Agenda Item 7.2.1
Board Meeting: January 2013
Prepared by: D. Benbow

Annual Review of Board Position Statements:
Position Statements Without Changes

Summary of Request:

Board Position Statements are reviewed on an annual basis. This report contains the existing position statements that have no recommended changes.

Historical Perspective:

Board position statements do not have the force of law, but are a means of providing direction for nurses on issues of concern to the Board relevant to protection of the public. Board position statements are reviewed annually for relevance and accuracy to current practice, the Nursing Practice Act and Board rules.

Current Position Statements with No Changes
15.1, Nurses Carrying out Orders from Physician's Assistants
15.3, LVNs Engaging in Intravenous Therapy, Venipuncture, or PICC Lines
15.4, Educational Mobility
15.5, Nurses with the Responsibility for Initiating Physician Standing Orders
15.6, Board Rules Associated with Alleged Patient "Abandonment"
15.7, The Role of LVNs & RNs in Management and/or Administration of Medications via Epidural or Intrathecal Catheter Routes
15.11, Delegated Medical Acts
15.12, Use of American Psychiatric Associations Diagnoses by LVNs, RNs, or APRNs
15.14, Duty of a Nurse in Any Practice Setting
15.17, Texas Board of Nursing/ Board of Pharmacy, Joint Position Statement, Medication Error
15.18, Nurses Carrying out Orders from Advanced Practice Registered Nurses
15.19, Nurses Carrying out Orders from Pharmacists for Drug Therapy Management
15.21 Deleted 01/2005
15.22, APRNs Providing Medical Aspects of Care for Themselves or Others With Whom There is a Close Personal Relationship
15.26, Simulation in Prelicensure Nursing Education

Pros and Cons
Pros:
Adoption of the position statements will provide guidance to nurses based on current practice standards, and will offer clarification on frequently asked questions.
Cons:
None noted.

Recommendations:
Move to adopt the position statements without changes with allowance for non-substantive word editing for purposes of clarity as may be deemed necessary by Board staff.

15.1 Nurses Carrying out Orders from Physician's Assistants

The Nursing Practice Act includes the "administration of medications or treatments ordered by a physician, podiatrist or dentist" as part of the practice of nursing. There are no other health care professionals listed. The Board recognizes that in some practice settings nurses work in collegial relationships with physician assistants (PAs) who may relay a physician's order for a client being cared for by a nurse.

A nurse may carry out a physician's order for the administration of treatments or medications relayed by a physician assistant (PA) when that order originates with the PA's supervising physician. Supervision must be continuous but does not require the physical presence of a supervising physician at the place where the PA services are performed provided a supervising physician is readily available by telecommunications. The supervising physician should have given notice to the facility that he/she is registered with the Texas Medical Board (TMB) as the supervising physician for the PA and that he/she has authorized the PA to relay orders. The PA must be licensed or registered by the TMB. A list of physician assistants credentialed by the medical staff and policies directing their practice should be available to the nursing staff.

The order relayed by the PA may originate from a protocol; if the order originates from a protocol, the PA may select specific tasks or functions required to implement the protocol, provided they are within the scope of the protocol. The protocol must be signed by the supervising physician and should be made available as necessary to verify authority to provide medical aspects of care. If the tasks or functions ordered fall outside the scope of the protocol, the PA must consult with the physician to obtain a verbal order before the nurse may carry out the order.

As with any order, the nurse must seek clarification if he/she believes the order or treatment is inaccurate, non-efficacious or contraindicated by consulting with the PA and physician as appropriate. The nurse may request to review the PA’s protocol as one mechanism for clarification of orders and treatments.

(Board Action, 01/1994; Revised 01/2005, 01/2006, 01/2010, 01/2012)
(Reviewed - 01/2007, 01/2008, 01/2009, 1/2011, 01/2013)

15.3 LVNs Engaging in Intravenous Therapy, Venipuncture, or PICC Lines

The basic educational curriculum for Licensed Vocational Nurses (LVNs) does not mandate teaching of principles and techniques of insertion for peripheral intravenous catheters, or the administration of fluids and medications via the intravenous route. Knowledge and skills relating to maintaining patency and performing dressing changes of central line intravenous catheters is also not mandated as part of basic LVN education. As such, basic competency in management of intravenous lines/intravenous therapy is not a given for any specific LVN licensee.

