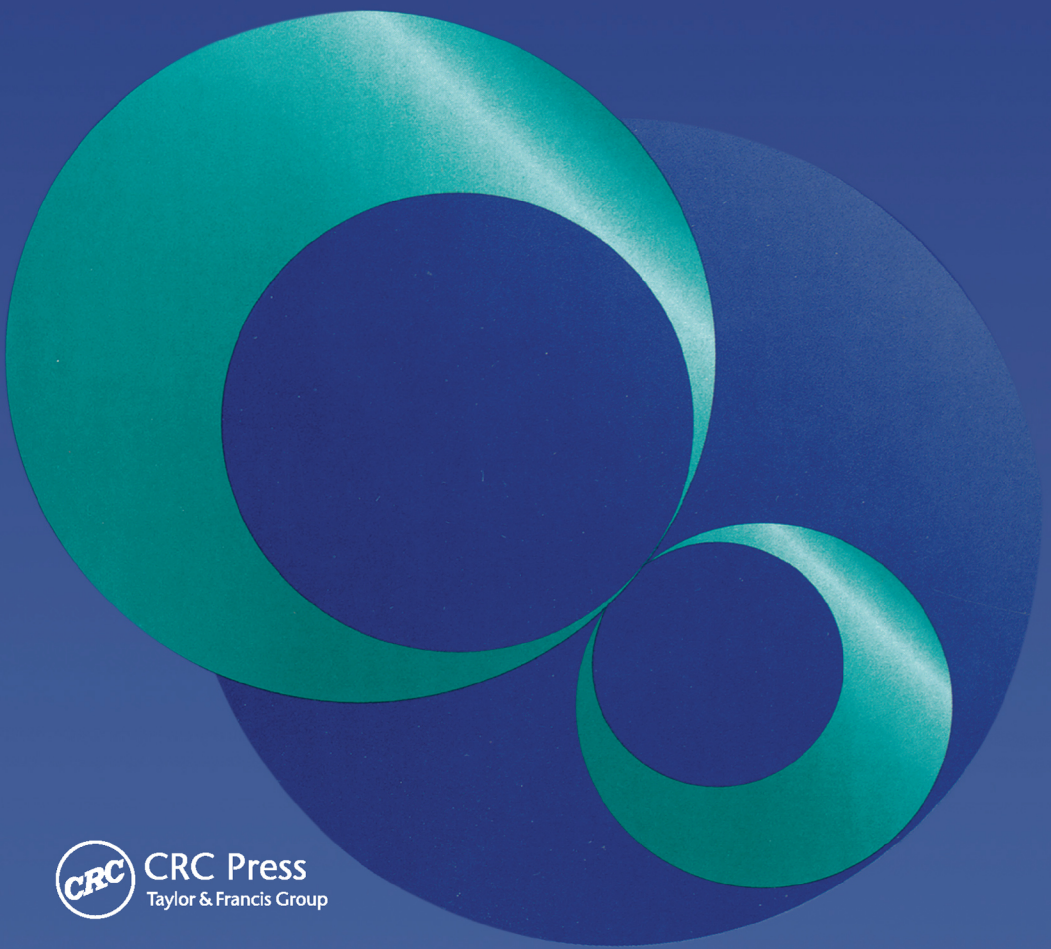
Shared Care

a model for clinical management

PETER EDWARDS / STEPHEN JONES
DENNIS SHALE / MARK THURSZ



CRC Press
Taylor & Francis Group

Shared Care

a model for clinical management

Peter Edwards

General Practitioner, Ely Bridge Surgery, Cardiff

Stephen Jones

Service Development Manager,
Cardiff Fundholding Group

Dennis Shale

David Davies Professor of Respiratory and Communicable
Diseases, Llandough Hospital and Community NHS Trust

Mark Thursz

Lecturer in Medicine, St Mary's Hospital NHS Trust, London

CRC Press
Taylor & Francis Group
Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

First published 1996 by Radcliffe Publishing

Published 2016 by CRC Press
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

© 1996 Peter Edwards, Stephen Jones, Dennis Shale and Mark Thursz
CRC Press is an imprint of Taylor & Francis Group, an Informa business

No claim to original U.S. Government works

ISBN-13: 978-1-85775-165-9 (pbk)

