INTRODUCTION Ascites develops in about 90% with advanced cirrhosis; when refractory to medical therapy, standard of care is repeated large volume paracentesis (LVP) with albumin support. Refractory ascites (RA) confers a median life expectancy of six months without liver transplantation (LT). LVP is not an optimal palliative strategy. One alternative is long-term abdominal drains (LTAD), used in advanced malignant ascites, also enabling community management. Our ultimate aim is to improve end of life care (EoLC) in advanced cirrhosis and RA. This feasibility randomised controlled trial (RCT) aimed to resolve uncertainties in designing a definitive RCT.

METHODS Multicentre feasibility RCT with 1:1 randomisation between standard of care (LVP) vs. LTAD (Rocket Medical) in adults with RA, ineligible for LT. Both arms received prophylactic antibiotics. LTAD were inserted under ultrasound guidance. Community nurses undertook home visits to drain ascites dependent on symptoms; (maximum 6L/week), without lactic antibiotics. LTAD were inserted under ultrasound guidance. Follow up was 12 weeks with home visits every two weeks for the following assessments: clinical, questionnaire based to include quality of life, palliative care needs, carer burden and health economics (HE). Here we report clinical and HE outcomes.

RESULTS Thirty six patients were randomised; 19 LVP (two withdrew, wanting LTAD) and 17 LTAD (one withdrew - insufficient ascites). Mean age (years) LTAD vs. LVP 66 ± 10.4 vs. 68 ± 12; predominately male (76% vs. 74%). Participants were well matched at baseline in liver tests and prognostic scores: LTAD vs. LVP (serum bilirubin (μmol/L) 26 ± 15.8 vs. 16 ± 10, serum albumin (g/L) 33 ± 4.2 vs. 31 ± 3.3, serum creatinine (mmol/L) 113 ± 46.7 vs. 118 ± 53.1; MELD 14 ± 4.6 vs. 16 ± 7.2). One LTAD participant required hospitalisation for repeated LVP. Serum albumin (g/L) in the LTAD arm declined to 29 ± 3.3 at week two, subsequently remaining stable LTAD vs. LVP (29 ± 5.6 vs. 31 ± 5.5). Serum creatinine remained stable in both arms. There were no LTAD related serious adverse reactions. LTAD related adverse reactions included mild cellulitis (n=4) and small volume leakage around LTAD insertion site (n=3), all resolving rapidly. Peritonitis was rare, LTAD (possible) n=1 and LVP n=2. Overall mortality was 36% (12/33). Mortality and median survival (days in those who died) were 7/16 (44%) vs. 5/17 (29%), 53 days (IQR 43) vs. 61 days (IQR 35) in LTAD vs. LVP respectively. All but one death was liver related. Those in LTAD arm spent ≈20% less time in hospital. All nine alive in the LTAD arm at end of study elected to keep LTAD in. Detailed clinical and HE analysis is underway.

CONCLUSIONS Preliminary data from the REDUCE study supports the safety and efficacy of palliative LTAD in RA due to advanced cirrhosis. LTAD allows successful management in the community with reduction in health resource utilisation. Proceeding to a definitive RCT is justified.

Abstract PTU022 Figure 1 Abnormal LFTs prior to referral: the number of times a patient had abnormal LFTs and the length of time they were known to have LFTs before referral to clinic.