

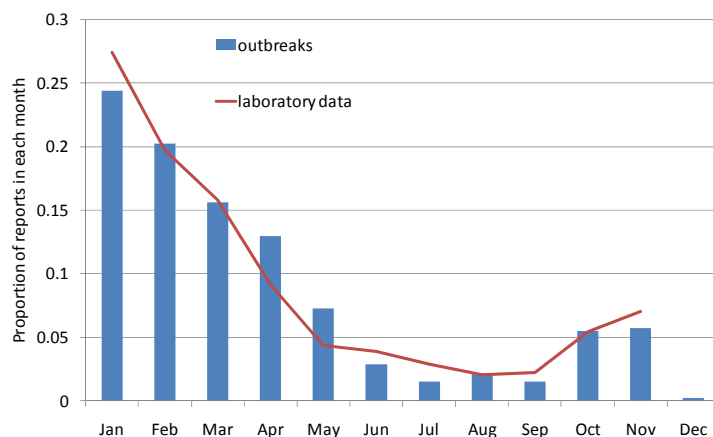
Introduction

Since 01 January 2009 the HPA has been coordinating a reporting system for norovirus outbreaks in hospitals. The scheme, developed in consultation with the Infection Prevention Society, has now been running for nearly a year. Infection control teams based in acute trusts enter data directly into a web based system, accessed via the web address: <http://www.hpa-bioinformatics.org.uk/noroOBK/>. Reporting to the system is voluntary; however, there has been a good response. The first report published data from the first six months of reporting to the end of June, showed that 350 outbreaks were reported between January and June this year. Norovirus activity increases during the winter months coinciding with increased activity in respiratory infections and childhood diarrhoea, increasing pressures on acute services and competing demand for beds. The mainstay of norovirus outbreak control is ward closure which is highly disruptive and in itself leads to increased pressures on bed demand. This interim report is to update users of the system to the current situation on norovirus outbreaks reported in trusts to the beginning of December (to the end of week 48), and to heighten awareness of the reporting system.

Outbreak reporting pattern

Four hundred and fifty eight outbreaks were reported by 61 trusts in England since the beginning of January. Sixty percent of outbreaks reported occurred between January and March this year and declined during the spring and summer months. Outbreak reports are now beginning to rise again. Figure one shows outbreaks and laboratory reports in each month as a proportion of the annual total reported in each system.

Figure 1. Proportion of all outbreak and laboratory reports by month of outbreak occurrence



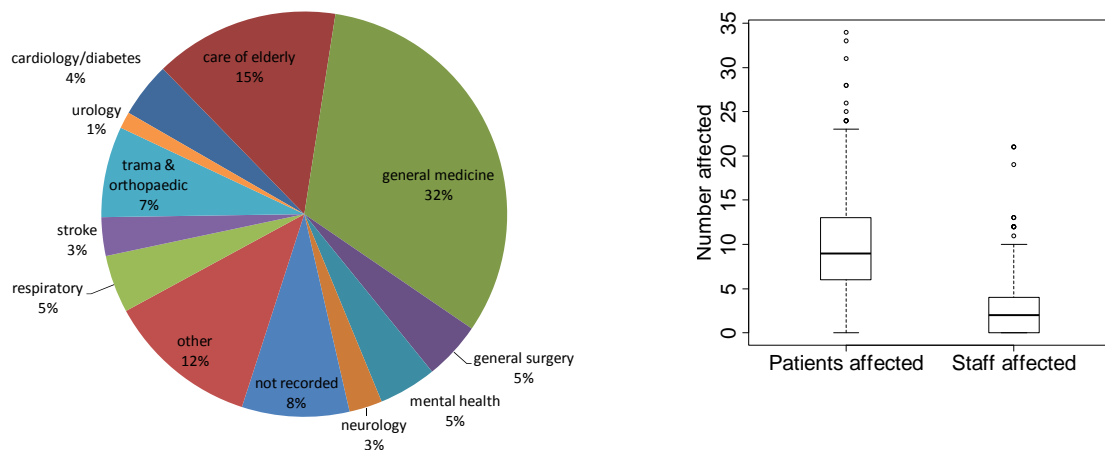
Trusts from all regions in England reported outbreaks, the highest numbers were reported from the North West and South West regions (see table 1). Eighty three percent of outbreaks involved ward closures with wards being closed on average for seven days (range 0-54 days) leading to a total of 6352 reported bed days lost (range 0-173 average 24 per outbreak). Sixty nine percent of reported outbreaks were laboratory confirmed as norovirus.

Table 1. The number of suspected and confirmed norovirus outbreaks reported by region 01/01/2009-01/12/2009.

HPA Region	Outbreaks reported (n)
East	23
East Midlands	33
London	10
North East	47
North West	102
South East	59
South West	89
West Midlands	47
Yorkshire and Humberside	48
Total	458

Outbreaks affected a range of wards, the most commonly affected are general medicine (32%) and care of the elderly (15%) other wards including stroke, oncology and cardiac care wards were also affected (see figure 2). A total of 4481 patients and 1265 staff were affected, on average, each outbreak affected ten patients (range 0-34) and three staff (range 0-21) per outbreak.

Figure 2 wards affected and number of patients and staff affected in the reported outbreaks



Discussion

The previous report highlighted that the outbreaks reported to this scheme were likely to be an underestimate. We have not estimated the scale of underreporting for the purpose of this update. The data from laboratory reports does indicate that there is now and upturn in norovirus infections and the data on reported outbreaks correlates very well with this. The reporting system does not record how long affected staff are off ill. However, it is possible to make estimates based on the usual clinical pattern of norovirus. Assuming illness lasts 2 days and staff are off sick from day one, and allowing for 48 hours after symptoms subsided before staff can return to work, we can assume that illness lasts for four days. Allowing for a working week of 37.5 hours and staff working 5/7 days per week: Days of work lost = $4 \times 5/7 = 2.86$. Given that there were a reported 1265 staff involved in outbreaks this would have led to around $2.86 \times 1265 = 3618$ working days lost to the NHS in England due to norovirus outbreaks. In summary norovirus continues to be a common cause of outbreaks in hospitals in England with considerable impact to both patients and staff. In order to continue to be able to provide accurate estimates of this impact we would encourage people to report outbreaks to the reporting scheme.