Cost effectiveness of providing nurse-led annual asthma reviews by telephone vs face to face: a randomised controlled trial in UK primary care **AB03PR**

Hilary Pinnock, Department of Primary Care and General Practice, University of Aberdeen *Prim Care Resp J* 2003; **12(2)**:62

Background: Telephone consultations offer an efficient and effective option for the routine review of adults with symptomatic asthma. [Pinnock *et al, BMJ* 2003;**326**:477-9]

Objective: To compare the cost-effectiveness of nurse-led reviews undertaken by telephone with face-to face reviews.

Methods: Cost effectiveness analysis based on a 3 month randomised controlled trial of telephone vs face-to-face reviews for adults with asthma in 4 UK general practices. Data on use of direct healthcare resources (primary / secondary care contacts and drug use) were obtained from the GP records

Results: 278 asthmatics were randomised to surgery (S: n=141) or telephone (T: n=137) review. 101 (74%) asthmatics in the telephone group were reviewed vs 68 (48%) in the surgery group (p<0.001). Telephone consultations were significantly shorter (mean duration T: 11.19 (SD 4.79) vs S: 21.87 (SD 6.85) minutes (p<0.001) Healthcare costs per patient over 3 months were similar (S: £59.22 (SD 66.00) vs T: £64.20 (SD 73.15) p=0.551) Total cost, based on unit costs for nurse clinic consultations in 2000/1 (www.pssru_library@ukc.ac.uk) plus the cost of telephone calls (www.BT.com) of providing 101 telephone and 68 face-to-face reviews was similar (T: £724.20 vs S: £697.60) but mean healthcare cost per consultation achieved was less in the telephone arm (T: £10.65 vs S: £6.91)

Conclusion: Telephone consultations enabled a greater proportion of asthma patients to be reviewed (risk difference=26%) with cost savings to the NHS. This mode of delivering care is, therefore, a dominant strategy which not only improves access but reduces cost per consultation

Co-authors: Sheikh A, Bawden R, Proctor S, Wolfe S, Scullion J, Price D
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A questionnaire survey of patient's views on telephone and surgery reviews for asthma in UK primary care **AB04PR**

Hilary Pinnock, Department of Primary Care and General Practice, University of Aberdeen *Prim Care Resp J* 2003; **12(2)**:62

Background: Telephone consultations offer an efficient and effective option for the routine review of adults with symptomatic asthma. [Pinnock *et al, BMJ* 2003;**326**:477-9]

Objective: To identify patients' preferences for modes of delivering asthma care.

Methods: Semi-structured questionnaire survey of all 278 patients enrolled in a randomised controlled trial about their preference for future asthma reviews and reasons for their choice. Quantitative analyses were undertaken of categorical and continuous data and qualitative analysis of free text responses.

Results: Of the 209 respondents (75% response rate) 70 (33%) preferred telephone, 35 (17%) preferred surgery and 104 (50%) had no preference. The difference in responses amongst those randomised to the telephone arm and those in the surgery arm was not significant (chi2=5.03; p=0.08). Those preferring telephone reviews commonly cited convenience for people at work or with domestic commitments. Telephone consultations overcame mobility and transport problems and cost patients less in time and money. Concerns were occasionally expressed about problems with confidentiality, particularly when calls were taken at work and a few patients observed that the phone call caught them unprepared. Those preferring surgery consultations believed them to be more personal, facilitating a relaxed consultation and allowing a more in-depth assessment. Many respondents felt that, as their asthma was mild and well controlled, telephone reviews were ideal as they were quick and convenient. If they perceived a problem with their asthma they would make an appointment at the surgery.

Conclusion: Many adults appear to appreciate the convenience of telephone reviews. General practices should consider including a telephone option as part of their routine asthma service

Co-authors: Sheikh A, Bawden R, Proctor S, Wolfe S, Scullion J, Price D
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Management of COPD in Primary Care in Leicestershire **AB05PO**

Ayeme M Lwin, Department of General Practice and Primary Care, University of Leicester *Prim Care Resp J* 2003; **12(2)**:62-63

Introduction: Chronic Obstructive Airways Disease (COPD) is a common treatable condition suitable for primary care given certain prerequisites. These are disease specific registers, protocols and clinics and access to quality assured spirometry for accurate diagnosis and monitoring of disease progression.
Rationale : To determine proportion of practices with COPD registers, protocols and clinics and the resources to provide high quality spirometry.
Methods: A postal survey of the identified lead respiratory nurse and doctor in 147 Leicestershire practices. Reminders were sent after six weeks of non-response. Further telephone questionnaires were sent to non-responders after twelve weeks.

