Centre for Innovation
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Health Sciences

UNIVERSITY OF Southampton

The role of *(nursing)* research in improving quality

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Two questions:

How are nurses enhancing the quality of care through research?

How are nurses providing leadership in research that improves quality?

Challenge your thinking!

Nursing research takes its place on world stage

Departments around the country score strongly in a turnaround that reflects the higher academic status of nurses

Anthea Lipsett
guardian.co.uk, Thursday 18 December 2008 12.48 GMT

Nurses now train in universities and get degrees on a par with other health professionals. Photograph: David Sillitoe

Nursing, for many years medicine's poor relation, has come of age in the 2008 research assessment exercise (RAE). Academics in the field can justifiably claim to be world-leading in terms of research.

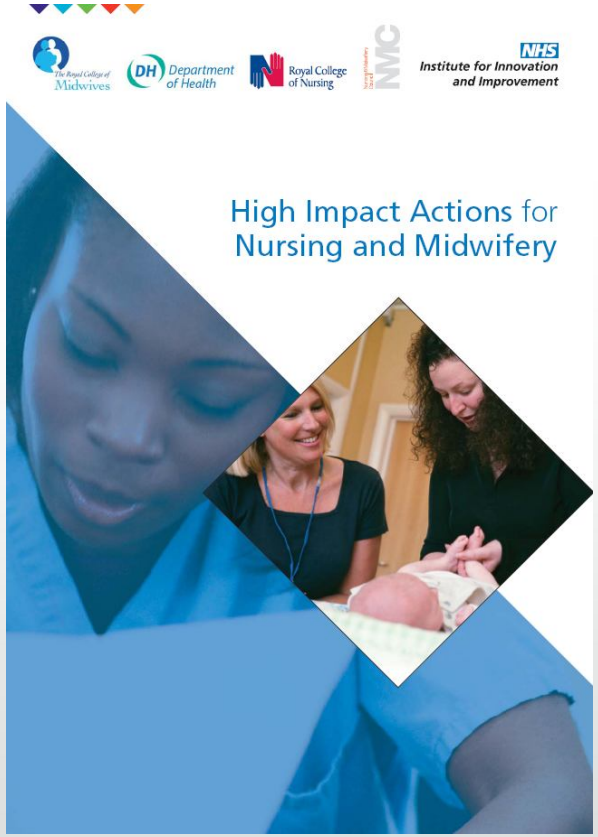
Nursing and midwifery was among the subjects with the most highly rated research in the results published today.

Half of the University of Manchester 's 57-strong department were judged "world-leading" and given the top rating of 4*, along with 45% of Southampton's 25 academics, 40% of Ulster's 26 staff and 35% of York's department of 22.

Some examples

- Evidence based actions to transform NHS care
- Measuring quality outcomes
- Evaluating new role
- Developing interventions to improve recovery
- The benefits of a research-led organisation

Evidence based actions transforming healthcare in the NHS



- Your skin matters
- Staying safe preventing falls
- Keeping nourished – getting better
- Promoting normal birth
- Choice over where to die
- Fit and well to care
- Ready to go – no delays
- Protection from infection

BMC Geriatrics

BioMed Central

Research article

Open Access

Can volunteer companions prevent falls among inpatients? A feasibility study using a pre-post comparative design

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Abstract

Background: Falls in hospital are frequent and their consequences place an increased burden on health services. We evaluated a falls prevention strategy consisting of the introduction of volunteers to 'sit' with patients identified as being at high risk of falling.

Methods: Two four bed 'safety bays' located on medical wards in two hospitals within southern Adelaide were used. Ward fall rates (expressed as falls per 1000 occupied bed days) were compared in the baseline period (February-May 2002) with the implementation period (February – May 2003) using incident rate ratios and 95% confidence intervals. The number of hours of volunteered time was also collected.

Results: No patient falls occurred on either site when volunteers were present. However, there was no significant impact on overall ward fall rates. In the baseline period, there were 70 falls in 4828 OBDs (14.5 falls per 1000 OBDs). During the implementation period, there were 82 falls in 5300 OBDs (15.5 falls per 1000 OBD). The IRR for falls in the implementation versus baseline period was 1.07 (95%CI 0.77 – 1.49; P = 0.346). Volunteers carried out care activities (e.g. cutting up food), provided company, and on occasions advocated on behalf of the patients. Volunteers donated 2345 hours, at an estimated value to the hospitals of almost $57,000.

