Patients with left heart disease commonly develop pulmonary hypertension (PH), and some subsequently develop pre-capillary vascular remodelling. This combined pre- and post-capillary pulmonary hypertension (Cpc-PH) is defined as mean pulmonary artery pressure (mPAP) ≥25 mmHg, pulmonary arterial wedge pressure (PAWP) >15 mmHg and diastolic pulmonary gradient (DPG) of ≥7. Patients with Cpc-PH have a worse outcome and targeted pulmonary vascular therapies may be useful. The aim of this study was to assess MRI measured septal angle in the assessment of Cpc-PH.

**Methods** Consecutive, incident suspected PH patients who underwent MRI at a pulmonary hypertension referral centre from April 2012 to October 2015 were assessed. Patients with PAWP >15 mmHg, with right heart catheter and MRI on the same day were included. The diagnostic accuracy of septal angle to identify Cpc-PH was assessed.

**Results** 2437 patients underwent MRI, 1272 were incident and 227 patients had PAWP >15 mmHg. 163 had MRI and right heart catheter and MRI on the same date. The average age was 70 (sd 11), 64% were female. Systolic interventricular septal angle correlated with DPG (r=0.735, p<0.0001). ROC analysis showed septal angle was predictive of Cpc-PH (defined by DPG ≥7) with area under the curve 0.90 (p<0.0001). Analysis of the ROC data showed 160° septal angle as a threshold predicted a DPG of ≥7 mmHg, with 74% sensitivity and 90% specificity (p-value<0.0001). Systolic interventricular septal angle was predictive of outcome with univariate hazard ratio 1.017 (95% CI 1.007–1.028, p=0.001). Dichotomised by median value (149°) the hazard ratio was 3.245 (95% CI 1.046, p=0.04) compared to the oral health state showed that there are disutilities (negative differences) associated with the inhaled, subcutaneous, and intravenous continuous modes of treatment administration. Disutilities were –0.11 for inhaled, –0.26 for subcutaneous, and –0.30 for intravenous administration.

**Conclusion** The ROC data showed 160° septal angle as a threshold predicted a DPG of ≥7 mmHg, with 74% sensitivity and 90% specificity (p-value<0.0001). Systolic interventricular septal angle was predictive of outcome with univariate hazard ratio 1.017 (95% CI 1.007–1.028, p=0.001). Dichotomised by median value (149°) the hazard ratio was 3.245 (95% CI 1.046, p=0.04) compared to the oral health state showed that there are disutilities (negative differences) associated with the inhaled, subcutaneous, and intravenous continuous modes of treatment administration. Disutilities were –0.11 for inhaled, –0.26 for subcutaneous, and –0.30 for intravenous administration.

**Introduction** The CAMPHOR (Cambridge Pulmonary Hypertension Outcome Review) score is an internationally validated patient reported outcome (PRO) measure for pulmonary hypertension, including chronic thromboembolic pulmonary hypertension (CTEPH). It assesses 3 areas: activity (score 0–30), symptoms (0–25) and quality of life (QoL) (0–25); with a higher score indicating a worse PRO. CTEPH frequently causes debilitating symptoms and functional impairment, which can be improved in selected patients with pulmonary endarterectomy (PEA). However, a subset will have residual pulmonary hypertension. We aim to assess PROs in patients with CTEPH undergoing PEA.

**Methods** Consecutive CTEPH patients undergoing PEA from June 2006 to August 2016 at the UK National PEA centre, were included in this retrospective analysis. Patients are reviewed after PEA every 6–12 months for at least 5 years. CAMPHOR scores were recorded prospectively when patients attended hospital assessment and at each follow-up, ensuring high capture.

**Results** 1151 patients underwent PEA during the study period. Of those, 937 (81%) had a CAMPHOR score recorded at baseline (pre-PEA) and 816 (77% of 1059 alive) at follow-up within a year of PEA (post-PEA). We confirmed significant improvements in 6 min walk distance and haemodynamics post-PEA (pre/post-PEA median ±IQR: 6 mwd 300±199 Metres/360±165; mPAP 45±15/25±13 mmHg; PVR 66±478/246±214 dynes.s.cm⁻²; CI 2.2±0.8/2.3±0.7 L/min/m²). The difference in median CAMPHOR scores pre- and post-
PEA improved by 6,7 and 9 points for activity, QoL and symptoms respectively. The median difference for individuals having consecutive paired pre- and post-PEA scores also improved (median ±IQR: activity 4±7; QoL 4±8; symptoms 7±8). Patients were dichotomised into those with significant residual pulmonary hypertension (previously reported risk threshold of ≥30 mmHg , n=302) and those without (n=569). The improvement in CAMPHOR score was greater and more sustained in those without residual pulmonary hypertension (figure 1).

Conclusion PROs relating to activity, QoL and symptoms improve after PEA in CTEPH when evaluated by CAMPHOR score. The improvement is sustained up to 5 years in those without residual pulmonary hypertension (figure 1).

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Abstract S51 Figure 1 PATIENT PATHWAY MAPPING OF UK REFERRALS TO THE NATIONAL PULMONARY ENDARTERECTOMY MDT (JUNE 2015 – MAY 2016)

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Introduction Pulmonary endarterectomy (PEA) is the treatment of choice for Chronic Thromboembolic Pulmonary Hypertension (CTEPH) and can be offered to selected patients with Chronic Thromboembolic Disease without pulmonary hypertension (CTED). Our aim was to map the pathway of UK patients referred to the National PEA MDT and their onwards management.

Methods All consecutive individuals referred to the National PEA MDT at Papworth Hospital between June 2015 and May