The relationship between the management and control of asthma in primary health care

BY

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Potchefstroom campus
North-West University

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Prof L Brand

April 2011
DECLARATION

Student number: 20984634

I, Jesslee Melinda du Plessis, declare herewith that the dissertation entitled:

THE RELATIONSHIP BETWEEN THE MANAGEMENT AND CONTROL OF ASTHMA IN PRIMARY HEALTH CARE

is my own work, has been text edited, and that it has not been submitted before for any degree or examination at any other institution. All the sources that have been used or quoted have been acknowledged by means of complete references in the text and bibliography.

______________________________
JESSLEE M DU PLESSIS

DATE
DEDICATION

This study is dedicated to my family, André, Anjé and Alchané Booysen, who through their encouragement and inspiration allowed me to finish this project, to GOD who gave me the courage and strength to persist and who guides my life, my parents who always has faith in me, and to all the people who dedicate their professional skills and energy to improve the quality of life of asthma sufferers.

“HE WHO UPSETS A THING MUST KNOW HOW TO REARRANGE IT”

--- African proverb ---
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- Dr Claire van Deventer, Department of Health (DOH), local government administrators and the staff of the Potchefstroom primary health care clinics, Dr Kenneth Kaunda Municipal District. The co-operation of numerous staff and managers in the health facilities involved in this study, who spent time to provide the necessary information, is highly appreciated
- The Ethics Committee of the North-West University for permission to conduct the study
- The assistants who collected the patient records from the specific clinics, for all your time, effort and integrity
- All the volunteers who participated in the study, for their valuable contribution
- Melanie Terblanche, who assisted with the editing of the manuscript
- Anriëtte Pretorius, the librarian, for excellent assistance with the literature search and referencing.
ABSTRACT

THE RELATIONSHIP BETWEEN THE MANAGEMENT AND CONTROL OF ASTHMA IN PRIMARY HEALTH CARE

STUDENT: JM Du Plessis

DEGREE: Magister Pharmaciae in Pharmacy Practice
North-West University

SUPERVISORS: Prof JJ Gerber
Prof L Brand

The aim of the study was to determine, evaluate, and improve the management and control of asthma in primary health care clinics in Potchefstroom, an entity of the Dr Kenneth Kaunda Municipal District. The ultimate goal of the study was to measure the guideline-directed outcomes and to supply useful retrospective health status data.

A three-stage, non-experimental, quantitative, repeated measures, descriptive designed study reviewed and checked key performance measures and documented compliance for applicability in the setting.

Medical records of all asthma-diagnosed patients who attended the primary health care clinics for asthma-related or –unrelated visits during the period May to July 2008, 2009 and 2010 were reviewed. This resulted in a total of 323 asthma patient records, ranging from 3 – 81 years of age, over the three timeslots. Overall, a mere 0.6% of patients reached the well-controlled level (PEF ≥ 80%) as stipulated by the 2007 updated guidelines for the diagnosis and management of asthma (the Expert Panel Report 3) of the National Asthma Education and Prevention Program (NAEPP).
After a greater focus was placed on essential outcomes, by means of different disease management documents, an improvement in quality of managed care were noticeable although dedicated and *continuous* education and motivation are still required.
Opsomming

Die verhouding tussen die bestuur en kontrole van asma in primêre gesondheidsorg

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Grade: Magister Pharmaciae in Farmasiepraktyk Noordwes-Universiteit

Studieleiers: Prof JJ Gerber

Die doel van hierdie studie was die bepaling, evaluasie, en verbetering van die bestuur en kontrole van asma in primêre gesondheidsorg klinieke in Potchefstroom, ‘n entiteit van die Dr Kenneth Kaunda Munisipale Distrik. Die uiteinde was gemik op die bepaling van riglyn gebaseerde uitkomste en om bruikbare retrospektiewe gesondheidsdata te kan lever.

‘n Drie-fase, non-eksperimentele, kwantitatiewe, herhaalde meting, beskrywende ontwerp studie het sleutel prestasie maatstawwe en dokumentering van meewerkendheid vir die toepaslikheid in die opset hersien en nagegaan.

