



**HEMATOLOGY CONTROL FOR SYSMEX XE-5000 ANALYZERS
OPEN MODE ASSAY**

| | | | | | | | | | |
|------------------------------------|-----------------------------|---|-----------------|-------------------|---|-------------------|-----------------|-----------------------|--|
| Expiration Date: 2012-04-23 | | Quality Control Data Due Date #1: 12-Mar-12 | | | Quality Control Data Due Date #2: 23-Apr-12 | | | | |
| Lot Number: | | 20320810 | | 20320811 | | 20320812 | | | |
| Control: | | L1:Level 1 | | L2:Level 2 | | L3:Level 3 | | | |
| PARAMETERS | MEAN | EXPECTED RANGE | | MEAN | EXPECTED RANGE | | MEAN | EXPECTED RANGE | |
| O P E N | RBC (10 ¹² /L) | 2.26 | 2.17 - 2.35 | 4.31 | 4.18 - 4.44 | 5.22 | 5.06 - 5.38 | | |
| | HGB (g/dL) | 5.6 | 5.4 - 5.8 | 12.0 | 11.6 - 12.4 | 16.1 | 15.6 - 16.6 | | |
| | HCT (%) | 16.9 | 16.1 - 17.7 | 35.2 | 33.6 - 36.8 | 45.8 | 43.7 - 47.9 | | |
| | MCV (fL) | 74.6 | 68.3 - 81.8 | 81.7 | 75.7 - 88.0 | 87.7 | 81.4 - 94.5 | | |
| | MCH (pg) | 24.8 | 22.9 - 26.8 | 27.8 | 26.2 - 29.6 | 30.9 | 29.0 - 32.8 | | |
| | MCHC (g/dL) | 33.2 | 30.3 - 36.3 | 34.1 | 31.6 - 36.8 | 35.2 | 32.6 - 37.9 | | |
| | PLT (10 ⁹ /L) | 53 | 32 - 74 | 205 | 182 - 228 | 500 | 455 - 545 | | |
| | RDW-SD (fL) | 44.1 | 39.7 - 48.5 | 44.7 | 40.2 - 49.2 | 43.9 | 39.5 - 48.3 | | |
| | RDW-CV (%) | 16.2 | 14.6 - 17.8 | 15.2 | 13.7 - 16.7 | 13.9 | 12.5 - 15.3 | | |
| | MPV (fL) | 8.9 | 8.2 - 9.6 | 9.2 | 8.6 - 9.8 | 9.3 | 8.7 - 9.9 | | |
| | WBC (10 ⁹ /L) | 3.07 | 2.76 - 3.38 | 7.12 | 6.69 - 7.55 | 17.50 | 16.45 - 18.55 | | |
| | WBC-D (10 ⁹ /L) | 2.92 | 2.63 - 3.21 | 6.54 | 6.15 - 6.93 | 16.11 | 15.14 - 17.08 | | |
| | NEUT% | 45.0 | 36.0 - 54.0 | 47.1 | 40.0 - 54.2 | 52.2 | 44.4 - 60.0 | | |
| | LYMPH% | 33.9 | 20.3 - 47.5 | 31.6 | 25.3 - 37.9 | 25.6 | 20.5 - 30.7 | | |
| | MONO% | 11.4 | 2.3 - 20.5 | 10.9 | 6.5 - 15.3 | 10.6 | 7.4 - 13.8 | | |
| | EO% | 9.7 | 6.8 - 12.6 | 10.4 | 7.3 - 13.5 | 11.6 | 8.7 - 14.5 | | |
| | BASO% | 64.6 | 45.2 - 84.0 | 67.2 | 47.0 - 87.4 | 72.3 | 54.2 - 90.4 | | |
| | NEUT# (10 ⁹ /L) | 1.38 | 1.10 - 1.66 | 3.36 | 2.86 - 3.86 | 9.14 | 7.77 - 10.51 | | |
| | LYMPH# (10 ⁹ /L) | 1.04 | 0.62 - 1.46 | 2.25 | 1.80 - 2.70 | 4.48 | 3.58 - 5.38 | | |
| | MONO# (10 ⁹ /L) | 0.35 | 0.07 - 0.63 | 0.77 | 0.31 - 1.23 | 1.86 | 1.12 - 2.60 | | |
| | EO# (10 ⁹ /L) | 0.30 | 0.21 - 0.39 | 0.74 | 0.52 - 0.96 | 2.03 | 1.52 - 2.54 | | |
| | BASO# (10 ⁹ /L) | 1.98 | 1.39 - 2.57 | 4.78 | 3.35 - 6.21 | 12.65 | 9.49 - 15.81 | | |
| | NRBC# (10 ⁹ /L) | 0.15 | 0.08 - 0.23 | 0.45 | 0.32 - 0.59 | 1.08 | 0.76 - 1.40 | | |
| | NRBC% (/100 WBC) | 5.0 | 2.5 - 7.5 | 6.8 | 4.8 - 8.8 | 6.6 | 4.6 - 8.6 | | |
| | PLT-O (10 ⁹ /L) | 58 | 32 - 84 | 217 | 184 - 250 | 531 | 451 - 611 | | |
| | RET# (10 ¹² /L) | 0.1354 | 0.0948 - 0.1760 | 0.1214 | 0.0850 - 0.1578 | 0.0589 | 0.0412 - 0.0766 | | |
| | RET% | 5.99 | 4.19 - 7.79 | 2.82 | 1.97 - 3.67 | 1.13 | 0.79 - 1.47 | | |
| | IRF (%) | 29.3 | 9.3 - 49.3 | 28.5 | 8.5 - 48.5 | 21.8 | 1.8 - 41.8 | | |
| | IG # | 0.33 | 0.30 - 0.36 | 0.79 | 0.59 - 0.99 | 2.14 | 1.50 - 2.78 | | |
| | IG % | 10.7 | 7.5 - 13.9 | 11.1 | 8.3 - 13.9 | 12.3 | 7.4 - 17.2 | | |
| | HPC # | 0.014 | 0.012 - 0.016 | 0.034 | 0.031 - 0.037 | 0.104 | 0.094 - 0.114 | | |
| | RET-HE (pg) | 24.0 | 16.8 - 31.2 | 24.8 | 18.6 - 31.0 | 25.6 | 15.4 - 35.8 | | |
| | IPF % | 21.5 | 18.3 - 24.7 | 21.5 | 18.3 - 24.7 | 21.8 | 18.5 - 25.1 | | |

