ICU
MANAGEMENT & PRACTICE

First European Lab Obtains Accreditation for New Tissue Typing Method for Stem Cell Transplants

Tests based on next-generation sequencing with Roche's GS Junior System.

The Red Cross Blood Transfusion Service of Upper Austria has become the first laboratory in Europe to receive accreditation from the European Federation for Immunogenetics (EFI) for the use of human leukocyte antigen (HLA) tests based on next-generation sequencing with Roche's GS Junior System. This new method will allow more precise and much more rapid tissue-typing and donor selection for stem cell transplants than has been possible to date. In addition, the HLA testing method previously only used for research will now also be available as a standard routine diagnostic procedure.

"Worldwide, around 50,000 people a year urgently require a stem cell transplant, and the chances of finding an allogeneic stem cell donor are about 1:500,000," said Thomas Schinecker, Head of Roche Sequencing Solutions. "This accreditation is an example of how the potential of next-generation sequencing can be successfully translated from research into medicine and made widely available to patients in areas of high medical need."

HLAs are used to determine compatibility between the tissues of different individuals (histocompatibility). Detection of the smallest individual differences in HLA sequences makes it possible to match donors and recipients at an early stage so as to adapt preventive and therapeutic measures, thus markedly reducing the rate of rejection reactions. The precision and speed of the process are key factors, particularly when searching for suitable matches in a bone marrow donor registry centralised at the global level.

Underlining the benefits of the new standard method, Dr Christian Gabriel, Medical Director of the Red Cross Blood Transfusion Service of Upper Austria, said: "Standardised laboratory procedures are needed to promote positive therapeutic outcomes for patients. EFI accreditation is an important step, allowing large numbers of patients to benefit from the latest technologies."

Source: Roche

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