Conclusion: Volunteers may play an important and cost-effective role in enhancing health care and can prevent falls in older hospital patients when they are present. Full implementation of this program would require the recruitment of adequate numbers of volunteers willing to sit with all patients considered at risk of falling in hospital. The challenge for future work in this area remains the sustainability of falls prevention strategies.

Measuring quality outcomes

The relationship between workforce, patient safety and quality

- a 10% increase in the proportion of nurses holding a Bachelor's Degree associated with a 5% decrease in likelihood of patients dying within 30 days of admission and odds of failure to rescue (Aitken et al 2011)

Rafferty et al (2006)

- Cross-sectional study combining nurse survey data with discharge abstracts. Nurses (N = 3984) and general, orthopaedic, and vascular surgery patients (N = 118 752) in 30 English acute trusts.
- Patients and nurses in the quartile of hospitals with the most favourable staffing levels (the lowest patient-to nurse ratios) had consistently better outcomes than those in hospitals with less favourable staffing.
- Patients in hospitals with the highest patient to nurse ratios had 26% higher mortality
- nurses twice as likely to be dissatisfied with their jobs, to show high burnout levels, and to report low or deteriorating quality of care on their wards and hospitals.

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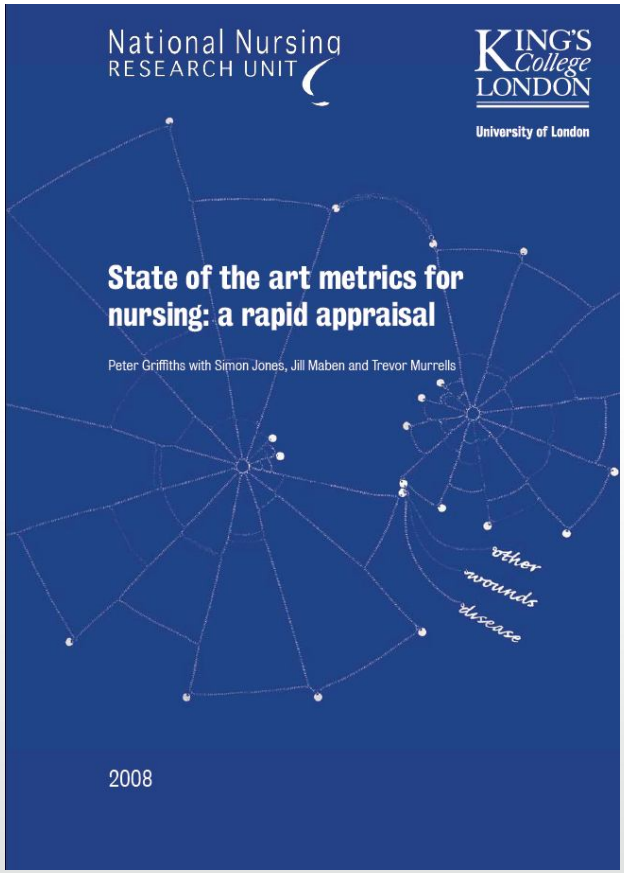
Nurses in society:
starting the debate
Jill Maben with Peter Griffiths
2008


National Nursing
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State of the art metrics for
nursing: a rapid appraisal
Peter Griffiths with Simon Jones, Jill Maben and Trevor Murrells
other
wounds
disease
2008

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Nurse sensitive outcome indicators (NSOIs) for ambulatory cancer chemotherapy

Peter Griffiths

Alison Richardson

Jessica Corner

Richard Wagland

Jo Armes (King's College London)

KING'S College LONDON

Demand

- Variable service quality
- Chemotherapy delivery within ambulatory settings increasing
- Uncertain contribution of nursing
- High levels of patient morbidity

Issues

- We can't show (quantitatively):
  - The contributions of nurses to quality (safety, effectiveness, experience)
  - The 'value' of qualified or specialist nurses

Process of development and testing

Stage 1

- Scoping review
- Agreed key indicators with clinical reference group
- Drafted specifications for indicators

