ORIGINAL ARTICLE

Design and Testing of a Postanesthesia Care Unit Readiness for Discharge Assessment Tool

Laurie Ecoff, PhD, RN, NEA-BC, Jeanne Palomo, BSN, RN, Jaynelle F. Stichler, DNS, RN, NEA-BC, FACHE, FAAN

Purpose: *This article describes the development and psychometric testing of a new Postanesthesia Care Unit (PACU) Readiness for Discharge Assessment Tool (RDAT) that can be used in assessing patients' readiness for discharge from a phase 1 PACU.*
Design: *This study used an instrument development methodology described by Waltz and Strickland that included item development and testing for content and convergent validity and interrater reliability.*
Methods: *Items were developed from a review the literature, best practice exemplars, and input from an expert panel. Ten items were identified for patient assessment using a dichotomous response set (yes/no). Two nurses independently assessed the patients using the RDAT and Respiration, Energy, Alertness, Circulation, and Temperature, and comparing independent assessments using the RDAT.*
Finding: *The content validity index was determined to be a = .80, and interrater reliability index was a = 1.0.*
Conclusions: *The RDAT is a useful, safe tool to assess patients' readiness for discharge from the PACU.*

Keywords: *postanesthesia nursing, perioperative nursing, anesthesia recovery postanesthesia care unit.*

ACCURATE ASSESSMENT OF the patient's postoperative status is critical before discharge from the Postanesthesia Care Unit (PACU) to a nursing care unit. In some PACUs, the anesthesia provider must assess the patient before discharge, but other PACUs use standardized procedures allowing nurses to discharge PACU patients using criteria approved by physician supervisory committees. PACU nurses in several states in the United States practice under standardized procedures[1,2] and often use a postanesthesia assessment scoring tool to assess the patient's readiness for discharge from the PACU to a phase 2 recovery or inpatient bed. In these states, anesthesiologists are consulted whenever the patient's condition does not meet the usual assessment parameters.

For phase 1 recovery, many hospitals use assessment scoring tools such as the Aldrete (postanesthesia recovery score [PARS]),[3] Respiration, Energy, Alertness, Circulation, and Temperature (REACT),[4]

Laurie Ecoff, RN, PhD, NEA-BC, Director of Professional Development and Research, Sharp Memorial Hospital, San Diego, CA; Jeanne Palomo, RN, BSN, Manager Perioperative Services Sharp Memorial Hospital, San Diego, CA; and Jaynelle F. Stichler, DNS, RN, NEA-BC, FACHE, FAAN, Consultant for Research and Professional Development, Sharp Memorial Hospital, Professor Emerita, Nursing, San Diego State University, San Diego, CA.

Address correspondence to Jaynelle F. Stichler, Sharp Memorial Hospital, 7930 Frost Street, Suite 307, San Diego, CA 92029; e-mail address: jan.stichler@sharp.com.

1089-9472/$36.00
http://dx.doi.org/10.1016/j.jopan.2016.06.009

Modified Aldrete Scoring System (MASS),[5] or other self-developed assessment tools. Each of these scoring tools has limitations in identifying patients' readiness for discharge from the PACU, and none have published psychometric properties in spite of their wide use throughout the world. The Postanesthetic Discharge Scoring System[6] was developed primarily for phase 2 recovery discharge to home. Only assessment scoring tools used for phase 1 recovery will be discussed in this article.

This article describes the development and psychometric testing of a new PACU Readiness for Discharge Assessment Tool (RDAT) that can be used by nurses in assessing patients and guiding decisions related to patients' readiness for discharge from a level 1 PACU.

Background

The REACT score tool was used in the authors' hospitals, but the clinical nurses and physicians believed that the tool was inadequate in some patient situations in determining a patient's readiness for discharge from the PACU. The nurses' observations, assessments, and clinical judgment indicated patients who scored low on respirations, circulation, or temperature were at risk for post-PACU complications on the surgical care units. Their concerns were validated with patients discharged from the PACU with REACT scores of 10, but who were not fully recovered from anesthesia requiring closer observation on the receiving nursing unit. Because of these concerns, there was a desire to review the literature for better assessment tools, survey best practices in other PACUs, and develop our own assessment tool if needed.

Review of the Literature

A literature review was conducted using the search engines: CINAHL, PubMed, Google Scholar, and OVID. The following keywords were used for the search: Postanesthesia Care unit (PACU), discharge criteria, discharge from recovery room, postoperative pain, postoperative nausea, postoperative vomiting, postoperative nausea and vomiting (PONV), readiness for discharge (limits for PACU only), and PACU discharge scoring. The search included all articles from 1984 through current year relating to assessment and scoring methods to determine patients' readiness for discharge from the PACU. The reviewed articles featured the development or modification of discharge scoring assessment tools, criteria needed in PACU discharge assessment tools, and hospital-specific guidelines when testing the tools' relationship to length of stay (LOS) in the PACU.

PACU Assessment Tools Described in the Literature

ALDRETE SCORING SYSTEM. The original Aldrete Scoring System, also known as the PARS,[3,7] developed in 1970, was a modification of the Apgar scoring system routinely used to assess the physiological status of newborns. The Aldrete PARS was used to determine the PACU patient's transition from discontinuance of anesthesia to phase 1 recovery and the return of motor function and protective reflexes signifying readiness for discharge from the PACU to a phase 2 PACU or an inpatient unit. The Aldrete PARS includes five assessment criteria: activity, respirations, circulation, skin color (pink, pallor or cyanosis), and consciousness and is rated numerically with a score of 0, 1, or 2 resulting in a total score range of 0 to 10. Usually, a patient needs to have a score of 9 to 10 to be discharged from the PACU to a different level of care.[3,7]

REACT ASSESSMENT TOOL. The REACT scoring tool was developed by Fraulini and Murphy[4] in 1984 and is widely used because of its ease in quickly assessing a patient by rating the patient's respirations, energy, alertness, circulation, and temperature, hence the acronym, REACT. The major difference in the REACT and the Aldrete PARS is the addition of temperature as an assessment factor, likely the reason for the development of REACT. REACT does not include assessment of oxygenation, hypertension, heart rate, pain, nausea, or resolution of spinal anesthesia. The five criteria are rated with a numerical score of 0, 1, or 2, and if an accumulated score of 10 is reached, it suggests that the patient is ready for discharge from the PACU and can be safely transferred to a patient care unit. A score of 9 suggests that the patient is still having some residual effects of the anesthesia but can be safely transferred with closer nursing observation on the receiving patient care unit. A score of 8 or below indicates that the patient needs more time for recovery in the PACU.