated assistants, or appropriate authority. The laboratory will not report results to patients and patients should not be instructed to call the laboratory for results. (Note: Patients may make arrangements to pick up copies of their results provided that they have completed an "Authorization for release of patient – identifiable health information" form.)

2. DISTRIBUTION OF REPORTS

Inpatients:

The results of most analytical test results will be available in the patient's electronic medical record immediately following the release of the results by the laboratory technologist. Until the decision to cease printing has been made by the hospital I.T. directory, results will also print directly to the ordering location.

Reports that are not reported on the printers (micro, reference lab, pathology, etc.) will be manually distributed to the ordering location by laboratory personnel.

Outpatients:

The results will be mailed to the attending physician or other individual authorized to receive the results. At the request of the physician or authorized individual, results will be faxed.

Nonpatients:

The results will be mailed or faxed to the attending facility. A copy will also be mailed to the attending physician.

Stats - Results of all stat testing will be called to the requesting location

3. CONFIRMATION REQUESTS

Whenever a measurement does not fit the clinical picture, the physician may request confirmation of the test results. Initially, the original specimen may be used for confirmation, and such a request may be made verbally to laboratory personnel. Ideally, a new specimen and requisition should be provided with the notation "Confirmation Request". If the laboratory will be recollecting the sample, the request to "Confirm Results" can be made verbally to laboratory personnel. No charge is made for any confirmation request.

4. CORRECTED REPORTS

If an error is detected after an interim, verbal, or final report has been issued, a revised corrected report will be issued. The corrected report will describe the corrections but should not modify the report in a way to conceal the initial erroneous report. The physician or designated assistant will be notified verbally of the correction. Information may be requested at that time by the laboratory staff to determine the outcome on patient care due to the error.

5. PANIC VALUES

Patient tests results that exceed the low or high threshold on the “Approved Call In Values” list will be called to the attending physician or his designated assistant for all outpatients. Panic values for inpatients will be called the ordering location. Nursing personnel will contact the attending physician with the panic values.

The list of call in values is periodically reviewed and approved by the Abbeville General Hospital medical staff.

See table: APPROVED CALL IN VALUES

6. REFERENCE RANGES

Reference ranges are included on all patient reports. When appropriate, age or sex specific ranges will apply; otherwise all reference values listed are for adult normals.

The table provided in this manual lists reference ranges for procedures performed by A.G.H. Laboratory. Because of method or procedure changes that may occur between revisions of this manual, the user should always refer to the actual patient test report for the most current available reference ranges.

See table: REFERENCE RANGES

METHOD PERFORMANCE SPECIFICATIONS

Upon written or oral request A.G.H. laboratory will release a method performance specifications to physicians. Test method specifications may include but are not limited to the following:

- Patient comparisons
- Precision
- Linearity
- Reference Ranges
- Sensitivity
- Specificity
- Interfering Substances

- Correlation of primary and backup instruments

REFERENCE RANGES

ANALYTE	REFERENCE RANGE
Acetaminophen	10 - 30 ug/ml
Acetone (Blood)	Negative
Albumin	3.4 – 5.0 g/dl
Alcohol	< 3 mg/dl
Alkaline Phosphatase	46 - 116 U/L
ALT (SGPT)	30 – 65 U/L
Ammonia	11 – 32 umol/L
Amylase (Blood)	25 – 115 U/L
AST (SGOT)	15 – 37 U/L
Bilirubin (Direct)	0 - 0.2 mg/dl
Bilirubin (Total)	0.2 – 1.0 mg/ml
Bleeding Time	2.0 – 8.0 min. > 15 years old 1.3 – 9.0 min. 5 months – 15 years old
Blood type and Rh	N/A
BNP	0 - 125 pg/ml < 75 years old 0 – 450 pg/ml > 75 years old
BUN	7 – 18 mg/dl
C diff screen (GDH)	Negative
C diff confirmation (DNA)	Negative
Calcium	8.5 - 10.1 mg/dl
Chloride (Blood)	98 – 107 mmol/L
Chloride (Urine)	110-250 mmol/ 24 hour
Cholesterol	100 - 200 mg/dl < 200 Desirable 200 - 239 Borderline High > 239 High
CK – MB	0 – 3.6 ng/ml
Clinitest – Urine Glucose	Negative
CLO test	Negative
CO2	21 –32 mmol/L
CPK	Female 26 - 192 U/L Male 39 – 308 U/L
Creatinine (Blood)	Female 0.6 – 1.0 mg/dl Male 0.8 – 1.3 mg/dl
Creatinine (Urine)	Female 600 – 1500 mg/24 Hrs. Males 600 – 2500 mg/dl/24 Hrs.
Creatinine Clearance	Male 90 - 139 ml/min. Female 80 - 125 ml/min
Crossmatch	Compatible
CSF Cell Count (WBCs)	0 – 5 / ul in adults 0 – 30 / ul in children less than 1 year of age 0 – 20 / ul in children 1 to 4 years of age, 0 – 10 / ul in children 5 years of age to puberty