Results: The response rate was 61%. 43 (49%) responding practices had COPD protocols, 49 (54%) practices had COPD registers and 8 (9%) practices had COPD clinics. 50 (56%) practices owned one or more spirometers and 13 (15%) had at least 1 person with current (within the last 2 years) approved/formal training in performing spirometry. Only 4 (4%) of practices had COPD protocols, registers and clinics and trained operators with current training.

Discussion: Very few practices in Leicestershire have the prerequisites to provide high quality of primary care of COPD. Maintenance of current approved training for spirometry operator is likely to be a major continuing barrier to providing high quality practice based primary care of COPD. This may be best provided at a locality level by intermediate care.

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The effect of training on practitioner confidence in their knowledge of COPD

AB06P0

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Background: Chronic Obstructive Pulmonary Disease (COPD) affects 600,000 patients in the UK (BTS Burden of Lung Disease, 2001). COPD guidelines state that diagnosis and management of COPD should be undertaken by appropriately trained practitioners (BTS *Thorax* 1997 **52**; Suppl 5). This audit aimed to show the effect of NRTC COPD training on practitioner confidence in their knowledge of the disease.

Method: Questionnaires designed to investigate the influence of training on confidence in COPD knowledge were sent to 167 health care professionals (HCP) prior to attending NRTC COPD courses. 140 HCPs completed the same questionnaire on their final exam day. HCPs rated confidence in their COPD knowledge as 1-5 (very low to very high) for:
(i) understanding the causes and pathophysiology of COPD,
(ii) taking a comprehensive respiratory history,
(iii) obtaining accurate spirometry measurements,
(iv) identifying abnormal spirometry patterns and their significance, (v) knowledge of effective treatment strategies for COPD,
(vi) understanding of disability/handicap and methods of addressing these issues. To ascertain overall confidence in COPD knowledge, average numbers of HCPs for each confidence level was determined as a percentage of the total number of those audited.

Results: 140 (84%) pre-course and 124 (89%) final exam day questionnaires were returned. Pre-course 40 % of HCPs had low/very low confidence in their knowledge, 40% average and 20% high/very high levels of confidence. On the final exam day 1% of HCPs had low confidence in their knowledge, 16% average and 83% high/very high levels of confidence.

	Average number HCPs as % total audited	
Confidence Level	**Pre- course**	**Exam Day**
1 - Very Low	13 %	0 %
2 - Low	27 %	1 %
3 - Average	40 %	16 %
4 - High	17 %	55 %
5 - Very high	3 %	28 %

Discussion: The percentage of health care professionals who had high/very high level of confidence increased from 20% to 83% on completion of the course. The results of this audit show that there is a clear shift in confidence in COPD knowledge after attending an NRTC COPD course.

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Funded by: National Respiratory Training Centre.

Assessment of key influences on asthma inhaler device selection in trained asthma practice nurses.

AB06PR

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Background: The impact of asthma is felt throughout the UK with an average primary care organisation treating 45,000 people for asthma with 439 emergency hospital admissions and eight deaths due to asthma each year (National Asthma Campaign 2001).Optimal asthma management is reliant on individualised patient focused selection of appropriate treatment via a suitable inhaler device.
Aims of the study: To identify the most important influences on asthma inhaler device selection in a group of asthma trained nurses.
Design: Interviews and a focus group were conducted in order to gain information that could be used to develop a questionnaire on which to base a pilot study.
Setting: Interviews, focus group and pilot study were all held in a semi-rural area of England. Subjects: 3 NRTC asthma nurse experts, eight local asthma trained practice nurses and a non random sample of 18 asthma trained nurses.
Results: Practice nurse's identified influences such as patient age, cost to the practice and patient preference as being the most important influences with experts also highlighting the importance of evidence from research and adherence to current national asthma guidelines. The subsequent pilot study showed that ease of use and patient's manual dexterity had the greatest influence on a nurse's choice of device, with adherence to national asthma guidelines and training in asthma management in third and fourth places.
Conclusion: Inhaler devices need to be easy to use by the majority of patients to ensure optimal asthma management, while national asthma guidelines also play a prominent role in device selection. Asthma education should include this information in order to promote optimal symptom control.
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