Rehabilitating patients after critical care

In this article...

- How being in intensive care affects patients and families
- Rehabilitation strategies that can help recovery
- Patient feedback regarding the strategies

Increasing numbers of patients are surviving critical illness (National Institute for Health and Care Excellence, 2009). However, for many the consequences of the experience can mean their recovery after discharge home is hindered by complex physical and psychological problems such as post-traumatic stress disorder (PTSD). I have been involved in developing and championing a rehabilitation service to be used in the critical care unit. This service aims to help intensive care and ward-based nurses, as well as the wider multidisciplinary team, understand the importance of promoting rehabilitation for patients after critical illness. It outlines how critical illness and admission to intensive care affects patients and families, and details rehabilitation strategies that have been adopted and proved beneficial.

In the past, critical care nursing and medicine focused on what could be done and to whom; it did not consider what happened to patients in their recovery period (Modrykamien, 2012). Over the last 15 years however, more and more evidence has emerged showing that critical care patients and their families often experience serious physical, psychological and social problems after being discharged home; leaving CCU is now acknowledged as the start of a long recovery process (Berry et al, 2013).

The management of such patients has started to change and, in critical care nursing, the need to focus on the rehabilitation of patients who are critically ill and their quality of life after discharge is gaining momentum (Modrykamien, 2012). Government policies promote the use of rehabilitation strategies to improve patient outcomes, with interventions such as information giving, structured rehabilitation programmes and follow-up clinics now being identified as important to the patient’s long-term recovery.

Not everyone who is critically ill will experience problems but by promoting the use of rehabilitation strategies – such as assessing the patient’s rehabilitation needs within 24 hours of admission to ICU and assessing for delirium – the negative impact a critical illness can have on patients and their families may be reduced and their recovery optimised (Faculty of Intensive Care Medicine and Intensive Care Society, 2013).

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Abstract

Many people survive critical illness but experience problems such as post-traumatic stress disorder, after discharge from the critical care unit. This article aims to help intensive care and ward-based nurses, as well as the wider multidisciplinary team, understand the importance of promoting rehabilitation for patients after critical illness. It outlines how critical illness and admission to intensive care affects patients and families, and details rehabilitation strategies that have been adopted and proved beneficial.
The CCU experience
Evidence suggests few patients who spend longer than 2–3 days in critical care and do not continue to experience mental and physical problems as a result (Jeitziner et al, 2011). Being in CCU exposes patients to many stressors, such as:
- Unnatural noise and light;
- Sleep deprivation;
- Inability to communicate;
- Fear of dying;
- Pain;
- Isolation;
- Invasive monitoring;
- Mechanical ventilation.

These stressors are likely to cause extreme emotional reactions, on top of which patients may experience sensory and motor neuropathies. Due to their inactivity, catabolism and frequently inadequate nutrition, they may also experience weight and muscle loss – all of which can cause problems in their long-term recovery period (Jeitziner et al, 2011).

As follow-up nurse for CCU, in 2014 I carried out an audit of 30 patients in our follow-up clinic looking at the impact of a critical illness on them and their families. This involved patients who had experienced a CCU stay of >48 hours, and had required intubation and mechanical ventilation. The results identified that almost a third went on to experience some degree of PTSD after discharge. The symptoms they experienced varied greatly in severity (Box 1).

In the past our unit had a monthly follow-up clinic but there was no referral service for the clinical psychologist, rehabilitation team or pathway, patient diaries, support group or assessment of delirium.

Feedback showed patients and families often received little information about the possible effects of critical illness, and many felt they had no one to turn to for advice. In response, a rehabilitation team comprising a critical care consultant, critical care sister, the outreach team, critical care nurses and the critical care physiotherapy team was established and a rehabilitation pathway developed.

We started this work two years ago and, after implementing the rehabilitation pathway, worked on introducing the patient diaries, a delirium pathway and the Confusion Assessment Method for the ICU (CAM-ICU) assessment (Bit.ly/Confusion-ICU).

The rehabilitation pathway
It is vital that patients who are at risk of developing physical and non-physical morbidity are identified as soon as possible and a rehabilitation pathway based on NICE’s (2009) guideline (Fig 1) is promoted. This assessment requires the nursing and physiotherapy teams to:
- Assess the patient's physical and non-physical morbidity on the day of their admission to critical care;
- Develop a structured rehabilitation programme, to include a respiratory weaning programme and passive and active movement exercises.

Burtin et al (2009) highlighted the importance of early physiotherapy input for patients who are critically ill to help improve physical and psychological well-being; this is in line with NICE (2009) guidance, which suggest a structured rehabilitation programme must be developed by the multidisciplinary team and started as early as possible.

As the guidance places high emphasis on interprofessional communication of patients' rehabilitation needs, our rehabilitation team used a rehabilitation information board. This enabled the physiotherapists, dietitians and nursing team to communicate the patient’s rehabilitation plans. Now our nurses and physiotherapists work together closely to promote each patient’s individual plan and involve passive and active movement programmes. The information board also prompts use of delirium assessments and patient diaries for all patients.

Rehabilitation strategies
Early intervention physiotherapy
When a patient is admitted to critical care, life-saving interventions (sedation and mechanical ventilation, multiple intravenous lines and continuous electrocardiogram monitoring) all affect mobilisation. Skeletal muscle loss, catabolism and inadequate nutrition inevitably affect recovery. Early intervention physiotherapy in critical care is vital to help reduce the length of hospital stay, reduce complications associated with muscle wasting, and help the patient move towards independence (Burtin et al, 2009).

