# Initiatives to reduce length of stay in acute hospital settings: a rapid synthesis of evidence relating to enhanced recovery programmes

Fiona Paton,<sup>1</sup> Duncan Chambers,<sup>1</sup> Paul Wilson,<sup>1\*</sup> Alison Eastwood,<sup>1</sup> Dawn Craig,<sup>1</sup> Dave Fox,<sup>1</sup> David Jayne<sup>2</sup> and Erika McGinnes<sup>2</sup>

<sup>1</sup>Centre for Reviews and Dissemination, University of York, York, UK <sup>2</sup>Leeds Teaching Hospitals NHS Trust, Leeds, UK

**Declared competing interests of authors:** none

Published July 2014 DOI: 10.3310/hsdr02210

# **Plain English summary**

Initiatives to reduce length of stay in acute hospital settings

Health Services and Delivery Research 2014; Vol. 2: No. 21

DOI: 10.3310/hsdr02210

NIHR Journals Library www.journalslibrary.nihr.ac.uk

<sup>\*</sup>Corresponding author

# **Plain English summary**

There has been growing interest in the NHS over recent years in the use of programmes to improve patient experience and reduce time to recovery for patients undergoing elective surgery. The success of these enhanced recovery programmes is usually measured through reduced length of stay in hospital, reduced complications after surgery and reduced number of readmissions to hospital.

We looked at various electronic databases and other sources, including 'real-world' data from hospitals, to identify studies that looked at the effects of enhanced recovery programmes on patients undergoing elective surgery in hospital settings. We also searched for studies that described the key factors associated with successful adoption, implementation and continued success of enhanced recovery programmes in UK settings.

A large number of studies were identified, but only a few studies were well conducted and most studies were conducted in countries other than the UK. The majority of studies were in patients undergoing colorectal surgery.

Enhanced recovery programmes have been adopted with some enthusiasm by the NHS as a means of achieving productivity gains and cost savings. There is consistent evidence that enhanced recovery programmes may reduce length of patient hospital stay without increasing readmission rates. The evidence does not, however, identify which enhanced recovery programme elements and combinations of elements are most effective. As such, conclusions on which combinations provide greatest gains and how best to implement them cannot be made. Findings relating to other outcomes, costs of enhanced recovery programmes, experience in using the programmes and patient experience were limited by generally poor-quality evidence and poor reporting.

The extent to which managers and clinicians considering implementing enhanced recovery programmes can realise reductions in length of stay and cost savings will depend on length of stays achieved under their existing care pathway, and on how well the programme is implemented. Other factors outside the scope of the programme, such as integration with social care, will also impact on overall gains.

## **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/).

Editorial contact: nihredit@southampton.ac.uk

The full HS&DR archive is freely available to view online at 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

#### 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: www.netscc.ac.uk/hsdr/

#### This report

The research reported in this issue of the journal was funded by the HS&DR programme or one of its proceeding programmes as project number 11/1026/04. The contractual start date was in September 2012. The final report began editorial review in July 2013 and was accepted for publication in January 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 2014. This work was produced by Paton *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), produced by Prepress Projects Ltd, Perth, Scotland (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 Jane Norman Professor of Maternal and Fetal Health, University of Edinburgh, 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, University College London, 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

Editorial contact: nihredit@southampton.ac.uk