Foppe van Mil memorial Lecture

11th February 2022

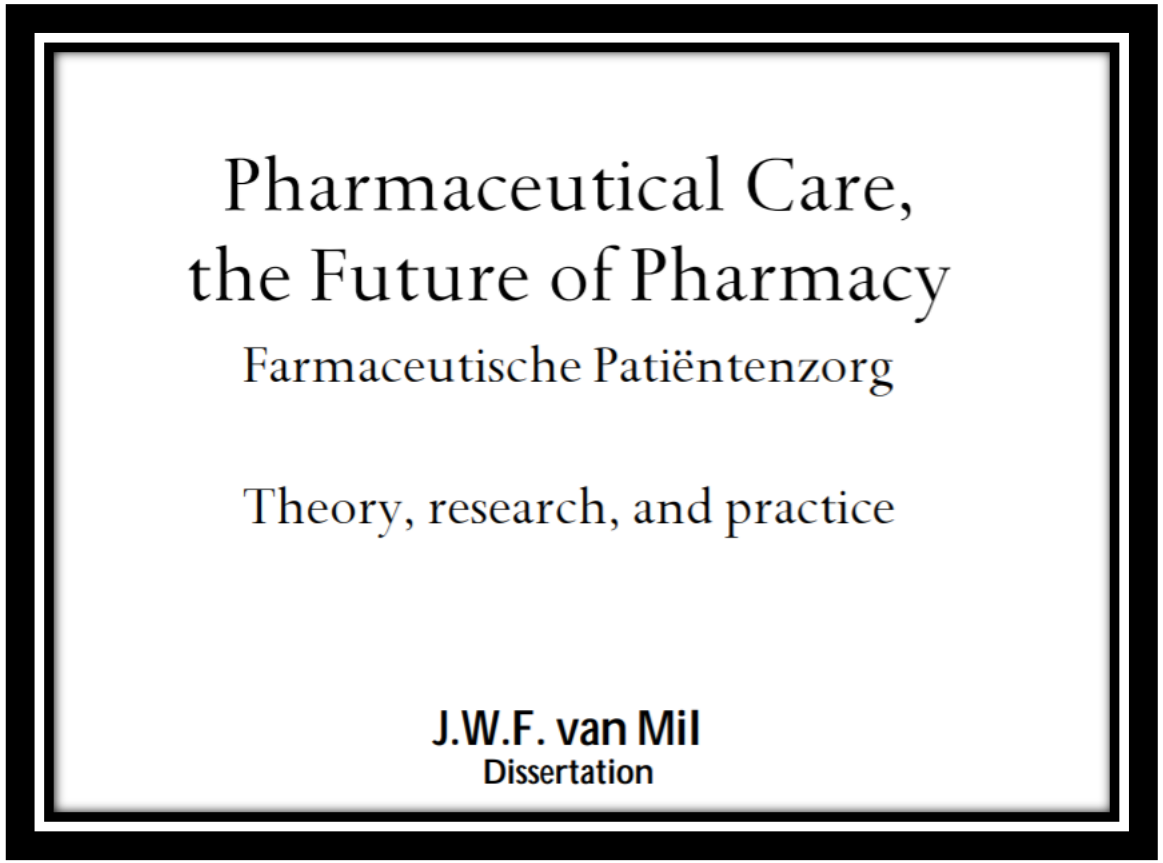

Table 3-4 Summary of the interventions in the TOM and in the OMA study

TOM	OMA
- The intake - Regular drug use evaluation - Pharmacist-patient contact when drugs are collected in the pharmacy - Half yearly consultations and evaluations with the patient - Improving knowledge of and adherence to medication - Installing and coaching of self-management in co-operation with the GP - Regular inhaler instruction	- The intake - Regular drug use evaluation - Pharmacist-patient contact when drugs are collected in the pharmacy - Half yearly consultations and evaluations with the patient - Improving knowledge of and adherence to medication - House visits if patient is unable to come to the pharmacy - Attempt to decrease the use of benzodiazepines

PhCare and the professionals
Implementation barriers to PhCare
The chances for PhCare
PhCare around the world
Conclusions and summary

1999

Therapeutic Outcome Monitoring (TOM)

Project leader: Pharmakon, Denmark (Hanne Herborg)

TOM is a model for increasing pharmacists' role in primary health care, based on a continuous quality improvement system applied to pharmaceutical care to detect, prevent and resolve DRPs in asthma patients. This project was conducted as a controlled intervention study (grouped at the pharmacy level) and various outcomes were measured to assess the impact of the intervention (*e.g.* HRQoL, PFER, satisfaction).

Participating countries: Austria, Belgium, Canada, Denmark, Florida (US), Germany, Iceland, Nort. Ireland, The Netherlands

Publications

• Herborg H, Søndergaard B, Frøkjær B, Fonnesbæk L, Jörgensen T, Hepler CD, Grainger-Rousseau T-J, Ersbøll BK. Improving Drug Therapy for Patients with Asthma – Part 1: Patient Outcomes. *Journal of the American Pharmaceutical Association* 2001;41(4):539-50.

• Herborg H, Søndergaard B, Jörgensen T, Fonnesbæk L, Hepler CD, Holst H, Frøkjær B. Improving Drug Therapy for Patients with Asthma – Part 2: Use of Antiasthma Medications. *Journal of the American Pharmaceutical Association* 2001;41(4):551-9.

•Schulz, M., Verheyen, F., Mühlig, S., Müller, J. M., Mühlbauer, K., Knop-Schneickert, E., ... & Bergmann, K. C. (2001). Pharmaceutical care services for asthma patients: a controlled intervention study. *The Journal of Clinical Pharmacology*, *41*(6), 668-676.

•Cordina, M., & McElnay, J. C. (2001). Assessment of a community pharmacy-based program for patients with asthma. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*, *21*(10), 1196-1203.

