



# Patients' and family members' experience of post-ICU, acute hospital rehabilitation; a mixed methods evaluation of the RECOVER trial.

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# Research Team

- Professor Tim Walsh (intensivist)
- Dr Lisa Salisbury (physiotherapist)
- Dr Pam Ramsay (nurse)
- Dr Judith Merriweather (dietitian)
- Dr Janice Rattray (nurse)
- Dr Guro Huby (anthropologist)
- Dr David Griffith (intensivist)
- Dr Alasdair Hull (health psychologist)
- Dr Susanne Kean
- Rehab. Assistants: Leanne Dow, Audrey McCann, Sarah Henderson
- ECCRG Research Nurses

## Background

- ~140,000 admissions to UK ICUs
- ~70% survive
- Short post-ICU hospital stays (10 days at RIE\*)
- 75% of patients go directly home
- High unplanned readmission rates

# Intervention development



- PhD (Ramsay)
- PhD (Merriweather)

## Rehabilitation after critical illness: could a ward-based generic rehabilitation assistant promote recovery?

Lisa Gabrielle Salisbury, Judith Lorna Merriweather and Timothy Simon Walsh

*Clinical Rehabilitation* 2010; 24: 489-500

The development and feasibility of a ward-based  
physiotherapy and nutritional rehabilitation package  
for people experiencing critical illness

LG Salisbury The University of Edinburgh, Centre for Integrated Healthcare (CIHR), School of Health in Social Science,  
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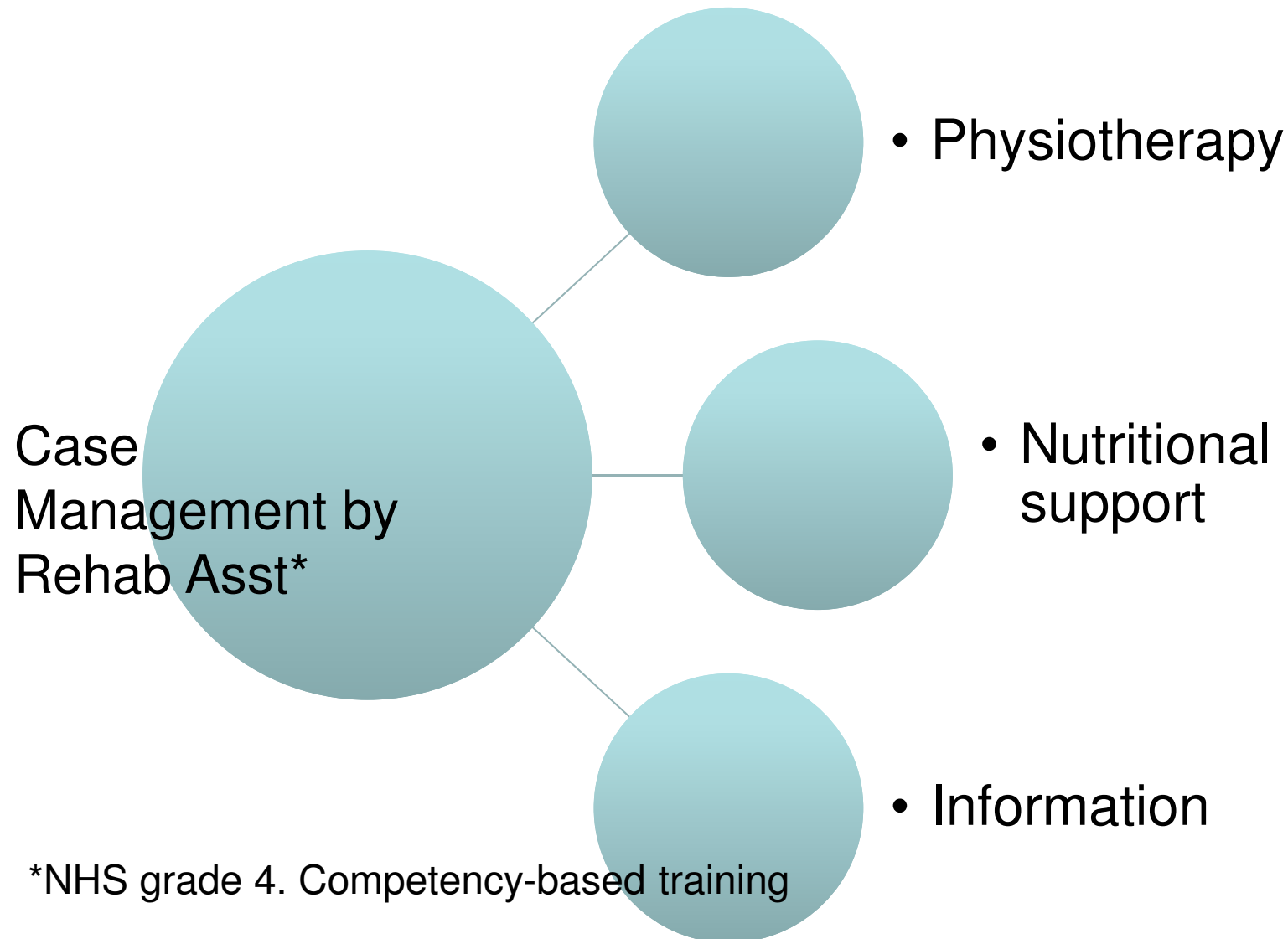
## A randomised controlled trial evaluating a rehabilitation complex intervention for patients following intensive care discharge: the RECOVER study

