Studies that link obesity to poor PF have typically been cross-sectional, limited to two time-points or relied on retrospectively recalled height and weight. We aimed to establish associations between PF at age 50y and i) birthweight and BMI across the life-course; ii) BMI gains at specific life-stages and iii) age of obesity onset.

Methods The 1958 birth cohort includes all born in one week, in March 1958, across Britain. BMI (kg/m2) was calculated (N=4,173 (males); 4,501 (females)) using height and weight measured at school (7, 11, 16y), in participant’s homes (33, 45y) or self-reported (23, 50y). PF at 50y was assessed via postal questionnaire using the validated PF subscale of the Short-form 36 (SF-36) survey. The lowest sex-specific 10th centile were defined as poor PF. Missing data was imputed via multiple imputation. Associations were examined using logistic regression, adjusting for social class, education and health behaviours.

Results Birthweight was not associated with PF. At each adult age, odds of poor PF were highest for obese (vs. normal) e.g. for 23y obesity the OR adjusted for poor PF was 2.28 (1.34, 3.91) and 2.67 (1.72, 4.14) in males and females respectively. BMI gains from adolescence were related to poor PF, e.g. for females, OR adjusted per SD in BMI gain between 16–23y was 1.28 (1.13, 1.46); for BMI gains 45–50y it was 1.36 (1.11, 1.65). Mean BMI at 50y increased with earlier onset of obesity; e.g. in males, from 31.4 kg/m2 for mid-adult onset to 35.1 kg/m2 for child onset. Longer duration of obesity was associated with poor PF (p-trend<0.001), e.g. in males, for childhood obesity onset (vs. never obese) OR adjusted was 2.32 (1.26, 4.29); for mid-adulthood obesity onset it was 1.50 (1.16, 1.96); associations were abolished with further adjustment for 50y BMI.

Conclusion Study strengths include the large nationwide cohort followed from birth and prospective measures of BMI and PF, albeit BMI at some ages was self-reported. Obesity, BMI gains and earlier obesity onset were associated with poor PF in mid-adulthood. Findings relating to duration of obesity are important given the increasing prevalence of childhood obesity, which tends to track into adulthood. Our study highlights the importance of preventing and delaying obesity onset to mitigate the risk of poor PF in mid-adulthood.

Methods Retrospective cohort study carried out using data from the Portuguese National Tuberculosis Surveillance system, from 2008 to 2015. Were included in the study 1230 patients with active TB and an IGRA result. The IGRA test used in the patients enrolled in the study was the QuantiFERON-TB Gold In-Tube (Qiagen). The association between indeterminate IGRA results and sociodemographic factors, comorbidities and the site of disease were evaluated through bivariate and multivariate logistic regression analysis.

Results Of the 1230 patients reported with active TB in the SVIG-TB database (2008–2015) that underwent an IGRA test, 857 patients (69.7%) had a positive test result, 212 (17.2%) had a negative result and 161 (13.1%) had an indeterminate result. Majority of the patients with indeterminate results were male (67.7%) and more than half had more than 50 years (57.1%). The proportion of indeterminate results increased as the age increased, with patients over 80 years old presenting the highest proportion of indeterminate results. Age ≥ 65 years (OR 2.51, p<0.001), alcohol abuse (OR 3.04, p=0.01) and pulmonary TB (OR 3.07, p<0.001) were predictive factors for indeterminate IGRA results.

Conclusion Age ≥ 65 years, alcohol abuse and pulmonary TB were identified as factors for the occurrence of indeterminate IGRA results. The first two factors can be identified prior to the test and thus help to quickly identify the probable cause of an indeterminate outcome and lead to the use of other clinical and diagnostic means to detect a possible infection.