ANALYTE	REFERENCE RANGE
CSF Glucose	40 – 70 mg/dl
CSF Protein	15 – 45 mg/dl
Culture	No growth or negative for pathogens
D-Dimer	0 – 682 ng/ml 0 – 450 ng/ml Rule out VTE
Digoxin	0.9 – 2.0 ng/ml
Direct Coombs	Negative
Drug Screen (Triage): PCP	Negative
Benzodiazepines	Negative
Cocaine	Negative
Amphetamines	Negative
THC	Negative
Opiates	Negative
Barbiturates	Negative
Methadone	Negative
Methamphetamines	Negative
Oxycodone	Negative
Ecstasy	Negative
Fecal Leukocyte Stain	No WBCs seen
Ferritin	Females 8 – 252 ng/ml Males 26 – 388 ng/ml
Fetal Screen	Negative
Fibrinogen	200 – 425 mg/dl
Gastrocult	Negative
Gentamicin	Peak 4 – 10 ug/ml Trough < 2 ug/ml
GGT	Female 5 – 55 U/L Male 15 – 85 U/L
Glucose (Blood)	Adult 74 - 106 mg/dl Neonate 40 - 60 mg/dl 2 HRPP 74 - 139 mg/dl O'Sullivan 74 - 150 mg/dl
Gram Stain	N/A
H. pylori Serology	Negative
HCG	Negative
HCG - Quantitative Beta-HCG	Nonpregnant Female: 0 – 6 mIU/ml Male: 0 – 2 mIU/ml <u>Approximate gestational age</u> <u>Approximate hCG range</u> 0 - 1 weeks 5 - 50 1 - 2 weeks 50 - 500 2 - 3 weeks 100 - 5,000 3 - 4 weeks 500 - 10,000 4 – 5 weeks 1,000 - 50,000 5 - 6 weeks 10,000 - 100,000 6 - 8 weeks 15,000 - 200,000 2 – 3 months 10,000 - 100,000
HDL Cholesterol	40 - 60 mg/dl
Hematocrit	> 18 years: 34 - 46 % Female

ANALYTE	REFERENCE RANGE
	> 18 years: 39 – 49 % Male *see comment at end of table
Hemoglobin	> 18 years: 11.3 – 15.4 g/dL Female > 18 years: 12.6 – 16.6 g/dL Male * see comment at end of table
Hemoglobin A1C	4.5 – 6.2%
Ictotest	Negative
Indirect Coombs	Negative
INR	N/A
Iron	Female 50 – 170 ng/dl Male 65 – 175 ng/dl
KOH Prep	No fungal elements seen
LACTIC ACID	0.4 – 2.0 mmol/L
LDH	Females 81 – 234 U/L Males 85 – 227 U/L
LDL Cholesterol	0 - 100 mg/dl < 100 Optimal 100 - 129 Near Optimal / Above Optimal 130 - 159 Borderline High 160 - 189 High > 189 Very High
Lipase	73 – 393 U/L
Lithium	0.6 - 1.2 mmol/L
Magnesium	1.8 – 2.4 mg/dl
MCH	> 18 years: 27 – 33 pg *see comment at end of table
MCHC	> 18 years: 32.2 – 36.5 g/dl *see comment at end of table
MCV	> 18 years: 84 – 97 fl Female > 18 years: 81 – 97 fl Male *see comment at end of table
Microalbumin/creatinine ratio	0 – 30 mg albumin/ gm creatinine
Mono-Latex	Negative
MPV	6.5 – 10.9 fl
MRSA screen (nares by PCR)	Negative
Phenytoin	10 - 20 ug/ml
Phosphorus	2.5 – 4.9 mg/dl
Platelets	174 - 446 x 10 ³ /ul newborn 151 – 368 x 10 ³ /ul, > 1 day
Potassium	3.5 – 5.1 mmol/L
Potassium (24 hour urine)	25 – 125 mmol/L
Protein, Total (Plasma)	6.7 – 8.5 g/dl
Protein (Urine) Quantitative	< 150 mg/24 hours
PSA	0 – 4.0 ng/ml
PT	9.3 – 11.4 seconds
PTT	24.5 – 32.8 seconds
RA Latex	Negative