• Fonnesbæk L. Pharmacy-based asthma services in Denmark. presentation

• Pharmaceutical care, the future of pharmacy : theory, research, and practice. *Mil, Jan Willem Foppe van. PhD Thesis, University of Groningen*

Elderly Medication Analysis (OMA)

Project leader: Queens University of Belfast (James McElnay)

This project focused on studying the effect of pharmaceutical care in community-dwelling polypharmacy elderly. The design was a controlled study with randomization at the pharmacy level. Outcomes measured included HRQoL, patient satisfaction and knowledge, provider satisfaction (GP and pharmacist), drug use (incl. medication adherence) and use of health services

Participating countries: Sweden, Portugal, N. Ireland, Denmark, Germany

Publications

• Bernsten C, Björkman I, Caramona M, Crealey G, Frøkjær B, Grundberger E *et al*. Improving the Well-Being of Elderly Patients via Community Pharmacy-Based Provision of Pharmaceutical Care. A Multicentre Study in Seven European Countries. *Drugs & Aging* 2001; 18(1):63-77

•Björkman IK, Fastbom J, Schmidt IK, Bernsten CB, PEER Group. Drug-Drug Interactions in the Elderly. *The Annals of Pharmacotherapy* 2002; 36:1675-1681

• Pharmaceutical care, the future of pharmacy : theory, research, and practice. *Mil, Jan Willem Foppe van. PhD Thesis, University of Groningen*

•Sturgess I K, McElnay J C, Hughes C M, Crealey G. Community pharmacy based provision of pharmaceutical care to older patients. Pharm World Sci 2003; 25(5): 218-226 (http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?View=Full&ID=22004006086)

• Søndergaard B, Herborg H, Jörgensen T, Lund J, Frøkjær B, Tomsen D, Fonnesbæk L, Jarlov S. Improving the Well-being of Elderly Patients via Community Pharmacy-based Provision of Pharmaceutical Care. A research study on Danish pharmacies 1996-1999. English Summary. February 2002, Pharmakon.

Definitions

"Pharmaceutical Care is the pharmacist's contribution to the care of individuals in order to optimize medicines use and improve health outcomes"

Pharmaceutical Care: the PCNE definition 2013

Samuel S. Allemann · J. W. Foppe van Mil · Lea Botermann · Karin Berger · Nina Griese · Kurt E. Hersberger

PCNE definition of medication review: reaching agreement

Nina Griese-Mammen[1] · Kurt E. Hersberger[2] · Markus Messerli[2] · Saija Leikola[3] · Nejc Horvat[4] ·

"Medication review is a structured evaluation of a patient's medicines with the aim of optimising medicines use and improving health outcomes. This entails detecting drug-related problems and recommending interventions".

Terminology, the importance of defining

J. W. Foppe van Mil[1] · Martin Henman[2]

Defining clinical pharmacy and pharmaceutical care

UKCPA…ESCP defines it as a health specialty that describes the activities and services of the clinical pharmacist in developing and promoting the rational and appropriate use of medicinal products and devices… Whatever definition is adopted, it is clear that ***clinical pharmacy is not synonymous with hospital pharmacy…clinical pharmacy and pharmaceutical care are closely related****, but have different meanings in different countries… challenge for an international journal such as PWS*

Documentation and Classifications

PCNE Classification scheme for Drug related problems-1 (revised)

The Problems

Primary Domain	Code	Code New	Code SPSS	Problem
Lack of Drug Patient does not take the drug he/she requires	P1.1	P10	1	No drug prescribed but clear indication
	P1.2	P11	2	Drug not taken at all
Unnecessary drug Patient takes a drug he/she does not require	P2.1	P20	3	Duplication of therapeutic group or active ingredient
	P2.2	P21	4	No clear indication for drug use
Wrong medicine Patient takes or is going to take a wrong medicine for his/her disease and/or condition	P3.1	P30	5	Interaction (without symptoms) or potential interaction
	P3.2	P31	6	Manifest interaction
	P3.3	P32	7	Contra-indication
	P3.4	P33	8	Inappropriate drug (not best choice for indication and/or patient)
	P3.5	P34	9	Right drug but inappropriate formulation
	P3.6	P35	10	Patient is unable to use drug/form properly
Dosage Patient uses a wrong dose, regimen and/or duration.	P4.1	P40	11	Drug dose too low
	P4.2	P41	12	Duration of treatment too short
	P4.3	P42	13	Dosage regime not frequent enough
	P4.4	P43	14	Drug dose too high
	P4.5	P44	15	Duration of treatment too long
	P4.6	P45	16	Dosage regime too frequent
	P4.7	P46	17	Incorrect timing
Adverse Events Patient suffers an adverse drug event	P5.1	P50	18	Side effect suffered (non allergic origin)
	P5.2	P51	19	Side effect suffered (allergic origin)
Patient related problems	P6.1	P60	20	Therapy failure for unknown reason (escape code)
	P6.2	P61	21	Patient dissatisfied with therapy despite taking correctly
	P6.3	P62	22	Unclear complaints. Further clarification necessary
	P6.4	P63	23	Insufficient awareness of health and diseases (possibly leading to future problems)

Spanish, Turkish and Croatian (6.2)

Traditional Chinese (8.0)

Indonesian, Mandarin Chinese and Montenegrin (9.0)

