HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank		
Document:	Multidisciplinary Policy and Procedure		
Title:	Critical Laboratory Results Reporting and Documentation		
Applies To:	All Laboratory, Blood Bank Staff and Nursing Staff		
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1. PURPOSE:

1.1 To provide a standardized method to define, and document the immediate reporting of laboratory results, which exceed the defined critical range.

2. DEFINITONS:

2.1 Critical Result: Are those results that may require rapid clinical attention to avert significant patient morbidity and mortality and should be immediately notified to treating physician to take immediate and appropriate action.

3. POLICY:

3.1 It is the policy of the laboratory to notify the ordering location of any laboratory results which are so far from the reference range that they indicate a potentially dangerous condition requiring immediate attention by the clinician.
Critical laboratory results are always reported by telephone. In accordance with CBAHI requirements, it is required that we request a read-back of results to ensure that the results were properly noted by the recipient.

4. PROCEDURE:

4.1 **Identification of results that should be reported as critical :** See Appendix 7.1 - Critical Results / Range Lists Test results that fall into the defined critical range must be subjected to result verification process before notifying to the treating physician or ward nurse in-charge by telephone.

4.2 **Identification of the notified party:**

- 4.2.1 Inpatients - to ordering physician or to in-charge nurse of inpatient unit
- 4.2.2 Outpatients - to ordering physician
- 4.2.3 ED - to ordering physician / nurse on duty.
- 4.2.4 Identification of the means of communicating the critical results.

4.3 **The patient's full name and Medical Record Number** (MRN) should be used as the patient identifier when communication critical results to responsible care -givers. Room and bed numbers are NOT to be used to identify patients.

- 4.3.1 Description of the sequence of conveying the result and read back:
  - 4.3.1.1 The following script shall be used when communicating critical results :
    - 4.3.1.1.1 Hello, this is (staff name and ID number) calling from the (section) Lab.
    - 4.3.1.1.2 I have a critical result for patient with Name and MRN _____.
    - 4.3.1.1.3 The critical result is for (test). The result is _____.
    - 4.3.1.1.4 Please repeat back to me the result I have given you.
    - 4.3.1.1.5 May I have your Name and ID number? Thank you for your help".

4.4 **Documentation of critical results notification event:** Verbal communication of critical results must be documented in the Lab. Log Book or data format as per sectional policy, and include the following information:

4.4.1 Name of the staff member reporting the result;
4.4.2 Name of the staff member receiving the result;
4.4.3 Date and time of the notification.;
4.4.4 Documentation of "read-back";
4.4.5 Identification of the notifying person (name of the staff member reporting the result);
4.4.6 Identification of the notified person (name of clinical staff member receiving the result).

5. MATERIAL AND EQUIPMENT:

5.1 Critical Result/ Range List.
5.2 Critical Result report.

6. RESPONSIBILITIES:

6.1 The responsibility of implementing and ensuring compliance with this Policy and Procedure lies with the Laboratory Department, Nursing Affairs, Clinical Services and Medical Director. Responsibility for updating and archiving this policy rests with the Laboratory Department.

7. APPENDICES:

7.1 Critical Result / Range

8. REFERENCES:

8.1 STANFORD University Medical Centre - Pathology and Laboratory Medicine – Critical / Panic Values, 2011 - 2012
8.2 Department of Laboratory Medicine – Panic values, 14 Jun 2000 http://depts.washington.edu/labweb/test/panic.html)
8.3 Gribbles Pathology, 1996 (http://www.gribbles.com.my/quality2.html)
8.4 Shands Jacksonville, 11 Oct 2011 (www.hscj.ufl.edu/resman/manualpdfs/LAB-critical tests)

9. APPROVALS:

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Appendix 7.1: CRITICAL RESULT / RANGE:

Kingdom of Saudi Arabia
Hafar Al Batin Health Cluster
Maternity and Children Hospital

المملكة العربية السعودية
التجمع الصحي بحفر الباطن
مستشفى الولادة والأطفال

CRITICAL RESULT / RANGE

TEST	< less than (Low)	> greater than (High)	Units
CLINICAL CHEMISTRY			
Ammonia (children)	--	109 152.7	umol/L µg /dl
Amylase	--	1000	U/L
Albumin (children)	17 1.7	68 6.8	g/l g/dl
Bilirubin(New Born)	--	256.5 15.0	umol/L mg/dl
Calcium	1.25 6.0	3.25 13.0	umol/L mg/dl
Calcium (children)	1.62 6.5	3.17 12.7	umol/L mg/dl
Blood Glucose	50 2.78	500 27.8	mg/dl mmol /L
CSF Glucose	20 1.11	--	mg/dl mmol L
Potassium	2.0	6.5	mmol/L
Potassium (for Patients known to be on dialyses)	--	7.0	mmol/L
Potassium for neonate	2.8	7.8	mmol/L
Magnesium	0.411 1.0	1.85 4.5	mmol/L mg/dl
Sodium	120	--	mmol/L
CKMB	--	50	U/L
Phosphorous	0.323 1.0	--	mmol/L mg/dl
TROPONIN	--	0.1	ng/ml
HEMATOLOGY			
White blood cells (WBCs) Neutrophil	<=500	>= 50,000	Cells / ul
Hb (hemoglobin)	<= 7.0	>= 18.0	g/dl
MCV (Mean cell volume)		>= 110	fl
Platelets	<= 20,000	> = 900,000	Cells / ul
Differential count: Neutrophil	--	>= 90	%
Differential count: Lymphocyte	--	>=60	%
D-Dimer	--	>= 40	Ug/ml
Prothrombin time (PT)	--	> 30	seconds
Prothrombin time (PT) – patients on oral anticoagulant	--	> 60	seconds
Partial Thromboplastin time (PTT)	--	> 70	seconds
Partial Thromboplastin time (PTT) – patients on heparin	--	> 120	seconds
INR	--	> 5.0	
Fibrinogen	< 0.5	--	g/l
All previously unknown patients with blast cells.			
All previously unknown patients with blood parasites.			

CRITICAL RESULT / RANGE

TEST	< less than (Low)	> greater than (High)	Units
BLOOD BANK – TRANSFUSION SERVICE			
Hemolytic Transfusion Reaction	Positive		N/A
Unacceptable Blood Specimen	Hemolysis / labeling		N/A
Blood product unavailability	Inventory shortage		N/A
Red cell-incompatibility found after emergency cross-match	Incompatible cross match		N/A
Positive antibody screening with cross match order	Time required for antibody identification		N/A
MICROBIOLOGY			
Positive Blood culture			
Positive Direct Gram stain exam or culture of CSF			
Positive direct examination from sterile body fluid/site			
Positive culture of sterile body fluid			
Positive AFB stain or culture from any specimen			
PARASITOLOGY			
Urine analysis Ketones	--		+ 2
SEROLOGY			
Brucella Antibody Titer (Out Patients only)	--		> or = 1:640
Positive HIV Antigen and Antibody			
Positive Hepatitis B Core IgM antibody (new Hepatitis B Infection)			
Positive HCV Antibody			