Applicable Nursing Standards

LVN practice is guided by the Nursing Practice Act (NPA) and Board Rules. Rule 217.11, Standards of Nursing Practice, is the rule most often applied to nursing practice issues. Two standards applicable in all practice scenarios include:

- 217.11(1)(B) implement measures to promote a safe environment for clients and others, and
- 217.11(1)(T) accept only those assignments that take into consideration client safety and that are commensurate with the nurse's educational preparation, experience, knowledge, and physical and emotional ability.

Additional standards in Rule 217.11 that may be applicable when a LVN chooses to engage in an IV therapy-related task include (but are not limited to):

- (1)(C) Know the rationale for and effects of medications and treatments and shall correctly administer the same,
- (1)(D)Accurately and completely report and document: (i) ..client status....(ii) nursing care rendered...(iii) physician, dentist or podiatrist orders...(iv) administration of medications and treatments....(v) client response(s)...,
- (1)(G) Obtain instruction and supervision as necessary when implementing nursing procedures or practices,
- (1)(H) Make a reasonable effort to obtain orientation/training for competency when encountering new equipment and technology or unfamiliar care situations,
- (1)R) Be responsible for one's own continuing competence in nursing practice and individual professional growth,
- (2)(A) Shall utilize a systematic approach to provide individualized, goal-directed nursing care ...[(i)-(v)], and
- (2)(C) ...perform other acts that require education and training as prescribed by board rules and policies, commensurate with the LVN's experience, continuing education, and demonstrated LVN competencies.

Position Statement 15.27, The Licensed Vocational Nurse Scope of Practice provides additional clarification of the Standards Rule as it applies to LVN Scope of Practice. Instruction and skill evaluation relating to LVNs performing insertion of peripheral IV catheters and/or administering IV fluids and medications as prescribed by an authorized practitioner may allow a LVN to expand his/her scope of practice to include intravenous therapy.

It is the opinion of the Board that the LVN shall not engage in IV therapy related to either peripheral or central venous catheters, including venipuncture, administration of IV fluids, and/or administration of IV push medications, until successful completion of a validation course that instructs the LVN in the knowledge and skills applicable to the LVN's IV therapy practice. The BON does not define or set

qualifications for an “IV Validation Course” or for "LVN IV certification." The LVN who chooses to engage in intravenous therapy must first have been instructed in the principles of intravenous therapy congruent with prevailing nursing practice standards.

Insertion of PICC Lines

The Board has further determined that the one-year vocational nursing program does not provide the Licensed Vocational Nurse (LVN) with the educational foundation to assure client safety in insertion of Peripherally Inserted Central Catheters (PICC lines) inclusive of vein selection, insertion/advancement of the catheter, determining placement, and monitoring of the client for untoward reactions in relation to catheter insertion. *Position Statement 15.27, The Licensed Vocational Nurse Scope of Practice*, further maintains that continuing education that falls short of achieving licensure as a registered nurse would be insufficient to assure vocational nurse competency and patient safety with regard to insertion of PICC lines. Therefore, it is the Board’s position that insertion of PICC lines is beyond the scope of practice for LVNs.

Administration of IV Fluids and Medications

The ability of a LVN to administer specific IV fluids or drugs, to prepare and/or administer IV “piggy-back” or IV “push” medications, or to monitor and titrate “IV drip” medications of any kind is up to facility policy. The LVN’s practice relative to IV therapy must also comply with any other regulations that may exist under the jurisdiction of other regulatory agencies or entities. The LVN who accepts an assignment to engage in any aspect of intravenous therapy is responsible for adhering to the NPA and Board rules, particularly §217.11 Standards of Nursing Practice, including excerpted standards listed above and any other standards or rules applicable to the individual LVN’s practice.

All nursing actions related to peripheral and/or central intravenous lines, as well as IV administration of medications, must be completed in accordance with the orders of the prescribing practitioner, as well as written policies, procedures and job descriptions approved by the health care employer.

(Board Action: 06/1995; revised 09/1999; 01/2005; 01/2011; 01/2012)
(Reviewed - 01/2006: 01/2007: 01/2008; 01/2009; 01/2010; 01/2013)

15.4 Educational Mobility

The Texas Board of Nursing supports educational mobility for nurses prepared at the VN, ADN, Diploma and BSN levels and encourages the elimination of needless repetition of experiences or time penalties. Furthermore, the Board encourages existing nursing education programs approved by the Texas Board of Nursing to develop articulation arrangements that specify their policies regarding transfer of academic credits to facilitate educational mobility, especially in underserved areas of the state.