PCNE Classification for Drug-Related Problems V9.1 - Page 3

The basic classification

	Code V9.1	Primary domains
Problems (also potential)	P1	**Treatment effectiveness** There is a (potential) problem with the (lack of) effect of the pharmacotherapy
	P2	**Treatment safety** Patient suffers, or could suffer, from an adverse drug event
	P3	**Other**
Causes (including possible causes for potential problems)	C1	**Drug selection** The cause of the DRP can be related to the selection of the drug
	C2	**Drug form** The cause of the DRP is related to the selection of the drug form
	C3	**Dose selection** The cause of the DRP can be related to the selection of the dosage schedule
	C4	**Treatment duration** The cause of the DRP is related to the duration of treatment
	C5	**Dispensing** The cause of the DRP can be related to the logistics of the prescribing and dispensing process
	C6	**Drug use process** The cause of the DRP is related to the way the patient gets the drug administered by a health professional or carer, in spite of proper instructions (on the label)
	C7	**Patient related** The cause of the DRP can be related to the patient and his behaviour (intentional or non-intentional)
	C8	**Patient transfer related** The cause of the DRP can be related to the transfer of patients between primary, secondary and tertiary care, or transfer within one care institution.
	C9	**Other**
Planned Interventions	I0	**No intervention**
	I1	**At prescriber level**
	I2	**At patient level**
	I3	**At drug level**
	I4	**Other**
Intervention Acceptance	A1	**Intervention accepted**
	A2	**Intervention not accepted**
	A3	**Other**
Status of the DRP	O0	**Problem status unknown**
	O1	**Problem solved**
	O2	**Problem partially solved**
	O3	**Problem not solved**

German (9.1)

Medication Safety

Drug-Related Problem Classification Systems

JW Foppe van Mil, LO Tommy Westerlund, Kurt E Hersberger, and Marion A Schaefer

Pharm World Sci (2010) 32:362–372
DOI 10.1007/s11096-010-9377-x

RESEARCH ARTICLE

Classification of drug-related problems with new prescriptions using a modified PCNE classification system

Patrick M. Eichenberger · Markus L. Lampert · Irene Vogel Kahmann · J. W. Foppe van Mil · Kurt E. Hersberger

Documentation forms for patients with asthma: an evaluation

TO THE EDITOR: The focus of pharmacy practice is moving from being centered on dispensing to being focused on the patient. Professional organizations are promoting patient-centered care as routine, for which systematic and consistent documentation is essential. We report on an evaluation of the use of various documentation methods by community pharmacists managing patients with asthma, with a view to developing documentation in Portuguese pharmacy practice.

Methods. The study was based in 5 community pharmacies during February and March 2002. Patients using the pharmacy who were prescribed asthma medication were invited to participate in the study. Patients agreed to participate following receipt of a leaflet explaining the study and signed a consent form. The pharmacists' interventions in managing these patients were documented using various data collection forms. These included a questionnaire to predict respiratory conditions in adults (IUALTD)[1]; a form to document patient data, the drugs prescribed, and drug-related problem (DRP) classification[2]; the Mini-Asthma Quality of Life Questionnaire[3]; a checklist to assess patients' inhaler techniques[4]; a questionnaire to assess the patients' knowledge of their drugs and condition[5]; and a patient information leaflet developed by the research team. Before the study, pharmacists attended a training session to familiarize themselves with the documentation. The pharmacists' opinions of the use and utility of the documentation were evaluated using a 5-point scale. Descriptive and inferential statistics (SPSS for Windows, release 10) were used to analyze the collected data.

Results. The participating pharmacists developed opinions about the documentation tools after using them over the 2-month study period on 24 patients. Every tool was considered generally useful (Table 1). However, the DRP classification was useful but not very simple to use and generated considerable workload. The lowest scores were obtained for the diagnostic tool and the knowledge and quality of life questionnaire ($\bar{x} = 3.0$), both of which are often used in research studies and therefore may need to be reviewed if research is to be fully implemented in practice. While the inhaler technique checklist was considered useful and simple, it created extra workload. Three of the piloted tools were regarded as able to be incorporated in daily practice. Pharmacists ranked the patient information leaflets highest (4.9), considering them to be very useful and simple while generating no extra workload. The use of peak flow meters was also ranked very positively (4.3), viewed as very useful and quite simple to use, even though they generated some extra workload. The patient profile forms were ranked quite positively (3.9); they were useful and simple, while creating some workload.

The limitations of this study include the small sample and the convenience sampling process used. The study may not be widely generalizable; however, it is important to report on such feasibility studies to help with understanding how best to target such implementation strategies. It seems that most of the methods of documentation are considered usable in daily practice and could be made part of the documentation processes being implemented in professional activities in Portugal.

Funding for the study was provided by Faculdade de Farmácia da Universidade de Lisboa and Associação Nacional das Farmácias; GlaxoSmithKline provided the IUALTD and the peak flow meters. We thank patients and pharmacists who actively participated in the study.

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Table 1. Ranking of Tested Tools

Tool	Utility[a]	Simplicity[b]	Workload[c]	Overall[d]
IUALTD	4.0	3.7	2.6	3.1
PFM	4.7	4.4	4.4	4.3
Mini-AQLQ	3.9	3.6	2.9	2.9
Patient profile	4.3	3.7	2.7	3.9
DRP classification	4.2	2.7	2.2	3.0
Inhaler technique checklist	4.2	3.8	3.5	3.3
Knowledge questionnaire	3.7	3.0	3.2	3.0
Patient information leaflets	4.9	4.7	4.9	4.9

AQLQ = Asthma Quality of Life Questionnaire; DRP = drug-related problem; IUALTD = International Union Against Tuberculosis and Lung Disease; PFM = peak flow meter.
[a]5. Very useful; 4. useful; 3. neither useful nor useless; 2. little useful; 1. useless.

Mapping reality around the world and placing pharmacy at the heart of healthcare

PHARMACEUTICAL CARE WORLDWIDE

Pharmaceutical Care in Community Pharmacy: Practice and Research in the Netherlands

JW Foppe van Mil

van Mil JW, Schulz M, Tromp TF. Pharmaceutical care, European developments in concepts, implementation, teaching, and research: a review. Pharm World Sci. 2004 Dec;26(6):303-11. doi: 10.1007/s11096-004-2849-0.

