



Standard Operating Procedure History:

Title: Hematology Critical Values **Site(s):** ALL WRHA sites (exclude HSC)

Hematology Document #: HEM-MISC-001-01 Version 03 **DSM Document Number:** 140-10-21 Version 03

Standard Operating Procedure History

Original Approved by:	Dr. Carmen Morales Medical Director	Method Written By:	Gail Turnbull Technical Director
Signature:	_____	Signature:	_____
Date:	February 26, 2007	Date:	February 26, 2007

1 Annual Review:

#	Reviewed by:	Date:	Director Approval:	Date:
1				
2				
3				
4				
5				

2 Summary of Revisions:

#	Details of Revisions :	Date:	Director Approval:	Date:
1	Included critical fibrinogen (< 1.0 g/L)	June 02, 2008	Dr. Carmen Morales	June 03, 2008
2	Included critical CSF TNCC $\geq 10 \times 10^6/L$	June 02, 2008	Dr. Carmen Morales	June 03, 2008
3	Included abnormal /suspect cells observed for fluids as critical	June 02, 2008	Dr. Carmen Morales	June 03, 2008
4	Changed "alert" to "critical" throughout document and title	Dec 4, 2008	Dr. Carmen Morales	Dec. 19, 2008
5	Documentation and initiate occurrence report of failure of notification, pg 3-4	Nov. 10/09	Dr. Carmen Morales	Nov. 10/09



Hematology Critical Values

Purpose: This procedure provides instructions to describe the steps and actions when phoning and documenting critical values.

Policy:

- Critical Hematology values, that may require urgent evaluation/action by the Physician, must have immediate verbal notification (phone call) to the location on the requisition.
- This must be documented in the report with the test name and value, the date and time, and the name of the person accepting results. There must be documentation of any failure of attempts to notify the appropriate person.
- There must be follow up of any occurrences of failed notification attempts.

Reagents	Supplies	Equipment
• N/A	N/A	<ul style="list-style-type: none"> • LIS PC • Telephone

Sample: Any sample processed in DSM Hematology Laboratories
See *Critical Values* below.

Quality Control: All critical results must be phoned, and documentation of the date/time and person who took the results recorded in the report.

Procedure: Follow the activities in the table below :

Step	Action																																	
1	<p>The following are DSM Critical Values, which will initiate a phone call of the results:</p> <table border="1"> <tbody> <tr> <td>WBC</td> <td>< 2.0 or >30 $10^9/L$</td> <td>unexpected 1st encounter</td> </tr> <tr> <td>HGB</td> <td>< 65 g/L</td> <td>1st time same day</td> </tr> <tr> <td>PLT</td> <td>< 50 x $10^9/L$ < 20 x $10^9/L$</td> <td>1st time same day every time</td> </tr> <tr> <td>WBC Differential</td> <td>suspect leukemia</td> <td>1st encounter (with statement that HP review pending)</td> </tr> <tr> <td>Red Cell Morphology</td> <td>>6 spherocytes schistocytes HPF or increased sickle cells</td> <td>1st time 1st time 1st time</td> </tr> <tr> <td>Malaria</td> <td>positive</td> <td>(with statement that HP speciation pending)</td> </tr> <tr> <td>CSF TNCC</td> <td>$\geq 10 \times 10^6/L$</td> <td>Every time</td> </tr> <tr> <td>CSF /Fluid Morphology</td> <td>abnormal /suspect cells observed</td> <td>Every time (with statement that HP review pending)</td> </tr> <tr> <td>INR</td> <td>≥ 5.0</td> <td>Every time</td> </tr> <tr> <td>APTT</td> <td>> 150 s</td> <td>Every time</td> </tr> <tr> <td>Clauss Fibrinogen</td> <td>< 1.0 g/L</td> <td>Every time</td> </tr> </tbody> </table>	WBC	< 2.0 or >30 $10^9/L$	unexpected 1 st encounter	HGB	< 65 g/L	1 st time same day	PLT	< 50 x $10^9/L$ < 20 x $10^9/L$	1 st time same day every time	WBC Differential	suspect leukemia	1 st encounter (with statement that HP review pending)	Red Cell Morphology	>6 spherocytes schistocytes HPF or increased sickle cells	1 st time 1 st time 1 st time	Malaria	positive	(with statement that HP speciation pending)	CSF TNCC	$\geq 10 \times 10^6/L$	Every time	CSF /Fluid Morphology	abnormal /suspect cells observed	Every time (with statement that HP review pending)	INR	≥ 5.0	Every time	APTT	> 150 s	Every time	Clauss Fibrinogen	< 1.0 g/L	Every time
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**Reporting
Critical Results:**

