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## BACKGROUND

- Exercise is recommended for men with prostate cancer.
- Men with metastatic prostate cancer are at competing risk of morbidity and mortality due to cardiometabolic disease given an advanced age at diagnosis, high prevalence of existing risk factors, and array of cancer treatments.
- The purpose of this study was to assess the safety and efficacy of cardiopulmonary exercise testing (CPET) as a tool to evaluate cardiorespiratory capacity and risk screening of men with metastatic hormone-sensitive prostate cancer (mHSPC).

## METHOD

Medically supervised, symptom limited CPET with electrocardiogram (ECG) was performed on a cycle ergometer until volitional exhaustion and peak oxygen uptake ( $VO_{2\cdot PEAK}$ ) attainment (**Figure 1**).



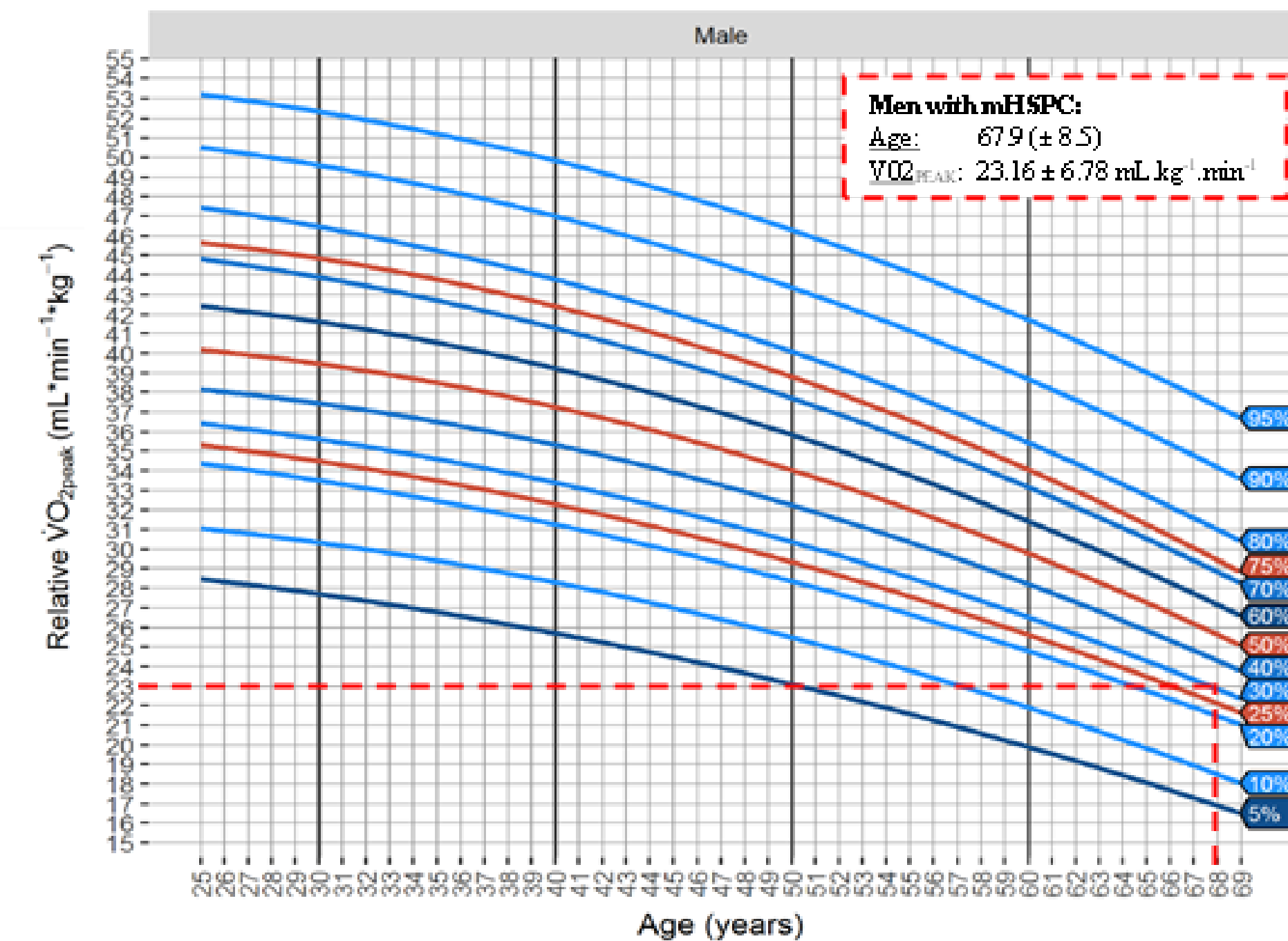
## ANALYSIS AND OUTCOME MEASURES

- Cross-sectional analysis of screening CPET's from INTERVAL-GAP4 (a global, 2-year, Phase III RCT) involving men with mHSPC.
  - Safety (incidence and severity of adverse events)
  - Feasibility (completion of CPET)
  - Efficacy (cardiac pathology, screen-fails, and performance outcomes).



## RESULTS

- 38 men (age =  $67.9 \pm 8.5$  years; BMI =  $28.3 \pm 4.3$  kg/m<sup>2</sup>) met criterion for  $VO_{2\cdot PEAK}$  attainment and were randomised, with one CPET-related screen-fail (97.4% completion rate).
- Six cardiac abnormalities (15.4%) were detected:
  - 5 x men were referred to cardiologists and cleared:
    - ST depression
    - Prolonged PQ interval
    - Bradycardia
  - 1 x man (atrial fibrillation) was not cleared for the trial.
- Absolute  $VO_{2\cdot PEAK}$  was  $2.00 \pm 0.59$  L.min<sup>-1</sup>
- Relative  $VO_{2\cdot PEAK}$  was  $23.16 \pm 6.78$  mL.kg<sup>-1</sup>.min<sup>-1</sup>
- 30th percentile of age-matched healthy men (**Figure 2**).
- No cardiac or exercise-related adverse events occurred during (or the 7-days following) CPET testing.



## CONCLUSIONS

- Maximal CPET is safe for men with mHSPC and presents an effective cardiac stress screening tool to detect underlying cardiovascular health issues prior to engaging in a vigorous exercise program.
- CPET measures obtained in screening can also inform individualised exercise prescriptions.
- This evaluation should also be completed for men with metastatic castrate-resistant prostate cancer (mCRPC)

## DISCLOSURES

INTERVAL-GAP4  
is funded by:



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