Pharmaceutical Care in Community Pharmacies: Practice and Research in Peru

Aldo Alvarez-Risco and JW Foppe van Mil

Pharm World Sci (2009) 31:612–618
DOI 10.1007/s11096-009-9307-y

REVIEW ARTICLE

The changing roles of pharmacists in community pharmacies: perception of reality in India

Subal C. Basak · J. W. Foppe van Mil · Dondeti Sathyanarayana

Int J Clin Pharm (2015) 37:896–905
DOI 10.1007/s11096-015-0140-1

RESEARCH ARTICLE

Contents lists available at ScienceDirect

Research in Social and Administrative Pharmacy

journal homepage: www.elsevier.com/locate/rsap

The organizational framework of community pharmacies in Europe

Sílvia Filipa Martins[1] · J. W. Foppe van Mil[2] · Filipa Alves da Costa[1]

Community pharmacist-led medication review procedures across Europe: Characterization, implementation and remuneration

Tamara Leila Imfeld-Isenegger[a,*], Inês Branco Soares[b], Urska Nabergoj Makovec[c], Nejc Horvat[c], Mitja Kos[c], Foppe van Mil[d], Filipa A. Costa[b], Kurt E. Hersberger[a]

Concern about implementation and demonstrating value

ORIGINAL RESEARCH ARTICLE

Drugs & Aging 2001; 18 (1): 63-77
1170-229X/01/0001-0063/$22.00/0

Improving the Well-Being of Elderly Patients via Community Pharmacy-Based Provision of Pharmaceutical Care

A Multicentre Study in Seven European Countries

Cecilia Bernsten,[1] Ingeborg Björkman,[2] Margarida Caramona,[3] Grainne Crealey,[4] Bente Frøkjær,[5] Erika Grundberger,[2] Tove Gustafsson,[5] Martin Henman,[6],Hanne Herborg,[5] Carmel Hughes,[4] James McElnay,[4] Maeve Magner,[6] Foppe van Mil,[7] Marion Schaeffer,[8] Sonia Silva,[3], Birthe Søndergaard,[5] Ian Sturgess,[4] Dick Tromp,[7] Lisa Vivero[6] and *Almut Winterstein,[8] on behalf of the Pharmaceutical care of the Elderly in Europe Research (PEER) Group*

Review > Pharm World Sci. 2004 Jun;26(3):125-8. doi: 10.1023/b:phar.0000026811.37414.4f.

Health-related quality of life measurement in pharmaceutical care. Targeting an outcome that matters

Nadir M Kheir [1], J W Foppe van Mil, John P Shaw, Janie L Sheridan

Editorial > Pharm World Sci. 2004 Jun;26(3):123. doi: 10.1023/b:phar.0000026866.99644.73.

Proving the benefits of pharmaceutical care

Foppe van Mil

An Editor

- **The International Journal of Clinical Pharmacy (IJCP) is a peer review journal. Introduction** – “I have to publish my research but I feel no obligation to review papers for other authors.”…. “Each published author was invited to review another paper. Approximately 10 % accepted the invitation; 20 % politely declined; 70 % did not bother to respond.”…“Imagine, nowadays even a case report often has 6–8 authors!”


Editorial › Pharm World Sci. 2001 Apr;23(2):iii.

Submission bias

F van Mil

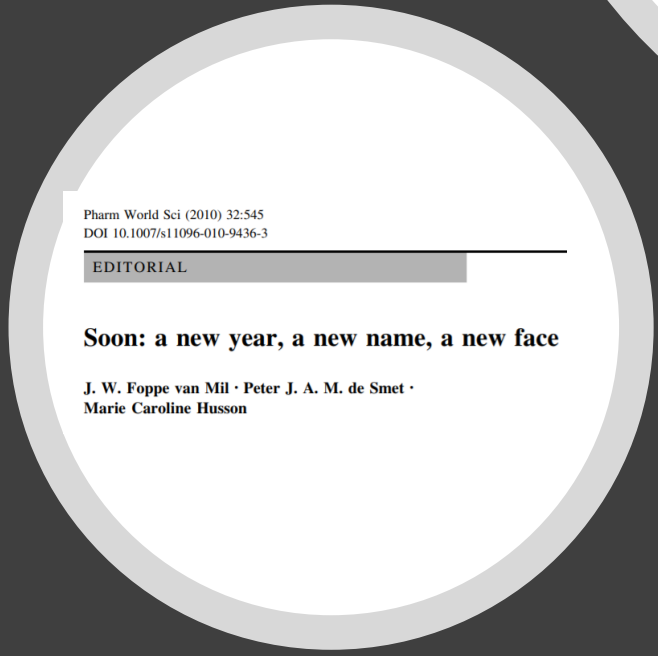
PMID: 11411451


International Journal of Clinical Pharmacy (2019) 41:385–386
https://doi.org/10.1007/s11096-019-00806-6

EDITORIAL

Open access, at what costs?

J. W. Foppe van Mil[1]


Pharm World Sci (2010) 32:545
DOI 10.1007/s11096-010-9436-3

EDITORIAL

Soon: a new year, a new name, a new face

J. W. Foppe van Mil · Peter J. A. M. de Smet · Marie Caroline Husson


Editorial › Pharm World Sci. 2003 Aug;25(4):127. doi: 10.1023/a:1024942504551.

Pharmacy, world and science?