Mediese reksors van alle asma-gediagnoseerde pasiënte wat die primêre gesondheidsorg klinieke besoek het vir asma-verwante of -nie-verwante toestande gedurende die tydperk Mei tot Julie 2008, 2009 en 2010 was nagegaan. Hierdie het geleit tot ‘n totaal van 323 asma pasiënt rekords, wissellend tussen 3 en 81 jarige ouderdomme, oor die drie tydsintervalle. In die algemeen het ‘n skrale 0,6% van die pasiënte die goed gekontroleerde vlak (PEF > 80%) soos aangedui deur: “The 2007 updated guidelines for the diagnosis and management of asthma (the Expert Panel Report 3) of the National Asthma Education and Prevention Program (NAEPP)” bereik.
Nadat ‘n groter klem geplaas is op noodsaaklike uitkomste, deur middel van verskillende siekte beheer dokumente, was daar ‘n verbetering in die kwaliteit van die bestuurde sorg, alhoewel toegewyde en deurvoerende onderrig en motivering steeds vereis word.
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired immune deficiency syndrome</td>
</tr>
<tr>
<td>BHR</td>
<td>Bronchial hyperresponsiveness</td>
</tr>
<tr>
<td>BP</td>
<td>Blood pressure</td>
</tr>
<tr>
<td>BT</td>
<td>Boiki Tlhapi Clinic</td>
</tr>
<tr>
<td>CAM</td>
<td>Complementary – and alternative medicine</td>
</tr>
<tr>
<td>CMPs</td>
<td>Care management processes</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>CS</td>
<td>Oral corticosteroids</td>
</tr>
<tr>
<td>CT</td>
<td>Computed tomography</td>
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<tr>
<td>DOH</td>
<td>Department of Health</td>
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<tr>
<td>Dx</td>
<td>Diagnosis</td>
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<tr>
<td>EDL</td>
<td>Essential Drug List</td>
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<tr>
<td>EIA</td>
<td>Exercise-induced asthma</td>
</tr>
<tr>
<td>EPR</td>
<td>Expert Panel Report</td>
</tr>
<tr>
<td>FBD</td>
<td>Functional breathing disorders</td>
</tr>
<tr>
<td>FEV₁</td>
<td>Forced expiratory volume in one second</td>
</tr>
<tr>
<td>GERD</td>
<td>Gastroesophageal reflux disease</td>
</tr>
<tr>
<td>GINA®</td>
<td>The Global Initiative for Asthma</td>
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</tbody>
</table>
HCP            Health care provider
HIV            Human immunodeficiency virus
ICS            Inhaled corticosteroids
IgE            Immunoglobulin E
IOM            Institute of Medicine
L              Lesego Clinic
LABA           Long-acting $\beta_2$-agonist
M              Mohadin Clinic
NAEPP          National Asthma Education and Prevention Program
NHLBI          The National Heart Lung and Blood Institute
NO             Nitric oxide
NSAID          Non-steroidal anti-inflammatory drugs
P              Promosa Clinic
PEF            Peak expiratory flow
PEFR           Peak expiratory flow rates
PF%            Peak flow percentage
PND            post-nasal drip
PT             Potchefstroom Town Clinic
PUD            Peptic ulcer disease
QOC            Quality of care
SABA           Short-acting $\beta_2$-selective adrenergic agonist
SMART          Single inhaler for maintenance and relief therapy
<table>
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>SOB</td>
<td>Shortness of breath</td>
</tr>
<tr>
<td>TC</td>
<td>Top City Clinic</td>
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<tr>
<td>TCB</td>
<td>Follow-up date</td>
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<tr>
<td>VCD</td>
<td>Vocal cord dysfunction</td>
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<td>WHO</td>
<td>World health Organisation</td>
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THE SOUTH AFRICAN TRANSLATORS’ INSTITUTE

This is to certify that

Mélanie Terblanche

has passed the required examination and is hereby accorded accreditation as follows:

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