



2020 Health Technology Reassessment Report

NK Cell Activity Test in Pancreatic Cancer **[High-Quality Immunoassay]**

Summary

Background of Assessment

The NK cell activity test [High-quality immunoassay] is a test performed for pancreatic cancer patients to check their condition and monitor the progress of treatment by measuring the interferon-gamma (IFN- γ) using enzyme immunoassay after incubation of the patient's blood in a tube containing NK cell-active substances.

At the 4th New Health Technology Assessment Committee (2014.04.25.) in 2014, this technology was reviewed as a technology with safety and effectiveness, the results of the new health technology assessment were noticed (No. 2014-89), and it was registered as a selective benefit (Ministry of Health and Welfare Notice No. 2016-104). Afterward, the Health Insurance Review and Assessment Service requested a re-evaluation to derive the necessary data for decision-making, such as determining the feasibility of applying the benefit to the technology. Accordingly, a subcommittee was formed for this technology to evaluate safety and effectiveness.

Committee's Operation

The subcommittee consisted of a total of 11 members and held a total of three subcommittee meetings, which were 2 times in-person and 1 time written meeting, for about three months May 27, 2020, to August 31, 2020. Based on the opinions of the subcommittee, the final deliberation was conducted on the re-assessment results of the safety and effectiveness of the NK cell activity test [high-quality immunoassay] in pancreatic cancer at the 10th Health Technology Reassessment Committee (2020.10.16.).

Purpose and Method of Assessment

It is intended to re-assess the medical and scientific evidence for clinical safety and effectiveness by conducting a systematic literature review when the NK cell activity test [high-quality immunoassay] ((former) NK cell activation induced interferon-gamma [EIA]) is performed for the purpose of checking the patients' condition and monitoring the progress of treatment in patients with pancreatic cancer.

Assessment Results

A total of 1,204 pieces of literature were searched through domestic and foreign databases, and a total of 939 pieces of literature for which duplicates were removed were reviewed. As a result of a literature review based on pre-determined inclusion and exclusion criteria, the final selected literature was 0.

Conclusion and Suggestions

The NK cell activity test [high-quality immunoassay] subcommittee made the following recommendations based on the current assessment results.

NK cell activity test [high-quality immunoassay] is a test performed for pancreatic cancer patients to check the patient's condition and monitor the progress of treatment. Concerns about safety in performing the test are low, but there was an opinion that the safety and effectiveness of the technology could not be confirmed due to insufficient literature evidence.

The Health Technology Reassessment Committee deliberated the NK cell activity test [high-quality immunoassay] in pancreatic cancer patients as follows based on the review results of the subcommittee (2020.10.16.).

NK cell activity test [high-quality immunoassay] is a test performed for pancreatic cancer patients to check the patient's condition and monitor the progress of treatment. It was judged as a technology that could not confirm the safety and effectiveness of the technology due to insufficient literature evidence to prove its safety and effectiveness.

Therefore, the Health Technology Reassessment Committee decided not to recommend that NK cell activity test [high-quality immunoassay] be performed for pancreatic cancer patients for the purpose of checking the patient's condition and monitoring the progress of treatment (Recommendation Grade II) (2020.10.16.).

Keywords

Pancreatic neoplasms, Natural killer cell, Interferon-gamma