Sysmex recommends that laboratories establish their own Q.C. Target Values for each new lot number by collecting at least 10 data points per control level over 5 days. The mean Q.C. Target Values from this data collection should be inside the Expected Ranges. These Expected Ranges represent estimates of interlaboratory variation and are not included for use as the laboratory's internal Q.C. file limits. Sysmex recommends that each laboratory establish its own Q.C. file limits based on the laboratory's historical coefficient of variation. See your Sysmex Training Manual for more information on establishing Q.C. file limits.



**HEMATOLOGY CONTROL FOR SYSMEX XE-5000 ANALYZERS
CLOSED MODE ASSAY**

| Expiration Date: 2012-04-23 | | Quality Control Data Due Date #1: 12-Mar-12 | | | Quality Control Data Due Date #2: 23-Apr-12 | | | | | |
|------------------------------------|-----------------------------|---|---------|-------------------|---|-------------------|----------|----------------|---------|----------|
| Lot Number: | | 20320810 | | 20320811 | | 20320812 | | | | |
| Control: | | L1:Level 1 | | L2:Level 2 | | L3:Level 3 | | | | |
| PARAMETERS | MEAN | EXPECTED RANGE | | MEAN | EXPECTED RANGE | | MEAN | EXPECTED RANGE | | |
| CLOSED | RBC (10 ¹² /L) | 2.26 | 2.12 | - 2.40 | 4.31 | 4.09 | - 4.53 | 5.22 | 4.96 | - 5.48 |
| | HGB (g/dL) | 5.6 | 5.3 | - 5.9 | 12.0 | 11.4 | - 12.6 | 16.1 | 15.3 | - 16.9 |
| | HCT (%) | 16.9 | 15.7 | - 18.1 | 35.2 | 33.1 | - 37.3 | 45.8 | 43.1 | - 48.5 |
| | MCV (fL) | 74.6 | 65.6 | - 85.1 | 81.7 | 73.1 | - 91.1 | 87.7 | 78.5 | - 97.9 |
| | MCH (pg) | 24.8 | 22.0 | - 27.9 | 27.8 | 25.2 | - 30.8 | 30.9 | 27.9 | - 34.1 |
| | MCHC (g/dL) | 33.2 | 29.1 | - 37.8 | 34.1 | 30.6 | - 38.1 | 35.2 | 31.5 | - 39.3 |
| | PLT (10 ⁹ /L) | 53 | 27 | - 80 | 201 | 171 | - 231 | 475 | 404 | - 546 |
| | RDW-SD (fL) | 44.1 | 39.7 | - 48.5 | 44.7 | 40.2 | - 49.2 | 43.9 | 39.5 | - 48.3 |
| | RDW-CV (%) | 16.2 | 14.6 | - 17.8 | 15.2 | 13.7 | - 16.7 | 13.9 | 12.5 | - 15.3 |
| | MPV (fL) | 8.9 | 8.2 | - 9.6 | 9.2 | 8.6 | - 9.8 | 9.3 | 8.7 | - 9.9 |
| | WBC (10 ⁹ /L) | 2.98 | 2.53 | - 3.43 | 6.69 | 6.09 | - 7.29 | 17.15 | 15.78 | - 18.52 |
| | WBC-D (10 ⁹ /L) | 2.83 | 2.41 | - 3.25 | 6.34 | 5.77 | - 6.91 | 15.63 | 14.38 | - 16.88 |
| | NEUT% | 44.9 | 35.9 | - 53.9 | 46.1 | 39.2 | - 53.0 | 52.7 | 44.8 | - 60.6 |