(Board Action 01/1989, revised 01/1992, 01/2005; 01/2008)
(Reviewed - 01/2006; 01/2007; 01/2009; 01/2010; 01/2011; 01/2012; 01/2013)

15.5 Nurses with Responsibility for Initiating Physician Standing Orders

According to the Texas Nursing Practice Act [Tex. Occ. Code Ann. §301.002(3)], the term "Nurse" means "a person required to be licensed under this chapter to engage in professional or vocational nursing." The practice of either professional or vocational nursing frequently involves implementing orders from a physician, podiatrist, or dentist. Timely interventions for various patient populations can be facilitated through the use of physician's standing orders that authorize the nurse to carry out specific orders for a patient presenting with or developing a condition or symptoms addressed in the standing orders.

The specifics of how authorization occurs for a LVN or RN to implement a set of standard physician's orders are defined in the Texas Medical Board's (TMB) Rule 193 (22 Tex. Admin. Code §§193.1-193.12) relating to physician delegation. This rule holds out two (2) methods by which nurses may follow a preapproved set of orders for treating patients:

1) Standing Delegation Orders; and/or
2) Standing Medical Orders.

These terms are defined in 22 Tex. Admin. Code §193.2 as follows:

> ***(12) Standing delegation order*** *- Written instructions, orders, rules, regulations, or procedures prepared by a physician and designed for a patient population with specific diseases, disorders, health problems, or sets of symptoms. Such written instructions, orders, rules, regulations or procedures shall delineate under what set of conditions and circumstances action should be instituted. These instructions, orders, rules, regulations or procedures are to provide authority for and a plan for use with patients presenting themselves prior to being examined or evaluated by a physician to assure that such acts are carried out correctly and are distinct from specific orders written for a particular patient, and shall be limited in scope of authority to be delegated as provided in §193.4 of this title (relating to Scope of Standing Delegation Orders). As used in this chapter, standing delegation orders do not refer to treatment programs ordered by a physician following examination or evaluation by a physician, nor to established procedures for providing of care by personnel under direct, personal supervision of a physician who is directly supervising or overseeing the delivery of medical or health care. Such standing delegation orders should be developed and approved by the physician who is responsible for the delivery of medical care covered by the orders. Such standing delegation orders, at a minimum, should:*
> *(A) include a written description of the method used in developing and approving them and any revision thereof;*
> *(B) be in writing, dated, and signed by the physician;*
> *(C) specify which acts require a particular level of training or licensure and under what circumstances they are to be performed;*
> *(D) state specific requirements which are to be followed by persons acting under same in performing particular functions;*
> *(E) specify any experience, training, and/or education requirements for those persons who shall perform such orders;*
> *(F) establish a method for initial and continuing evaluation of the competence of those authorized to perform same;*
> *(G) provide for a method of maintaining a written record of those persons authorized to perform same;*
> *(H) specify the scope of supervision required for performance of same, for example, immediate supervision of a physician;*

(I) set forth any specialized circumstances under which a person performing same is to immediately communicate with the patient's physician concerning the patient's condition;
(J) state limitations on setting, if any, in which the plan is to be performed;
(K) specify patient record-keeping requirements which shall, at a minimum, provide for accurate and detailed information regarding each patient visit; personnel involved in treatment and evaluation on each visit; drugs, or medications administered, prescribed or provided; and such other information which is routinely noted on patient charts and files by physicians in their offices; and
(L) provide for a method of periodic review, which shall be at least annually, of such plan including the effective date of initiation and the date of termination of the plan after which date the physician shall issue a new plan.
***(13) Standing medical orders** - Orders, rules, regulations or procedures prepared by a physician or approved by a physician or the medical staff of an institution for patients which have been examined or evaluated by a physician and which are used as a guide in preparation for and carrying out medical or surgical procedures or both. These orders, rules, regulations or procedures are authority and direction for the performance for certain prescribed acts for patients by authorized persons as distinguished from specific orders written for a particular patient.*

A third term, "Protocols", is defined narrowly by the TMB and applies to RNs with advanced practice authorization (APRN) by the BON, or to Physician Assistants only:

***(10) Protocols** - Delegated written authorization to initiate medical aspects of patient care including authorizing a physician assistant or advanced practice nurse to carry out or sign prescription drug orders pursuant to the Medical Practice Act, Texas Occupations Code Annotated, §§157.051-157.060 and §193.6 of this title (relating to the Delegation of the Carrying Out or Signing of Prescription Drug Orders to Physician Assistants and Advanced Practice Nurses). The protocols must be agreed upon and signed by the physician, the physician assistant and/or advanced practice nurse, reviewed and signed at least annually, maintained on site, and must contain a list of the types or categories of dangerous drugs and controlled substances available for prescription, limitations on the number of dosage units and refills permitted, and instructions to be given the patient for follow-up monitoring or contain a list of the types or categories of dangerous drugs and controlled substances that may not be prescribed. Protocols shall be defined to promote the exercise of professional judgment by the advanced practice nurse and physician assistant commensurate with their education and experience. The protocols used by a reasonable and prudent physician exercising sound medical judgment need not describe the exact steps that an advanced practice nurse or a physician assistant must take with respect to each specific condition, disease, or symptom.*

By definition, both vocational and professional nursing excludes “acts of medical diagnosis or the prescription of therapeutic or corrective measures”[Tex. Occ. Code Ann. §301.002(2) and (5)]. Based on the above definitions in the TMB rules, RNs who do not have advanced practice authorization from the BON may not utilize "protocols" to carry out physician orders. Likewise, vocational nurses (LVNs) are also prohibited from utilizing protocols as defined by the TMB, as neither LVNs nor RNs may engage in acts that require independent medical judgment.

A nurse responsible for initiating physician's standing medical orders or standing delegation orders may select specific tasks or functions for patient management, including the administration of a medication required to implement the selected order provided such selection is within the scope of the standing

orders. The selection of such tasks or functions for patient management constitutes a nursing decision that may be carried out by a LVN or RN. In addition, this position statement should not be construed to preclude the use of the term "protocol" for a standard set of orders covering the monitoring and treatment of a given clinical condition (e.g., insulin protocol, heparin protocol, ARDS protocol, etc.) provided said standard orders meet the requirements for standing delegation or standing medical orders as defined by the TMB.

The written standing orders under which nurses function shall be commensurate with each nurse's educational preparation and experience. The nurse initiating any form of standing orders must act within the scope of the Nursing Practice Act, Board Rules and Regulations, and any other applicable local, state, or federal laws.

(Board Action 07/1988, revised 01/1992, 07/2001; 01/2005; 01/2006; 01/2007; 01/2009; 01/2011)
(Reviewed - 01/2008; 01/2010; 01/2012; 01/2013)

15.6 Board Rules Associated With Alleged Patient "Abandonment"

The Texas Board of Nursing (BON or Board), in keeping with its mission to protect the public health, safety, and welfare, holds nurses accountable for providing a safe environment for clients and others over whom the nurse is responsible [Rule 217.11(1)(B)]. Though the Nursing Practice Act (NPA) and Board Rules do not define the term *"abandonment,"* the Board has investigated and disciplined nurses in the past for issues surrounding the concept of *abandonment* as it relates to *the nurse's duty to the patient.* The Board's position applies to licensed nurses (LVNs and RNs), including RN's with advanced practice authorization (Nurse Practitioners, Clinical Nurse Specialists, Nurse Midwives, and Certified Registered Nurse Anesthetists) in Texas.

Nurse's Duty To A Patient

All nurses, regardless of practice setting or position title/role, are required to adhere to the NPA and Board Rules. The "core" rules relating to nursing practice, however, are Rules 217.11, Standards of Nursing Practice, and 217.12, Unprofessional Conduct. The standard upon which other standards are based is 217.11(1)(B) "...promote a safe environment for clients and others." This standard supersedes any physician's order or facility's policy, and has previously been upheld in a landmark case, *Lunsford v. Board of Nurse Examiners*, 648 S.W. 2d 391 (Tex. App. -- Austin 1983). The concept of the nurse's duty to promote client safety also serves as the basis for behavior that could be considered unprofessional conduct by a nurse.

Patients under the care of a nurse are vulnerable by virtue of illness, injury, and/or the dependent nature and unequal power base of the nurse-patient relationship. Persons who are especially vulnerable include the elderly, children, the mentally ill, sedated and anesthetized patients, those whose mental or cognitive ability is compromised, and patients who are physically disabled, immobilized, restrained, or secluded. It is this dual-vulnerability (patient status and nurse's power base) that creates the nurse's duty to protect the client. The distinction between a nurse leaving employment versus a nurse violating a duty to a patient through leaving an assignment is often confused. The first is an employment issue, the other is potentially a licensure issue.

