

## Letter to the Editor

# Pharmacy Consultation Outcomes During a Lung Cancer Awareness Campaign

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## Introduction

Lung cancer remains a condition that is frequently diagnosed too late for optimum prognosis [1]. Several factors seem to contribute to this, but there is good evidence that response to potential symptoms of lung cancer and awareness of the condition varies between men and women. This is believed to contribute to delayed diagnosis in men, with reluctance to report minor symptoms to a general medical practitioner (GP) identified as one cause [2]. In response to this, audit data from a two week health improvement campaign undertaken by 29 pharmacies in North West London during Lung Cancer Awareness Month in 2013, was subjected to analysis that included gender as a variable. The results suggest that this analysis was justified.

**Key words:** lung cancer; odds ratio; health improvement

## Methods

Following Royal Pharmaceutical Society guidance, an audit pack was devised by a team of pharmacists who subsequently collated the results from all pharmacies. Pharmacy staff anonymously interviewed adult patients who asked one of four relevant questions retrieved from a counter aid, modified for the study. The questions related to respiratory symptoms including sore throat, cough and chest pain, or a wish to discuss smoking cessation. The results were examined and subjected to simple analysis to determine whether there was any association between in-pharmacy outcomes and recorded variables.

## Results

From the 267 interviews, a sub-group of 109 patients was identified, who complained of a persistent cough lasting more than 3 weeks that was not obviously linked to some short-term cause. The demographic characteristics of the persistent cough sub-group, the major symptom, were similar for men and women. Age-range was recorded for 54 men and 54 women, and the numbers of patients in each estimated age group (<30, 30-50, >50 years) was similar for both genders. All smokers (25 men; 21 women) were offered referral to a smoking cessation service.

Analysis focused on referral to a GP and supply of an over the counter (OTC) product, as either a sole action or in combination with others. All patients were entitled to free health care. Results showed that more women than men were referred to a GP, and more men than women received an OTC product (Table 1). Table 1 also shows the number of patients for whom those were the only actions as well as the Odds Ratio (OR) of the predominant gender being predictive of the action taken.

**Table 1:** Correlation between patient gender and actions: general medical practitioner referral (GP) and supply of over the counter (OTC) products.

	Men n=52	Women n=53	Odds Ratio (95% CI) for predominant gender	Significance
GP referral only	7	19	female; 3.59 (1.36-9.52)	p = 0.010*
Total GP referral	17	27	female; 2.14 (0.969-4.72)	p = 0.06
OTC supply only	16	9	male; 2.17 (0.859-5.50)	p = 0.101
Total OTC supply	28	14	male; 3.25(1.43-7.37)	p = 0.0045*

Data only included if both gender and action were recorded. CI represents Confidence Interval; \*denotes Odds Ratio statistical significance, calculated according to Sheskin p542 [3].

## Conclusion

These findings suggest that even in a pharmacy consultation environment, patient gender may be associated with outcome, when patients present with symptoms that could indicate lung cancer. The difference in outcome suggests men's uptake of GP medical assessment is delayed and this finding is compatible with those reported elsewhere. Since patients are partners in the decision-making process, this may reflect poorer appreciation by men of lung cancer symptoms.

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## Note

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UK National Research Ethics Service guidelines indicate that the study was a service evaluation and required no ethics approval.

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