



**Abstract 2 Figure 2** Cardiopulmonary exercise test (CPET) variables: a) percentage predicted VO<sub>2</sub> at VT1 and peak, b) VE/VCO<sub>2</sub> slope, c) workload (watts per kilogram) at VT1 and peak, d) resting heart rate

**Material and Methods** Observational cohort study of 4 groups; hospitalised, community illness with on-going symptoms (community-symptomatic), community illness now recovered (community-recovered) and controls. Participants underwent extensive clinical assessment involving cardiopulmonary imaging, submaximal and maximal exercise testing, pulmonary function, cognitive assessment, blood tests, electrocardiogram and questionnaires on mental health and physical function (figure 1).

**Results** 113 participants (aged 39±9 and 86% male) were recruited into four groups, Hospitalised (n=35), community-symptomatic (n=34), community-recovered (n=18) and control (n=26), at 159±72days following acute illness. Hospitalised and community-symptomatic groups were older, with a higher body mass index, and worse mental health, fatigue, and quality of life scores. Hospitalised and community-symptomatic participants also performed less well on sub-maximal and maximal exercise testing (figure 2). Hospitalised individuals had impaired ventilatory efficiency (higher VE/VCO<sub>2</sub> slope), achieved less work at the anaerobic threshold and at peak than other groups and had a significantly reduced forced vital capacity. Clinically significant abnormal cardiopulmonary imaging findings were present in 6% of hospitalised participants, lower than those seen in other studies. Those who recovered from community-based, mild-moderate COVID-19 had no significant differences when compared with controls.

**Conclusion** Recovered individuals who suffered mild-moderate COVID-19 do not differ from an age, sex and job-role matched control population in any study parameter. This is reassuring for the vast majority of individuals who have had acute COVID-19 not requiring hospital management. Individuals who were hospitalised or continue to suffer symptoms require a specific, comprehensive assessment prior to a return to full physical activity.

## The Association and Institute Poster Prize – 1st

### 3 LET'S GET MOVING: REDUCING SEDENTARY BEHAVIOUR IN PRIMARY CARE WAITING ROOMS

A Boalch\*. Royal United Hospital, Bath, UK

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**Background** Physical inactivity affects a third of the population and is the fourth leading risk factor for mortality globally.<sup>1</sup> Increasing activity by just thirty minutes a week can extend life expectancy by four years.<sup>2</sup> The number needed to treat for physical activity is 12,<sup>3</sup> thus the role of clinicians in promoting physical activity is immensely valuable. The 'Let's Get Moving' project was implemented in a large Wiltshire health centre to try and address physical inactivity amongst patients and staff. The aim was to reduce sedentary behaviour in patient waiting rooms; increase physical activity levels amongst both staff and patients; and improve awareness of physical activity guidelines amongst both staff and patients.

**Methods** A poster displaying four chair-based exercises with a QR-link to additional resources was created. A summary of physical activity recommendations was also included. The poster was displayed in all patient waiting rooms and a PDF format was sent via text to patients before face-to-face appointments. A visual display board of physical activity guidelines and recommendations for different population groups was created in the main waiting room and the poster was additionally featured on the practice website.

Educational sessions were provided to clinical staff as well as practice receptionists with content focussed on physical activity guidelines and the benefits of both increasing physical activity and reducing sedentary behaviour.

A survey was distributed to all staff, as well as randomly selected patients, pre-intervention and four months post-intervention.

**Results** Pre-intervention only 31.0% of staff and 39.5% of patients met the recommended 150 minutes of aerobic activity in the previous week.

The aerobic and strength components of the physical activity guidelines were correctly identified by 27.6% and 33.3% of staff respectively. Only 20.5% of patients correctly identified the guidance for 150 minutes of aerobic activity a week.

65.5% of staff and 71.8% of patients believed regular exercise could extend life expectancy by over five years. Importantly, 65% of patients reported they would be 'likely' or 'very likely' to engage in more physical activity if recommended by a clinician.

