

# **SOCIAL DEPRIVATION, NOSOCOMIAL INFECTIONS AND CORONARY ARTERY BYPASS GRAFTING.**

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## **Abstract**

**Introduction:** Nosocomial infections blight the success of all surgical procedures and increase the burden on finite health resources. The aim of this study was to assess whether social deprivation influenced nosocomial infection rates following coronary artery bypass grafting (CABG).

**Methods:** Demographic and perioperative data was collected prospectively on all patients undergoing first time CABG over 5 years and analysed retrospectively. Deprivation was measured using the Carstairs Score and the Scottish Indices of Multiple Deprivation (SIMD). Proven nosocomial infections were collected from the microbiology database.

**Results:** 432 of 2535 studied patients (17%) acquired 17 microbiologically identified infective organisms from 9 different sites. Patients who acquired a nosocomial infection had a significantly higher mortality rate: 3.7% vs. 1.3% (p<0.01). The deprivation scores between patients with and without nosocomial infections were: Carstairs; -0.58 vs. -1.13, (p<0.01), SIMD; 17.13 vs. 15.55, (p<0.01). Patients with diabetes (p<0.01), respiratory disease (p<0.01) or transfused of blood (p<0.01) were more likely to develop a nosocomial infection.

**Conclusions:** Patients who acquire a nosocomial infection following CABG have a significantly higher mortality rate than those who do not. Social deprivation has a significant relationship with the development of nosocomial infection following CABG.