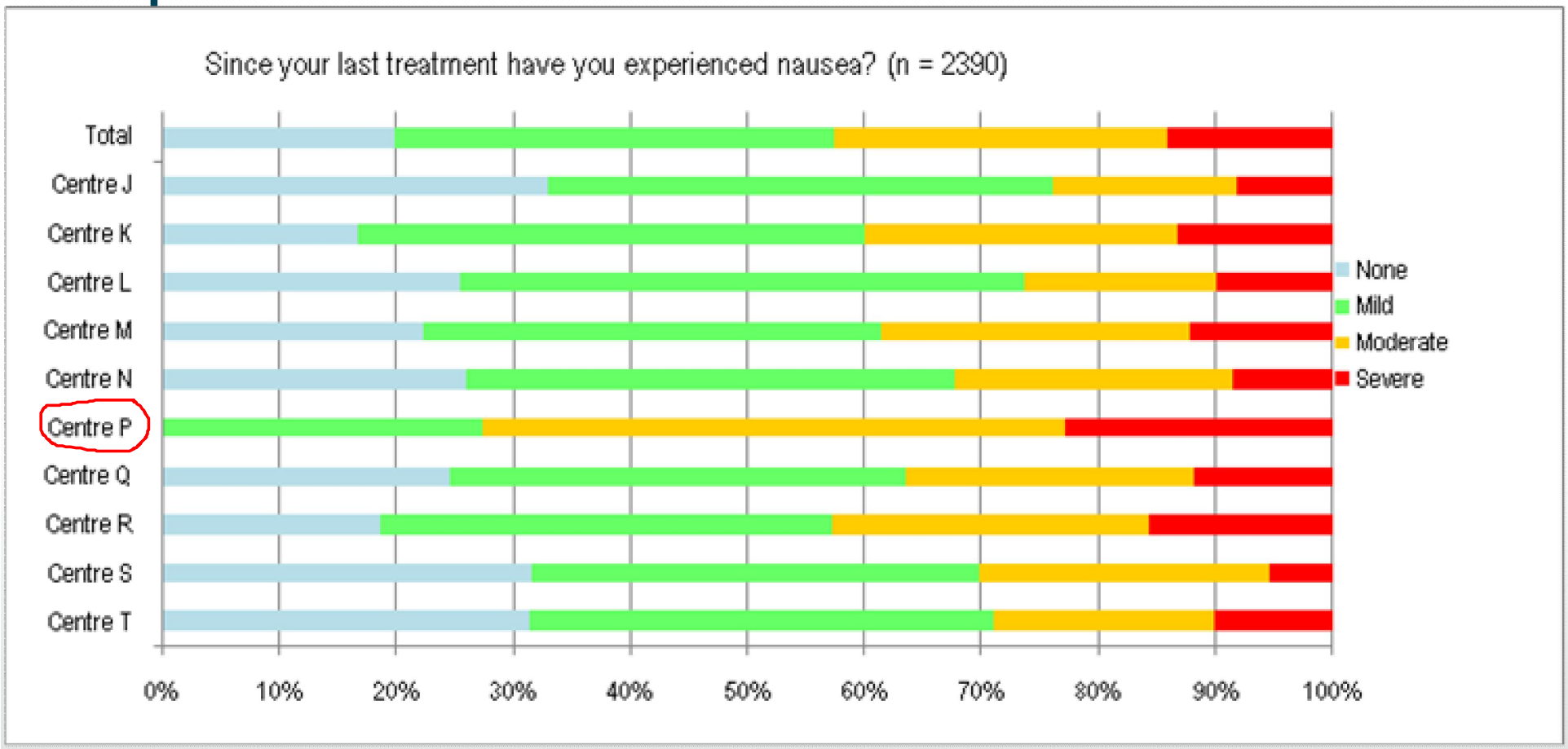
Stage 2

- Tested process for data collection (1 centre)

