Title: Improving the Physical Activity of Lower Limb Amputees in Oxford Authors: James Pollen^{1,4}, Sarah Holden¹, Charlotte Isaac¹, James Baldock^{2,3}, Tracy Barnett³, Natasha Jones^{2,3}, Chris Speers^{2,3}

The authors work in 4 different departments which are acknowledged below:

- 1. Oxford University Hospitals NHS Foundation Trust, Prosthetics Service, Oxford, UK
- 2. Oxford University Hospitals NHS Foundation Trust, Sport and exercise Medicine
- 3. Moving Medicine
- 4. Oxford University Hospitals NHS Foundation Trust, Physiotherapy Research Unit
- 1) Purpose: To promote and improve levels of physical activity in lower limb amputees at The Oxford Prosthetics Centre
- 2) Rational: A collaboration in April 2018 between the Oxford Prosthetics Service and Sport and Exercise Medicine team to promote physical activity. Lower limb amputees have a greater risk of morbidity and

mortality and high rates of physical inactivity. Well documented evidence that physical activity improves; physical function, cardiopulmonary function, quality of life and reduces the risk of falls in lower limb amputees

- 3) A class for 6-8 patients with 12 week duration
 - I. The class starts off with a warm up, and ends with a cool down. The main part of the class is circuit based where participants start at one station and continue around in a circuit until they have been exercising for 30-45 minutes. The stations include: static balance, flexibility or lower limb strength, cardiovascular fitness, upper limb strength, and dynamic balance
 - II. Pre-Class: Initial Safe to exercise form, Motivational Interview, Goal Setting, Exercise Vital Sign(1),
 Questionnaires, Activity Booklets
 - III. Post-Class: Motivational interview/ Goal review at: 0, 3, 6, and 12 months after finishing the class, Exercise Vital Sign
- 4) Results: April 2018 September 2019
 - I. 28 patients enrolled in the class
 - II. 10 completed full programme
 - III. 6 on-going
 - IV. Increase in physical activity at week 12
 - V. Reasons for non-completion: Medically unfit, Returned to high functioning level early, Attendance whilst inpatient only, Social circumstances
- 5) Discussion:
 - I. Post class activity levels increased
 - II. Medical co-morbidities the main reason for non-completion of class
 - III. Positive feedback from patients, relatives and staff
 - IV. Class programme offers unique opportunities of; peer support, motivational interviewing and close links with the community
- 6) The Future :
 - To gather more descriptive data to demonstrate meaningful impact on patient pathways (Quality of Life)
 Collaboration with community organisations and other Prosthetic centres to further develop the pathway (LimbPower)
 - III. Analyse longitudinal data at what point does physical activity decline after the physical activity class has ended?
 - IV. At what point do people need an intervention (exercise referral/ motivational interview) to maintain levels of physical activity