


<b>Name of Policy:</b> <b>Critical Limits and Turn Around Times</b>  <b>Policy Number:</b> 3364-136-CBGL-07  <b>Approving Officer:</b> Medical Director, Blood Bank Program  <b>Responsible Agent:</b> Director, Respiratory Care Services  <b>Scope:</b> The University of Toledo Medical Center Respiratory Care Services Department		  <b>Effective date:</b> 2/3/2025  <b>Original effective date:</b> 1/2008	
Key words: Critical Limits, Turn Around Times, Blood Gas, Values, Results			
	New policy proposal		Minor/technical revision of existing policy
	Major revision of existing policy	X	Reaffirmation of existing policy

(A) Policy statement

The Blood Gas Lab has established turnaround times and critical values for blood gases.

(B) Purpose of policy

To provide practitioner notification when test results indicate the need for prompt attention and patient care management.

(C) Procedure

1. Turnaround of STAT blood gases
  - a. STAT and ED blood gases should be analyzed within 15 minutes of receipt.
  - b. STAT results with the request “Call Results” are called and sent electronically to the proper station immediately according to instruction. A comment is written with the results indicating they were called and the name of the person receiving the results. Any result that is called must be *read back* by the recipient to ensure accuracy and understanding.
  - c. Significant delays in reporting results should be detailed on the lab variance/error log. When delays are anticipated due to equipment, computer or staffing problems, the appropriate clinician must be notified, and the contact documented.
  - d. Turnaround times for STAT blood gases is 15 minutes
  - e. Turnaround times for routine blood gases is 30 minutes.
  
2. Critical Values
  - a. The following are designated critical limits:

**Critical Values (Abnormal Results)**

<i>Arterial Parameters</i>	<i>Lower Limit</i>	<i>Upper Limit</i>
<b>pH</b>	<b>7.25</b>	<b>7.55</b>
<b>pCO2 mmHg</b>	<b>25</b>	<b>55</b>
<b>pO2 mmHg</b>	<b>30</b>	
<b>Na mmol/L</b>	<b>121</b>	<b>154</b>
<b>K mmol/L</b>	<b>2.5</b>	<b>6.0</b>
<b>ICA mmol/L</b>	<b>0.83</b>	<b>1.55</b>
<b>THb g/dL</b>	<b>6.0</b>	<b>18.0</b>
<b>O2Sat %</b>	<b>55</b>	
<b>O2Hb %</b>	<b>88</b>	-
<b>COHb %</b>	-	<b>6.0</b>
<b>MetHb %</b>	-	<b>3.0</b>
<b>HHB %</b>	-	<b>6.0</b>
<i>Venous Parameters</i>	<i>Lower Limit</i>	<i>Upper Limit</i>
<b>pH</b>	<b>7.20</b>	<b>7.65</b>
<b>pCO2 mmHg</b>	<b>25</b>	<b>55</b>
<b>pO2 mmHg</b>	<b>30</b>	

- b. When reporting critical test results on the phone, you must obtain the identity of the licensed practitioner receiving results, and you must have that person READ BACK the results for accuracy and verification of understanding. Document this procedure in the electronic medical record (EMR).

<p>Approved by:</p> <p>/s/</p> <p>_____</p> <p>Melissa Kukiela BSRC, RRT Director, Respiratory Care Services</p> <p>2/3/2025</p> <p>_____</p> <p>Date</p> <p>/s/</p> <p>_____</p> <p>Lauren Stanoszek, MD Medical Director</p> <p>2/3/2025</p> <p>_____</p> <p>Date</p> <p>Review/Revision Completed by: Director, Respiratory Care Services</p>	<p><b>Policies Superseded by This Policy:</b></p> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <p>Initial effective date: 01/2008</p> <p>Review/Revision Date:</p> <p>2/12/2009 4/29/2010 2/23/2011 4/11/2012 3/3/2014 03/01/2017 02/12/2019 09/20/2021 03/27/2023 02/03/2025</p> <p>Next review date: 02/3/2027</p>
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