

Mehr Hospital Laboratory

Biochemistry Department Critical Value:

Test	Low	High
Glucose (FBS)	< 40 mg/dl	> 450 mg/dl
Glucose Newborns (FBS)	< 30 mg/dl	> 200 mg/dl
BUN	< 5 mg/dl	> 100 mg/dl
Creatinine	None	Up to 1 month: ≥ 1.5 mg/dl 1 m – 2 yrs : ≥ 2 mg/dl 2 – 11 yrs: ≥ 2.5 mg/dl 12 – 15 yrs: ≥ 2.5 mg/dl > 16 yrs: ≥ 10 mg/dl
Uric Acid	None	> 13 mg/dl
Calcium Total	< 6 mg/dl	> 13 mg/dl
Phosphorus	< 1.5 mg/dl	> 9 mg/dl
Sodium (Na)	< 120 mEq/L	> 160 mEq/L
Potassium (K)	< 3 mEq/L	> 6.1 mEq/L
Magnesium	< 1 mg/dl	> 5 mg/dl
Chloride	< 80 mEq/L	> 115 mEq/L
Lithium	None	> 2 mEq/L
Ck	None	> 500 U/L
Amylase	None	> 250 U/L
Bilirubin, Total (Newborns)	None	≥ 15 mg/dl
Fe	None	> 300 μg /dl
CSF Glucose	< 30 mg/dl	> 300 mg/dl
CSF Protein	None	> 45 mg/dl
Osmolality	≤ 190	≥ 390 mosm/kg
Lactate	None	> 60 mg/dl

References:

www.Aruplab.com

[www. Mayomediacallaboratories.com](http://www.Mayomediacallaboratories.com)

Some data from Emmancipator K.Critical values ASCP practice parameter.Am J Clin Pathol 1997,108:247

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Coagulation & Blood Bank Department Critical Value:

Test	Low	High
PT	None	> 40 Seconds
INR	-	≥ 5
APTT	None	> 75 Seconds
Fibrinogen	≤ 100 mg/dl	≥ 800 mg/dl
Lactate	-	> 60 mg/dl
Arterial pCO ₂	< 20 mm Hg	> 70 mm Hg
Arterial PH	< 7.2U	> 7.6 U
Arterial pO ₂ (adults)	< 45 mm Hg	600 mm Hg
Cross Match	Incompatible Cross Match	
Coombs	Positive Direct & Indirect anti globulin (Coombs)	
Antibody Screening	Positive	

References:

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Haematology Department Critical Value:

Test	Low	High
HCT	< 25 %	> 60 %
Hb	< 7 g/dl	> 21 g/dl
Platelet Count	< 20,000 cu/mm	> 1,000,000 cu/mm
WBC	< 2,000 cu/mm	> 40,000 cu/mm
Malaria	Seen Organisms	
WBC in CSF	None	> 100 cu/mm
Presence of blast cells, Sick cells New diagnosis of leukemia, sickle cell anemia		

References:

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ImmunoHormone & Serology Department Critical Value:

Test	Low	High
T4 (Adults)	-	> 20 ug/dl
T4 (Newborns)	< 3.5 ug/dl	> 18 ug/dl
T3	-	> 350 ng/dl
TSH (< 4 days)	< 1 mIU/l	> 20 mIU/l
TSH (4 days – 2 years)	-	> 10 mIU/l
Free T4 (< 50 Years)	-	≥ 9 ng/dl
Free T4 (≥ 50 Years)	-	≥ 6 ng/dl
Cortisol	< 5 ug/dl	-
Vitamin D3	-	> 150 ng/ml
CA 125	-	> 100 U/ml
Digoxin	-	> 3 ng/ml
Cardiac Troponin I	-	> 1.6 µg/L
Cardiac Troponin T	-	> 0.1 µg/L
IgA	< 20 mg/dl	-
IgE	-	> 2000 mg/dl
IgM	< 15 mg/dl	-
IgG	0-1 month: < 200 mg/dl 2-5 months: < 150 mg/dl 6-11 months: < 200 mg/dl 1-150 years: < 250 mg/dl	-
CH50	< 80 %	-
Anti DNA	-	> 3.5 Index
AMA	-	≥ 1/160 Titer
ASMA	-	≥ 1/320 Titer
Brucella IgG	-	> 20 Index
B2 Glycoprotein Ab IgG,IgM	-	IgG: > 50 U/ml IgM: > 20 U/ml
Wright	-	≥ 1/320 Titer
2ME	-	≥ 1/160 Titer
Toxin A & B Clostridium difficile in Stool		

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Microbiology Department Critical Value:

Positive blood, CSF, other sterile body fluids & biopsy (Liver, kidney, brain, BMB, BMA,), Abscess, Cornea chip: Direct & Indirect
Positive Fungal Direct & Culture for CSF & Blood
Positive Culture for group A streptococci
Positive Culture or isolate for Cryptococcus Neoformance, Bordetella pertussis, Neisseria gonorrhoeae, Dimorphic fungi (Histoplasma, Coccidioidomycosis, Blastomycosis, Paracoccidioidomycosis)
Stool Culture Positive for Vibrio, Shigella dys, E.coli O157H7 (<18 Years). Shigella sp.(<12 years), Campylobacter sp. (Children), Salmonella typhi, Salmonella sp.
Positive direct smear & culture for Mycobacterium.
Positive culture for streptococcus group A from surgical wound, Legionella, Leptospira, Listeria in pregnant woman & immune-deficient patients, Corynebacterium diphtheriae. Streptococcus agalactiae from urine, genital, rectum in pregnant woman, Pseudomonas aeruginosa & Bacillus sp. From eye discharge.
Organisms with multiple antibiotic resistance (MDR,PDR,XDR)
Positive culture for Neisseria meningitis from Blood, CSF, Synovial fluid,
Positive culture dialysis fluid
Gram stain or acid fast positive for Nocardia
Positive smear or culture for Acid Fast Bacilli-AFB
Herpes culture

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Urinalysis & Stool Department Critical Value:

Strongly positive test for glucose & keton
Presence of reducing sugars in infants
Presence of pathological crystals (Cysteine, Leucine, Tyrosine)
Entamoeba histolitica troph, Naegleria in CSF, Acanthamoeba in CSF & Eye dis.
Toxin A & B Clostridium difficile in Stool

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