Foppe van Mil


Int J Clin Pharm (2012) 34:677–678
DOI 10.1007/s11096-012-9695-2

EDITORIAL

ICJP and research and publication integrity

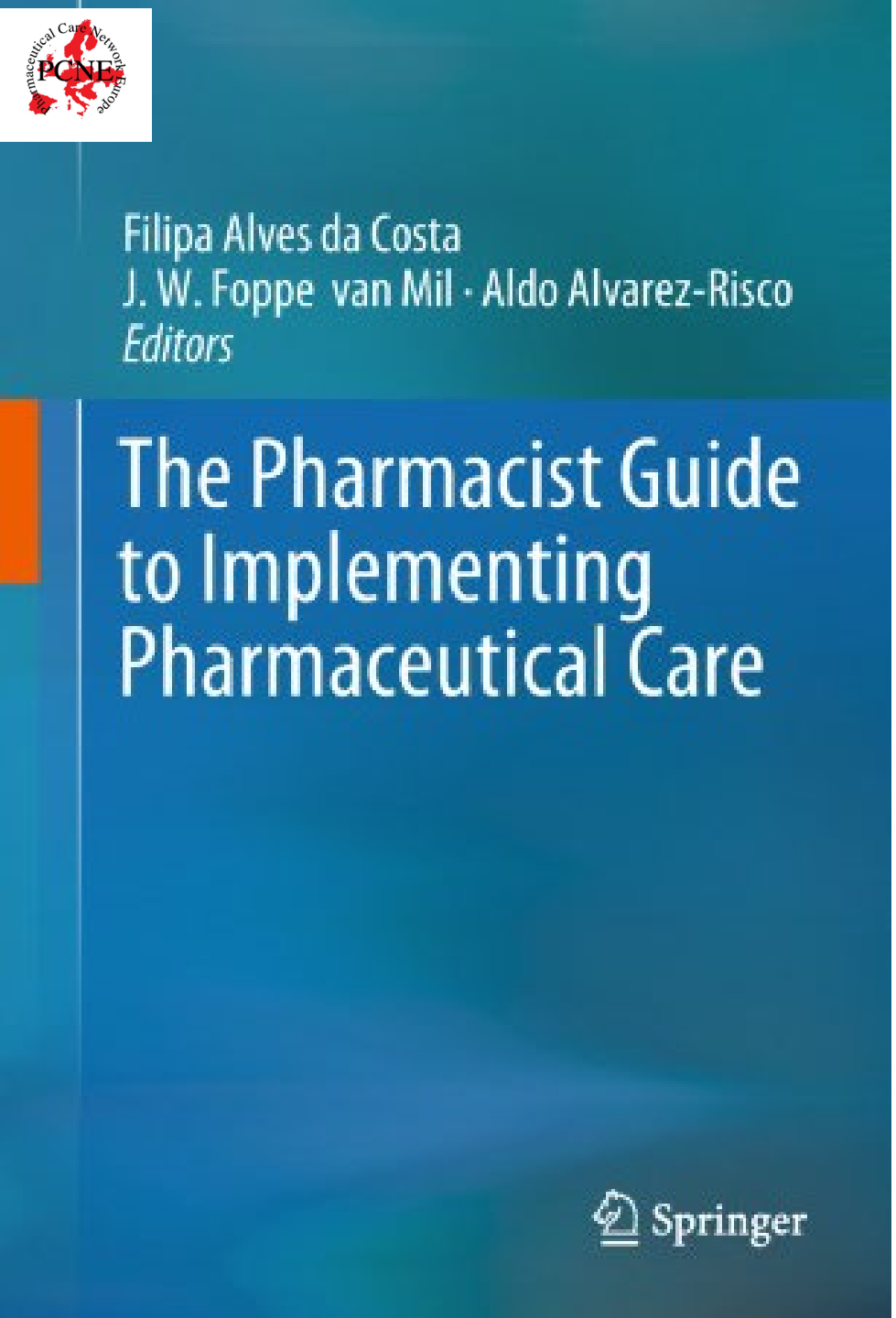
J. W. Foppe van Mil


Editorial › Pharm World Sci. 2003 Dec;25(6):243.

Internet and scientific publishing

Foppe van Mil

PMID: 14689809



Proposes a mix of experiences from the Americas, Europe and Oceania
Describes theory and practical issues for ease of implementation
Shows different real cases of implementation around the world
Integrates strong evidence from around the world and adapts these for readers to use

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"The book provides a guide for delivering advanced services and thereby reducing such barriers and promoting collaborative working across healthcare professionals. ... Prompting policy makers to consider what makes an effective guideline to enable effective pharmaceutical care services implementation, the book is able to cover the whole journey of implementation cycle." (Vibhu Paudyal, Int J Clin Pharm. 2018, 40, 2018)

1. Definitions of Pharmaceutical Care and Related Concepts
J. W. Foppe van Mil

Tommy Westerlund, Veerle Foulon, Mitja Kos, Afonso Cavaco, Fernando Fernandez-Llimos, Nina Griese-Mammen, Martin Schulz, Fabienne Böni, Kurt E. Hersberger, Martina Teichert, Jaqueline G. Hugtenburg, Carmel M. Hughes, Martin Henman, Claire Anderson, Maria Cordina, Timothy F. Chen, Parisa Aslani, J. Simon Bell, Victoria Garcia-Cardenas, Charlotte Rossing, S. I. (Charlie) Benrimoj, Ines Krass, Kreshnik Hoti, Olivier Bugnon…

