

The role of the practice nurse in the management of asthma

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ABSTRACT

Background

The role of the practice nurse may include diagnosis and management of asthma, this study examines the range of activities performed by nurses and their training

Aims

To ascertain the role and confidence levels of the practice nurse in diagnosis and management of asthmatic patients

Method

A postal questionnaire sent to the named respiratory nurse in 17 practices in Cornwall and Southwest Devon, to assess the number of practice nurses offering asthma management, extent of services and confidence level of nurses in this role

Results

The response rate was 64%: Dedicated asthma clinics operated in 47% of practices, 87% undertaken by the nurse alone. Responsibilities undertaken by nurses alone included: instruction of

inhaler technique 93%, supervising self-management plans 87% changing medication dosage 71%, withdrawing treatment 53% diagnosing asthma 45% and managing acute exacerbations 29%. Nurses initiated treatment alone, without consulting a doctor, as follows; inhaled bronchodilators 55%, long acting bronchodilator 34%, inhaled steroids 56%, oral steroids 15%, anti-leukotrienes 5% and theophyllines 3%. The confidence level of the nurses performing these tasks was high. Formal training had been undertaken by 74% of respondents. There were statistically significant association between performance of organisational tasks and training, but surprisingly no apparent statistical associations with training and independent initiation of treatments.

Conclusion

Practice nurses are performing activities previously undertaken by doctors. A minority have not had formal training and performing these activities, without well-defined shared care protocols, may be outside current legal frameworks

Keywords

Practice nurses, Asthma, Primary care, Questionnaire

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Introduction

There is little doubt that the prevalence of asthma is growing nationally and globally³. There is increasing workload in primary care, both in the number of people consulting for asthma for the first time and in total asthma consultations⁴. While recent evidence has shown that GP consultations for asthma may have peaked in the 1990s⁵ this did not include practice nurse consultations. Nurses are now taking a major role in asthma management in primary care⁶

Guidelines for the management of asthma and COPD have been issued⁸. But do not clarify the roles of doctors and nurses. What is not known is whether nurses have received adequate training and support for their extending roles. Doctors, in passing work to nurses, may become de-skilled, further reducing support for their practice nurses. There is a risk that primary care nurses may become professionally isolated.

This study seeks to assess the role and responsibilities of the practice nurse in caring for patients with asthma in general practice in the South West

Method

Subject

The practice nurse with prime responsibility for asthma management was identified by telephone call to the receptionist or practice manager in every practice in the South West Devon Health Authority area, (including Plymouth and Torbay), and in the Cornwall and Isles of Scilly Health Authority area

This named individual (one per practice) received postal questionnaire.

The questionnaire

The questionnaire included sections on responsibilities and activities of the nurse in asthma, COPD and spirometry. The questionnaire was produced by the project management team in conjunction with four consultants in respiratory medicine. It was piloted by groups of practice nurses outside the study area on two occasions.

It included questions on existing asthma management at asthma clinics, the responsibilities the nurse undertook alone and their confidence levels in performing those duties. Formal asthma training details were requested, further questions about spirometry and COPD management are reported separately (pages 106-8). One hundred and seven nurses were sent questionnaires. Nurses who did not respond in four weeks received a second copy of the questionnaire. Data was analysed using Fisher's exact test in SPSS statistical analysis software to examine the association between the training and activities of the nurses in practice

Result

The response to the first mailing was 79, to the second 34, giving a total of 113 out of 177, a 64% response rate.

In those practices holding regular clinics (47%), the frequency of clinics ranged from four times a week to

once per month, with the majority seeing patient once or twice per week. The remainder saw patients in normal clinic sessions or opportunistically. Asthma clinic appointments were managed by nurses alone in 87% of the practices, joint doctor and nurse clinics in 11%, the doctor alone in 2%. A frequent comment was that in those practices not using a dedicated asthma clinic, there had been a high level of non-attenders in asthma clinics. They had therefore changed to appointments within normal surgery sessions

The nurses were asked about their responsibilities in dealing with asthmatic patients alone and not in consultation with a doctor. (See Table 1). The most frequent role was in relation to inhaler devices: instructing inhaler technique (93%), selecting (84%) and changing inhaler devices (85%). In terms of modifying treatment regimes, there was less consistency: although 87% supervised self-management plans, 71% changed doses of current treatment and only 53% withdrew medications. Twenty nine percent felt they had a role in managing acute exacerbations. The complex and important task of making a diagnosis was performed by 45%. Details of drug treatments initiated by nurses, alone and not in consultation with a doctor, are recorded in Table 2. Between 54-56% were initiating inhaled treatments: short and long acting beta-agonists and corticosteroids. A minority also initiated oral therapies such as steroids, theophylline and anti-leukotriene agents. Nurses' confidence levels for all activities were high.