This book contains information obtained from authentic and highly regarded sources. While all reasonable efforts have been made to publish reliable data and information, neither the author[s] nor the publisher can accept any legal responsibility or liability for any errors or omissions that may be made. The publishers wish to make clear that any views or opinions expressed in this book by individual editors, authors or contributors are personal to them and do not necessarily reflect the views/opinions of the publishers. The information or guidance contained in this book is intended for use by medical, scientific or health-care professionals and is provided strictly as a supplement to the medical or other professional's own judgement, their knowledge of the patient's medical history, relevant manufacturer's instructions and the appropriate best practice guidelines. Because of the rapid advances in medical science, any information or advice on dosages, procedures or diagnoses should be independently verified. The reader is strongly urged to consult the relevant national drug formulary and the drug companies' and device or material manufacturers' printed instructions, and their websites, before administering or utilizing any of the drugs, devices or materials mentioned in this book. This book does not indicate whether a particular treatment is appropriate or suitable for a particular individual. Ultimately it is the sole responsibility of the medical professional to make his or her own professional judgements, so as to advise and treat patients appropriately. The authors and publishers have also attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission to publish in this form has not been obtained. If any copyright material has not been acknowledged please write and let us know so we may rectify in any future reprint.

Except as permitted under U.S. Copyright Law, no part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Visit the Taylor & Francis Web site at
http://www.taylorandfrancis.com

and the CRC Press Web site at
http://www.crcpress.com

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library.

Library of Congress Cataloging-in-Publication Data

Shared care : a model for clinical management / Peter Edwards ... [et al.]
p. cm.
Includes bibliographical references (p.).
ISBN 1-85775-165-5
1. Health care teams—Great Britain. 2. Medical consultation—Great Britain.
3. Medical referral—Great Britain. 4. Continuum of care—Great Britain.
I. Edwards, Peter, general practitioner.
R729.5.H4S53 1996
362.1'0941—dc20 95-47038 CIP

Typeset by Advance Typesetting Ltd, Oxfordshire

Contents

Acknowledgement

Our special thanks go to our families and professional colleagues for their support and encouragement during the writing of this book. We are particularly indebted to Dr Terry Davies and Dr Keith Freeman for their respective contributions to the sections on the DIALECTS project and teledermatology.

Introduction

The purpose of this book

Since the National Health Service began, it has developed by a combined process of evolution and revolution. From its very beginning, the tripartite NHS included primary and secondary sectors, which operated largely independent of one another and it is only in recent years that the concept of shared care has come to the fore. This book examines current developments in shared care, describes and promotes a model for shared care and offers a vision for how shared care may be developed in the future. In doing so, it attempts to explore the issues from both clinical and non-clinical perspectives. It also uses the latest modelling techniques to provide a robust framework for effective description of the components of, and the operation of, an effective shared care scheme.

Many independent observers have commented on the growth of 'jargon' within the NHS, and the authors are conscious that this book introduces and develops a number of concepts and modelling techniques that will be new to many readers, be they clinician or non-clinician. The authors have sought to overcome this by starting at a point with which most readers will be familiar and then introducing the formal modelling techniques that underpin this work. This is then developed into a flow process model, akin to an algorithm, which will be familiar to many readers. This is then 're-written' into more formal modelling language both to describe its detailed structure and to demonstrate its intellectual robustness. The authors then describe the components of care that patients receive in either of the primary or secondary care sectors, followed by an examination of how patients are transferred between these two sectors, making appropriate reference to the flow process model throughout. There is then a description of a vision for the future that considers how shared care schemes based on this model can be, and have been, implemented. Finally, we consider the importance of outcome measures.

The book emulates the health care professional's desire to meet patient needs, and to this extent ends where it begins, with a tale of a patient's

interaction with the NHS (fictitious or apocryphal depending on your point of view), which the authors have described as a patient's 'health career'.

The majority of health care professionals work within teams within an establishment, such as a hospital or general practice. An effective move towards the introduction of shared care programmes will inevitably lead to extended teams working across the primary/secondary care interface. This book will help to clarify how such extended teams should function to enhance patient care within an effective shared care programme. The book, however, has deliberately eschewed the topic of drug treatments within the organization of shared care schemes. Such a topic is at once very large while also only being amenable to local solutions dependent upon circumstance and personalities.

