

Singapore develops algorithm to assess immunotherapy benefit in stomach cancer patients

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Findings indicate that a particular group of patients will not benefit from the addition of immunotherapy to their chemotherapy regimen

Recent clinical studies indicate that patients with stomach cancer treated with a combination of immunotherapy and chemotherapy have a higher survival rate compared to those who were treated with chemotherapy alone. However, it was found that not all patients benefit from a joint immunotherapy-chemotherapy treatment.

Researchers at the National University Cancer Institute, Singapore, and the Department of Medicine at NUS Medicine have identified a group of stomach cancer patients who may not benefit from undergoing joint immunotherapy-chemotherapy treatment, using a novel algorithm they developed on their own.

The algorithm, called KMSubtraction, was validated with over 500,000 simulations to demonstrate its robustness and explore its limits of error. The implementation of KMSubtraction in these trials resulted in new findings confirming that more than 20% of the patient population will not benefit from the addition of immunotherapy into chemotherapy regimen.

The team hopes that the derived data from KMSubtraction will be fit for use in other fields as well to inform clinical decision-making to benefit patients and improve the overall cost-effectiveness of care.

Image caption- [from left] Dominic Yap, Joseph Zhao, Assistant Prof Raghav Sundar, Benjamin Tan and Teo Chong Boon [Photo Credit: Assistant Prof Raghav Sundar]