

00354 **Validation of the AJCC Cancer Staging 8th Edition for Prostate Cancer: A Registry Database Review**

Ng Mei Ying, Huang Honghong, Saajida Begum, Lau Kam On Weber

Singapore General Hospital

Aims: We evaluated the American Joint Committee on Cancer (AJCC) 7th edition in 2012 and found that it had no significant improvement in the predictive ability of biochemical recurrence (BCR)-free survival of prostate cancer in our Asian population compared to the 6th edition. Thus our registry made a decision to not adopt the AJCC prostate cancer staging 7th edition based on our own data. The aim of this study is to assess whether the 8th edition achieves a better BCR-free survival stratification compared to the 6th edition.

Methodology: Our registry reviewed all 977 clinically staged prostate cancer patients with radical prostatectomy performed at our hospital from 2000 to 2014. Nine hundred and four patients were included in the analysis after excluding 72 patients with missing data and 1 patient in Stage IVB according to 8th edition due to $n = 1$. The outcome was BCR-free survival. Kaplan-Meier analysis was performed and the concordance index calculated for the 6th and 8th editions. Statistical significance was defined as $p < 0.05$.

Result: The median follow-up time post-radical prostatectomy was 2.0 years (IQR: 3.8). The two-year BCR-free survivals were 92.9%, 94.2%, 89.1%, 76.3%, 74.5% and 59.6% in stage I, IIA, IIB, IIC, IIIA and IIIB respectively according to the 8th edition ($p < 0.001$) compared with 87.8% and 62.6% in stage II and III respectively according to the 6th edition ($p < 0.001$). The concordance indices for the 6th and 8th editions were 0.600 and 0.655 respectively ($p = 0.012$).

Conclusion: The results showed that modifications in the 8th edition significantly improved BCR-free survival stratification over the 6th edition, favouring adoption of the 8th edition for our registry. Hence we plan to implement the 8th edition for prostate cancer.