was captured through an ICM using an embedded single axis accelerometer. Patients were grouped into CWE compared to control (no-CWE). Independent t-tests compared groups.

**Results**
The baseline characteristics (age, sex, BMI and PAH disease classification) were well matched between the CWE (n=21) and the control (n=36) group (p>0.05). There was a statistically significant difference for the WHO FC classification of the patients between the two groups (CWE: 9% WHO FC II, 43% WHO FC III, 48% WHO FC IV; control: 11% WHO FC I, 39% WHO FC II, 39% WHO FC III, 11% WHO FC IV, p<0.001). However, there was no difference in baseline HRV, DHR, NHR or PA grouped by WHO FC between cases and controls (p>0.05). Overall, there was a significant difference (p<0.0001) in HRV, PA, DHR and NHR at baseline and follow-up between cases and controls (Table 1, Figure 1). Mean length of follow-up for CWE was 224±51 (mean±SEM) days, with an average of 42 days post-CWE.

Physical activity was further analysed by season demonstrating a temporal change: 150.7±0.7 min/day (95% CI, 149.5-152.0) in spring and summer compared with winter = 136.4±1.0 (95% CI: 134.5-138.3) in winter (p<0.0001).

**Conclusions**
HR and PA data from an ICM in patients with PAH could enable remote detection of those at risk of CWE. HRV and PA were lower, and day and night HR higher in patients with CWE compared to patients with stable PAH. Seasonal variation may influence physical activity alone as a clinical endpoint.

**Conflict of Interest**
None

**Introduction**
European guidelines for diagnosis and treatment of pulmonary hypertension recommend the use of risk indicators. Categorisation of indicators by clinical risk. Median daily active minutes (min/day) shown at baseline and follow-up by risk strata. P-values obtained using independent t-test for NTpro-BNP, WHO FC, ISWD and EmPhasis-10 indicators. Median and interquartile range (IQR) of each group stated

<table>
<thead>
<tr>
<th>Low Risk</th>
<th>Intermediate-Low Risk</th>
<th>Intermediate-High Risk</th>
<th>High Risk</th>
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</thead>
<tbody>
<tr>
<td>Median daily active minutes (min/day)</td>
<td>Median daily active minutes (min/day)</td>
<td>Median daily active minutes (min/day)</td>
<td>Median daily active minutes (min/day)</td>
</tr>
<tr>
<td>Baseline</td>
<td>Follow-up</td>
<td>Baseline</td>
<td>Follow-up</td>
</tr>
<tr>
<td>217 (98-303.5)</td>
<td>269 (203-470)</td>
<td>184.5 (96-255)</td>
<td>P=0.0001</td>
</tr>
<tr>
<td>155 (75-243)</td>
<td>192 (104.8-275)</td>
<td>90 (21-181.5)</td>
<td>P=0.0001</td>
</tr>
<tr>
<td>194 (113-280)</td>
<td>177.5 (125-294)</td>
<td>122 (48-209.5)</td>
<td>P=0.0001</td>
</tr>
</tbody>
</table>
stratification to optimise therapy and achieve/maintain a low risk profile. The COMPERA 2.0 four strata model is used to evaluate risk following initiation of therapy and includes assessment of: NT-proBNP, walk distance and WHO functional class. Physical activity as active minutes/day can be measured remotely using non- or minimally invasive devices. We sought to determine any sustained relationship from remote physical activity, obtained from an insertable cardiac monitor (ICM), to established ESC clinical markers of risk that support stability of risk score over time.

Methods Participants with pulmonary arterial hypertension (PAH) enrolled in the National Cohort Study of Idiopathic and Heritable PAH (NAIAD, NCT01907295) were implanted with an ICM (LinQ - Medtronic) (n=80) which provides a remote measure of daily active minutes from an embedded single axis accelerometer. Patients within the low-risk category were compared as a control group. Activity data was risk stratified according to WHO functional class (WHO FC), incremental shuttle walk distance (ISWD), NT-proBNP and Emphasis-10 indicators. Continuous daily readings were evaluated for 6 months following implant and compared with 6 months of follow-up readings 2 years later.

Results Complete follow-up data for subgroup (n=57). Baseline demographics for the low risk group; Idiopathic and Heritable PAH (n=20); M:F 4:16; age 45±11 years; BMI 28±7kg/m²; baseline resting heart rate (RHR) 73±9 beats per minute (bpm). Baseline demographics for the intermediate and high risk groups; Idiopathic and Heritable PAH (n=37); M:F 10:27; age 55±16 years; BMI 30±6kg/m²; baseline RHR 78±12 bpm. There was no difference between groups by RHR, BMI or gender (p>0.05). Those in the lower risk group were younger (p<0.05). While age is known to independently increase risk in PAH, there was no significant difference in age-related physical activity between the low and intermediate or high-risk groups at baseline (p=0.334). Table 1 summarises daily rolling average median physical activity (active min/day) at baseline and follow-up. Independent t-tests between all risk groups compared to control were significant (p<0.0001) at baseline and follow up for all risk indicators (table 1).

Conclusions An ICM-measure of daily active minutes is associated with established measures of clinical risk at baseline and after 2 years follow-up. With additional physiological parameters, physical activity may be used to evaluate risk remotely in patients with PAH. Further analysis to determine ‘cut-off values’ for remote daily physical activity by risk stratification is underway.

Conflict of Interest None

155 EFFECT OF COVID-19 INFECTION AND PREVENTIVE PUBLIC HEALTH MEASURES ON HAEMODYNAMICS, ACTIVITY AND QUALITY OF LIFE IN PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION

1Christian Battersby, 2Robin Condliffe, 3David G Kely, 4Charlie Elliot, 5Jennifer Tegan Middleton, 6Dhanashri Nekam-Naganathan, 7Robert Lewis, 8Sarah Binmahfooz, 9Andy J Swift, 10Robert Lewis, 10Sarah Binmahfooz, 10Andy J Swift, 11Mark Toshner, 12Alex M Rothman, 7Lisa Watson. 1Department of Infection, Immunity and Cardiovascular Disease, University of Sheffield; 2Sheffield Pulmonary Vascular Disease Unit, Royal Hallamshire Hospital, Sheffield; 3Sheffield Pulmonary Vascular Disease Unit, Royal Hallamshire Hospital, Sheffield; 4charlie.elliot@nhs.net; 5University of Sheffield, Department of Infection, Immunity and Cardiovascular Disease; 6Department of Infection, Immunity and Cardiovascular Disease, University of Sheffield; 7Department of Infection, Immunity and Cardiovascular Disease, University of Sheffield; 7Department of Infection, Immunity and Cardiovascular Disease, University of Sheffield; 8Department of Infection, Immunity and Cardiovascular Disease; 9The University of Sheffield; 10University of Sheffield; Department of Infection, Immunity and Cardiovascular Disease; 11University of Sheffield; 12Sheffield Pulmonary Vascular Disease Unit, Royal Hallamshire Hospital, Sheffield; 12Royal Papworth Hospital NHS Foundation Trust, Cambridgeshire, United Kingdom

Introduction Pulmonary arterial hypertension (PAH) is a condition driven by endothelial dysfunction and vascular