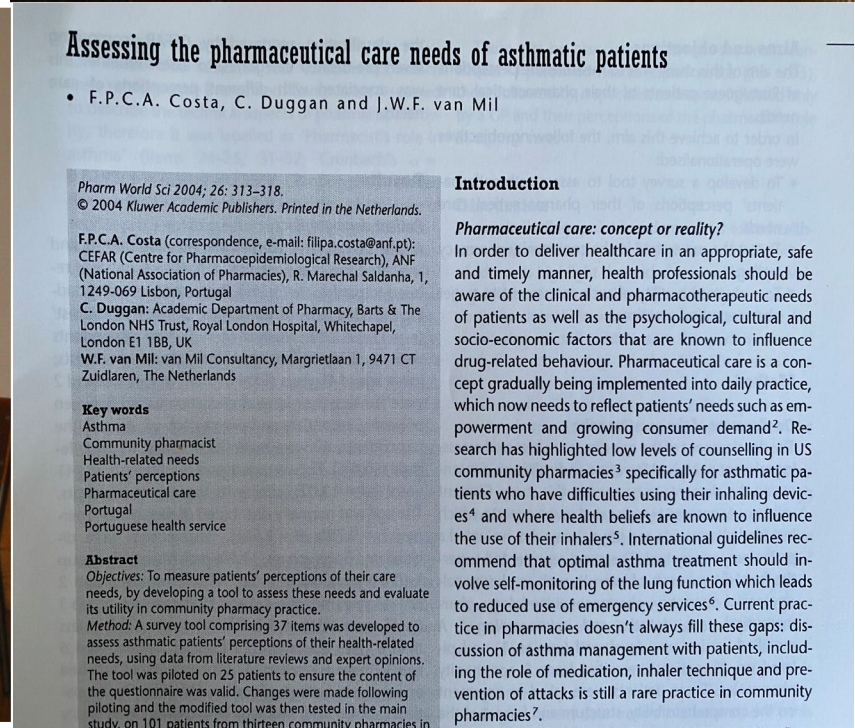
50k
Downloads

An influencer, a critical thinker

- **Changing a profession, influencing community pharmacy**
- **Is Hawthorne bothering pharmaceutical care research?**
- **Seamless care in the world of little bosses**
- **Seamless care, do it well or not at all**
- **Can the grocer provide pharmaceutical care?**
- **At your service**
- **'Selling sickness: influence on influence', what constitutes good prescribing in 2010?**
- **Barriers or facilitators?**

An educator, a professor, a mentor

- Workshop moderator:
  - ‘Getting conference abstracts accepted’
  - ‘Successful Scientific Writing Original research papers’
  - Mapping of indicators for successful dissemination of Pharmaceutical Care



Assessing the pharmaceutical care needs of asthmatic patients

• F.P.C.A. Costa, C. Duggan and J.W.F. van Mil

Pharm World Sci 2004; 26: 313–318.
© 2004 *Kluwer Academic Publishers. Printed in the Netherlands.*

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Key words
Asthma
Community pharmacist
Health-related needs
Patients' perceptions
Pharmaceutical care
Portugal
Portuguese health service

Abstract
Objectives: To measure patients' perceptions of their care needs, by developing a tool to assess these needs and evaluate its utility in community pharmacy practice.
Method: A survey tool comprising 37 items was developed to assess asthmatic patients' perceptions of their health-related needs, using data from literature reviews and expert opinions. The tool was piloted on 25 patients to ensure the content of the questionnaire was valid. Changes were made following piloting and the modified tool was then tested in the main study, on 101 patients from thirteen community pharmacies in

Introduction

Pharmaceutical care: concept or reality?
In order to deliver healthcare in an appropriate, safe and timely manner, health professionals should be aware of the clinical and pharmacotherapeutic needs of patients as well as the psychological, cultural and socio-economic factors that are known to influence drug-related behaviour. Pharmaceutical care is a concept gradually being implemented into daily practice, which now needs to reflect patients' needs such as empowerment and growing consumer demand[2]. Research has highlighted low levels of counselling in US community pharmacies[3] specifically for asthmatic patients who have difficulties using their inhaling devices[4] and where health beliefs are known to influence the use of their inhalers[5]. International guidelines recommend that optimal asthma treatment should involve self-monitoring of the lung function which leads to reduced use of emergency services[6]. Current practice in pharmacies doesn't always fill these gaps: discussion of asthma management with patients, including the role of medication, inhaler technique and prevention of attacks is still a rare practice in community pharmacies[7].

Successful Scientific Writing: original research papers

- What is Research
- Aims of writing
- IMRAD structure
- The essence of your message
- More on writing articles and having them published
- Journal selection and Impact factors
- Open access and Predatory journals

Exercise 1: What sentence belongs to what IMRAD-C section
Exercise 2: Make a one sentence abstract for the study described in exercise 1.
Exercise 3: Formulate a message for this study, for the different audiences (pharmacists, policy makers, the public, scientist)
Exercise 4: think of alternatives to "words/expressions you shouldn't use"
Exercise 5: Discuss Why manuscripts are not published in a journal

FIP/WHO-GPP project Uruguay, "*El paciente en foco*"

Aim of the FIP-GPP project

- To support pharmacists (especially community pharmacists) to implement Good Pharmacy Practice
- To discuss and discover the latest concepts in the world of pharmacy
- To prepare & teach the teachers
- To have fun

Day 1: The GPP project and the terminology; What is the practice of pharmacy; Good Pharmacy Practice; Professionalism; Pharmaceutical care, the basic concepts

Assignment: Discuss and report **i**f pharmacy in your country should change towards a pharmaceutical care orientated practice model, what must in your opinion change in the following fields:

- 1. The physical properties of pharmacies
- 2. Pharmacists – knowledge, skills, attitudes
- 3. Health care environment
- 4. Legislation.