| | LYMPH% | 33.9 | 20.3 | - 47.5 | 33.0 | 26.4 | - 39.6 | 26.1 | 20.9 | - 31.3 |
| | MONO% | 11.1 | 2.2 | - 20.0 | 10.3 | 6.2 | - 14.4 | 9.7 | 6.8 | - 12.6 |
| | EO% | 10.1 | 7.1 | - 13.1 | 10.6 | 7.4 | - 13.8 | 11.5 | 8.6 | - 14.4 |
| | BASO% | 65.8 | 46.1 | - 85.5 | 68.6 | 48.0 | - 89.2 | 72.3 | 54.2 | - 90.4 |
| | NEUT# (10 ⁹ /L) | 1.34 | 1.07 | - 1.61 | 3.08 | 2.62 | - 3.54 | 9.03 | 7.68 | - 10.38 |
| | LYMPH# (10 ⁹ /L) | 1.01 | 0.61 | - 1.41 | 2.21 | 1.77 | - 2.65 | 4.48 | 3.58 | - 5.38 |
| | MONO# (10 ⁹ /L) | 0.33 | 0.07 | - 0.59 | 0.69 | 0.28 | - 1.10 | 1.67 | 1.00 | - 2.34 |
| | EO# (10 ⁹ /L) | 0.30 | 0.21 | - 0.39 | 0.71 | 0.50 | - 0.92 | 1.97 | 1.48 | - 2.46 |
| | BASO# (10 ⁹ /L) | 1.96 | 1.37 | - 2.55 | 4.59 | 3.21 | - 5.97 | 12.40 | 9.30 | - 15.50 |
| | NRBC# (10 ⁹ /L) | 0.15 | 0.08 | - 0.23 | 0.43 | 0.30 | - 0.56 | 1.08 | 0.76 | - 1.40 |
| | NRBC% (/100 WBC) | 5.0 | 2.5 | - 7.5 | 6.8 | 4.8 | - 8.8 | 6.6 | 4.6 | - 8.6 |
| | PLT-O (10 ⁹ /L) | 57 | 29 | - 86 | 215 | 183 | - 247 | 515 | 438 | - 592 |
| | RET# (10 ¹² /L) | 0.1354 | 0.0948 | - 0.1760 | 0.1214 | 0.0850 | - 0.1578 | 0.0589 | 0.0412 | - 0.0766 |
| | RET% | 5.99 | 4.19 | - 7.79 | 2.82 | 1.97 | - 3.67 | 1.13 | 0.79 | - 1.47 |
| | IRF (%) | 29.3 | 9.3 | - 49.3 | 28.5 | 8.5 | - 48.5 | 21.8 | 1.8 | - 41.8 |
| | IG # | 0.33 | 0.30 | - 0.36 | 0.76 | 0.57 | - 0.95 | 2.08 | 1.46 | - 2.70 |
| | IG % | 10.7 | 7.5 | - 13.9 | 11.1 | 8.3 | - 13.9 | 12.3 | 7.4 | - 17.2 |
| HPC # | 0.014 | 0.012 | - 0.016 | 0.034 | 0.031 | - 0.037 | 0.104 | 0.094 | - 0.114 | |
| RET-HE (pg) | 24.0 | 16.8 | - 31.2 | 24.8 | 18.6 | - 31.0 | 25.6 | 15.4 | - 35.8 | |
| IPF % | 21.5 | 18.3 | - 24.7 | 21.5 | 18.3 | - 24.7 | 21.8 | 18.5 | - 25.1 | |

Sysmex recommends that laboratories establish their own Q.C. Target Values for each new lot number by collecting at least 10 data points per control level over 5 days. The mean Q.C. Target Values from this data collection should be inside the Expected Ranges. These Expected Ranges represent estimates of interlaboratory variation and are not included for use as the laboratory's internal Q.C. file limits. Sysmex recommends that each laboratory establish its own Q.C. file limits based on the laboratory's historical coefficient of variation. See your Sysmex Training Manual for more information on establishing Q.C. file limits.