Meeting patient needs

One of the consequences of the introduction of the internal market into the NHS has been the recognition of the patient as both the consumer and ultimate funder of the service. Health economists are keen to match the 'health needs' of the population to the available resources, with a demonstrable output.

Clinicians are taught within medical school of the history of the NHS since 1948, and are aware of the historical barriers between primary and secondary care. Patients may not recognize or approve of such divides.

Clinicians understand the background to squabbles about the provision of medication to patients who attend outpatient departments: clinicians will care about their own budgets, patients will not. Patients believe that all clinicians are working for the same NHS, which in its totality should provide the medication.

Such examples present, we believe, a powerful case for the adoption of shared care schemes that are carefully devised and implemented so that patients truly can receive 'seamless care'. The following 'case history' describes the interactions between a patient and clinicians (all of whom are fictitious) within the existing system and has been described as a 'health career'.

A patient's 'health career'

Mr Smith is a 78-year-old retired man. He presents to his general practitioner, Dr Jones, complaining of exertional dyspnoea. After obtaining a history and conducting a physical examination, Dr Jones decides to refer Mr Smith to one of the general physicians at his local district general hospital. His referral letter follows:

Dr B Jones MBBS MRCGP
Dr A Taylor MBBS DRCOG DCH

The Mill Surgery
14 Waters Lane
Somertown

Dear Dr Rest

re: Mr J Smith, 44 High St, Somertown

I would be grateful if you would see this 78-year-old patient of mine, who is complaining of exertional dyspnoea. He is overweight and a heavy smoker but has had no previous cardiovascular or respiratory problems. I found no significant abnormality on examination apart from blood pressure of 160/95.

I would appreciate your opinion as to whether this is primarily a respiratory or a cardiovascular problem. I think that Mr Smith primarily has cardiac failure. If this turns out to be the case should I start him on an angiotensin-converting enzyme inhibitor?

Yours sincerely

Dr Rest sees Mr Smith and conducts a series of investigations. He writes back to Dr Jones:

Dr W Rest MBBS MRCP
Consultant Physician
Royal Victoria Hospital
Somertown

Dear Dr Jones

re: Mr J Smith, 44 High St, Somertown

Thank you for referring Mr Smith to my clinic. I felt on balance that this man's history suggested congestive cardiac failure. This was confirmed by finding mild pulmonary oedema on the chest radiograph and poor left ventricular function on echocardiography. I have started Mr Smith on co-amilofruse 5/40 one tablet once daily. I will see him again in one month.

Yours sincerely

One month later Mr Smith is reviewed in the outpatient clinic by Dr Rest's senior house officer, Dr Work. Dr Work thinks that Mr Smith should be started on an angiotensin-converting enzyme (ACE) inhibitor and therefore prescribes enalapril 5 mg once daily. Mr Smith asks Dr Work, 'Just while I'm here Doc', to look at a rash that he has developed on his arms. Dr Work, being unable to identify the rash, refers Mr Smith to Dr Hilton-Smythe, the consultant dermatologist. Dr Work checks Mr Smith's electrolytes and arranges to see him again in one month.

One month later Mr Smith is reviewed in clinic by Dr Holiday, who is Dr Work's replacement. Unfortunately, the patient's notes are missing and Mr Smith has forgotten to bring his medications with him. Dr Holiday muddles through and pieces together the clinical situation as best he can. He guesses correctly that Mr Smith has left ventricular failure and that he has been taking diuretics. Unaware that the electrolytes have recently been checked (by Dr Work and, incidentally, by Mr Smith's GP), Dr Holiday decides to check Mr Smith's electrolytes again and see him in one week to be on the safe side.

A week later Dr Holiday finds that Mr Smith's potassium is slightly raised and changes the co-amilofruse to frusemide 40 mg once daily. He arranges to see Mr Smith again in one month. Thereafter Mr Smith is seen at one to three month intervals by a series of Dr Rest's rotating senior house officers.

Some time later Dr Jones receives a letter from Dr Hilton-Smythe:

Dr E Hilton-Smythe MD FRCP
Consultant Dermatologist
Royal Victoria Hospital
Somertown

Dear Dr Jones

re: Mr J Smith, 44 High St, Somertown

Your patient was referred to me by Dr Rest's senior house officer for an opinion on a recently developed rash. His has simple eczema on his forearms and I have recommended that he use hydrocortisone 2.5% cream.

