VO₂peak (ml/min). Differences between the two populations were assessed via independent T-tests with alpha set at p < .05, calculated in SPSS software version 23.

**Results** CR participants with AF (n = 30; 70.7 years) vs. those without AF (n = 68; 56.9 years) were 14 years older (p < 0.0001), had a greater body mass (94.6 vs 80.5 kg; p = 0.001) and a lower VO₂peak (relative VO₂peak: 17.8 vs 26.7 ml/kg/min; absolute VO₂ peak: 1684 ml/min vs 2149 ml/min; p < 0.0001). The relative and absolute VO₂peaks in AF participants vs non-AF participants were lower by 33% and 22%, respectively. Given that ageing is known to contribute to a 1% per year decline in aerobic power, the AF participants would already be expected to have a 14% lower VO₂peak than the non-AF participants.

**Conclusion** Compared to non-AF the age-corrected aerobic power of the AF participants explained two-thirds of their lower aerobic power. Whilst it is important to focus on weight-management of AF populations, their observed lower functional capacity was still more strongly related to their older age than their body mass. These results support the prime importance of increased physical activity over weight-loss to mitigate the loss of ‘true’ aerobic power in those with CHD and AF.

### 8. THE IMPACT OF CO-MORBIDITIES ON CARDIAC REHABILITATION OUTCOMES AT THE ROYAL WOLVERHAMPTON NHS TRUST

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**Background** The 2019 UK NACR reported that approximately 50% of all 6,502 patients referred for cardiac rehabilitation (CR) had two or more comorbidities. Patients with multiple co-morbidities are at higher risk of dying prematurely, hospital admissions, increased length of stay in hospital and having poor health-related quality of life than patients with only one chronic medical condition.

**Aim** To review motivations for EBCR attendance in our catchment area with the aim to develop the exercise component of cardiac rehabilitation (CR) and improve patient-centred care.

**Methods** Using a repeated-measures t-test, and an independent t-test, retrospective 2021/22 data from 72 patients completing a phase 3 CR exercise programme was analysed to compare outcome measures pre and post an 8-week course of supervised exercise. Patients with multiple co-morbidities had a lower baseline for functional capacity and less favourable body composition, but still benefited from CR. Although multimorbidity may be a challenge for traditional CR services, referral to CR should be encouraged for all patients, either with or without comorbidities.

### Conclusion

Patients with multiple co-morbidities had a lower baseline for functional capacity and less favourable body composition, but still benefited from CR. However, all patients benefited from CR. Although multimorbidity may be a challenge for traditional CR services, referral to CR should be encouraged for all patients, either with or without comorbidities.

### Abstract 8 Table 1

<table>
<thead>
<tr>
<th>Primary outcome: METS</th>
<th>Pre-Exercise (SD)</th>
<th>Post-Exercise (SD)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.8(0.8)</td>
<td>5.4(0.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.3(0.9)</td>
<td>5.0(0.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>p value</td>
<td>0.015</td>
<td>0.015</td>
<td></td>
</tr>
</tbody>
</table>

**Background** The physical benefits of exercise based cardiac rehabilitation (EBCR) are well documented within research. In addition to improvements in cardiovascular (CV) and muscular-skeletal (MSK) fitness; EBCR aims to improve patient confidence in performing safe and effective exercise and provide education around correct monitoring of exercise intensity.

**Aim** To review motivations for EBCR attendance in our catchment area with the aim to develop the exercise component of cardiac rehabilitation (CR) and improve patient-centred care.

**Methods** Patients (n=40) of mixed demographics and varied cardiac diagnoses were asked to voluntarily complete a questionnaire at the end of their eight-week EBCR; between the months of April and September 2023. The questionnaire, designed by CR staff included five questions to be scored using a Likert scale. The aim was for patients to rate in order of priority; their main reasons for attending EBCR. They were then asked if they saw improvements in their CV and MSK fitness, confidence, exercise knowledge and if they felt their exercise programme had catered to their personal goals.

**Results** Data collected showed that improving health was the main priority for 80% patients attending EBCR. Improving CV fitness and MSK strength were the second and third priority followed by increasing energy levels and improving self-confidence. The least commonly selected were socialising and increasing confidence. The least commonly selected were socialising and improving self-confidence. 86% patients agreed that their confidence around performing safe and effective exercise was improved. 90% of patients agreed that their knowledge around the benefits of exercise and correct monitoring of intensity were improved. All patients agreed that their exercise programme catered to their individual goals.

**Conclusion** EBCR can have positive improvements on patients’ health and self-confidence, not only improvements in physical fitness. Data shows us that our current EBCR is patient-centred and effective in improving patient’s confidence and knowledge around exercise.