

https://dspace.org/

Family practitioners perception of, knowledge about and use of peak flow meters in Lenasia, Lenasia South and Soweto community health centres

Vallabh, Bhadrish Kantilal

2014-04-07
http://hdl.handle.net10539/14529

Downloaded from a DSpace repository. https://dspace.org/

PROTOCOL

SUMMARY OF RESEARCH PROTOCOL

by Dr Bhadrish K. Vallabh

Family practitioners perception of, knowledge about and use of peak flow meters in Lenasia, Lenasia South, and Soweto Community Health Centres.

SUMMARY

The aim of the study is to examine the use of peak flow meters by family practitioners in Lenasia, Lenasia South and Soweto Community health centres. The information that is obtained will be used to measure adequacy of peak flow meter use by selected family practitioners and identify impediments to its use. The findings could be used to plan programmes which aim to encourage the greater (and more appropriate) use of peak flow meters if this is indicated.

Introduction

Asthma, a common chronic inflammatory condition of the airways, affects about 5 - 10% of the population[1]. It is characterised by:

(a) an inflammatory reaction in the airways.

(b) large variations in airway calibre over short periods of time, which is often worse at night or on arising.

Peak flow meters which quantitatively measure airflow obstruction have been available for more than a decade. Many family practitioners are taught that these devices should be used in asthma management on the premise that they identify the need for improved asthma control and therefore assist in reducing morbidity and mortality. However, how many Practitioners use peak flow meters? In Australia only 43% of family practitioners regularly measured airway function in their offices and most considered that their patients rarely used a peak flow meter [2]. There are no reported studies in South Africa on the proportion of family practitioners who use peak flow meters in the diagnosis and management of asthma.

There is little doubt that patients and doctors are poor at assessing the severity [3]. This failure has been pinpointed as factor in cases of avoidable death from asthma [3] and is observable in ordinary clinical practice [4]. Objective measurement with a peak flow meter is a practicable measure.

Additionally, it is important to document the extent of usage by family practitioners because these devises offer a good opportunity to document the influence of environment, in particular,

occupational influences on asthma and greatly simplify the assessment of responses to therapeutic interaction, facilitating the tailoring of therapy and avoidance of empiric polypharmacy. These devises have a special role in the management of asthmatic therapy, communicate more effectively with health care providers, and make rational decisions about the need to seek emergency attention. Another issue is whether home peak flow monitoring can help modify the long-term outcome of asthma, particularly given the current adverse epidemiological trends [4].

The other area of concern is to identify the reasons for failure to use peak flow meters [3]. This may include:

1) Patients find them difficult to use as it is effort dependent.
2) Inconvenience (for e.g. documenting readings frequently or daily).
3) Cost factor: patients may not be able to afford them.
4) Lack of familiarity by family practitioners.
5) Poor appreciation by family practitioners of their usefulness.
6) A fear that patients will abnormally focus on their disease.

The family practitioner will need to make greater use of peak flow meters in the diagnosis of asthma and in the maintenance of care of asthmatics.

Objectives

1. To determine what proportion of family practitioners in Lenasia, Lenasia South and Soweto Community health centres use peak flow meters routinely in the diagnosis of asthma and the monitoring of asthmatics.
2. To assess whether these family practitioners use peak flow meters as is clinically indicated.

3. To identify reasons for family practitioner failure to use peak flow meters.

Methodology

Design: This is a descriptive study on the use of peak flow meters by family practitioners in Lenasia, Lenasia South and Soweto Community health centres.

Definitions:

1. Family practitioners: Doctors who work as "non-specialists" in the study area.
2. Clinical indications [5].

a) To assess severity of asthma and provide a basis for making decisions with regard to therapy.
b) To measure daily variability of peak flow readings as an indicator of the degree of airway responsiveness.
c) to determine the severity of an exacerbation and to detect this early when the patient perceives symptoms poorly.
d) To allow the patient to adjust doses of drugs to maintain normal function with minimal doses of drugs.
e) To identify unknown or suspected trigger factors.
f) To identify early critical reduction in peak flow reading which would indicate the necessity of emergency medical care of hospitalisation.
g) To assist in the diagnosis of exercise induced asthma.
h) To educate the patient about managing his/her asthma.
i) To keep airway function close to normal at all times.

Study population:

All family practitioners in the above areas will be invited to participate in the study (no sampling). Family practitioners will be identified using a compilation of lists of practising family practitioners founded by:

1) D.S.I. (mailing, survey company)
2) Fisons Pharmaceuticals
3) Lancet Laboratories.
4) PHC Clinic superintendent/Doctor in charge of clinic roster/time table.

It is anticipated that about 80 family practitioners practice in the area. Family practitioners working in both public and private sectors are chosen i.e.: Family practitioners in the Lenasia, Lenasia South, as compared to family practitioners in the Soweto Community health care centres. The Soweto Community health centres are made up of eleven clinics. The eleven clinics are divided into groups of four, with each group having a "mother" clinic with "sister" clinics attached to them.

MOTHER CLINICS		SISTER CLINICS
1.	Koos Beukes	a. Diepkloof
		b. Orlando
2.	Mofolo	a. Meadowlands
		b. Phomolong
3.	Zola	a. Tladi
		b. Dobsonville
4.	Chiawelo	a. Pimville

In total there are approximately forty family practitioners that work at the above clinics. Each practitioner consults approximately fifty patients a day (one exception being Pimville clinic where the family practitioner consults approximately forty patients a day.