Monitoring and preventing delirium
According to Truman and Ely (2003), many patients in hospital – and particularly those in critical care – experience some degree of cognitive impairment, ranging from coma to delirium. Patients in critical care are often given potent psychoactive drugs such as benzodiazepines and opiates so invasive procedures can be done and life-saving, supportive care given. Together with other risk factors, such as the elevated severity of illness, this can put them at high risk of developing delirium.

According to clinical practice guidelines for pain, agitation and delirium (Barr et al, 2013), all adults patients in critical care should be regularly assessed for delirium using the CAM-ICU to prevent complications such as a longer hospital stay, more hospital-acquired complications and an increased incidence of dementia. NICE’s (2010) guideline on the diagnosis, prevention and management of delirium states that health professionals should aim to prevent, identify, diagnose and treat patients with delirium.

Patients with delirium often experience hallucinations and vivid dreams that are real to them, such as seeing circus animals or being in a battle zone. One patient’s feedback after a critical illness referred to his stay in critical care as the “saddest, maddest and loneliest” time of his life, which was “a month in Lah-Lah Land”.

To try to prevent our patients becoming delirious, the rehabilitation team developed a delirium prevention pathway, implementing use of the CAM-ICU assessment. Monthly training sessions on the use of this tool are carried out for ICU nursing staff, who are now aware of the precipitating risk factors as well as how to assess and manage patients with delirium.

Patient diary
Many patients have no memory of their time in critical care and will often experience delusional memories, such as nightmares and hallucinations, that make it difficult for them to make any sense of what happened to them (Jones et al, 2010). Studies have highlighted that patient diaries can be helpful as an aid to fill in gaps in patients’ memories and could help them to make sense of their critical care experience (Parker et al, 2013).

With this in mind, our rehabilitation service also introduced patient diaries to the unit. The diaries, devised by the rehabilitation team, include a section called “This is me”. Based on the “This is me” tool used by Alzheimer’s Society (Bit.ly/AlzheimersThisIsMe), this aims to help nurses see their patients as individuals.

On their first day of admission, all patients critical care are given a diary in which their family and nurses are

**BOX 1. PTSD SYMPTOMS**

<table>
<thead>
<tr>
<th>Patients included in the local audit had experienced:</th>
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<tbody>
<tr>
<td>● Being tearful</td>
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<tr>
<td>● Not sleeping</td>
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<tr>
<td>● Having difficulties returning to work</td>
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<tr>
<td>● Having daily suicidal thoughts</td>
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encouraged to write. An introduction documents why the patient is in critical care, then each day their progress is recorded. Patients may be photographed during their critical illness and at subsequent episodes during their care to show their progress. These are stored securely and only included in the diary when the patient is conscious and able to consent.

Patients are encouraged to bring their diary when attending the follow-up clinic, so entries can be discussed and put into context. Formal feedback with all patients about the diaries has been very positive; they said they read them once discharged and found them helpful in piecing events together. Most patients said they read the diaries with relatives; only one out of 10 said he found the diary upsetting to read.

Follow-up service
Patients are invited to attend a monthly follow-up clinic after discharge from hospital. The critical care follow-up nurse explains to them and their relatives why they were admitted and gives a breakdown of any significant events that may have occurred. The patient is offered the opportunity to revisit the unit. This often takes great courage and some patients will not wish to go but, for others, it is a valuable opportunity to meet staff who cared for them; the experience can help them piece together the memories they have (White, 2013).

This follow-up service is considered the gold standard of critical care rehabilitation (White, 2013) and allows each patient’s long-term health and issues of delusions, nightmares and dreams to be put into context. Nearly all patients who attend the clinic have little or no recollection of their time spent in critical care, which often causes them considerable stress and anxiety. In clinic, they express being distressed by the period of "lost time" and often welcome a chance to talk to someone who understands what they have experienced.

Patients often report difficulties going back to work, the impact on social functioning and that family dynamics have changed. Often they do not know the symptoms of depression or PTSD they are experiencing are common in survivors of a critical illness; they may be reluctant to discuss them as they feel vulnerable and ashamed. To help those discharged home, a follow-up support group has been developed to:

- Bring together individuals who have experienced a critical illness;
- Give them the opportunity to discuss their experiences with one another, so they realise they are not alone.

The follow-up support group has had a very positive response. Formal feedback from patients returning to the group shows they found the service beneficial and were happy to discuss their experiences with others and share their coping mechanisms, such as writing journal notes about their memories. One former patient commented:

“I think the support group is a huge success and, even if only one person feels the benefit of hearing what other people experienced whilst in ICU, then it is worthwhile.”

In addition, as the wider multidisciplinary team has been involved in their rehabilitation pathway, patients feel reassured and able to ask the critical care, outreach and physiotherapy teams for advice.

Next steps
The rehabilitation team aims to continue to promote rehabilitation strategies to facilitate each patient’s recovery and will work together with the supportive intensive care multidisciplinary team to provide individualised, structured rehabilitation programmes for all patients during their critical care stay.

Conclusion
This article has discussed rehabilitation strategies that can help promote patient recovery; if these are adopted by critical care nurses in conjunction with the core nursing values they already uphold, we can help develop therapeutic relationships and humanistic environments with our patients and families, and help them progress towards their recovery.

For more on this topic go online...
- Personal growth after traumatic experiences
- Bit.ly/NTRTTraumaGrowth

References


Faculty of Intensive Care Medicine, Intensive Care Society (2013) Core Standards for Intensive Care Units. BII/ICUCoreStandards


FIG 1. CRITICAL CARE REHABILITATION PATHWAY