Winter emergency pressures for the NHS: contribution of respiratory disease, experience in North Staffordshire district

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Summary
The rise in emergency medical admissions in winter in the NHS hospitals in the United Kingdom has been recognized to reflect respiratory and cardiovascular illness. In our study we looked at the contribution of respiratory disease to the winter pressures in our district. Respiratory disease related emergency admissions increased twofold in the winter months, with obvious implications for workload. An evidence-based National Service Framework for respiratory disease would be useful.

Keywords: hospital admissions, respiratory, emergency, winter pressures

Introduction
Hospital admissions in general are characterized by a marked seasonal variation. Winter emergency pressures in the NHS have been a recurrent problem and are a priority area for the National Health Service. In Scotland winter peaks have been previously recognized to be due to respiratory and cardiovascular illness.1–4 This paper estimates the contribution of respiratory disease to the burden of excess winter hospital admissions in North Staffordshire district.

We looked at the number of non-elective hospital admissions and the proportion of admissions as a result of respiratory disease for North Staffordshire Health Authority residents by months for April 1995–March 2000.

Subjects, methods and results
The data presented here reflect all non-elective hospital admissions from April 1995 to September 2000 in the population of 470000 served by North Staffordshire Health Authority. The hospital admissions for respiratory conditions were derived from the hospital episode, contract minimum dataset. Finished consultant episodes were aggregated to admissions. Respiratory diseases categorized in the International Classification of Disease (ICD10) Chapter X J40–J47 for the period April 1995–September 2000 were included. The year was subdivided into winter months (November–February) and non-winter months (March–October) arbitrarily for comparison of trends.

For each period the average monthly admissions were calculated and compared. The winter peaks for non-elective respiratory admissions were two- to threefold higher than the mean level of approximately 400 admissions per quarter. The non-respiratory admissions showed a marginal drop in number between non-winter and winter months for the study period (1.2 per cent; range 0.8–1.4 per cent).

The Figure shows a clear pattern of excess respiratory admissions in winter months for five consecutive years. In contrast, non-elective admissions for other causes such as cardiovascular disease did not demonstrate any clear seasonal pattern (source contract minimum dataset).

Comment
This study shows that additional hospital admissions for respiratory disease contribute significantly to winter bed pressure in the NHS in the North Staffordshire district. The reason for this may be higher prevalence of chronic respiratory disease in this area of industrial and mining background, infections and relative social deprivation.5 As the historical trends are likely to continue, the North Staffordshire Health Authority has taken measures, on the basis of available evidence, that include supporting the vaccination and immunization group to improve coverage of influenza vaccination for at-risk groups6,7 and to ensure winter initiatives are in place. Measures have also been taken to support an antismoking campaign and to set up a standing group on respiratory diseases involving local clinicians to improve the management of patients with chronic respiratory conditions.

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The importance of respiratory disease in winter pressures for the service and for the health of our population is highlighted by this study. As respiratory disease is the single most common cause for general practice consultations and contributes significantly to the use of hospital resources, it calls for an evidence-based National Service Framework.

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References


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