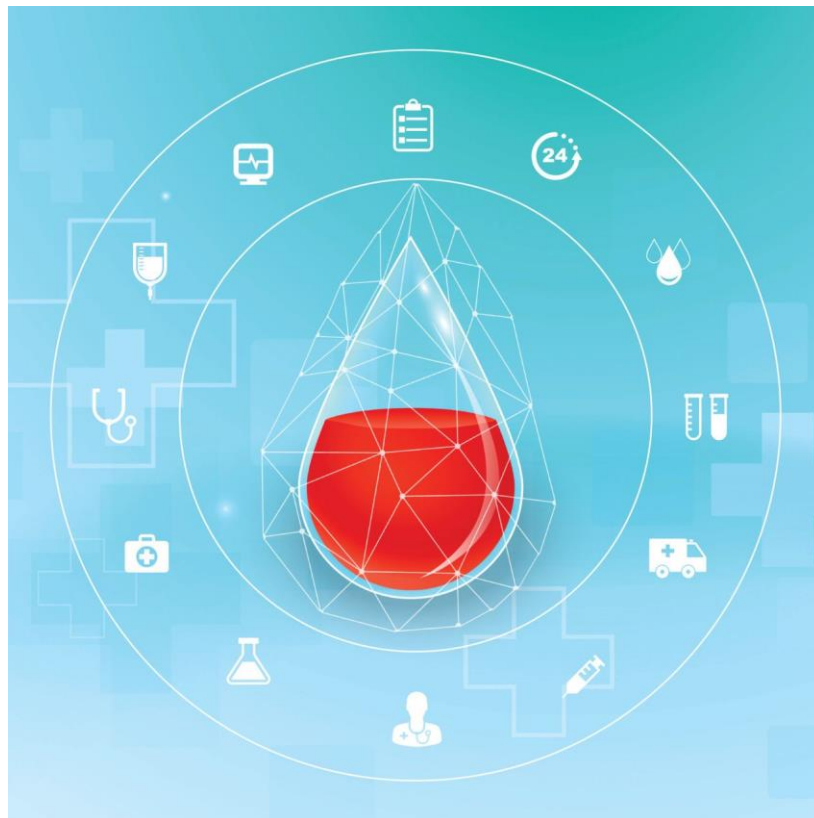


Literature List – Blood Bank mode

Customer Information

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Note: Whether references are given in British or American English depends on the original.

NEW

New entries are highlighted by this icon.

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General

NEW

Arisawa F *et al.* (2021)

Evaluation of the Blood Bank mode Software of Sysmex XN-1000 Hematology Analyzer for Counting Residual Red Blood Cells and Platelets in Platelet concentrates, and Residual White Blood Cells in Leucocyte-Reduced Whole Blood
Sysmex J Int; 31(2): 18

Free online: https://www.sysmex.co.jp/en/products_solutions/library/journal/Vol31_No2/summary01.html

What we see as the essence: The study investigated Blood Bank mode (XN-1000) analytical performance of rRBC (0-5000/ μ L), rWBC (0-30/ μ L) with standard blood components counting methods and the PLT correlation with XS-1000i. The comparable results suggest that it is possible to measure rRBC, rWBC, and platelet counts for quality control in one sample using the Blood Bank mode.

Residual White Blood Cells

Lagerberg JW *et al.* (2020)

Improved accuracy in counting residual white blood cells in red cell concentrates using new blood bank mode software of SYSMEX XN-1000 hematology analyzer.

Transfusion; 60(10): 2456

<https://onlinelibrary.wiley.com/doi/10.1111/trf.15985>

What we see as the essence: The authors re-calculated their results with the updated XN software for Blood Bank mode and observed very good linear fit between expected and observed values for residual WBC in red cell concentrates (RCC). The previous underestimation of residual WBC in RCC (Blanco RA *et al.*) is solved with the updated XN software (XN IPU SW 22.15).

Blanco RA *et al.* (2020)

The use of a hematology analyzer with a new generation of software as an alternative to flow cytometry for enumerating residual white blood cells in blood components.

Transfusion; 60(1): 155

Free online: <https://onlinelibrary.wiley.com/doi/full/10.1111/trf.15606>

What we see as the essence: In this study, the performance of the XN Blood Bank (BB) mode for residual WBC (rWBC) enumeration in blood components was analysed. In platelet, plasma and RBC components spiked with WBC, the BB mode demonstrated a LOQ of 2 WBC/ μ L and an excellent concordance with flow cytometry (FC) results. In components obtained from a routine blood bank, the BB mode successfully identified leukodepletion failures and met the guideline criteria of 90% of tested components containing less than 1×10^6 rWBC/unit, which was in agreement with FC results.

Mack S *et al.* (2020)

Component residual white blood cell counting made easy?

Transfusion; 60(1): 4

Free online: <https://onlinelibrary.wiley.com/doi/full/10.1111/trf.15642>

What we see as the essence: A short review on required detection levels for blood products in US and Europe, and currently used methods on residual white blood cell counting. An outlook is given based on the publication by Blanco *et al.* how XN-Series analysers could increase the efficiency and reduce costs in blood banks in the future.

Residual Red Blood Cells

Cavagnetto C *et al.* (2021)

Residual red cells in blood components: A multisite study of fully automated enumeration using a hematology analyzer
Transfusion; 61(2): e258

Free online: <https://onlinelibrary.wiley.com/doi/10.1111/trf.16196>

What we see as the essence: The Blood Bank mode was tested at multiple sites and showed very good performance characteristics, with an LoD/LoQ of 6 RBC/ μ L and excellent linear correlation between expected and observed values in spiking experiments. Moreover, in a batch of routine manufactured blood components the Blood Bank mode identified all residual RBC contaminated samples correctly.