Timothy Simon Walsh,<sup>1,2</sup> Lisa G Salisbury,<sup>2,3</sup> Julia Boyd,<sup>4</sup> Pamela Ramsay,<sup>2,3,5</sup>  
Judith Merriweather,<sup>2,3,5</sup> Guro Huby,<sup>3</sup> John Forbes,<sup>6</sup> Janice Z Rattray,<sup>7</sup>  
David M Griffith,<sup>2,5</sup> Simon J Mackenzie,<sup>5</sup> Alastair Hull,<sup>8</sup> Steff Lewis,<sup>4,6</sup>  
Gordon D Murray<sup>6</sup>

A rehabilitation intervention to promote physical  
recovery following intensive care: a detailed  
description of construct development, rationale  
and content together with proposed taxonomy to  
capture processes in a randomised controlled trial

Pam Ramsay<sup>1,2†</sup>, Lisa G Salisbury<sup>2,3†</sup>, Judith L Merriweather<sup>1,2</sup>, Guro Huby<sup>3</sup>, Janice E Rattray<sup>4</sup>, Alastair M Hull<sup>5</sup>,  
Stephen J Brett<sup>6</sup>, Simon J Mackenzie<sup>1</sup>, Gordon D Murray<sup>7</sup>, John F Forbes<sup>7</sup>, and Timothy Simon Walsh<sup>2,8</sup>  
on behalf of the RECOVER trial collaboration

# The intervention



# The intervention

## Physiotherapy

- ~Daily sessions
- Tailored to patient need, ability & preference
- Assessment
- Referral

## Nutritional care

- Help with eating
- Food diaries
- Weight
- Patient feedback
- Family liaison
- Referral

# The intervention

## Information

- Rehab manual\*
- Lay summary
- ICU Consultant visit
- ICU visit

## Case-management

- Dedicated case-load
- Liaison with ward MDT
- Care co-ordination
- Referral
- Discharge planning
- Follow-up phone call

\*Jones et al (2009). Administered to **both** trial groups

# Methods

**Randomised Controlled Trial** (n=240)

**Setting:** Royal Infirmary of Edinburgh & Western General Hospital

**Inclusion criteria:**  $\geq 2$  days MV, fit for ICU discharge

**Exclusion criteria:** neurological diagnosis, palliative care, etc

**Duration:** ICU to hospital discharge (3 months max)

**Follow up:** 12 months



# Data analysis

## QUANT

### Process measures

Rivermead Mobility Index

Symptoms: fatigue, pain, appetite

Quality of life (SF-12)

Anxiety (HADS)

Depression (HADS)

PTSD (Davidson's Trauma Scale)

### Patient Experience

Questionnaire (n=182)

## QUAL

Comparative focus group  
interviews with patients and  
family members (n=4)\*

\* Analysed by an  
independent researcher.