Yours sincerely

Around this time, Dr Jones has another patient, Miss Hodgkin, who is suffering from night sweats. He rings up the hospital to arrange an early appointment but finds that Dr Rest has a six-month waiting list.

Mr Smith appears to have benefited from a good standard of health care, but the use of clinical resources in this example of referral-based practice is poor. Although the general practitioner posed specific questions in his referral letter, these were only partially answered in the consultant's response. Although the general practitioner made it clear that he was willing to continue to care for the patient, Mr Smith, like many patients, became trapped in a pattern of recurring outpatient visits. Nothing was achieved at these subsequent outpatient visits that could not have been achieved by the general practitioner and his team in primary care. The plan of management for this patient is not clear at any stage to the patient or to any of his professional carers. In the absence of the hospital record, all remaining clues to the management plan evaporate completely.

In this example, the general practitioner may rightly be annoyed at being displaced as the patient's primary carer. Referral to another consultant without the consent or knowledge of the general practitioner occurs commonly in hospital outpatient practice and, as in this example, the condition may be well within the scope of a general practitioner if not the medical senior house officer. The clogging up of outpatient appointments with clinical problems that are well within the scope of general practice to manage becomes increasingly irksome when patients with new and potentially serious clinical problems have to wait for appointments.

Efficient use of clinical resources may be maximized by sharing the care of chronically ill patients between primary and secondary clinicians. In order to achieve this, it is necessary to define the interface carefully and to set criteria for moving patients from primary to secondary care and, just as importantly, from secondary to primary care. Sharing the care of patients demands a high level of communication between clinicians and requires that the clinical management plan is explicit and available to all the clinicians involved. New technology for distributing the electronic health record will ensure that this model of care can be supported.

The above, not untypical, health career permits a critical question to be asked, namely: does shared care exist now?

Does shared care exist now?

Shared care between primary and secondary sectors is a principle of management that many doctors would subscribe to, although it is difficult to achieve, as shown in the example above. In much of Europe, including the United Kingdom, there is a feeling of an imbalance between the resources separately allocated to primary and secondary care. There is a political will for movement towards increasing primary care in terms of magnitude of activity, the clinical process and extra resources at the expense of secondary care. The NHS Management Executive in 1991 anticipated that there would be considerable benefits for the NHS, the process of activity within both primary and secondary care areas and in outcomes for patients if the two care sectors were integrated. An important benefit would be the potential for reducing variations in medical practice brought about by different views as to acceptable standards of primary and secondary care, different grades of medical staff, particularly in the secondary care sector, and the different perceptions of purchasers of care. In the current system patients are twice as likely to be kept within the secondary care sector, with repeated visits to clinics, if they are seen by a junior hospital doctor rather than by a consultant.

Variation in the definition of shared care and to what extent care should be shared between primary and secondary sectors leads to a range of schemes

and considerable variation in the design and operation of such schemes. A survey of the management of chronic diseases in Scotland and the North West Thames areas showed that at least half of the schemes were for the care of patients with diabetes. Such schemes were small and often initiated by consultants rather than developed jointly by health professionals in the primary and secondary health care sectors.

Large schemes have been reported for the care of patients with thyroid diseases, hypertension, rheumatoid arthritis and diabetes. Recently a care scheme for asthma, either shared or integrated between general practitioners and hospital consultants, was reported and, although no clinical differences with conventional care practice were demonstrated, there was clear patient preference for the integrated or shared care scheme.

Clearly, shared care schemes need to demonstrate improved outcomes in terms of patient care, quality of life for the patients and professional satisfaction. In addition, cost–benefit analysis is required to ensure that the gains in terms of outcomes are obtained at a reasonable or optimal cost.

Shared care schemes or clinics should not be confused with outreach clinics, which are essentially clinics located in general practice but run by consultants. There are over 700 such clinics in England and Wales yet, so far, little evidence of clinical benefit. However, because the waiting times for such clinics are shorter than in hospitals, managers are keen to promote this resource. Currently, there is little information on either the clinical effectiveness or the cost-effectiveness of outreach clinics and it is estimated that 95% of the clinics are run by consultants with very little involvement by general practitioners. This failure to understand that there are common or shared standards of care in the primary and secondary sectors may contribute to a wasted resource, both in the failure to encourage general practitioners to take part in the care of these patients together with hospital consultants, and in the inappropriate use of hospital consultant time in a general practice setting.