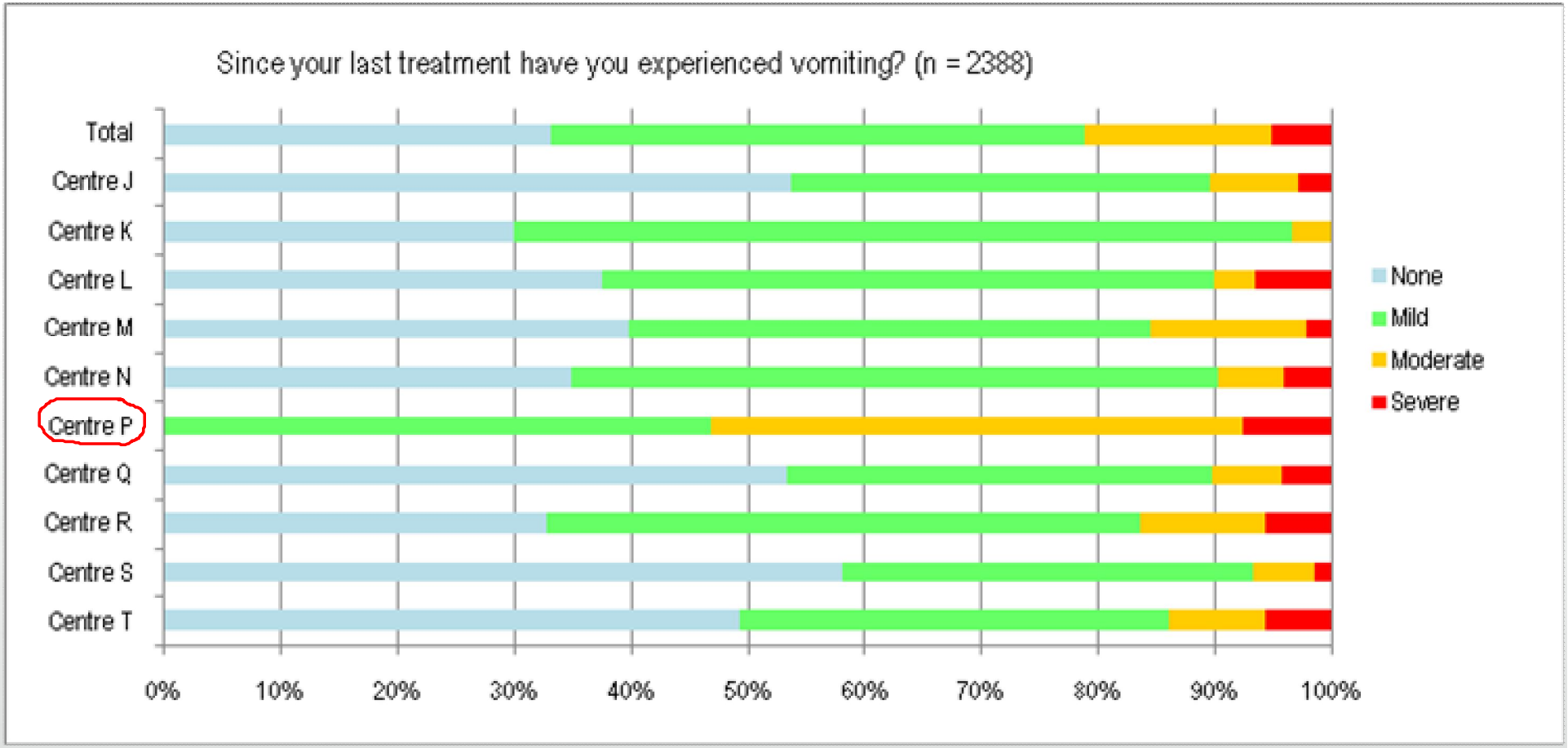
Stage 3

- Tested revised process / instrument in 10 chemotherapy units 2,466 patients

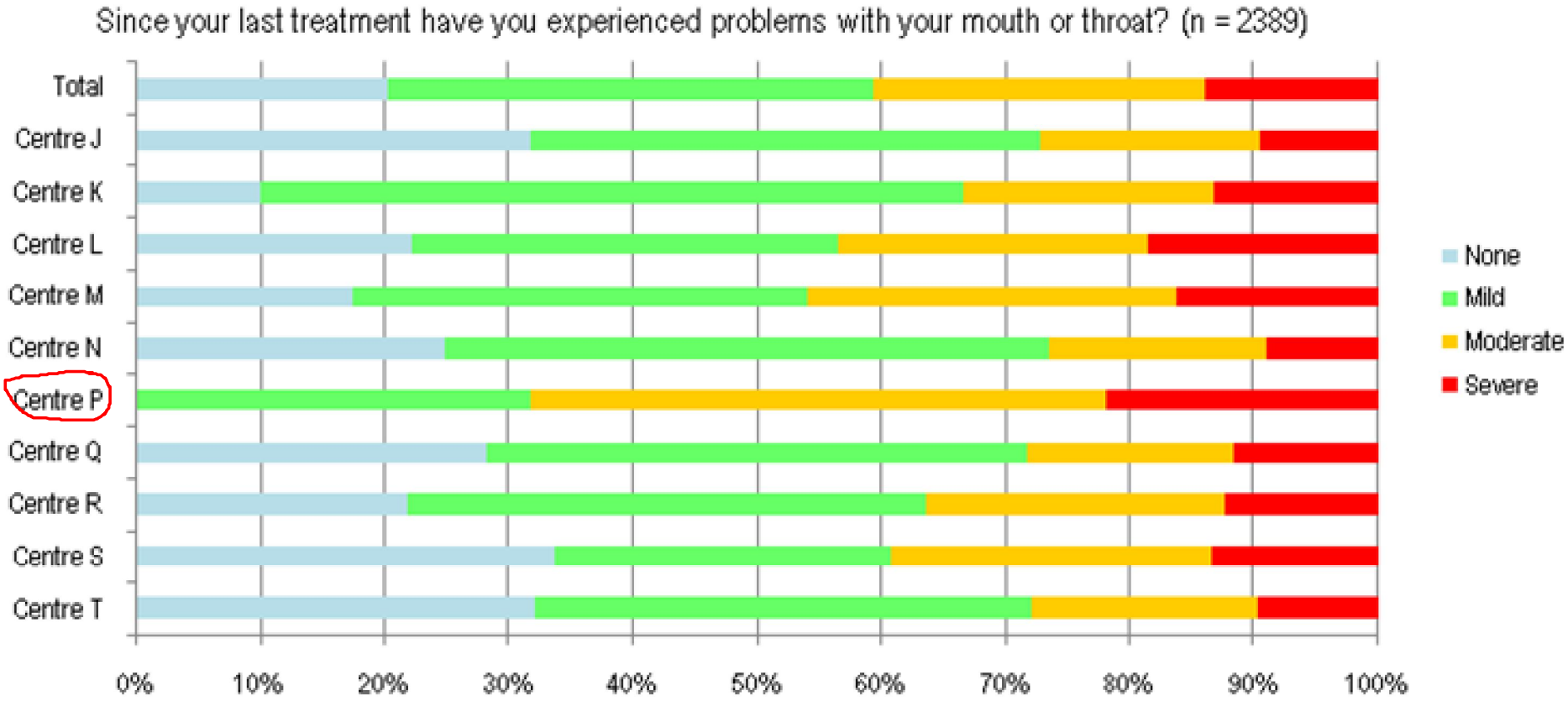
Experience of nausea



Experience of vomiting



Experiencing problems with mouth and throat



Service feedback

"We knew that we were not always formally assessing symptoms, but we were surprised by the levels of nausea and vomiting reported"

(Senior Nurse)

Service feedback

"...importantly, it relates to the particular unit that care was delivered in, not the trust as a whole."

Evaluation new roles

Nurse and pharmacist independent prescribing

Evaluation of
nurse and pharmacist
independent prescribing

Department of Health Policy Research Programme Project 016 0108

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Submitted October 2010

Interventions to improve recovery

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www.bjcancer.com

Clinical

Patient, carer and health service outcomes of nurse-led early discharge after breast cancer surgery: a randomised controlled trial

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Patients with breast cancer who require axillary clearance traditionally remain in hospital until their wound drains are removed. Early discharge has been shown to improve clinical outcomes, but there has been little assessment of the psychosocial and financial impact of early discharge on patients, carers and the health service. This study aimed to evaluate the effectiveness of a nurse-led model of early discharge from hospital. Main outcome measures were quality of life and carer burden. Secondary outcomes included patient satisfaction, arm morbidity, impact on community nurses, health service costs, surgical cancellations and in-patient nursing dependency. A total of 108 patients