Introduction:
The protein intake for patients who met adequacy for energy was assessed within our cardiothoracic intensive care. Nutritional support should aim to provide at least 80% of calorie requirements to achieve nutritional adequacy with suggested protein requirements of 1.2-2 g/kg/day [1]. Guidelines highlight the difficulty achieving the correct protein:energy ratio from nutritional support to meet this target especially in the obese population.

Methods:
The audit was registered with clinical governance. Data was collected prospectively from patients requiring tube feeding for three or more days from January 2016 – October 2017 (Table 1). Data included type and volume of feed and calories from other sources. Patients who met adequacy for energy (Figure 1) had protein intake calculated (g/kg) based on actual (ABW) or ideal body weight (IBW) where Body Mass Index (BMI) was 30kg/m² or higher. Data analysed using Student t-test.

Results:
Nutritional support was initiated within 48 hours for 88% (n=128) of patients. Full feed was established by day three (IQR 2-4 [range 1-8]) providing 1710 (±257) kcal/day. The patient population did not achieve the protein target (Figure 2) with 3% exceeding 1.2 g/kg body weight. Men classed as obese had a significantly lower protein intake compared to men with BMI less than 30kg/m² (p=0.04) and obese women (p=0.03).

Conclusion:
The audit of nutritional support monitors the percentage of patients who achieve nutritional adequacy within the unit. However the majority of these patients did not meet the minimum protein requirements despite the range of feeds available. Patients who are obese may be most at risk of protein depletion as recommendations suggest require protein intake at upper end of range. The audit demonstrates a need to review feeding protocols.

References:
Monitoring Nutritional Adequacy

Protein intake based on sex and BMI range

Protein intake based on sex and age