

# The delivery of chemotherapy at home: an evidence synthesis

Mark Corbett,<sup>1</sup> Morag Heirs,<sup>1</sup> Micah Rose,<sup>1</sup>  
Alison Smith,<sup>1</sup> Lisa Stirk,<sup>1</sup> Gerry Richardson,<sup>2</sup>  
Daniel Stark,<sup>3</sup> Daniel Swinson,<sup>4</sup> Dawn Craig<sup>1</sup>  
and Alison Eastwood<sup>1\*</sup>

<sup>1</sup>Centre for Reviews and Dissemination, University of York, York, UK

<sup>2</sup>Centre for Health Economics, University of York, York, UK

<sup>3</sup>Leeds Institute of Cancer & Pathology, University of Leeds, Leeds, UK

<sup>4</sup>St James's Institute of Oncology, Leeds Teaching Hospitals Foundation  
NHS Trust, Leeds, UK

\*Corresponding author

**Declared competing interests of authors:** none

Published April 2015

DOI: 10.3310/hsdr03140

## Plain English summary

### Chemotherapy at home: an evidence synthesis

Health Services and Delivery Research 2015; Vol. 3: No. 14

DOI: 10.3310/hsdr03140

NIHR Journals Library [www.journalslibrary.nihr.ac.uk](http://www.journalslibrary.nihr.ac.uk)

## Plain English summary

There is an increasing focus in the NHS on delivering care closer to home. Chemotherapy treatment is offered in community, home and hospital settings. To explore the differences between these settings for patients and service providers, a review of the existing evidence and a survey of current service provision were undertaken. An economic model was developed also.

The systematic literature review identified little robust evidence. The studies had small sample sizes and populations likely to prefer home or community settings. They demonstrated little difference in terms of quality of life, physical or emotional symptoms, or adverse events. Previous economic evaluations provided limited evidence on cost-effectiveness and for informing the economic model.

The studies about patient experiences indicated that decisions about treatment setting are strongly influenced by a desire for normality. The time and energy required for outpatient chemotherapy reduces overall quality of life and so patients prefer alternative settings. However, competing factors and patient preference reflected individual situations.

The survey showed wide variation in the current provision of home and community chemotherapy in the NHS. Eligibility varied by provider, with chemotherapy regimen and patient response to initial treatment in hospital important determinants.

The economic modelling was limited by a lack of data and by the broad variation in NHS treatment delivery pathways.

A better design for future research might be to nest a randomised trial within a larger observational study. For a reliable economic evaluation, broad observational data will be needed to explore variations and ensure generalisability.

# Health Services and Delivery Research

ISSN 2050-4349 (Print)

ISSN 2050-4357 (Online)

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) ([www.publicationethics.org/](http://www.publicationethics.org/)).

Editorial contact: [nihredit@southampton.ac.uk](mailto:nihredit@southampton.ac.uk)

The full HS&DR archive is freely available to view online at [www.journalslibrary.nihr.ac.uk/hsdr](http://www.journalslibrary.nihr.ac.uk/hsdr). Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: [www.journalslibrary.nihr.ac.uk](http://www.journalslibrary.nihr.ac.uk)

## Criteria for inclusion in the *Health Services and Delivery Research* journal

Reports are published in *Health Services and Delivery Research* (HS&DR) if (1) they have resulted from work for the HS&DR programme or programmes which preceded the HS&DR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

## HS&DR programme

The Health Services and Delivery Research (HS&DR) programme, part of the National Institute for Health Research (NIHR), was established to fund a broad range of research. It combines the strengths and contributions of two previous NIHR research programmes: the Health Services Research (HSR) programme and the Service Delivery and Organisation (SDO) programme, which were merged in January 2012.

The HS&DR programme aims to produce rigorous and relevant evidence on the quality, access and organisation of health services including costs and outcomes, as well as research on implementation. The programme will enhance the strategic focus on research that matters to the NHS and is keen to support ambitious evaluative research to improve health services.

For more information about the HS&DR programme please visit the website: <http://www.nets.nihr.ac.uk/programmes/hsdr>

## This report

The research reported in this issue of the journal was funded by the HS&DR programme or one of its preceding programmes as project number 12/5001/67. The contractual start date was in March 2013. The final report began editorial review in May 2014 and was accepted for publication in October 2014. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health.

**© Queen's Printer and Controller of HMSO 2015. This work was produced by Corbett *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.**

Published by the NIHR Journals Library ([www.journalslibrary.nihr.ac.uk](http://www.journalslibrary.nihr.ac.uk)), produced by Prepress Projects Ltd, Perth, Scotland ([www.prepress-projects.co.uk](http://www.prepress-projects.co.uk)).

## **Health Services and Delivery Research Editor-in-Chief**

**Professor Ray Fitzpatrick** Professor of Public Health and Primary Care, University of Oxford, UK

## **NIHR Journals Library Editor-in-Chief**

**Professor Tom Walley** Director, NIHR Evaluation, Trials and Studies and Director of the HTA Programme, UK

## **NIHR Journals Library Editors**

**Professor Ken Stein** Chair of HTA Editorial Board and Professor of Public Health, University of Exeter Medical School, UK

**Professor Andree Le May** Chair of NIHR Journals Library Editorial Group (EME, HS&DR, PGfAR, PHR journals)

**Dr Martin Ashton-Key** Consultant in Public Health Medicine/Consultant Advisor, NETSCC, UK

**Professor Matthias Beck** Chair in Public Sector Management and Subject Leader (Management Group), Queen's University Management School, Queen's University Belfast, UK

**Professor Aileen Clarke** Professor of Public Health and Health Services Research, Warwick Medical School, University of Warwick, UK

**Dr Tessa Crilly** Director, Crystal Blue Consulting Ltd, UK

**Dr Peter Davidson** Director of NETSCC, HTA, UK

**Ms Tara Lamont** Scientific Advisor, NETSCC, UK

**Professor Elaine McColl** Director, Newcastle Clinical Trials Unit, Institute of Health and Society, Newcastle University, UK

**Professor William McGuire** Professor of Child Health, Hull York Medical School, University of York, UK

**Professor Geoffrey Meads** Professor of Health Sciences Research, Faculty of Education, University of Winchester, UK

**Professor John Powell** Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK

**Professor James Raftery** Professor of Health Technology Assessment, Wessex Institute, Faculty of Medicine, University of Southampton, UK

**Dr Rob Riemsma** Reviews Manager, Kleijnen Systematic Reviews Ltd, UK

**Professor Helen Roberts** Professor of Child Health Research, UCL Institute of Child Health, UK

**Professor Helen Snooks** Professor of Health Services Research, Institute of Life Science, College of Medicine, Swansea University, UK

Please visit the website for a list of members of the NIHR Journals Library Board:  
[www.journalslibrary.nihr.ac.uk/about/editors](http://www.journalslibrary.nihr.ac.uk/about/editors)

**Editorial contact:** [nihredit@southampton.ac.uk](mailto:nihredit@southampton.ac.uk)