undergoing axillary clearance with mastectomy or wide local excision for breast cancer were randomised to nurse-led early discharge or conventional stay. Nurse-led early discharge had no adverse effects on quality of life or patient satisfaction, had little effect on carer burden, improved communication between primary and secondary care, reduced cancellations and was safely implemented in a mixed rural/urban setting. In total, 40% of eligible patients agreed to take part. Nonparticipants were significantly older, more likely to live alone and had lower emotional well being before surgery. This study provides further evidence of the benefits of early discharge from hospital following axillary clearance for breast cancer. However, if given the choice, most patients prefer to stay in hospital until their wound drains are removed.
British Journal of Cancer (2004) **91,** 651 – 658. doi:10.1038/sj.bjc.6601998 www.bjcancer.com
Published online 6 July 2004
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Keywords: breast cancer; axillary clearance; nurse led; early discharge

It is standard practice for patients undergoing axillary clearance for breast cancer to remain in hospital until their wound drains are removed. Randomised controlled trials carried out in Holland (Bonnema *et al*, 1998a) and England (Bundred *et al*, 1998; Horgan *et al*, 2000) have suggested that early discharge following axillary clearance has no adverse effect on physical or psychological outcome, and is acceptable to patients. There are indications that early discharge (with drains *in situ*) may enhance shoulder movement (Bundred *et al*, 1998), reduce wound pain (Bundred *et al*, 1998) and improve family support (Bonnema *et al*, 1998a), and it has been assumed that financial benefits to the Health Service will ensue.

