Supporting the Recovery of ICU survivors Following a Critical Illness: Post ICU Pathways

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What’s New in ICU, 10th Annual Meeting 2018
Background: Critical Care in UK

• 140,000 patients admitted to UK Intensive Care Units each year in UK

• >70% of patients survive

• Short hospital stays (median 10 days at RIE)*

• >70% of patients go directly home

• Healthcare costs per patient/year ~£49,000*

• In Scotland high rates of early unplanned readmissions to acute bed – 25% within 90 days and 40% within 3 months

Human Cost of Critical Illness

Post Intensive Care Syndrome (PICS)

Physical
- Muscle wasting
- Fatigue
- Weight loss
- Joint pain/stiffness
- Impaired mobility

Psychological
- Anxiety
- Depression
- PTSD

Cognitive
- Amnesia
- Delirium
- Cognitive impairment

Social
- Late return to work
- £ concerns
- Reduced social participation
- Health & wellbeing of carers
- Relationship strain
Scottish Intensive Care Society Audit Group Scotland 2016 noted:

Last Decade seen recognition – Surviving Critical Illness-only part of the challenge

“How can patients and their families be best supported as they start living at home again (e.g., health and social care services, ICU support groups, long-term follow-up)?”
Nutritional rehabilitation after ICU – does it happen: a qualitative interview and observational study

Judith Mernweather BSc, MSc, PhD, RN, RGN, RNT
Pam Smith PhD, MSc, BNurs, RN
Timothy Walsh BSc, MBChB, FRCA, FRCP, MD, MSc

Intensive care
Research

Patient and carer experience of hospital-based rehabilitation from intensive care to hospital discharge: mixed methods process evaluation of the RECOVER randomised clinical trial

Pam Ramsay, Guro Huby, Judith Mernweather, Lisa Salisbury, Janice Rattray, David Griffith, Timothy Walsh on behalf of the RECOVER collaborators

Surviving Intensive Care: A Systematic Review of Healthcare Resource Use After Hospital Discharge

Lone, Nazir I, MBChB, MSocSci; Serafin, Marta MSocSci; Wild, Sarah H, PhD, FRCP; Rowan, Kathryn M, DPhil; Murray, Gordon D, PhD, FRSE; Walsh, Timothy S, MD, FRCA

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, Mernweather, PhD; Julie A, Boyd, PhD; David M, Griffith, MD; Guro Huby, PhD; Susanne Kean, PhD; Simon J, Mackenzie, MBChB; Ashima 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
PROFILE: Preventing early unplanned hospital admissions following critical illness

Chief Investigator: Tim Walsh.
Research Team: Naz Lone, Janice Rattray, Eddie Donaghy, Robert Lee, Pam Ramsay, Lisa Salisbury
PROFILE - Qualitative Approach

- Identified ICU Survivors Lothian, Tayside, Fife - early unplanned hospital readmission within 90 days.

- Recruited 29 ICU Survivors and 29 Carers/Family Members (n=58)

- Conducted semi-structured interviews in their home (1-1 1/2 hours)

- 5 Focus Groups to test/confirm findings (Glasgow Highland), new info. with different patients - 5 Health Boards (n=43)

- Rich Narrative data - 50 ICU Survivors and 51 Carers/Family members (n=101)
PROFILE

What Did we Find?
PROFILE Qualitative Research Findings - Dichotomised Experience

- Approximately 45% Patients & Carer/Family Members Described

**Strong Support - Hospital Preparation - Community Health and Social Services**

- In their View - Readmission was Unavoidable due to Clinical Circumstances

  (Bleeding ileostomy site, Pneumonia, Pulmonary Embolism)

- Approximately 45% Patients & Carer/Family Members Described –

**Weak Support - Hospital Preparation & Community Health and Social Services**

- In their view – Better Preparation by Hospital staff & from Community Health & Social Services – admission preventable

  (Fall due to lack of mobility aides, Blocked Nephrostomy bag, Adverse Drug Event,)
Complex Health & Social Care Needs

- Multiple patient factors
- Interaction and interplay of factors important
- Greater reliance on health-social care support
- Greater impact from system-level failures
- Readmission trigger often "breaking" or "tipping" point

MEDICALLY UNAVOIDABLE

- Patient and system factors less prevalent or important to patient
- Medical complication triggers re-hospitalisation

