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Comparison of ED and urgent care ILI surveillance data from the 2009 H1N1 outbreak

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Objective

To compare the proportion of patients presenting with influenza-like illness (ILI) to urgent care centers versus the emergency department (ED) during the 2009 Fall Novel H1N1 outbreak.

Introduction

Syndromic surveillance of health care data such as the International Classification of Diseases, Ninth Revision (ICD-9), codes related to ILI, was used to track the progression of the 2009 Fall Novel H1N1 outbreak in the Madison area (1). Early studies focused on prediction of an outbreak; however, further investigation of patient resource utilization would be helpful in developing an action plan for addressing community and patient needs during future outbreaks. There is a paucity of research comparing ED and urgent care utilization rates during the 2009 Novel H1N1 pandemic, though there are regional data suggesting that urgent care centers bore a larger portion of the burden of H1N1 influenza than EDs (2). Furthermore, one group found that ILI-related phone calls to urgent care centers predicted influenza outbreak at least 1 week ahead of peaks in the ILI hospital care consultation rates (3). ED data on its own have proven useful for public health disease surveillance (4, 5), and many studies group urgent care and ED care together. The literature is lacking subgroup analysis of these two very different care environments. Understanding the correlation between urgent care and ED utilization rates will provide a more in depth understanding of the stress that the 2009 Fall Novel H1N1 placed on community resources in our geographic region.

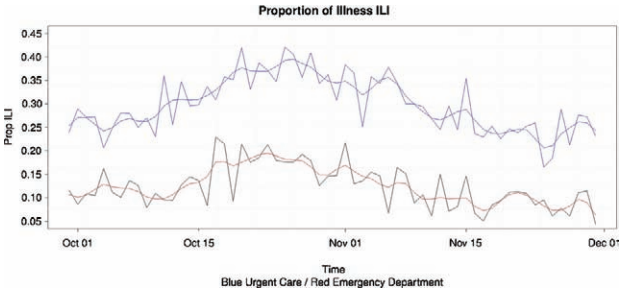

Fig. 1. Urgent care utilization for ILI (blue) versus ED utilization for ILI (red).

Methods

This study is a cross-sectional retrospective analysis of ED vs. urgent care utilization rates for ILI in the greater Madison area from October 2009 to December 2009. The proportion of ILI encounters was calculated for two university-based urgent care centers (grouped) and compared with the ED data from the same university-based system. Proportions were calculated from ICD-9 and total daily encounter volume data.

Results

The average proportion of encounters for ILI at urgent care centers was 0.298 in comparison with 0.125 for ED visits during the 2009 Fall Novel H1N1 influenza outbreak. Graphical trends in illness were comparable.

Conclusions

Patients in our geographic region were 2.4 times more likely to seek care at urgent care centers for ILI during the Fall wave of the H1N1 influenza pandemic. Neither care site predicted the outbreak more effectively than the other.

Keywords

H1N1; urgent care; ED; ILI; syndromic surveillance

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