Advocates of early discharge policies may be satisfied by these findings. However, five common fallacies exist in estimating the economic gains of early hospital discharge (Jonsson and Lindgren, 1990):

1. There are no adverse effects on the patient.
2. There is no burden for caregivers.
3. There are no costs imposed on primary care.
4. The hospital budget saves an amount equivalent to the average cost per day multiplied by the number of days saved.
5. Hospital waiting lists can be reduced correspondingly.

None of the existing studies has fully considered the 'hidden' psychosocial and financial costs to informal carers, for whom changes in the delivery of cancer services impose an increasing care burden (Fallowfield, 1998). There are indications that early discharge may simply transfer the burden to primary care (Bonnema *et al*, 1998b), although the views of staff working in the community have not been elicited. Studies have so far used limited questions to establish patient satisfaction with care, and none have employed breast cancer-specific tools to investigate the impact of hospitalisation or early discharge on quality of life. Moreover, almost two-thirds of the potential population of patients may be excluded on the grounds of geographical or social ineligibility (Bundred *et al*, 1998), thus making it difficult to estimate how many women facing axillary clearance surgery would, in reality, opt for early discharge if it was offered.

To test the hypothesis that nurse-led early discharge would not adversely affect quality of life or carer burden at 2 weeks after surgery, this study evaluated the impact of nurse-led early discharge following axillary clearance on patients, carers and the health service. The evaluation addressed key psychosocial and

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BMJ

RESEARCH

Benefits of supervised group exercise programme for women being treated for early stage breast cancer: pragmatic randomised controlled trial

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doi: 10.1136/bmj.39094.648553.AE

ABSTRACT

Objectives To determine functional and psychological benefits of a 12 week supervised group exercise programme during treatment for early stage breast cancer, with six month follow-up.

Design Pragmatic randomised controlled prospective open trial.

Setting Three National Health Service oncology clinics in Scotland and community exercise facilities.

Participants 203 women entered the study; 177 completed the six month follow-up.

Interventions Supervised 12 week group exercise programme in addition to usual care, compared with usual care.

Main outcome measures Functional assessment of cancer therapy (FACT) questionnaire, Beck depression inventory, positive and negative affect scale, body mass index, seven day recall of physical activity, 12 minute walk test, and assessment of shoulder mobility.

Results Mixed effects models with adjustment for baseline values, study site, treatment at baseline, and age gave intervention effect estimates (intervention minus control) at 12 weeks of 129 (95% confidence interval 83 to 176) for metres walked in 12 minutes, 182 (75 to 289) for minutes of moderate intensity activity reported in a week, 2.6 (1.6 to 3.7) for shoulder mobility, 2.5 (1.0 to 3.9) for breast cancer specific subscale of quality of life, and 4.0 (1.8 to 6.3) for positive mood. No significant effect was seen for general quality of life (FACT-G), which was the primary outcome. At the six month follow-up, most of these effects were maintained and an intervention effect for breast cancer specific quality of life emerged. No adverse effects were noted.

Conclusion Supervised group exercise provided functional and psychological benefit after a 12 week intervention and six months later. Clinicians should encourage activity for their patients. Policy makers should consider the inclusion of exercise opportunities in cancer rehabilitation services.

Trial registration Current controlled trials ISRCTN12587864.

INTRODUCTION

Breast cancer is the most commonly occurring cancer among women in the United Kingdom. More than 40 000 new cases are reported each year, and breast cancer accounts for 30% of the cancer burden in women (excluding non-melanoma skin cancer). Early detection and improved treatments for breast cancer have resulted in increased survival rates; the current five year relative survival rate is estimated to be 80%.[1 2] Surviving cancer usually means enduring sequential combinations of treatment modalities (surgery, radiotherapy, systemic chemotherapy, and hormonal treatment). Treatments for cancer can result in significant reductions in many different quality of life outcomes.[3] Current programmes in cancer rehabilitation are mainly based on psychotherapy or social support. Such therapies do not usually deal with the physical problems encountered by patients, such as fatigue, loss of functional capacity, and weight gain.[4] Exercise is an intervention that may improve a broad range of quality of life problems after diagnosis of cancer.

