Evaluation of an Automated Hemostasis Testing Analyzer, the Trombolyzer Combi

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SUMMARY

We evaluated the Trombolyzer Combi (Behnk Elektronik, Norderstedt, Germany), an automated hemostasis analyzer, in a clinical setting. Determination of prothrombin time (PT), activated partial prothrombin time (APTT), fibrinogen (FIB) and antithrombin (AT) were performed using Organon Teknika reagents. Determination of PT, APTT and FIB on a KC4 (Ametung, Germany) using Dude reagent (Dude Behring, The Netherlands) and determination of AT on a Hitachi 912 using Chromogenix reagent (Nodia, The Netherlands) were used as reference methods. Within-run and total precision of the tests were determined by measuring pooled plasma samples at various levels in duplicate twice daily for twenty days. For all tests the within-run and total precision of the Trombolyzer Combi was comparable or superior to the reference methods. Methods comparison was performed with 100 patient samples for PT, APTT and FIB and with 50 patient samples for AT. The correlation coefficients between the Trombolyzer Combi values and the results from the reference methods were between 0.87 and 0.98. No effect of hemolysis on the determination of the studied parameters was detected. However, bilirubinemia above 260 μmol/L and triglycerides above 9 mmol/L resulted in erroneous test results. In conclusion, it is shown that the Trombolyzer Combi performs equivalently or better than the reference methods and can be used as a state-of-the-art hemostasis analyzer in a clinical laboratory. (Clin. Lab. 2000;46:463-467)