Measurements:

Information will be collected using personal interviews and a standard questionnaire (attached). The researcher will administer all the questionnaires. To improve the response rate the researcher will arrange for an appointment prior to the interview and motivate participation by offering feedback of results and a workshop on the use of peak flow meters. Two groups of family practitioners will be interviewed. The first group will be in the Lenasia/Lenasia South area (private sector) and the other will represent the public sector i.e. family practitioners at the Soweto Community health centres. The head of the Soweto Community health centres will be consulted and permission will be asked from him/her to distributed to all the doctors at the clinics and a time for the interview will be set (probably tea and lunch times). It will take approximately two weeks to complete the questionnaire.

The questionnaire is constructed in the following manner:

1. Academic information
2. Practice profile.
3. The diagnosis of asthma.
4. The peak flow meter.
5. Asthma Education.

The first series of questions to be asked are of age and academic status. These may be valuable factors on which to stratify practitioner. It may be that practitioners who have practised for the longer period of time may attend more continuing medical education meetings as compared to practitioners who have just commenced or vice versa.

Continuing medical education attendees on the other hand could be updated on recent management strategies in asthma and therefore assess asthma better. Practitioners working in an asthma clinic and those who may have a special interest in asthma may be more likely to use a peak flow meter and to be aware of the usual users.

The practice portion of the questionnaire could assist the researcher to assess whether the family practitioner can accommodate asthma education as part of management strategy. The family practitioner who has an interest in asthma may have a higher percentage of asthmatics. This may be because of his/her "pickup" rate (earlier diagnosis, knowledge on asthma, etc), referrals from other colleagues/patients with asthma etc.

It has also been shown that family practitioners who are graduates of vocational training programmes show difference from those who did not receive vocational training [6].

The 'asthma diagnosis' series of questions are an indirect means to asses the family practitioners knowledge on the use of peak flow meters in the diagnosis and measurement of asthma severity.

Most of the questions on peak flow meters are directed towards the use of peak flow meters, while a few assess the family practitioners knowledge about the perceptions of the usefulness of peak flow meters.

The subject will be asked to demonstrate the use of a peak flow meter. If they do not have the instrument the researcher will provide the peak flow meter and the subject will be scored on the data stated in the questionnaire. The demonstration will display the subject familiarity with the peak flow meter.

The final series of questions focuses on asthma education. Studies have shown that educating asthmatics reduces morbidity [2]. As part of asthma education the measurement of peak expiratory flow rate is the turning point in asthma management as many of the initiated after a peak flow reading. (for eg. Protocols used in the emergency rooms) [7].

The questionnaire ends by asking whether people would attend a workshop/seminar on the use of peak flow meters. It is hoped that this may be an incentive to assist me with the project; and also findings of this study can be presented at the workshop by the researcher.

Limitations:

1. Generalisability: The results obtained from this study may not be generalisable to all family practitioners in South Africa. This study is confined partly to a specific group of doctors with more or less common cultural backgrounds (i.e. the private sector). However, cultural backgrounds (i.e. the private sector). However, cultural factors are unlikely to influence the usage of peak flow factors are unlikely to influence the usage of peak flow meters. The public sector is represented by the doctors of the Soweto Community Health centres. Another limitation may be that of practice location. Therefore it would again assist to compare family practitioners working in the private versus public sectors.

2. Doctors may not respond truthfully because they are concerned that admitting under use of the peak flow meter will reflect poorly on their standard of practice. For this reason doctors will not be told that the focus of the study is the peak flow meter, open ended questions will be included (doctors will have to volunteer use of peak flow meters in certain situations) and the peak flow meter will be inspected by the interviewer.

Analysis of data:

All the information will be captured on a personal computer by the researcher. The data will be analysed with the aid of the Epi Info software programme [8].

Demonstration of use: Will be scored from 0 to 6.

Pilot study: A pilot study will be carried out on five family practitioners not in the study area. Personal interviews will be conducted as suggested in the original study.

Budget: Expenses will be carried by the researcher.

References

1. Lapinsky SE, Blott JA, Kallenbach JM. Management of asthma. CME 1990 July; 8(7): 729-37
2. Bauman A, McKenzie DK, Young L, Yoon R. Asthma education: The perception of Family Physicians. J Asthma 1990; 27(6): 385 - 92
3. Cross D, Nelson HS. The role of the peak flow meter in the diagnosis and management of asthma. J Allergy Clin. Immunol. 1991;87(1):120-127
4. Mendoza GR. Peak flow monitoring. J Asthma 1991; 28(3): 161-77
5. Stewart RI. Practical Spirometry. Medical Research Council and Department of Medical Physiology and Biochemistry, University of Stellenbosch Tygerberg, South Africa.
6. McWhinney IR, A Textbook of Family Medicine. Oxford University Press: 1989.
7. Banner AS, Shah RS, Addington WW. Rapid prediction of need for hospitalisation in acute asthma. JAMA 1976; 235: 1337 - 8
8. U.S Department of Health and Human Services/Public Service/Centres for Disease Control - Epi Info Version 5. A Word Processing, Database and Statistical System for Epidemiology for Microcomputers. 1990.

Author Vallabh B K
Name of thesis Family Practitioners Perception Of Knowledge About And Use Of Peak Flow Meters In Lenasia, Lenasia South And Soweto Community Health Centres Vallabh B K 1998

PUBLISHER:
University of the Witwatersrand, Johannesburg
©2013

LEGAL NOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed, or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.