Post-intervention, activity levels amongst staff increased with 36.0% meeting recommended levels. Activity amongst the patient group dropped with only 32.1% achieving 150 minutes of aerobic activity in the preceding week. There was no improvement in staff or patient recognition of physical activity guidelines in either the aerobic or strength components.

**Conclusion** Despite the strong belief in the benefits of physical activity to health and longevity, there is a lack of understanding of the guidelines by both clinicians and the public. Educational sessions for staff did not result in improved and sustained knowledge of physical activity guidelines but did marginally improve activity levels within this group. Visual displays promoting physical activity across the practice did not result in increased activity levels or improved guideline knowledge in the patient group. Patients did, however, report they would respond positively to exercise recommendations from healthcare professionals. Efforts should therefore perhaps focus on promoting movement at a practice-wide level and providing brief personalised interventions during patient consults, with visual displays acting as an adjunct.

## REFERENCES

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## The Association and Institute Poster Prize – 2nd

### 4 CORTICOSTEROID INJECTION FOR PLANTAR FASCIITIS: AN AUDIT OF FINDINGS

<sup>1</sup>Arun G Olivelle\*, <sup>2</sup>Joseph S Olivelle. <sup>1</sup>Foot and Ankle Centre, London, UK; <sup>2</sup>University of Nicosia, Nicosia, Cyprus

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**Background** Plantar fasciitis commonly seen in the musculoskeletal clinic and accounts for around 8% of running injuries. BMJ best practice advises that primary treatment should be rest and reducing the precipitating factors with corticosteroid

injections used as an adjunct if primary treatment fails to improve symptoms. The National Institute of Health and Care Excellence (NICE) guidance of 2019 recommended corticosteroid injections for patients whose 'symptoms are having a significant impact on the person' however, they also feel that this treatment will only provide short term relief. Methylprednisolone is a medium duration corticosteroid which may improve patient satisfaction however there is limited research on its effectiveness.

**Material and Methods** 93 patients (58 female, 35 male) were included in this audit. All patients received 1ml of 40mg depomedrone (methylprednisolone)

#### Inclusion criteria

All patients who had clinically diagnosed plantar fasciitis foot 8 weeks and had received the first line treatments of stretching and orthotics. All patients were over the age of 18.

#### Exclusion criteria

Patients yet to begin a stretching program or had alternative treatments (e.g., shockwave), had systemic disease or previous surgery were excluded.

#### Outcome measures

A patient assessed (Visual analogue scale - VAS) and a physician assessed (Heel tenderness index -HTI) outcome measure was used

**Results** 93 patients with ages ranging from 42.5 to 58.4 years were assessed.

#### VAS

80 (86.02%) reported an improvement in symptoms at the 4 week follow up, 62 (66.67%) of whom reported to be pain free. Of the remaining 18 patients all advised their symptoms had improved by at least 50%. 13 patients (13.98%) reported no improvement.

#### HTI

Heel Tenderness Index	Number of patients prior to corticosteroid injection	Number of patients at the 4 week follow up
0	0	83
1	27	3
2	47	7
3	18	0

83 (89.25%) patients had no pain on palpation of the heel post injection, whilst prior to the injection all patients had pain in differing degrees. 18 patients (19.35%) had severe pain prior to the injection, post injection no patient had severe pain. 90 (96.77%) of patients has improved HTI scores.

**Conclusion** Plantar fasciitis is a debilitating disorder but is generally a self-limiting disease with the majority of patients reporting a spontaneous recovery, however for approximately 10% of patients, symptoms do not abate, and they seek help from medical professionals. With respect to reducing patients' symptoms of pain in the short term, corticosteroid injections are an effective second line treatment. However, other modalities of treatment such as shockwave therapy, Botox injections and PRP may be effective in the longer term management of plantar fasciitis but further research is required.