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Identifying Potentially Preventable Elements in Severe Adverse Maternal Events

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ABSTRACT

Recounting nurse perceptions of events that surround adverse outcomes is vital. We describe a tool designed to capture the personal perceptions and experiences of nurses specifically related to adverse pregnancy events. These elements may have a significant effect on patient outcomes but are not captured in the medical record. Complete data are essential to determine probable causes, identify potentially preventable occurrences, and highlight opportunities for system and practice improvements.

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The identification and elimination of preventable errors in patient care has been in the forefront of patient safety initiatives since the publication of *To Err is Human* 15 years ago (Institute of Medicine [IOM], 1999). In this report, the IOM (1999) identified preventable medical errors as the lead cause of death in the United States that accounted for as many as 98,000 hospital deaths each year. As a companion to this report, the IOM (2004) later issued a challenge to the National Council of State Boards of Nursing to begin collaboration with health care leaders and patient safety experts to "undertake an initiative to design uniform processes across states for better distinguishing human errors from willful negligence and intentional misconduct, along with guidelines for their applicability by state boards of nursing and other state regulatory bodies" (p. 15). In direct response to concerns raised by the IOM, the National Council of State Boards of Nursing initiated the Taxonomy of Error Root Cause Analysis of Practice-responsibility (TERCAP), which allows for the systematic tracking and evaluation of the causes of adverse patient events from the individual and system perspectives (Benner, Mallock, & Sheets, 2010).

Developed in 2007, the TERCAP database includes nurse errors in practice for investigation in the following categories: (a) safe medication administration, specifically, the right dose at the right time through the right route to the right patient; (b) documentation that is complete, accurate, and timely; (c) attentiveness and surveillance related to the precise observation and monitoring of the patient's clinical condition; (d) clinical reasoning that consists of accurate interpretation of the patient's status, which includes timely identification of any significant clinical changes, and ensures that patient care is adjusted accordingly, which includes notification of the patient's primary care provider; (e) prevention to ensure that standard procedures are followed to minimize potential risks and hazards, such as fall prevention; (f) occurrence of interventions in a timely manner and provision of the right intervention on the right patient; (g) interpretation of the authorized provider's orders correctly; and (h) demonstration of professional responsibility and advocacy for the patient and family by protecting their vulnerabilities (Benner et al., 2010). The TERCAP has been implemented by multiple state boards of nursing to promote safe nursing practice and help identify factors that may contribute to practice errors (Hudspeth, 2010; Missouri State Board of Nursing, 2015; Scruse & Smith, 2007; Texas Board of Nursing, 2015).

For women who experience severe adverse obstetric events, TERCAP is used to abstract data

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Current data abstraction processes are often limited to elements captured in the medical record; the personal perceptions of the care providers are not included.

Responses gathered from nurses will help identify individual, environmental, and system-level factors related to adverse events.

from the medical records and currently serves as the primary source of case analysis to determine probable causes, system deficiencies, and potentially preventable occurrences by maternal morbidity and mortality review committees. Absent from these abstractions are the personal perceptions of the providers who cared for women who experienced significant adverse events. Specifically, it is not possible to determine if any environmental factors, personnel issues, concurrent circumstances and/or other elements that are not part of the official medical record may have had a significant effect on the case outcome.

Therefore, an expert panel co-convened by the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) and the Association of Maternal and Child Health Programs (AMCHP) in October 2014 identified the need for a more robust tool to track and trend contextual aspects that may contribute to preventable maternal morbidity and mortality (Bingham & Cornell, 2015). After consideration of the elements in the TERCAP, the Obstetric Surveillance System Reporting Form (Centre for Maternal and Child Enquiries, 2011), and other joint publications related to maternal hemorrhage and safety issues, the expert panel decided to develop a self-reported nurse questionnaire specific to maternal morbidity and mortality (Main et al., 2015; Mhyre et al., 2014). The group envisioned that this instrument could be used as a standardized interview tool and/or stand-alone form to be completed by the nurse(s) who provided care for the woman, the charge nurse/nurse manager, and/or unit director where the severe morbidity or mortality occurred.

Development of the TERCAP Maternal Morbidity and Mortality Inquiry Tool

The purpose of this AWHONN/AMCHP tool is to gather information to facilitate a thorough and comprehensive analysis of the adverse event for the obstetric patient. A universal tool is needed because these events are uncommon, and aggregate nationwide data would provide a framework for comprehensive evaluation and subsequent intervention. Currently, approximately half of states are conducting maternal death reviews, and at the present time, no universal case abstraction tool is available. The development of a comprehensive tool that includes collateral information not available through the medical record may help to identify opportunities for practice change and prevention of adverse events. The responses will assist in the identification of individual, environmental, and system-level factors that may contribute to maternal mortality and/or severe morbidity. The tool provides the nurse with the opportunity to tell the story of the event in a nonaccusatory, safe environment. The purpose of the survey instrument is to obtain the perspectives of nurses through the written text and/or narrative comments they provide and to facilitate data collection through a series of checkbox responses. Data obtained from this process can then be used for risk management or quality improvement at the institutional, state, regional, and/or national levels.

Features of the TERCAP Maternal Morbidity and Mortality Inquiry Tool

The AWHONN/AMCHP tool was developed in cooperation with the National Council of State Boards of Nursing TERCAP initiative, and permission was received to adapt, modify, and use survey items. This process resulted in the final tool presented in this article, now known as TERCAP's Maternal Morbidity and Mortality Inquiry Tool (Supplemental Figure S1). Central to the development of the tool is the knowledge that the outcome of the case will not change; however, the identification of potential preventable elements, the inclusion of the voice of the nurse in the analysis, and the identification of elements amenable to changes in practice may indeed prevent future deaths. Data must be collected in an objective, nonjudgmental, nonaccusatory fashion within an environment of safety. When possible, we recommend that this tool be used as part of the initial debriefing process. The survey tool is intended to be a fact-finding interview conducted at the institutional level by a qualified person in a therapeutic manner, sensitive to the

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