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MECHANISMS OF EXERCISE INTOLERANCE IN HEART FAILURE

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Exercise intolerance is a hallmark characteristic of heart failure. Affected individuals are severely limited by both fatigue and dyspnoea at rest, but more commonly with exertion. Indeed, poor exercise tolerance impacts on physical activity levels which further perpetuates deconditioning and exacerbation of the condition. There are severe health implication for heart failure patients as a consequence of low exercise capacity, including increased hospitalisations and reduced survival. Moreover, low fitness in middle-age is one of the strongest predictors of future risk of developing heart failure. Heart failure is characterized by two distinct phenotypes, heart failure with reduced ejection fraction termed HFrEF and heart failure with preserved ejection fraction known as HFpEF. The underlying pathophysiology leading to impaired exercise capacity in HFpEF seems to be driven by peripheral factors, while HFrEF patients demonstrate impaired cardiac reserve. As expected, there are multiple potential limitations at various levels of the oxygen transport pathway with heart failure. This presentation will focus on the physiological mechanisms of exercise intolerance in this complex syndrome, with a particular focus on the HFpEF phenotype and discuss the hypothesised potential "personalisation" of exercise training based on the identification of individual impairment/s in the oxygen transport system.

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Time: 9:00am – 10:30am
Co-Presenters: Dr Erin Howden; A/Prof Christopher Askew; A/Prof Andre La Gerche
Panel Practitioner: Mr Grant Turner
Session Chairperson: W/Prof Daniel Green