

Performance evaluation of the Sysmex XT-2000i automated hematology analyzer.

Langford K, Luchtman-Jones L, Miller R, Walck D.

Saint Louis Children's Hospital Core Laboratory/Hematology, St. Louis, Missouri 63110-1077, USA.

The Sysmex XT-2000i automated hematology analyzer was evaluated at Saint Louis Children's Hospital (SLCH), St. Louis, MO, USA. Complete blood count results from the Sysmex XT-2000i were compared to results from the Sysmex XE-2100 for 114 pediatric and adult patient samples. Manual differentials were performed on each specimen by 2 experienced medical technologists using guidelines established in the National Committee for Clinical Laboratory Standards (NCCLS) document H20-A. Carryover, precision, linearity, correlation, stability, and mixing-test studies were also performed. The XT-2000i results showed excellent correlation with the results from the XE-2100 for the following parameters: white blood cells; red blood cells; hemoglobin; hematocrit; mean corpuscular volume; mean corpuscular hemoglobin; mean corpuscular hemoglobin concentration; red blood cell distribution width by standard deviation; red blood cell distribution width by coefficient of variation; mean platelet volume; platelets; percent neutrophils, lymphocytes, monocytes, eosinophils, and basophils; and reticulocyte percent and number. In our evaluation of the XT-2000i the correlation coefficients for all complete blood counts and differential parameters compared well with those of the XE-2100. We concluded that the XT-2000i demonstrated comparable analytical performance to its predecessor, the XE-2100.

PMID: 12661825 [PubMed - indexed for MEDLINE]