Computed Tomography imaging has high diagnostic yield for unintentional weight loss at Counties Manukau District Health Board

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Introduction
Unintentional weight loss poses a diagnostic dilemma due to a wide differential diagnosis. Following basic diagnostic investigations, cross-sectional imaging such as CT chest, abdomen and Pelvis (CT-CAP) is often performed with the aim of excluding malignancy. There are no guidelines on which patients should follow this pathway. The purpose of this audit is to evaluate the yield of CT-CAP in these patients, identify predisposing factors for positive findings, and identify inequalities that may exist in our multicultural population.

Methods
All adult patients (>18 years) referred for CT-CAP at our institution between 1st January 2014 and 31st December 2014 for evaluation of weight loss were included. Clinical and electronic records were retrospectively evaluated.

Results
212 cases were identified within the audit interval. 42 cases were excluded as an active malignancy was already discovered through other imaging modalities or endoscopy, prior to referral. Median weight loss was 10kg.

A clinically significant finding was found in 51.2% (n=87) of patients, with malignancy found in 23.5% (n= 40). Gastrointestinal malignancy was found in 50% of the malignant cases, with colorectal cancer being the most common malignancy identified (n=14). Hypoalbuminaenia is the only positive predictive indicator for malignancy (32g/l vs 36g/l, $p<0.01$). There was no clinical significant difference in Haemoglobin, Ferritin, and Creatinine. Overall, one and four-year mortality was 22.4% and 38.2%, respectively. The most common non-malignant significant findings were pulmonary in origin, for example, Bronchiectasis, pulmonary nodules, and Pneumonia.

Conclusions
CT-CAP performed for investigation of unintentional weight loss has a higher positive yield than previously reported. Hypoalbuminaemia is the only associated risk factor for positive findings. We conclude CT-CAP should remain as a mainstay for evaluation of unintentional weight loss, following endoscopy and chest x-ray.