The nurses were asked if they had undergone formal asthma training i.e. leading to a diploma or other qualification. They were asked to confirm the qualification gained. Seventy four percent reported that they had formal training, 61% confirmed the nature of the qualification. There were many practices where more than one nurse had received training. Comments were made frequently on the value of short courses including those organised by pharmaceutical companies. The statistical association between initiating drug therapy by nurses and their training is included in Table 2

Discussion

This survey provides a balanced picture of the views and activities of practice nurses in Cornwall and Southwest Devon. Many previous studies involve asthma interested primary health care teams. Despite 64% response rate, there may be selection bias in that the respondents may be more enthusiastic about asthma management than the non-responders. Furthermore, the use of multiple significance testing should be interpreted with caution

The effectiveness of practice nurses has been demonstrated in providing respiratory care in general practice⁹ and may improve patient outcomes^{10,11}. Patients were willing to see either doctors or nurse

Table

The number of practice nurses undertaking various responsibilities in asthma management:

In dealing with asthmatic patients in your practice, do you have responsibility alone (i.e. not in consultation with a doctor) for any of the following areas of management?

*Please indicate your confidence in dealing with those areas of responsibility'

(1) not at all (2) not very (3) fairly (4) very confident

	Number (Total 113) (%)	Mean score of nurse confidence	% with formal training (p-value)
Instructing inhaler technique	105 (93)	9.	78. (0.004)
Selecting inhaler device	95 (84)	8.	80 (0.003)
Changing inhaler device	96 (85)	8.	29. (0.013)
Change existing treatment dosage	80 (71)	3.	80 (0.003)
Withdrawing/ stopping medication	60 (53)	3.	83. (0.030)
Supervising self management plan	98 (87)	3.	79. (0.003)
Managing the recall/ review system	78 (69)	8.	82. (0.009)
Making diagnosis of asthma	51 (45)	5.	84. (0.032)
Managing acute exacerbation	33 (29)	3.	84. (0.003)

Table 2

The number of practice nurses who initiated treatments 'alone (i.e. not in consultation with a doctor)'

	Number (%)	Mean score of nurse confidence	% with formal training (p-values)
Initiating inhaled bronchodilator	62 (55)	3.7	80 (0.003)
Initiating inhaled corticosteroid	63 (56)	3.7	80 (0.003)
Initiating inhaled long acting beta-agonist	61 (54)	3.7	77 (0.003)
Initiating oral corticosteroid	17 (15)	3.	88. (0.003)
Initiating anti-leukotriene	6 (5)	3.7	80 (0.003)
Initiating theophylline	3 (3)	4	100 (0.003)

about their asthma: doctors may be more accessible and able to do home visits, but nurses may be able to spend longer with the patient and are often more approachable for seemingly minor problems¹²

This survey demonstrates the nurses' evolving role in the diffuse and varied world of primary care. The majority of nurses are happy to advise on inhaler technique and do so with confidence. There is less confidence in more critical roles such as making diagnosis of asthma, withholding or stopping current treatment and treating acute exacerbations. All of these decisions may carry considerable implications especially for the patients. The results show that approximately 80% of those performing asthma patient care duties had undergone formal training. There were statistically significant associations between training and performing organisational aspects of the nurses' role; such as running clinics and recall systems, but there were no statistically significant associations with training and initiation of

treatments. This was surprising as there may be important consequences for nurses prescribing medicines independently of the GP.

We have demonstrated that practice nurses are undertaking new responsibilities in the field of prescribing. At least half felt able to initiate treatment with inhaled short and long acting bronchodilators and inhaled steroids and without consultation with a GP. An unexpected finding was that a small minority of nurses are starting patients on treatment with drugs such as theophylline and anti leukotriene agents which are recommended by the SDP and other health authorities to be initiated "by specialists only".

In many cases practice nurses arrange for prescriptions to be produced for patients without discussion with the GP who signs the prescription. This was confirmed with a number of practice nurses whom we telephoned when clarifying data. There are significant implications for both the GP and the nurses in adopting this role. The UKCC states that nurses should undertake activities in which they are competent and have appropriate training and support.³ Limited prescribing is available to nurses in their current formulary.⁴ In the future nurses may be able to prescribe independently in areas of special expertise,⁵ although as in the past this would be from a limited formulary. Currently a GP who signs a prescription for a patient he has not seen, will bear the responsibility for problems that may arise from the action, nurses would also have a share in the responsibility.⁶ The minority of nurses (20%) who have not had formal training and their delegating GP could be vulnerable to criticism from their professional bodies and a court of law. This could also apply to nurses who have undergone formal training but not had a recent update. The widespread practice of nurse initiated prescribing should only occur if clear and agreed shared care protocols exist. In the absence of these protocols, these actions may be impossible to defend both legally and professionally.

Practice nurses are providing an increasing range of services for their patients with major benefits to the patient and the health service. Their role has often grown in a haphazard way and serious consideration needs to be given to the training and support for nurses as they develop their new responsibilities. ■

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Editors Note

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