

Workshop:

“Il controllo del carico interno nell’allenamento”

Relatori:



Aaron Coutts, PhD MAAESS

Lecturer in Exercise & Sports Science,
University of Technology Sydney, Australia

interessi:



Aaron Coutts, PhD

Fatica e recupero negli atleti; controllo dell'allenamento; Fisiologia del lavoro prolungato, e dell'esercizio intermittente.

relatori:



Franco Impellizzeri

**Responsabile scientifico del Centro Ricerche MAPEI
Docente a Contratto di Valutazione Funzionale per la
Facoltà di Scienze Motorie dell'Università degli Studi
di Milano, Laureato in Scienze Motorie, Membro
dell'European College of Sport Science**

relatori:



Ermanno Rampinini

**Responsabile del laboratorio di Valutazione
Funzionale del Centro Ricerche MAPEI
Laureato in Scienze Motorie
Membro dell'European College of Sport Science**

Use of RPE-Based Training Load in Soccer

FRANCO M. IMPELLIZZERI¹, ERMANNO RAMPININI¹, AARON J. COUTTS²,
ALDO SASSI¹, and SAMUELE M. MARCORA³

¹Human Performance Lab, S.S. MAPEI, Castellanza, Varese, ITALY; ²School of Leisure, Sport and Tourism, University of Technology, Sydney, AUSTRALIA; and ³School of Sport, Health, and Exercise Sciences, University of Wales-Bangor, UNITED KINGDOM

ABSTRACT

IMPELLIZZERI, F. M., E. RAMPININI, A. J. COUTTS, A. SASSI, and S. M. MARCORA. Use of RPE-Based Training Load in Soccer. *Med. Sci. Sports Exerc.*, Vol. 36, No. 6, pp. 1042–1047, 2004. **Purpose:** The ability to accurately control and monitor internal training load is an important aspect of effective coaching. The aim of this study was to apply in soccer the RPE-based method proposed by Foster et al. to quantify internal training load (session-RPE) and to assess its correlations with various methods used to determine internal training load based on the HR response to exercise. **Methods:** Nineteen young soccer players (mean \pm SD: age 17.6 ± 0.7 yr, weight 70.2 ± 4.7 kg, height 178.5 ± 4.8 cm, body fat $7.5 \pm 2.2\%$, $\dot{V}O_{2\max}$, 57.1 ± 4.0 mL \cdot kg⁻¹ \cdot min⁻¹) were involved in the study. All subjects performed an incremental treadmill test before and after the training period during which lactate threshold (1.5 mmol \cdot L⁻¹ above baseline) and OBLA (4.0 mmol \cdot L⁻¹) were determined. The training loads completed during the seven training weeks were determined multiplying the session RPE (CR10-scale) by session duration in minutes. These session-RPE values were correlated with training load measures obtained from three different HR-based methods suggested by Edwards, Banister, and Lucia, respectively. **Results:** Individual internal loads of 479 training sessions were collected. All individual correlations between various HR-based training load and session-RPE were statistically significant (from $r = 0.50$ to $r = 0.85$, $P < 0.01$). **Conclusion:** The results of this study show that the session-RPE can be considered a good indicator of global internal load of soccer training. This method does not require particular expensive equipment and can be very useful and practical for coaches and athletic trainer to monitor and control internal load, and to design periodization strategies. **Key Words:** PERCEIVED EXERTION, HEART RATE, PHYSICAL TRAINING, TEAM SPORTS

h 16.00 - Dr. Aaron Coutts PhD.: *"Fatica e Recupero"*

h.17.00 - Dr. Franco Impellizzeri:
"Il concetto di "carico interno" e strategie per la sua determinazione"

h 18.00 - Dr. Ermanno Rampinini:
"Metodologie applicative per la monitorizzazione ed ottimizzazione del carico di allenamento"

h 19.00 – 20.00 Dibattito