ANALYTE	REFERENCE RANGE
RBC	> 18 years: 3.9 – 5.0 x 10 ⁶ /ul Female > 18 years: 4.3 – 5.6 x 10 ⁶ /ul Male *see comment at end of table
RDW	10.2 – 22.1 newborn 11.5 – 14.5 > 1 day old
Reticulocyte Count	2.5 - 6.5 % newborn – 2 weeks 0.5 – 1.5 % 1 month - adult
Rotavirus	Negative
RPR	Nonreactive
RSV	Negative
Salicylate	2.8 - 20.0 mg/dl
Sed Rate	<u>< age 50</u> <u>> age 50</u> Female 0 - 20 mm/hr Female 0 - 30 mm/hr Male 0 - 15 mm/hr Male 0 - 20 mm/hr
Sodium	136 – 145 mmol/L
Sodium (24 hour urine)	40 – 220 mmol/L
Stool Occult Blood	Negative
Stool Reducing Substances	Negative
Strep Group A Antigen	Negative
T3 (T Uptake)	Female 30 – 39 % Male 33 – 40 %
T4	Female 4.8 – 13.9 ug/dl Male 4.5 - 12.1 ug/dl
T4 (Free T4)	0.76 – 1.46 ng/gl
T7	Female 1.3 – 4.8 % Male 1.4 – 3.8 %
TIBC	250 – 450 ug/dl
Transferrin Saturation	Female 15 – 50 % Male 20 – 55 %
Trichomonas Wet Prep	No trichomonas seen
Triglyceride	General 20 - 150 mg/dl < 150 Normal 150 - 199 Borderline High 200 - 499 High > 499 Very High
Troponin I	0 – 0.06 ng/ml
Troponin I-Stat	0 – 0.08 ng/ml
TSH	0.358 – 3.740 uIU/ml
UCG	Negative
Uric Acid	Female 2.6 – 6.0 mg/dl Male 3.5 – 7.2 mg/dl
Urine Bilirubin	Negative
Urine Blood	Negative
Urine Glucose	Negative
Urine Ketones	Negative
Urine Leukocyte Esterase Rx.	Negative
Urine Nitrite	Negative
Urine pH	4.5 - 8.0

ANALYTE	REFERENCE RANGE
Urine Protein	Negative – Trace
Urine RBCs (sediment)	0 - 2 / hpf
Urine Specific Gravity	1.005 – 1.030
Urine Urobilinogen	0.2 - 1 EU/dl
Urine WBCs (sediment)	0 - 5 / hpf
Urine Hyaline Casts	0 – 2 /lpf
Urine Epithelial Cells	Few/hpf
Valproic Acid	50 – 100 ug/ml
Vancomycin	Peak 25 - 40 ug/ml Trough 5 - 10 ug/ml
WBC	> 20 years: 4.5 – 11.5 x 10 ³ /ul *see comment at end of table
WBC Differential - SEGS	> 20 years: 36 - 66 % *see comment at end of table
WBC Differential - BANDS	> 20 years: 1 - 5 % *see comment at end of table
WBC Differential - LYMPHS	> 20 years: 23 - 43 % *see comment at end of table
WBC Differential - MONOS	> 20 years: 0 - 10 % *see comment at end of table
WBC Differential - EOS	> 20 years: 0 - 5 % *see comment at end of table
WBC Differential - BASO	All ages 0 - 1 %

*Hematology parameters – Only adult reference ranges are listed in this table. These parameters may vary based on age or sex. The appropriate reference range for sex and age can be viewed on the actual patient report or in the electronic medical record. Please contact the laboratory if you are in need of a reference range that is not listed in this table. (Note: Some hematology parameters have up to 20 different reference ranges based on sex or age. Only adult ranges are posted in this table in order to maintain a readable document.)

Revised Aug 2014

MSW\USER'S MANUAL\REPORTING OF TEST RESULT