Physical activity levels reduce significantly for many women after a diagnosis of breast cancer and remain low after treatment is completed.[5 6] A prospective observational study in survivors of breast cancer has indicated a 50% risk reduction in mortality among women who are regularly active compared with those who remained inactive post-diagnosis.[7] A recent systematic review of the effects of exercise on breast cancer patients and survivors concluded that exercise is an effective intervention to improve quality of life, cardiorespiratory fitness, physical functioning, and fatigue.[8] However, a more recent Cochrane review, which examined exercise interventions exclusively during treatment for breast cancer, found improvements in physical fitness and activities of daily life but no significant improvements in quality of life or fatigue.[9] Little of the existing evidence comes from the UK or a National Health Service (NHS) setting.

We aimed to determine if participating in a supervised group exercise programme for women during

Research and its impact on quality

- Highly effective organisations have research and development at their heart
- Raises calibre of staff/ profile
- Creates an enquiring organisation
- Evidence based practice underpins action
- Patients who participate in clinical research have better outcomes
- Resources flow into the organisation

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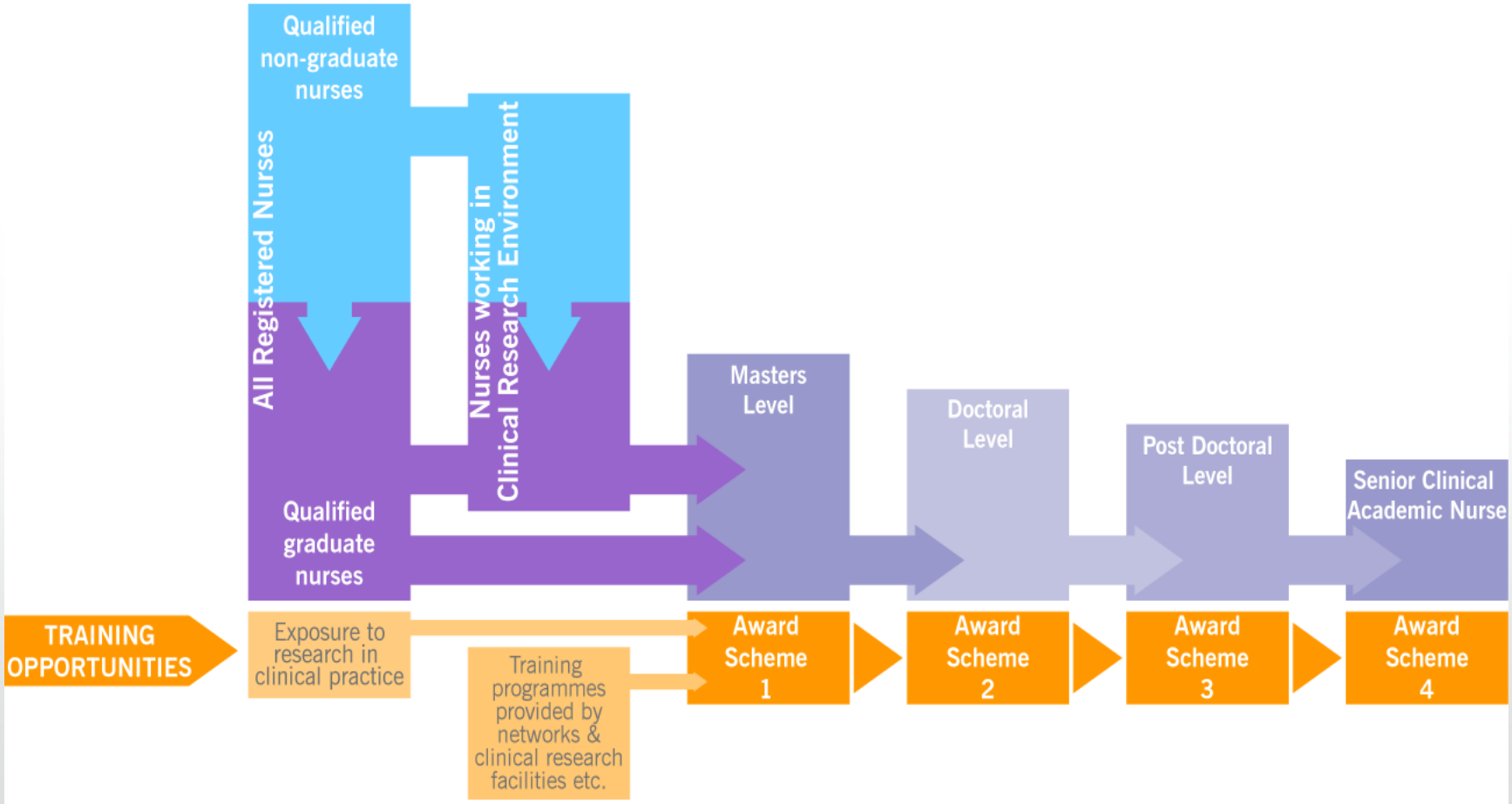
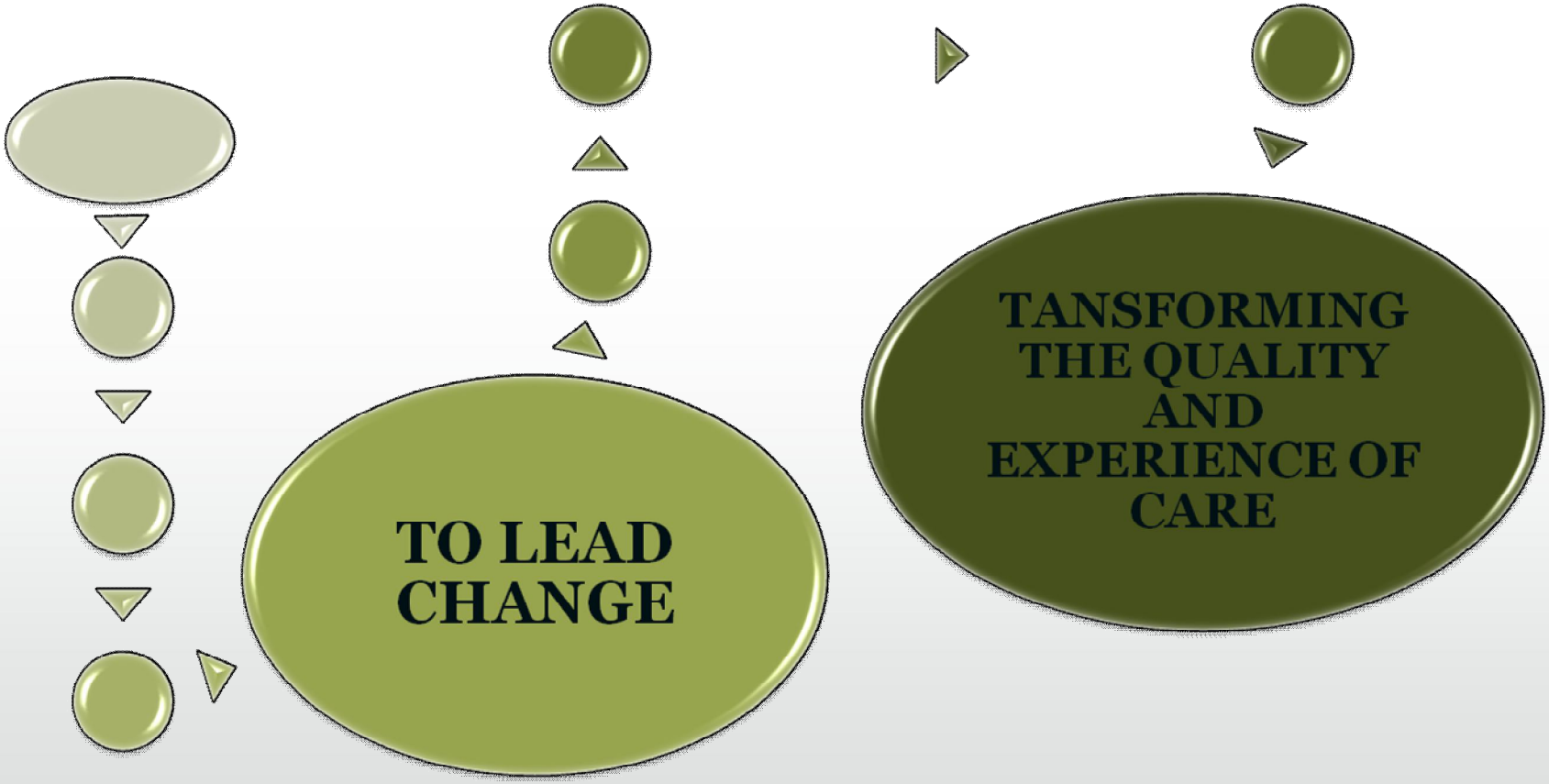
Clinical Academic Careers for Nurses

Proposed Clinical Academic Nursing Training Pathway



Source: UK Clinical Research Collaboration

What is the role of (*nursing*) research(*ers*) in improving quality?