

این جدول مقادیر بحرانی تعدادی از پارامترهای آزمایشگاهی را نشان می‌دهد و با مراجعه به آن می‌توان مقادیر مرتبط با هر یک از آزمایشاتی را که در آزمایشگاه انجام می‌گیرد، استخراج نمود.

TABLE 56-3 Critical Values

Critical values, also known as panic or alert values, are laboratory results that indicate a life-threatening situation for the patient. Because of their critical nature, urgent notification of a critical value to the appropriate healthcare professional is necessary. Table 56-3 has been adapted from extensive national surveys. The median or average critical limit determined by these surveys is shown. In practice, each organization should have its own set of critical limits and physician notification policy.

Test	Units	Lower Limit	Upper Limit	Comments
Blood Gases				
pH		7.2	7.6	Arterial, capillary
PCO ₂	mm Hg	20	70	Arterial, capillary
PO ₂	mm Hg	40	—	Arterial
PO ₂ (children)	mm Hg	45	125	Arterial
PO ₂ (newborn)	mm Hg	35	90	Arterial
Chemistry				
Albumin (children)	g/dL	1.7	6.8	Serum or plasma
Ammonia (children)	μmol/L	—	109	Plasma
Bilirubin (newborn)	mg/dL	—	15	Serum or plasma
Calcium	mg/dL	6.0	13	Serum or plasma
Calcium (children)	mg/dL	6.5	12.7	Serum or plasma
Calcium, ionized	mmol/L	0.75	1.6	Plasma
Carbon dioxide, total	mmol/L	10	40	Serum or plasma
Chloride	mmol/L	80	120	Serum or plasma
Creatinine	mg/dL	—	5.0	Serum or plasma
Creatinine (children)	mg/dL	—	3.8	Serum or plasma
Glucose	mg/dL	40	450	Serum or plasma
Glucose (children)	mg/dL	46	445	Serum or plasma
Glucose (newborn)	mg/dL	30	325	Serum or plasma
Glucose, CSF	mg/dL	40	200	CSF
Glucose, CSF (children)	mg/dL	31	—	CSF
Lactate	mmol/L	—	3.4	Plasma
Lactate (children)	mmol/L	—	4.1	Plasma
Magnesium	mg/dL	1.0	4.7	Serum or plasma
Osmolality	mOsm/kg	250	325	Serum or plasma
Phosphorus	mg/dL	1.0	8.9	Serum or plasma
Potassium	mmol/L	2.8	6.2	Serum or plasma
Potassium (newborn)	mmol/L	2.8	7.8	Serum or plasma
Protein (children)	g/dL	3.4	9.5	Serum or plasma
Protein, CSF (children)	mg/dL	—	188	CSF
Sodium	mmol/L	120	160	Serum or plasma
Urea nitrogen	mg/dL	—	80	Serum or plasma
Urea nitrogen (children)	mg/dL	—	55	Serum or plasma
Uric acid	mg/dL	—	13	Serum or plasma
Uric acid (children)	mg/dL	—	12	Serum or plasma
Hematology				
Hematocrit				
Adult	%	20	60	First report only
Newborn	%	33	71	
Hemoglobin				
Adult	g/dL	7	20	First report only
Newborn	g/dL	10	22	

Continued

TABLE 56-3 Critical Values—Continued

Test	Units	Lower Limit	Upper Limit	Comments
WBC				
Adult	$\times 10^3/\mu\text{L}$	2.0	30	First report only
Children	$\times 10^3/\mu\text{L}$	2.0	43	
Platelets	$\times 10^3/\mu\text{L}$	40	1000	
Blasts	Any seen (first report only)			
Drepanocytes	Presence of sickle cells or aplastic crisis			
Coagulation				
Fibrinogen	mg/dL	100	800	
Prothrombin time	s	—	30	
Partial thromboplastin time	s	—	78	
Urinalysis				
Microscopic	Presence of pathological crystals (urate, cysteine, leucine, or tyrosine)			
Chemical	Strongly positive glucose and ketones			
Cerebrospinal fluid				
WBC (0-1 yr)	Cells per μL	—	>30	
WBC (1-4 yr)	Cells per μL	—	>20	
WBC (5-17 yr)	Cells per μL	—	>10	
WBC (>17 yr)	Cells per μL	—	>5	
Malignant cells, blasts, or microorganisms		Any		Applies to other sterile body fluids

References

- Emancipator K. Critical values: ASCP practice parameter. *Am J Clin Pathol* 1997;108:247-53.
- Hortin GL, Csako G. Critical values, panic values, or alert values? *Am J Clin Pathol* 1998;109:496-8.
- Howanitz PJ, Steindel SJ, Heard NV. Laboratory critical values policies and procedures: a College of American Pathologists Q-probes study in 623 institutions. *Arch Pathol Lab Med* 2002;126:663-9.
- Kost GJ. Critical limits for urgent clinician notification at US medical centers. *JAMA* 1990;263:701-7.
- Kost GJ. Critical limits for emergency clinician notification at United States children's hospitals. *Pediatrics* 1991;88:597-603.
- Kost GJ. Using critical limits to improve patient outcome. *Med Lab Observ* 1993;23:22-7.
- Kost GJ. The significance of ionized calcium in cardiac and critical care. Availability and critical limits at U. S. medical centers and children's hospitals. *Arch Pathol Lab Med* 1993;117:890-6.
- Tillman J, Barth JH; ACB National Audit Group. A survey of laboratory 'critical (alert) limits' in the UK. *Ann Clin Biochem* 2003;40:181-4.