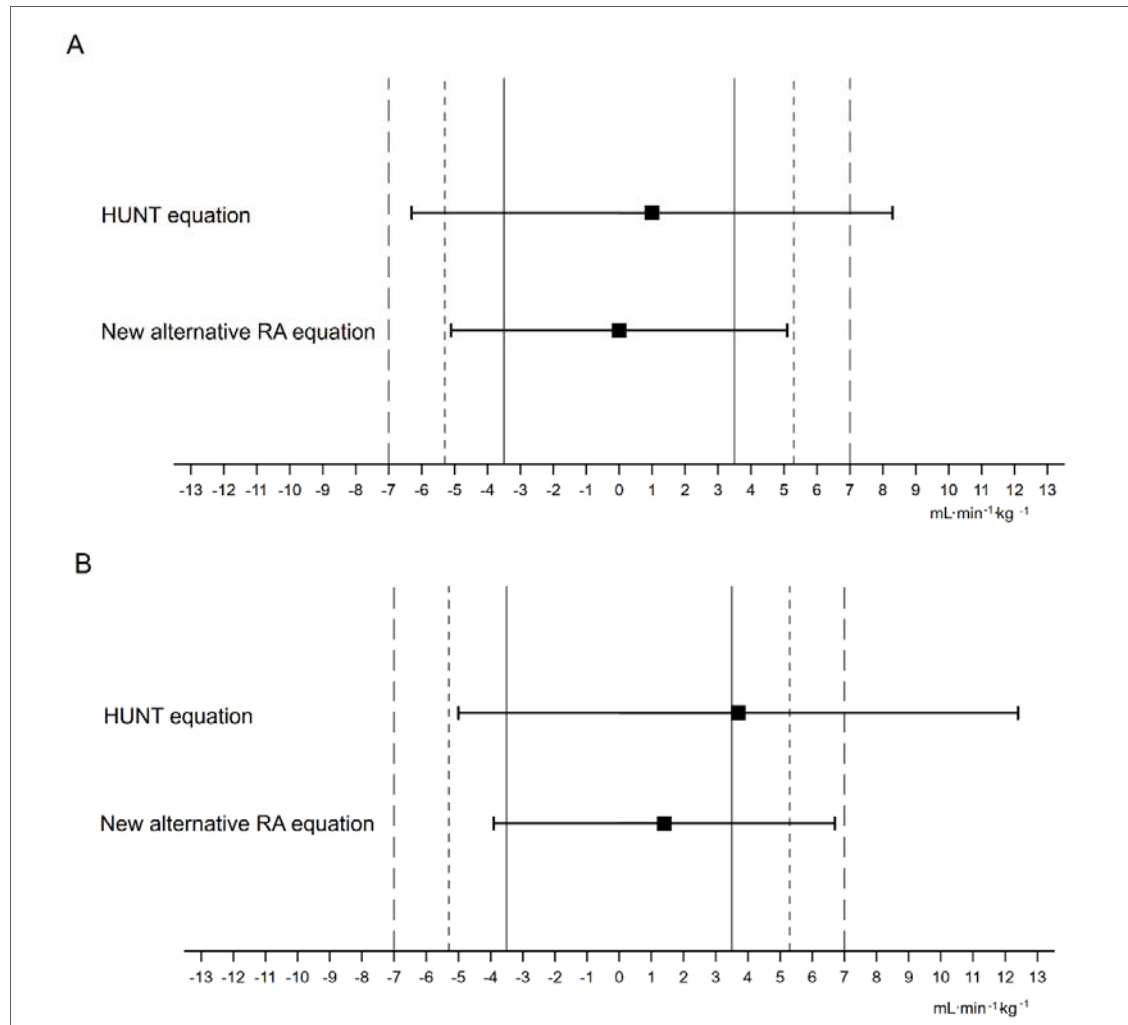


Supplemental Digital Content 3

Figure: Equivalence testing of the new alternative RA equation and the HUNT equation vs. measured $\text{VO}_{2\text{peak}}$



Panel A: Equivalence testing including all participants (n=93)

The HUNT equation was non-equivalent to $\text{VO}_{2\text{peak}}$ measurement with respect to all equivalence regions, as seen by the confidence interval falling above all region limits and below the 1 MET and 1.5 MET region limits. The new alternative RA equation was equivalent to $\text{VO}_{2\text{peak}}$ measurement when using the 1.5 and 2 MET equivalence regions.

Panel B: Equivalence testing including participants with measured $\text{VO}_{2\text{peak}} < 30 \text{ mL} \cdot \text{min}^{-1} \cdot \text{kg}^{-1}$ (n=45)

The HUNT equation was non-equivalent to $\text{VO}_{2\text{peak}}$ measurement with respect to all equivalence regions, as seen by the confidence interval falling above all region limits and below the 1 MET region limit. The equation more strongly tended to over-estimate $\text{VO}_{2\text{peak}}$ in this group of participants. The new alternative RA equation was equivalent to $\text{VO}_{2\text{peak}}$ measurement when using the 2 MET equivalence region, and showed less tendency to CRF over-estimation.

The horizontal bars represent the 90% confidence interval of the mean (■).
In both figures, the following equivalence regions are marked vertically:

————— ± 1 MET ($\pm 3.5 \text{ mL} \cdot \text{min}^{-1} \cdot \text{kg}^{-1}$)

- - - - - ± 1.5 MET ($\pm 5.3 \text{ mL} \cdot \text{min}^{-1} \cdot \text{kg}^{-1}$)

- - - - - ± 2 MET ($\pm 7 \text{ mL} \cdot \text{min}^{-1} \cdot \text{kg}^{-1}$)

Abbreviations: CRF, cardiorespiratory fitness; HUNT, The Norwegian population-based Nord-Trøndelag Health Study; MET, metabolic equivalent of task; RA, rheumatoid arthritis; $\text{VO}_{2\text{peak}}$, peak oxygen uptake.