# Main findings

## Significant increases in...

- physiotherapy
- nutritional
- Information provision

## But...

No statistically significant difference in outcomes (except PEQ)

### Original Investigation

Increased Hospital-Based Physical Rehabilitation and Information Provision After Intensive Care Unit Discharge  
The RECOVER Randomized Clinical Trial

Timothy S. Walsh, MD; Lisa G. Salisbury, PhD; Judith L. Merriweather, PhD; Julia A. Boyd, PhD; David M. Griffith, MD; Guro Huby, PhD; Susanne Kean, PhD; Simon J. Mackenzie, MBChB; Ashma Krishan, MSc; Stephanie C. Lewis, PhD; Gordon D. Murray, PhD; John F. Forbes, PhD; Joel Smith, PhD; Janice E. Rattray, PhD; Alastair M. Hull, MD; Pamela Ramsay, PhD; for the RECOVER Investigators

Satisfaction Domain	Excellent Anchor Quotation
Transfer from ICU to the ward	"The ICU staff prepared me well for going to the ward."
Ward staff's understanding of your time in intensive care	"They really understood and cared about what I'd been through."
Exercises to get you moving/back on your feet	"I had all the help, support, and advice I needed to get me moving/back on my feet."
Help, support, and advice with being independent	"I had all the help, support, and advice I needed to get my independence back."
Help with eating and nutrition	"I had all the help and advice I needed with eating and nutrition."
Being involved in decisions about your care	"I was always asked about what was best for me, and I felt listened to."
Organization and coordination of care	"Everyone knew what was happening and worked together well."
Information about what happened in intensive care	"I was given a clear understanding of how I ended up in intensive care and what happened to me."
Knowing what to expect after you got home	"I was given a clear understanding of what being at home might be like."



Poor Anchor Quotation	P Value
"No one told me what was happening or what the wards would be like."	.48
"No one had a clue about what had happened to me."	.85
"I had little or no help, support, or advice, and my recovery suffered as a result."	.04
"I had little or no help, support, or advice, and I really struggled to get my independence back."	.79
"No one seemed to notice or care if I was able to eat ok."	.04
"No one asked about what was best for me, and I felt invisible."	.23
"No one seemed to know what was happening. It was totally disorganized."	.04
"No one told me anything about how I ended up in intensive care or about what happened to me."	<.01
"No one told me anything about what being at home might be like."	.49

# Focus groups: physiotherapy

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## Routine care

“It was hit and miss...one day you’d get physio, the next not””

## Intervention

“They spent more time...she came twice a day”

“ I could choose what I wanted to do”

“If you’re left with a sheet of exercises, I’m unlikely to be motivated. If someone’s there saying “Let’s do these together”, it’s very different

# Focus groups: nutritional care

Edinburgh Napier  
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## Routine care

“ No one seemed to notice if I wasn't eating”

## Intervention

“I was really struggling to eat. The girls did brilliantly...moral support, day after day”

“ She would take me to the canteen during lunch, just to encourage me to eat”

# Focus groups: information



## Routine care

“I still don’t know why I ended up there (ICU). Well...I don’t know why I got what I got...I worry a lot more about my health than I ever did before”

## Intervention

“Them coming to see you helps fill that void...it really helped me put things in chronological order”

“the letter was brilliant...after he got home”

“it wasn’t until I went back (into ICU)...that I could relate much more to what the doctor told me”

# Focus groups: case management



## Routine care

“You know the NHS is short staffed...but I mean, you're giving them all this care in Intensive Care, and after that, it's like you're thrown to the dogs.”

## Intervention

“having that one person assigned to you was just wonderful

“when you're a long term patient, that's very important...that you feel that there is someone there whom you can talk to and have a relationship with”

## Key points

A dedicated Rehab Assistant can:

- Increase pt-centredness of care
- Improve co-ordination of care
- Circumvent ward-level staffing constraints



**Questions?**

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