Concept Analysis: Wrong-Site Surgery

DONNA S. WATSON, MSN, RN, CNOR, FNP

ABSTRACT

A concept analysis was conducted on the concept of wrong-site surgery (WSS) using the principle-based method by Penrod and Hupcey. It included analysis of WSS within the context of epistemological, pragmatic, linguistic, and logical principles. The analysis found that WSS is an important concept that is universally accepted, but the definition could be improved with inclusion of comprehensive labeling for types of WSS that may occur, such as wrong patient, wrong site, wrong level/part, wrong procedure, and wrong side. Wrong-site surgery falls into the domains of both nursing and medicine, and there is limited research on the topic specific to nursing interventions, perceptions, and contributions to prevent WSS. *AORN J* 101 *(June 2015) 650-656. © AORN, Inc, 2015. http://dx.doi.org/10.1016/j.aorn.2015.03.012*

Key words: *wrong-site surgery, concept analysis, literature review.*

http://dx.doi.org/10.1016/j.aorn.2015.03.012

In 1999, the Institute of Medicine (IOM) published *To Err Is Human: Building a Safer Health System.*[1] This report described an estimated 44,000 to 100,000 patient deaths in the United States attributed to preventable medical error.[1] The IOM report emphasized that errors occur as a result of ineffective systems within an organization. Following the IOM report, local and national efforts have focused on analyzing and implementing best practices to minimize untoward patient outcomes related to preventable errors. Wrong-site surgery (WSS) is considered an egregious error that falls in the area of high immediacy and high causality on the quality/safety continuum.[2] Wrong-site surgery is rare, but it should never occur for any patient undergoing surgical or other invasive procedures.[3,4]

The purpose of a concept analysis is to determine what is known about a concept to assist the researcher in determining appropriate methodologies for additional research on the concept to further science.[5] The goal of this concept analysis was to analyze the concept of WSS to include nursing and other related disciplines to determine the current state of the science. Several theoretical and philosophical underpinnings should be considered when selecting a specific approach for conducting a concept analysis.[6] I selected the principle-based method for the concept analysis based on its ability to

- identify the state of the science or truth for the concept,
- analyze the scientific literature based on thoughtful and thorough inquiry, and
- analyze the probable truth based on epistemological, pragmatic, linguistic, and logical principles.[5,7]

The application of the principle-based concept analysis assisted in providing evidence that additional research is needed related to the role of the perioperative RN in the prevention of WSS.

BACKGROUND

In 1994, the Canadian Orthopedic Association was the first medical specialty organization to publish a position statement on WSS.[8] The position statement identified WSS as a serious preventable patient error and recommended a standardized protocol to minimize its risk for patients undergoing orthopedic procedures. In 1998, the Joint Commission on Healthcare Accreditation, now The Joint Commission, delivered a sentinel alert about 15 cases of WSS.[4] In 2003, the Joint Commission on Healthcare Accreditation added WSS to the National Patient Safety Goals, and in 2004, it published the Universal Protocol for Preventing Wrong Site, Wrong Procedure and Wrong Person Surgery™.[9] The first nursing organization to address the issue of WSS was AORN, with its "AORN Position Statement: Preventing Wrong-Patient, Wrong-Site, Wrong-Procedure Events."[10] In 2002, the American College of Surgeons published a statement on "Ensuring Correct Patient, Correct Site and Correct Procedure Surgery."[11] Also in 2002, the Veterans Administration implemented statewide protocols at its facilities on ensuring correct surgery and invasive procedures, and it revised those protocols in 2010.[12] "Never events" are "particularly shocking medical errors (such as wrong-site surgery) that should never occur."[3] Currently, 11 states mandate reporting of the National Quality Forum never events, including WSS.[3] In 2008, the World Alliance for Patient Safety, which is part of the World Health Organization (WHO) initiative for decreasing the incidence of surgical death globally, was made available as the WHO Surgical Safety Checklist.[13] The WHO Surgical Safety Checklist included interventions to operationalize to minimize the risk for wrong patient, site, or procedure.[13]

SIGNIFICANCE OF CONCEPT

There is no consensus on the incidence of the occurrence of WSS. Seiden and Barach[14] described the annual incidence of "wrong-patient adverse events" in the United States in the range of 1,300 to 2,700. Clarke et al[15] concluded that in a 300-bed hospital, WSS events can be expected to occur once annually. Kwaan et al[16] evaluated malpractice claims and estimated the incidence of WSS at one in every 112,994 surgeries. Michaels et al[17] concluded there is limited understanding of the phenomena of WSS and accuracy of estimated occurrences. Bergal et al[18] identified that the actual incidence of WSS may be higher than what is reflected in the literature. In the United States, there is no single entity that requires mandatory reporting or oversight of WSS. Reporting of WSS and the amount of transparency depends upon the institution accreditation body, state laws, and malpractice insurers.

METHOD

In an effort to evaluate the state of the science related to WSS and the role of the RN, I conducted a literature search using The Cochrane Library, CINAHL®, Web of Science™, and PsycINFO®. The Cochrane Library identified one systematic review, CINAHL identified 493 articles, Web of Science identified 56 articles, PsycINFO identified four articles, and PubMed® identified 88 articles. I refined my search of the CINAHL database with additional terms. The term WSS (all publication types [all]) from 1998 to 2013 identified 493 articles. I limited the search to WSS (tile search [TI]) 1998 to