

PROGRAM Standard Operating Procedure – Laboratory Services	
Title: HEM20100 XN 1000 Daily Maintenance	Policy Number: 15-205-V1
Program Name: Laboratory Services	
Applicable Domain: Lab, DI and Pharmacy Services	
Additional Domain(s): NA	
Effective Date: 24/04/2025	Next Review Date: 24/04/2027
Issuing Authority: Director, Laboratory and Diagnostic Imaging Services	Date Approved: 24/04/2025
Accreditation Canada Applicable Standard: Biomedical Laboratory Services	

**GUIDING PRINCIPLE:**

Regular maintenance of the analyzers is necessary to keep the instrument in the most optimal condition. Appropriate maintenance should be performed according to the manufacturer's guidelines.

**PURPOSE/RATIONALE:**

This procedure gives instruction on how to safely perform daily maintenance on the Sysmex XN-1000 analyzers. The CELLCLEAN AUTO is a strong alkaline detergent to remove Sysmex lysing reagent, cellular residuals and blood proteins remaining in the hydraulics of the XN series automated hematology analyzer.

**SCOPE/APPLICABILITY:**

This procedure applies to Medical Laboratory Technologists (MLT's) who will be performing this procedure.

**REAGENTS and/or MEDIA:**

CELLCLEAN AUTO- 5.0% Chlorine concentration

- Must be stored away from direct sunlight at 1-30°C
- Do not use if suspected to have been frozen

**EQUIPMENT**

Sysmex XN-1000

**EQUIPMENT CALIBRATION AND MAINTENANCE:**

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Preventative Maintenance (PM) is performed annually by the Sysmex Field Service Agent (FSA).

### SPECIAL SAFETY PRECAUTIONS:

- Ensure proper PPE is used such as gloves, lab gowns and eye protection when possible exposure to splashes.
- Ensure all samples are treated following universal precautions and assume all products as potentially infectious.
- When handling CELLCLEAN AUTO avoid contact with skin and eyes


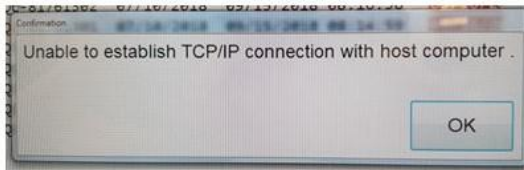

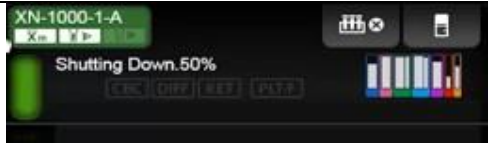
### QUALITY CONTROL:

Quality Control must be performed after daily maintenance and fall within acceptable limits, prior to any patient testing. Refer to **HEM20200 XN-1000**


### Running Quality Control

### PROCEDURE INSTRUCTIONS:

Follow the steps in the table below

Step	Action
<b>Daily Maintenance</b>	
1	Ensure the analyzer is in the "Ready State" and in auto-sampler mode. Check for the solid green light on the analyzer as well as the computer screen. 
2	Each night after midnight the analyzer will lose IP connection and the HOST icon will be red. Press [OK], this will reset the connection, and the HOST icon will turn green. 
3	Place a fresh vial of CELLCLEAN AUTO in the 10 <sup>th</sup> position of a sample rack and then place the rack on the right side of the sampler. The analyzer will automatically begin. 
4	Shutdown takes approximately 15 minutes and you can view the progress on the monitor. 
5	Once the Shutdown is 55% completed the rack will be ejected to the left side of the sampler section. Exercise caution, as a residual fluid may leak from the puncture hole. Discard the used tube in the biohazard waste container.

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<b>6</b>	Once the Shutdown procedure is complete the IPU and analyzer will automatically power off. Turn on the IPU unit by pressing the power switch on the front of the IPU.
<b>7</b>	Log onto the computer with the following credentials. Login: admin Password: m116m
<b>8</b>	The analyzer will automatically begin the start-up.
<b>9</b>	The analyzer will automatically perform a background check. If the background values are below the acceptable values, the Status Indicator LED light will turn green and the analyzer enters "Ready" state. If the background checks fail after 3 attempts it is considered an Error, refer to the XN Series Instructions For Use Manual for troubleshooting.
<b>10</b>	Perform Quality Control. Refer to <b>HEM20200 XN-1000 Running Quality Control</b> .
<b>11</b>	Log into TQC to document completed maintenance.
<b>12</b>	Under the Results Tab select Resulting Worklist > SHEM-Equipment > SXNA. Under Result check off that both the AUTOSHUTDOWN and QCXN were completed, select <b>Verify All</b> then <b>Save</b> . When prompt appears "Do you want to save changes?" select <b>Yes</b> . Repeat for SXNB.  

### TROUBLESHOOTING:

Refer to the Sysmex XN Series Instructions for Use Manual for general troubleshooting guidance.

### CROSS-REFERENCES:

HEM20200 XN-1000 Running Quality Control

### REFERENCES:

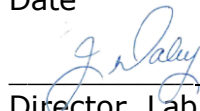
XN Series (XN-1000) Instructions for Use, (North American Edition, XN-11/XN-21), Kobe, Japan, November 2015

XN-1000 Daily Maintenance, Stanton Territorial Hospital, November 2018

### APPROVAL:

April 24, 2025

Date



Director, Laboratory and Diagnostic Imaging Services

**REVISION HISTORY:**

REVISION	DATE	Description of Change	REQUESTED BY
1.0	30 Nov 2018	Initial Release	K. Wilson
2.0	10 Mar 2025	Transferred to NTHSSA Template, Procedure reviewed	L. Howlett

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