P27 Anthropometric and physiological data of Irish female triathletes from laboratory based exercise testing and relationship to competition performance.

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Despite popularity of triathlon in Ireland there is little or no published population data for Irish female recreational triathletes. The purpose of this study was to examine anthropometric and physiological data, by audit of laboratory based exercise testing results, and then to examine for relationships to competition performance. Body composition and physiological data were scrutinised for all female triathletes undergoing exercise testing from June 2012 to 2013. 24 female triathletes mean ($\pm$SD) age 33$\pm$5yr; body mass 62.9$\pm$7.3kg; height 1.67$\pm$0.05m; BMI 22.4$\pm$2.1kg.m^{-2}; sum of four skinfolds 40.1$\pm$12.9 mm; body fat percentage 23.1$\pm$4.2% and lean body mass 47.0$\pm$7.1 kg completed 4 running and 19 cycling tests to exhaustion and 1 sub-maximal cycling test. Mean ($\pm$SD) maximal data for (19/24) cycling tests were; P 249 $\pm$25W / 3.56$\pm$1.31 W.kg^{-1}, HR 181$\pm$9 beats.min^{-1}; BLa 6.3$\pm$3.1 mmol.L^{-1} VO$_2$ 52.2$\pm$5.4 mL.kg^{-1}.min^{-1} and VE 128.0$\pm$12.0 L.min^{-1}. Mean ($\pm$SD) data at lactate threshold point (T$_{Lac}$) interpolated from graphical plots were; P 197$\pm$23 W; HR 163$\pm$9 beats.min^{-1} and BLa 2.3$\pm$0.6. Interpolated mean heart rate zones to guide training intensity were; 125-135 beats.min^{-1} for active recovery and warm up/cool down, 140-150 beats.min^{-1} for steady aerobic conditioning type training; and, 155-165 beats.min^{-1} for lactate threshold training. Best performance times in the 40km cycle element of triathlon competition for the group were highly course and weather dependent but ranged from 68 to 79 min (M$\pm$SD: 74$\pm$3min). The study will further examine the relationships between laboratory exercise test data and performance times to ascertain the best predictors of triathlon performance.