2	Prior to releasing the critical values to the LIS, phone the location on the request and identify that you are notifying of a critical value.																												
3	<ul style="list-style-type: none"> Request to speak to either the nurse unit manager or the responsible Physician, if neither are available, the ward clerk can accept the results. Request the name (and position) of the person accepting the result. 																												
4	<ul style="list-style-type: none"> Give the name of the test, and the results (value and units) Ask the person taking the results to repeat the information back. 																												
5	<p>If there is no answer at the number indicated on the request For any clinical service, there should be/will be a Physician on call who can be reached through the Paging Operator. For Referred In requests – there should be a designated contact for critical values.</p>																												
6	<p>Call up the appropriate format and accession # for the following:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Test</th> <th style="text-align: left;">Format</th> <th style="text-align: left;">Field</th> </tr> </thead> <tbody> <tr> <td>WBC, HGB, PLT*</td> <td>CBC</td> <td>PCOM-CBC Comment</td> </tr> <tr> <td>Abnormal WBC Differential**</td> <td>CBC</td> <td>PCOM-CBC Comment</td> </tr> <tr> <td>Abnormal RBC Morphology</td> <td>DIFF</td> <td>RBC Comment</td> </tr> <tr> <td>INR /APTT/Fibrinogen</td> <td>MLAC</td> <td>Coag Comment</td> </tr> <tr> <td>Positive Malaria</td> <td>MAL</td> <td>Phoned to</td> </tr> <tr> <td>CSF TNCC</td> <td>CSFH</td> <td>Phoned to</td> </tr> <tr> <td>CSF Abnormal /suspect cells***</td> <td>CSFH</td> <td>Phoned to</td> </tr> <tr> <td>Fluids Abnormal /suspect cells***</td> <td>HFLD</td> <td>Phoned to</td> </tr> </tbody> </table>		Test	Format	Field	WBC, HGB, PLT*	CBC	PCOM-CBC Comment	Abnormal WBC Differential**	CBC	PCOM-CBC Comment	Abnormal RBC Morphology	DIFF	RBC Comment	INR /APTT/Fibrinogen	MLAC	Coag Comment	Positive Malaria	MAL	Phoned to	CSF TNCC	CSFH	Phoned to	CSF Abnormal /suspect cells***	CSFH	Phoned to	Fluids Abnormal /suspect cells***	HFLD	Phoned to
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8	<p>Free text: Name of person accepting results, test name, value & units, date and time.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">If:</th> <th style="text-align: left;">Then:</th> </tr> </thead> <tbody> <tr> <td>Unverified PLT counts,</td> <td>Add &PNC (at notification time, PLT count was not verified) on CBC format.</td> </tr> <tr> <td>Abnormal differential (1st encounter – suspect leukemia),</td> <td>Add &HPBF (suspect/abnormal cells noted/observed on blood film hematopathologist on call has been notified and will issue a definitive report) on DIFF format.</td> </tr> <tr> <td>Abnormal /suspect cells (CSF & Fluids),</td> <td>Add &HPSL (suspect abnormal cells noted/observed on slide, hematopathologist on call has been notified) on appropriate format.</td> </tr> </tbody> </table> <p>Follow procedure: <i>WRHA/Urban Process for Referring Peripheral Blood Films for Urgent Hematopathologist Review.</i></p>		If:	Then:	Unverified PLT counts,	Add &PNC (at notification time, PLT count was not verified) on CBC format.	Abnormal differential (1 st encounter – suspect leukemia),	Add &HPBF (suspect/abnormal cells noted/observed on blood film hematopathologist on call has been notified and will issue a definitive report) on DIFF format.	Abnormal /suspect cells (CSF & Fluids),	Add &HPSL (suspect abnormal cells noted/observed on slide, hematopathologist on call has been notified) on appropriate format.																			
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8 Cont'd	Document any failure of attempts to notify the appropriate person and any other subsequent actions as directed below. ie. "Attempt made to contact Physician on call –unsuccessful" on reporting format	
	If:	Then:
	Inpatient results,	Initiate Facility Occurrence Report, following facility/RHA procedure.
	Outpatient results and unable to call physician on call and unable to leave a message on the physician's answering machine (only if there is an identifier),	Contact facility's CMO (through hospital paging). Notify discipline Director or Hematopathologist on call. Initiate Facility Occurrence Report. Follow facility/RHA procedure. Refer to DSM Policy, Reporting Critical Value, 100-10-06.
Referred specimens requests and no contact information or physician cannot be reached,	Contact forwarding laboratory to forward results (leave message on off hours). Contact Hematopathologist on call and notify failure of notification. Refer to DSM Policy, Reporting Critical Values, 100-10-06	

Critical Values See Table Step #1.

- References:**
1. College of Physicians & Surgeons of Alberta -Laboratory –Major Standards & Guidelines (June 2005).
 2. College of American Pathologists (CAP) – Laboratory General (10/06/2005).

- Related Procedures:**
- DSM Procedure: Reviewing Guidelines for CBC Processed on XE2100 – SBGH [HEM-CBC-002-01]
 - DSM Procedure: Reviewing Guidelines for CBC Processed on XT 2000 – WRHA Community Hospitals/ Health Care Facilities SBGH [HEM-CBC-002-02]
 - DSM Procedure: Reviewing Guidelines for CBC Processed on KX-21N [HEM-CBC-002-03]
 - DSM Procedure: Peripheral Blood Film Review and Report [HEM-PBF-003-02]
 - DSM Procedure: WRHA / Urban Process for Referring Peripheral Blood Films for Urgent Hematopathologist Review
 - DSM Procedure: Processing Routine Coagulation Test Menu on TOP Analyzer [HEM-COAG-005-001 vers 01]
 - DSM Policy: Reporting Critical Values, 100-10-06