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## **Current problems in standardization of hematological examinations in Japan**

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Standardization services in hematology started in 1965 by the hand of International Council for Standardization in Haematology (ICSH). The main purpose of its standardization work was for accurate and precise measurements of blood cell size, cell count, hemoglobin, erythrocyte sedimentation rate and iron concentration. ICSH work was supported by International Society of Hematology (ISH). Prothrombin time (PT) and Activated Partial Thromboplastin Time tests (APTT) were also internationally standardized as a cooperative work between ICSH and ICTH (International Committee on Thrombosis and Hemostasis). Several key ICSH documents were released from WHO (World Health Organization), since ICSH is one of WHO-registered non-governmental organizations. Later the ICSH activities was mostly focused on automated cell analysis to ensure the quality of complete blood count (CBC). Methods for blood collection, evacuated blood container, and external quality assessment schema (EQA) were documented one by one.

Japanese hematological tests have followed the ICSH standards to elevate test quality. External quality surveillance started in 1971, and so far the surveillance has been continued in Japan. In 2004, almost all routine laboratory use automated hematology analyzers and automated coagulation test instruments, which would help greatly for improvement of hematological test quality. Recently it has been becoming hard to keep the routine laboratory in health because of tough economical situation of laboratory management by strong restriction under the national health insurance system. Many laboratories claim that not enough money/personnel can gain under the system. However, we are keeping up and maintaining our test quality under the difficulties.