Day 2: Counseling and communication

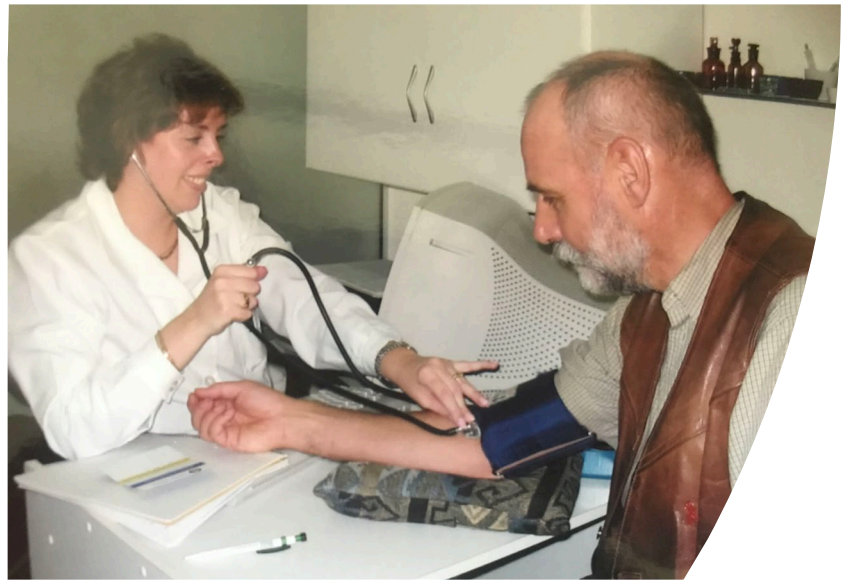
- **Role-plays** Communication

Day 3: Detecting and Resolving Drug Related Problems in Pharmacy Practice

- **Exercises:** Prepare a Drug Use Profile
- Conducting Drug Use Evaluations
- Homework: bring your own case from practice

Day 4: OTC and the self management of patients

- **Workshops**: 1) Design an initiative to raise awareness on proper and conscious use of OTC medicines. 2) Design a flowchart about the optimal OTC service for headache medication in a pharmacy (including empowerment for self management) - What are the organizational consequences of the implementation of this flow-chart? How can the introduction of this flowchart in pharmacies be stimulated?



SIG leader Medicine Information

ESCP Fellow

ESCP Masterclass in Search of Excellence
Antwerp 2001

The art of medication review to serve the patient

With the increasing importance of pharmaceutical care for the daily pharmacy practice, it also becomes more important to detect drug related problems (DRPs) in the patients' medication. When such problems are detected, they can be arranged in order of importance and then solved by applying a Demmings Cycle, together with the patient and/or the prescriber.

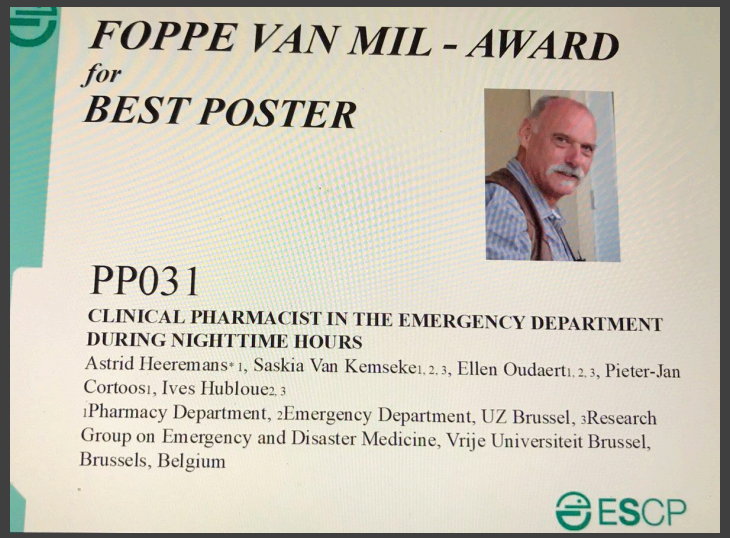
In order to detect drug related problems three different methods can be applied such as:
1) Analysis of the dispensed medicines.
2.)Discussions with the patient
3. Gathering additional information from e.g. medical records.
The Masterclass will concentrate on the first two topics that preferably should be applied simultaneously.
Both options involve clinical pharmacy to a large extend, and have been developed in different countries in order to support pharmaceutical care.
DRPs can be detected by questioning the patient. DRPs can also be detected through computer software, the so-called concurrent (or even prospective) drug use analysis, when new medications are added to the patients' medication history.
However, it remains equally important to sit back every once in a while and perform a retrospective drug use analysis as well. A retrospective analysis not only detects a different sort of problems, but also gives a better overview over the possible diseases of the patient, and his or her compliance with therapy.

Aim of the masterclass
To help the participants to understand and to be able to apply the method of Drug Use Analysis, based on a Drug Use Profile and/or the patient information, in order to detect drug related problems retrospectively or concurrently, in daily practice.

Leaders/teachers of this day of excellence:
Dr. Hong San Lau, hospital pharmacist, Vlaardingen, the Netherlands
Dr. Foppe van Mil, pharmacy practice consultant, Zuidlaren, The Netherlands

The tutors kindly ask the participants to bring **one** interesting case with them to the workshop: A medication history of approx 8 months, with the anonymous details of the patient (age, gender, diseases and allergies).
It could also be convenient to bring your own reference book(s) for interactions & contra-indications

