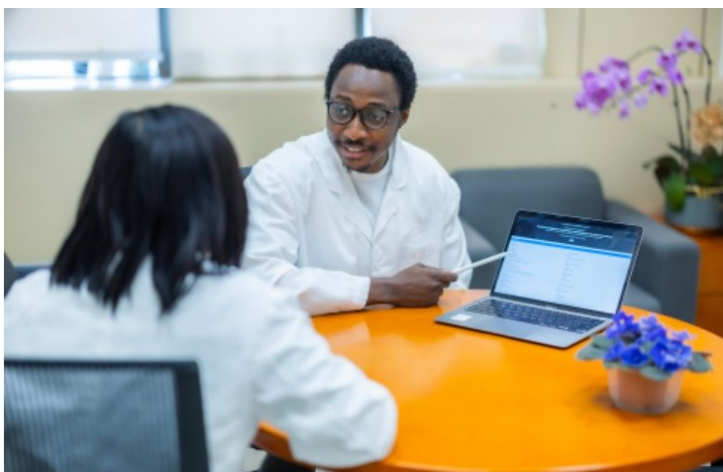# Hong Kong launches world's first AI-powered clinic for early oral cancer detection

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AI clinic is equipped with an AI-based web tool called 'OralCancerPredict'

The Division of Oral and Maxillofacial Surgery (OMFS) of the Faculty of Dentistry at the University of Hong Kong (HKU) and the Prince Philip Dental Hospital (PPDH) have jointly launched an artificial intelligence (AI) clinic dedicated to patients with oral potentially malignant disorders (OPMD).

This initiative aims to advance the prevention and early detection of oral cancer. As the world's first of its kind, this AI clinic commenced as a new medical service at PPDH in April 2025.

The AI clinic is equipped with an AI-based web tool called 'OralCancerPredict', developed by the research team at the HKU Faculty of Dentistry in 2021. This tool serves as a decision-support system to guide clinical treatment recommendations for patients and promote cancer prevention and early detection. The tool is based on an AI model trained using a large cohort of patients with oral leukoplakia (OL) and oral lichenoid diseases (OLD) treated at the Queen Mary Hospital between 2003 to 2022 and validated on similar patient cohorts in the UK and Nigeria.

The tool utilises multidimensional information, including patient demographics, comorbidities, clinical appearance, and histological features, to calculate the overall probabilities of cancer developing in OL and OLD. It also provides risk classifications (high-risk and low-risk status) and explains the rationale behind the predicted risks. Surgery is recommended for high risk patients, while observation, counselling, and supportive therapies are recommended for those with low risk.