

### 520 Can Low Lymphocyte Count Be Used to Predict the Presence Of COVID-19 In Emergency Surgical Patients?

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**Introduction:** With regards to COVID-19, low lymphocyte count (LC) [1] [2] [3] is a recognised feature and can be linked to disease severity [1][4]. This project aims to establish if lymphopenia is predictive of COVID-19 in the acute surgical patient.

**Method:** All emergency general surgical admissions to the Northumbria NHS Trust 15/4/20 -31/5/20 (n = 152) and 15/4/19 - 31/5/19 (n = 92) were reviewed. Exclusions included 'Elective' admissions and non-abdominal complaints.

Statistical analysis was performed using the STATA package. Low LC was compared with COVID-19 status; established through imaging, swab results, or clinical suspicion.

**Results:** Within the 2020 cohort 76.3% of patients (n = 116) had swabs within a week of admission. 8 patients within that cohort were deemed to have COVID-19, only one had a positive swab. Low LC as a predictor for COVID-19 had a sensitivity of 75%, specificity of 36.2%, PPV of 6.38% and NPV of 96.2%. Mann Whitney statistical analysis was used to identify a relationship between low LC and COVID-19 status, showing no significance (p = 0.91).

**Conclusions:** Low LC is not a predictor of whether surgical patients have COVID-19, and therefore should not be used for screening. There was no increase the number of patients presenting with lymphopenia in the acute surgical take in the 'COVID Era' compared with 2019.