Zuidlaren, August 2001
Foppe van Mil
ESCP SIG Drug Information



“So what” Way of thinking

Community Pharmacy Services in the Netherlands

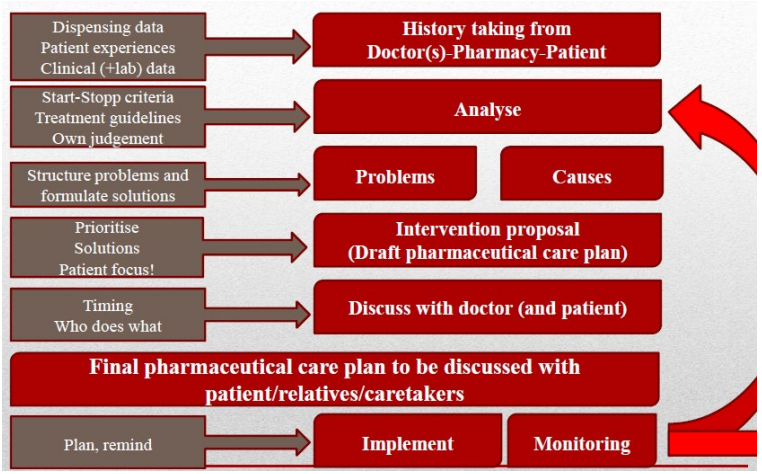
1. Learning objectives

2. Theory

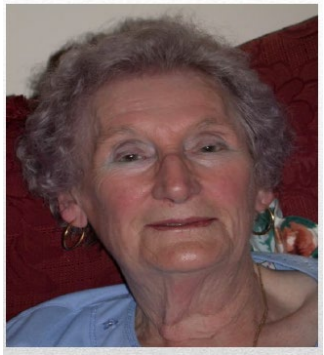
- Context: “Dutch pharmacies provide only drugs and medical aids. Hardly any sale of non-medical items (no ‘rubber ducks’)”.
- Data and Facts: 1974 Community Pharmacies
- Standards and guidelines supporting practice

3. Process

Step 1	Pharmacotherapeutic anamnesis (Farmacotherapeutische anamnese)
Step 2	Pharmacotherapeutic analysis (Farmacotherapeutische analyse)
Step 3	Consultation with Presciber (Overleg met de voorschrijver)
Step 4	Consultation with Patient (Overleg met de patiënt)
Step 5	Follow-up and monitoring (Follow-up en monitoring)



4. How does that theory translate into practice?



Pharmaceutical Care and Clinical Pharmacy Research Team

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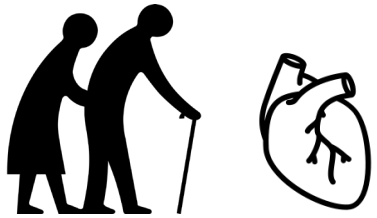
Cardio and Cerebrovascular Risk of Major Adverse Events Following Exposure to Potentially Inappropriate Medications (PIMs)



Exploratory phase | ***Intervention Phase***

Antipsichotics

Publication #1	**Publication #2**	**Publication #3**	**Publication #4**	**Publication #5**
Systematic Review	Cross-sectional study	Case/non-case Study	Cross-sectional study	*Mixed-methods study*
To identify PIM associated to major CCV events in PIM lists available	To study the prevalence of use of PIMs in the elderly: ambulatory setting and residential care	To explore pharmacological mechanisms associated with the occurence of ADE: receptor afinity and metabolioc profile	To identify knowldege gaps in HCPs and potential barriers in cinical practice for PIM management	To compile and validate a set of patient characteristics for safe AP prescribing and to evaluate the availability of these data in medical records

PhD João Aguiar

8th PCNE Working Symposium 2022 Lisbon

Do clinical pharmacists have access to timely serum creatinine levels to prevent acute kidney injury?

Oliveira, C.L. (1), Duarte-Ramos, F. (2).; Fernandez-Llimos, F. (3); Alves da Costa F. (2)

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Poster 536

Background

Acute kidney injury (AKI) is a major iatrogenic concern in inpatients associated to the use of nephrotoxic medications and responsible for chronic kidney disease that will also affect the use of renally eliminated medications. Different criteria were created to identify (AKI) using on serum creatinine (SCr) levels, namely AKIN, KDIGO, RIFLE. An important difference between these guidelines is the identification of AKI at an early stage by using SCr levels increased in 48 hours as an alert criterion.

Purpose of Study

To assess the ability to monitor AKI occurrence based on the availability of timely measured SCr levels in a retrospective cohort of

Study Design and Methods

Data from patients admitted to a district public hospital between 1-Jun 2018 and 31-Dec 2020, were collected. Patients whose length of stay was < 24 hours were excluded from the analysis. AKI stage was calculated for each patient based on the AKI staging cut-offs using the three major criteria (RIFLE, AKIN, and KDIGO). The different AKI identification procedures were followed: 1) ignoring time to reach the SCr cut-off; 2) taking into consideration the time to reach SCr cut-offs (recommended by the different criteria): 48h AKIN, and 7 days RIFLE and KDIGO. Descriptive analyses of the AKI stage allocation were

Someone who enjoyed life, honest, a good friend

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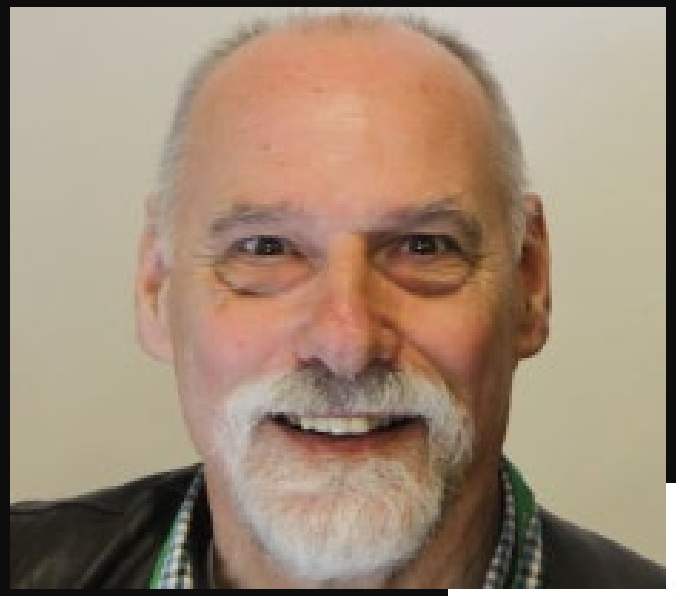

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