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# **Is proximity to secondary care associated with increased emergency department attendances and/or admissions?**

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## 1.1 Definitions

Terminology used when discussing the emergency services can be employed interchangeably, for example 'visits', 'use', 'attendance', 'admissions'. For clarification 'emergency admission' has been defined by the NHS Data Model and Dictionary Service as 'an admission which is unpredictable and at short notice because of clinical need' (NHS Data Model and Dictionary). This can be taken to mean an attendance at an emergency department (ED) which results in an emergency admission to a hospital bed. An emergency attendance, on the other hand, does not necessarily convert into an admission. Indeed the rate of this conversion is of interest, particularly in the current financial climate where resources are squeezed and there is a focus on reducing preventable and avoidable use of emergency services.

## 1.2 Introduction

The number of visits to emergency departments in England and Wales increased by 20% from 2007/08 to 2011/2012 (Health and Social Care Information Centre, 2013). SNCCG has data that demonstrate increased use of the emergency department (ED) by patients who live in close proximity to a secondary care centre. Factors most commonly associated with increased attendance at an ED are increased age, reduced socioeconomic status, lower educational achievement and the presence of multimorbidities (Huntley A, 2014). In addition, several sources of evidence support the observation that those closest to an ED use the service more than those who live further away (McKee CM, 1990) (Hull S, 1997). More recent data of particular relevance to the healthcare system in England are summarised below.

## 1.3 The relationship between proximity to and emergency department and attendance/admission rates

Studies have focused on determining whether certain features of primary care practices affect the use of unplanned secondary care. A cross-sectional study of two primary care trusts in the East of England analysed emergency hospital admissions data, excluding maternity admissions, from 145 general practices for 2006/7 and 2007/8 (Bankart MJG, 2011). Emergency admissions were lower in practices which were further from a hospital and in patients who reported continuity of care within general practice. A similar study conducted using data from the same time period in Northamptonshire, covering 76 general practices, also found that increased distance from a hospital resulted in lower numbers of ED admissions (Gunther S, 2013). The authors also concluded that the ability to book an appointment with their preferred GP, particularly in deprived areas, was associated with lower ED admissions. A third cross-sectional study analysed ED attendance data

from patients registered at 7,856 general practices in England, approximately 95% of the total, including 764 in the East of England from April 2010- March 2011 (Cowling TE, 2013). Patients who waited longer than two weekdays to access primary care services were more likely to self refer to an ED. Of interest, the total number of visits to an ED during this period was 11,538,268, and of this 7,402,722 (61.3%) were as a result of self-referral. Overall, 4,537,622 self-referral visits (or 61.3% of the total number of visits) resulted in discharge, with or without follow up treatment. The authors make no judgement on whether the ED was the appropriate place of care for those who self-referred as the aim of the study was to examine the effect of access to primary care on ED attendances.

Rudge et al (Rudge GM, 2013) focussed on the combined influence of distance and neighbourhood deprivation on ED attendance in England. Data covered 1, 413,363 ED visits during 2007/8 in a population of 5.4 million living in central England. For each additional kilometre of distance from a hospital predicted child attendances fell by 2.2% and adult attendances by 1.5%. In addition attendances by those from deprived areas were reduced to a greater degree with distance, compared to people living in less deprived areas.

#### **1.4 Factors affecting elective admissions**

Referrals from primary care to secondary care can vary between GP practices. Continuity of care is associated with fewer elective admissions; a study in the East Midlands reported that a 1% increase in the proportion of patients able to see a particular doctor was associated with a 7.6% reduction in elective admissions per year in an average sized practice in 2007/7 and 3.1% reduction in 2007/8 (Chauhan M, 2012).

#### **1.5 Conclusions**

Geographical location of services is important to patients. Data presented here using NHS patient information support the observation by SNCCG that close proximity to ED increases use. There is also evidence to indicate that continuity of care i.e. the ability of patients to access primary care services with the same GP, reduces both unplanned ED attendances and elective admissions.

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