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Yampa Valley Medical Center

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| **Critical Values YVMC Lab** |
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1. **Critical Values Laboratory**

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| **Chemistry Tests** | **Low** | **High** |
| Sodium | <120 mmol/L | >160 mmol/L |
| Potassium | ≤2.5 mmol/L | ≥ 6.4 mmol/L |
| Calcium | <6.1 mg/dL | >12.9 mg/dL |
| CO2 | ≤9.0 mmol/L | >40 mmol/L |
| Glucose | ≤ 40 mg/dL |  ≥ 500 mg/dL |
| Glucose (Neonates) | ≤ 40 mg/dL | ≥ 200 mg/dL |
| Magnesium | <1.0 mg/dL | >4.7 mg/dL |
| Phosphorus | < 1.3 mg/dL | > 8.0 mg/dL |
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| Troponin I |  | > 0.30 ng/mL |
| Digoxin |  | > 2.2 ug/mL |
| Gentamicin Trough |  | > 2.0 ug/mL |
| Gentamicin Peak |  | > 12.0 ug/mL |
| Salicylate |  | > 30 mg/dL |

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| **Hematology Tests** | **Low** | **High** |
| WBC | < 1,000X109/L | > 30,000X109/L |
| WBC (Pre-op) | < 2,000X109/L | > 20,000X109/L |
| Hemoglobin | < 6.0 gm/dL | > 20.0gm/dL |
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| Hematocrit | < 18% | > 60% |
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| Hematocrit (Pediatric) | < 20% | > 75% |
| Platelet count | < 25 X 109/L | >1,000 X 109/L |
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| CSF WBC (>13y) |  | > 5/uL |
| CSF WBC (Neonates) |  | >30/uL |
| CSF WBC (1m-1y) |  | >20/uL |
| CSF WBC (>1-13y) |  | > 10/uL |
| CSF | Presence of malignant cells or blasts |
| Body Fluids | Presence of malignant cells or blasts |
| WBC Differential | Presence of circulating blasts or new diagnosis of malignancy |
| Peripheral Smear | Suspected parasites are present |

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| **Coagulation Tests** | **Low**  | **High** |
| Protime (INR) |  | > 5.0 |
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| PTT |  | > 124 seconds |
| PTT Pre-op |  | > 38 seconds |
| Fibrinogen | < 100 mg/dL |  |

1. **Blood Bank Critical Lab Values**
	1. Positive Antibody results other than prenatal Anti-D.
	2. Incompatible Crossmatch
	3. Transfusion Reactions, and the Pathologist’s interpretation of transfusion reactions.
	4. Inventory Limitations and turnaround times to get additional blood and blood components.
	5. ABO/RH type changes for the administration of blood units except for O Neg units and RH Neg units to RH positive recipients.
	6. Result errors with the potential of affecting patient care.
	7. Transfusion of unsafe or inappropriate blood products.
	8. Positive Fetal Screen test indicating potential large fetal-maternal hemorrhage.
	9. Positive Direct Coombs (DAT) in newborn indicating Hemolytic Disease of the Newborn.
	10. Anticipated significant reporting delays.
2. **Microbiology Critical Lab Values**
	1. Positive blood culture
	2. Positive spinal fluid, gram stain and/or culture
	3. Positive stool culture for Salmonella, Shigella, Campylobacter or E.coli 0157.
	4. MDRO’s
		1. MRSA- Methicillin resistant Staphylococcus Aureus
		2. VRE- Vancomycin Resistant Enterococci
		3. CRE- Carbapenem Enterobacteriaceae
		4. ESBL’s
		5. MDR Pseudomonas
		6. MDR Acinetobacter
	5. Group A streptococcus (in sources other than throats)
	6. Pseudomonas isolated in an eye culture.
	7. Any observed resistance to current patient antibiotic therapy by the pathologic bacterial organism.
	8. Positive Blood parasite smear
	9. C. difficile
3. **Critical Values Microbiology Epidemiology / Infection Control**

1. Outpatients – Only called during normal business hours (inpatients called to clinical area 24/7)
2. Positive stool for Giardia
3. Culture or PCR positive for *Neisseria gonorrhea*
4. PCR positive for *C. trachomatis*
5. Positive MRSA surveillance screen
6. Inpatients (notify clinical area and IP on call per AMION)
	1. PCR Positive for *B. Pertussis*
	2. **Arterial Blood Gases**

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| Arterial Blood Gases | **Low** | **High** |
| PCO2 (arterial) | < 20 mmHg | > 70 mmHg |
| PCO2 (venous/capillary) |  | > 55 mmHg |
| PO2 | < 40 mmHg |  |
| PH (arterial) | < 7.20 | > 7.60 |
| PH (venous/capillary) | < 7.20 |  |
| HCO3 | < 12 mmol/L | > 40 mmol/L |
| Arterial Cord Gas pH |  | pH < 7.1 |

1. **References**

Joint Commission NPSG.02.03.01