

## 肝癌的精準預防：從大數據研究出發

### Precision prevention of hepatocellular carcinoma: research for big data

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Hepatitis B virus (HBV) infection has long been the major etiology for hepatocellular carcinoma (HCC) in Taiwan and around the globe. Our previous studies demonstrated that antiviral therapy for HBV infection reduced but did not eliminate the risk of HCC. Moreover, the residual risk may not be accurately predicted by the scoring systems built from untreated patients (e.g., REACH-B). In general, the models for the natural history of HBV tended to overestimate the HCC incidence in treated patients. A predictive score that is dedicated to patients currently receiving antiviral treatment is necessary in this era of antiviral therapy.

In order to predict the annually changing incidence of HCC in HBV-infected patients on antiviral therapy, we developed and externally validated a risk score using population-based data from Taiwan and Hong Kong. The DACADS score consists of the variables including *d*uration on *a*ntiviral therapy, *c*irrhosis, *a*ge, *d*iabetes mellitus, and *s*ex). Therefore, the required information is so simple that the score can be applied to almost all patients on treatment. This easy-to-use score is useful for risk stratification in daily practice. For instance, a score <5 and >13 points predicts an annual incidence of HCC below 0.3% and above 2%, respectively.