**Seasonal variations in Acute Surgical admissions: A four-year audit of Surgical admissions**

Amir Yousaf1, Rizwan Aziz1, Lavinia Onos1, Cristian Soare1, Jesus Barandiaran2, Ishtiaq Ahmed3

**ABSTRACT**

**Objective:** To evaluate the number of patients admitted to hospitals as emergency cases under general surgery with regards to variations with seasons and case load of commonest surgical emergencies.

**Study Design:** Observational Descriptive study

**Place and Duration:**  At York NHS Foundation Teaching Hospital and Scarborough District Hospitals, United Kingdom from 1st January 2013 to 31st December 2016.

**Methodology:** The Network Services York NHS Foundation Trust was requested to provide the data-base which included the data of the patients admitted to York Teaching and Scarborough District Hospitals. The data retrieved included all elective as well as emergency admissions among which the elective admissions were excluded from the analysis. Four major surgical diagnoses, which include acute appendicitis, cholecystitis, pancreatitis and diverticulitis were reviewed. Spring, summer, autumn and winter were defined as seasons. Patient admissions were categorized into 12 months and in 4 seasons. Edward’s test was performed for 12-month seasonal statistical analysis and goodness of fit test was applied to verify four seasonal variations.

**Results:** ATotal of 74,529 patients were admitted in both the hospitals, which include elective and emergency patients. Out of them 30,029 (40.29%) were admitted as acute surgical patients including all surgical sub-specialties with a significant monthly variation as p<0.001. Acute surgical admission trend in summer was 26.34% while it was 24.02% in winter. There was 2.32 % higher admission in summer as compared to winter. Among four major surgical diagnoses, acute appendicitis was 28.10% p<0.001, acute cholecystitis was 26.71% p<0.001, acute pancreatitis was 24.44% with p<0.001 and acute diverticulitis was 20.75% with p<0.001.

**Conclusion:** A steady cyclical trend in acute surgical admissions, with more admissions during summer months were observed.

**Keywords:** Hospital admissions,Emergency admissions, Surgical Admissions, Seasonal variations, Acute appendicitis, Cholecystitis, Diverticulitis, Pancreatitis

**How to Cite This:**

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