Shared care, in its ideal form, with an integrated approach by health professionals from primary and secondary care, aims to maintain high-quality standards of care across the interface between the two health care sectors. At the present time there is very little true shared care in terms of these elements of shared care. The authors intend to demonstrate that genuine shared care, as defined below, can be effected.

The authors' definition of shared care

Clinical management should aim to deliver high-quality care based on agreed standards. Shared care permits this objective to be delivered through the optimal use of health service resources to best meet the needs of patients.

This is most effectively achieved by primary care and secondary care clinicians having joint and contemporaneous responsibility for the patient. This contrasts with the normal referral relationship between primary care and secondary care clinicians when, at certain times, responsibility for the care of the patient is handed over from one clinician to the other.

1

Shared care – current aspects

In both the UK and the rest of Europe there is a move towards community care with a view to cost containment.[1] It has been estimated that in Germany 17% of hospital patients do not need care in a hospital. In Belgium, Ireland and the UK there has been extensive firm action to close hospitals or to change them to other uses. In France, 22 000 beds are to be closed; in The Netherlands 3800. The view of the NHS Management Executive in 1991[2] was that the integration of primary and secondary care, which were seen at that time to be organizationally separated in an uncomfortable way, would be beneficial.

Attendance and reattendance at outpatient clinics has been considered the norm. In one series, of 179 referrals, 34% of patients with rheumatoid arthritis and 10% of those with osteoarthritis made four or more visits to the clinic.[3] The patients were twice as likely to be discharged by a consultant as by a junior doctor. Communication between hospitals and general practice could be improved. In one study[4] fewer than half the questions in referral letters were answered by consultants. In another,[5] while letters from most specialties were criticized for omitting information, those from psychiatrists were criticized for being too long, i.e. they contained information that the general practitioner did not consider relevant. General practitioners[6] thought that it was important that letters from consultants should contain:

- an appraisal of the problem
- examination findings
- a management plan.

Existing shared care schemes

There are many different types of scheme in existence. In a 1994 survey[7] substantial variation was found to exist in the design and operation of

shared care schemes for the management of chronic diseases such as diabetes. The survey covered Scotland (36 schemes) and North West Thames (29 schemes). Diabetic schemes were found to account for half of all schemes. Fifty-three schemes provided full information. Consultants were the sole initiators in 64%. Over one-third were started between 1990 and 1992. Most schemes involved fewer than 50 GPs and fewer than 500 patients. The larger schemes with more than 1000 patients were for thyroid disease (4), rheumatoid arthritis (2), diabetes (2), hypertension and drug use (1).

Two models for general practitioners' responsibilities emerged – routine monitoring or investigation and treatment. Only four schemes had explicit selection and discharge criteria. The most common pattern of care was an annual review in hospital with three or four visits in general practice. A shared care card was the most common method of communication, although computer-generated summaries were also used. The study also showed that consultants were sometimes ignorant of what occurred in general practice. The essence of shared care can be summarized in the concept that general practitioners remain centrally involved in the care of patients who have been referred to a specialist.

Outreach clinics

Bailey *et al.*[8] has concluded that outreach clinics run by consultants in general practice are here to stay, but more information on their effectiveness is needed. It is surmised that there are over 700 clinics in England and Wales. Waiting times at outreach clinics tend to be shorter, and managers accept that patients benefit because of ease of access. Only 5% of general practitioners attend such clinics.

Are existing shared care schemes effective?

Examining two of the Scottish schemes in more detail reveals that in the first, the west of Scotland shared scheme for hypertension,[9] the proportions of patients who had received complete review after two years were as follows:

- shared care 82%
- outpatient care 54%
- nurse practitioner 75%.

Blood pressure control was similar in each group. Another study in Glasgow[10] showed that direct access for hearing aid fitting can provide an adequate standard of care if clear criteria are observed and tympanometry is included in assessment. The scheme reduced patients' waiting time on an outpatient