

## PLENARIES

### **PLENARY 11: Injury Risk Assessment in Sport: Practical Functional Screening for Lower-Limb Performance**

**Saiful Adli Bukry**

Center for Physiotherapy Studies, Faculty of Health Sciences, Universiti Teknologi MARA, Puncak Alam Campus, 42300 Puncak Alam, Selangor, Malaysia

Sports injuries remained a major concern for athletes, coaches, clinicians, and sports organisations because of their impact on performance, participation, rehabilitation, and return-to-sport outcomes. Effective injury risk assessment required more than identifying previous injury history. It also involved the practical evaluation of balance, neuromuscular control, lower-limb power, functional symmetry, and joint mobility. This plenary talk presented a practical approach to lower-limb injury risk assessment using five commonly applied field-based tests: the Y Balance Test, Single Hop Test, Triple Hop Test, Crossover Hop Test, and Knee-to-Wall Test.

The Y Balance Test was used to evaluate dynamic postural control, lower-limb stability, and movement asymmetry across multiple reach directions. The Single Hop, Triple Hop, and Crossover Hop Tests assessed unilateral power, functional performance, landing control, and side-to-side differences that became evident during high-demand sporting activities. The Knee-to-Wall Test provided a simple assessment of weight-bearing ankle dorsiflexion, which represented an important component of lower-limb movement during running, landing, cutting, and squatting tasks.

The session demonstrated the clinical rationale, testing procedures, interpretation, and practical application of these assessments in sport settings. Particular attention was given to identifying meaningful asymmetries and movement limitations while recognising that no single test independently predicted injury. Instead, these assessments were integrated with injury history, sport demands, training exposure, strength, movement quality, and clinical judgement.

This practical screening framework supported clinicians and sports practitioners in identifying modifiable performance deficits, guiding targeted interventions, monitoring rehabilitation progress, and informing safer return-to-sport decision-making.