Social deprivation increases the risk of acute pancreatitis but does not impact disease severity and mortality
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Introduction
• The incidence of acute pancreatitis (AP) in the UK has more than doubled in the past two decades.
• Patients with severe AP requires a significant amount of resources for support but the ability to predict which patients will develop severe AP remains poor.
• Social deprivation has been linked with increased mortality across surgical specialties.
• The aim of this study was to evaluate the impact of social deprivation on outcomes in patients presenting with AP.

Methods
• A prospectively collected single centre database was analysed.
• Deprivation score was quantified using the Index of Multiple Deprivation (IMD) data from the English indices of deprivation 2019, via the patient’s postcode.
• IMD 1 consists of the 10% most deprived neighbourhood nationally while IMD 10 was the 10% least deprived neighbourhood.
• Patients were subsequently grouped into five individual quintiles.
• Primary outcome was all-cause mortality while secondary outcome was admission to ICU.

Results
• 396 patients were included in the analysis.
• There was a significantly higher number of patients coming from more deprived backgrounds (Figure 1).
• Quintiles were comparable in most baseline demographics.
• However, a higher proportion of patients living in more deprived areas were younger, smokers and had ischaemic heart disease (Figure 2).

Figure 1: Number of patients in each quintile

Number of patients

Figure 2: Baseline demographics of patients in each IMD quintile

• Univariate analysis (by quintiles or lower quintiles (IMD 1-3) versus higher quintiles (IMD 4 and above)) showed that deprivation was not significantly associated with ICU admission, as well as worst short and long-term survival outcomes.

Conclusions
• Social deprivation does not appear to have a major impact on short- and long-term outcomes in patients with acute pancreatitis.
• Advancing age and need for ICU admission were more likely to determine survival outcomes in AP.