10 Risk Factors Linked to Increased Risk of Readmission

LOW IMPACT

- Goal setting
- Acute and community care communication
- Psychological problems and drug dependency
- Fragile social support

PATIENT FACTORS

- Problems with Specialist equipment

SYSTEM FACTORS

- Preparation for hospital discharge
- Psychological support

HIGH IMPACT

- Multi-morbidity and Polypharmacy
- Poor mobility

Struggling to Cope

"Complex Health & Social Care Needs"

- Multiple patient factors
- Interaction and interplay of factors important
- Greater reliance on health-social care support
- Greater impact from system-level failures
- Readmission trigger often "breaking" or "tipping" point
High Impact- Complex Care - Case Study 1
Mary (a pseudonym) is a 38 year old woman who has had a number of early unplanned hospital readmissions following her original admission to ICU. She has five chronic illnesses, significant mobility problems is unemployed and heavily reliant on her mother Eileen (a pseudonym) who is her principle carer (unpaid) for activities of daily living. Mary has experienced a number of adverse events due to complications in the management of her drug regime (she is on over 9 different drugs), which she believes is attributable to poor communication between hospital and community services. She believes these adverse events have negatively impacted on her recovery and were strong influencing factors on one of her unplanned acute hospital readmissions. She is critical of support from social services which she believes have been slow in getting mobility aides into the house to support her movement around and in and out of the house. She struggles with setting goals because of her depression and the frequent clinical setbacks she experiences. Her mother spoke of the strains of being her daughter’s main carer and how restricting this was for them both. Mary believed that her recovery process could be made better with improved goal setting discussions between health care staff and herself and her mother. Mary had 3 early unplanned hospital readmissions in last year.

Low Impact- Medically Unavoidable- Case Study 2
Derick (a pseudonym) a 46 year old male had an admission to ICU following an operation for bowel cancer. Before the operation he was working full time and described himself as ‘fit and healthy’, leading an active lifestyle. He had no chronic or any previous serious illnesses and had never been in hospital before his operation. After discharge from hospital he described his follow up care in the community as excellent. He was visited by his GP as soon as returning home and a nurse visited twice a week. He had a visit from a cancer support charity who provided him with information and support on sick pay and benefit entitlements whilst off work and information on accessing psychological support to aide his recovery if needed. He had strong social support from his partner (a nurse) and his family and from a strong group of local friends. He developed bleeding from his ileostomy site and after a visit from the GP was admitted to an acute bed in his local hospital. He said everything that could have been done to support him in the community had been done and that his unplanned acute hospital readmission was unavoidable. He was confident of his recovery, had set a number of goals and was working towards getting back to work initially part time.
Increasing Focus on High Resource Individuals in Scotland - Targeted Anticipatory Care Needed (Scottish Government, Living Well in Communities, 2016)

Key Finding PROFILE –

We’ve identified ICU Patients with Complex Health & Social Care Needs Prior to Critical Illness who Emerge “Struggling to Cope” with High Recovery Needs and - Very High Risk of Readmission
Research into Practice - Service Development

- Learning from others, Awareness Raising & Partnership Building

Edinburgh Health and Social Care Partnership

Midlothian Health and Social Care Partnership
Improving Recovery in the Community & Reducing readmission Risk - Service Development Plan

Flag up on TRACK
Highlight HRIs with Pre-existing Patient-centred Risk Factors linked to Hospital Re-admission

Move ‘Red Flag’ Patients onto ICU Concerns Checklist/Holistic Needs Assessment (HNA) Pathway

Identify Key ICU Patient Needs (Clinical, Psychological, Social)

Contact Anticipatory Care Teams in 4 Lothian Health & Social Care Partnerships & Patient’s GP with Key Information Summary (KIS) & Concerns Checklist Details/Scores

Post- Discharge Follow Up (4 weeks) by Phone Concerns Checklist/HNA
Project Team Membership

Royal Infirmary of Edinburgh
Critical Care Multi-disciplinary Team
Consultants, Nurses, Dieticians, Occupational Therapists,
Physiotherapists, Psychologists, Counsellors,
Generic Rehab Assistants

Edinburgh Health and Social Care Partnership

Midlothian Health and Social Care Partnership
Supporting Community Recovery and Reducing Readmission Risk Following Critical Illness