Physical Therapy Utilization in Intensive Care Units: Results from a National Survey.

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Abstract

• Surveys were mailed to 984 physical therapists from across the United States.
• Overall 482 physical therapists completed their survey. Established hospital criteria for the initiation of PT in the ICU were present at only 10% of the hospitals.
• PT is commonly administered to ICU patients during the recovery from critical illness in the United States. However the frequency and type of PT significantly varies based on the type of hospital and the clinical scenario.

Introduction

• How physical therapy is actually utilized for patients recovering from critical illness has not been widely studied. Surveys of physiotherapists in European and Australian ICUs reported that their primary responsibility was to perform respiratory forms of therapy including airway suctioning, postural drainage, and weaning from mechanical ventilation. There are presently no studies that examine the utilization of PT for patients recovering from critical illness in the United States. Therefore a national survey of physical therapists was conducted to determine the likelihood that ICU patients would receive PT, and to identify the most common types of PT that are performed.

Methods

• Six different ICU patient scenarios where physical therapy may become involved in patient care were constructed.
• The first survey was mailed to the 984 members of the acute care section of the American Physical Therapy Association.
• The survey required about 15 minutes to complete and included questions regarding general information about the demographics of the primary hospital of employment and issues regarding PT staffing.
• The survey also consisted of questions concerning a series of six scenarios of mechanically ventilated patients commonly encountered in the ICU. The physical therapists were questioned regarding the likelihood that physical therapy would be consulted.

Results

Table 4 - Effect of Patient Scenario on the Likelihood of Using Different Types of Physical Therapy

<table>
<thead>
<tr>
<th>Type of Physical Therapy</th>
<th>Ventilator Set Up: Extubated</th>
<th>Mechanical Ventilation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airway suctioning</td>
<td>0.81 (0.74 – 0.87)</td>
<td>0.62 (0.56 – 0.68)</td>
<td>0.55 (0.49 – 0.62)</td>
</tr>
<tr>
<td>Postural drainage</td>
<td>0.84 (0.78 – 0.89)</td>
<td>0.68 (0.61 – 0.75)</td>
<td>0.61 (0.54 – 0.68)</td>
</tr>
<tr>
<td>Respiratory muscles</td>
<td>0.86 (0.80 – 0.92)</td>
<td>0.72 (0.65 – 0.79)</td>
<td>0.68 (0.62 – 0.74)</td>
</tr>
<tr>
<td>Functional mobility</td>
<td>0.89 (0.84 – 0.94)</td>
<td>0.76 (0.69 – 0.83)</td>
<td>0.73 (0.67 – 0.80)</td>
</tr>
<tr>
<td>Other considerations</td>
<td>0.91 (0.85 – 0.96)</td>
<td>0.78 (0.71 – 0.84)</td>
<td>0.75 (0.69 – 0.81)</td>
</tr>
</tbody>
</table>

Discussion

• The most common forms of PT that would be performed in the ICU by physical therapists were functional mobility retraining and therapeutic exercises.
• There are several potential detractions to the study. The response rate to the survey was 50%. The physical therapists that responded to the survey could have provided a skewed view of the actual practice across the country. In addition, the survey only collected the opinion of the physical therapists concerning common but hypothetical patient scenarios, rather than collecting data about true involvement based upon visual confirmation of such practices. The involvement of physical therapists very early in the ICU course of critically ill patients was not addressed by this study.

Clinical Significance and Conclusion

• The relevance of this article is to determine the utilization of physical therapist in the ICU. The results indicated that PT was used in that setting, but highly variable in the frequency and type. Being able to determine which interventions are successful in the ICU can help improve patient function, outcomes, and lead to an early discharge.

Additional Evidence

• This article supports physical therapy intervention in the critically ill patient. Patients that received exercise and mobilization in the earliest days of critical illness were safe and well tolerated, resulted in better functional outcomes at hospital discharge, shorter duration of delirium, and more ventilator-free days compared to standard care.

Summary

• There is not much evidence on physical therapy intervention in the ICU and frequency and type of intervention standards have yet to be established. In the evidence that I have researched physical therapy intervention in the ICU is shown to be beneficial by improving functional outcomes and facilitating early discharge. However more research is needed to establish a standard of care in the ICU setting.

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