There is also no routine answer to the question, *"When does the nurse's duty to a patient begin?"* The nurse's duty is not defined by any single event such as clocking in or taking report. From a BON standpoint, the focus for disciplinary sanctions is on the relationship and responsibility of the nurse to the patient, not to the employer or employment setting.

Employment Issues

Though the Board has no jurisdiction over employers or employment-related issues, other laws regulating facility licensure may apply certain responsibilities to the employer for provision of client safety, such as development of effective patient care systems or provision of adequate numbers of qualified staff. Specific requirements for a given facility may be obtained by contacting the applicable licensing authority for the institution.

The Board believes that the following additional examples of employment issues would not typically involve violations of the NPA or Board Rules:

- Resignation without advance notice, assuming the nurse's current patient care assignment and/or work shift has been completed.
- Refusal to work additional shifts, either "doubles" or extra shifts on days off.

• Other work-related issues, such as frequent absenteeism or tardiness, or conflicts between staff/employees.

The Board believes nurses should be vigilant and exercise good professional judgment when accepting assignments that may be requested by employers who need nurses to fill vacant shifts for licensed nursing staff, or other staffing-related situations. *Clear communication* between staff and supervisors is essential to arrive at solutions that best focus on patient care needs without compromising either patient safety or a nurse's license.

Licensure Issues

As previously noted, the rules most frequently applied to nursing practice concerns are Rule 217.11 *Standards of Nursing Practice,* and Rule 217.12 *Unprofessional Conduct.* In relation to questions of "abandonment," standard 217.11(1)(I) holds the nurse responsible to "notify the appropriate supervisor when leaving a nursing assignment." This standard should not be mis-interpreted to mean that the nurse may simply notify the supervisor that he/she is leaving the premises, regardless of whether or not another qualified licensed nurse is available to assume care of the nurse's patients. Specific procedures to follow in a given circumstance (nurse becomes ill, family emergency, etc.) should be delineated in facility policies (which the Board does not regulate).

Some actions may be more obvious examples of unprofessional conduct that could result in sanctions on the nurse's license. Examples of conduct that could lead to Board action on the nurse's license may include:

• Sleeping on the job, which effectively makes the nurse unavailable to observe the patient or respond to the patient's needs, even though the nurse is physically present.
• Simply walking off the job in mid-shift without notifying anyone, and without regard for patient safety;
• Failing to initiate or complete an agreed assignment when the nurse is the sole care provider, and/or the nurse is a consultant or supervisor in a home or homelike setting; and/or failing to notify a supervisor in a timely manner that the assignment will not be done, and/or falsifying records to the effect that the missed nursing visit was indeed completed ; and/or
• Leaving the assigned patient care area and remaining gone/unavailable for a period of time such that the care of any/all patients may be compromised due to lack of available licensed staff.

The Board may impose sanctions on a nurse's license for actions that potentially place patients at risk for harm, or when harm has resulted because a nurse violated his/her duty to the client by leaving a patient care assignment in a manner inconsistent with the Board Rules.

Board Disciplinary Actions

Complaints of "patient abandonment" when it is obvious from the allegation that it is an employment issue will not be investigated by the Board. In these circumstances, however, both parties (the nurse and the employer) may be advised to strive for alternate solutions to avoid similar situations in the future.

Some general factors that would be considered in investigating a complaint of leaving an assignment by a nurse would include, but not be limited to:

• the extent of dependency or disability of the patient;

- stability of the patient;
- the length of time the patient was deprived of care;
- any harm to the patient/level of risk of harm to the patient;
- steps taken by the nurse to notify a supervisor of the inability to provide care;
- previous history of leaving a patient-care assignment;
- other unprofessional conduct in relation to the practice of nursing;
- general nurse competency regarding adherence to minimum nursing standards.

As with all allegations received by the Board, the alleged conduct by a nurse will be thoroughly investigated to determine what, if any, violations of the NPA and rules have occurred. If evidence of violations exists, the Board must then determine what level of sanction is appropriate to take on the nurse's license, and what specific stipulation requirements will be applied. Depending upon the case analysis, Board actions may range from the case being closed with no findings or action, all the way to suspension and/or revocation/voluntary surrender of the nurse's license.

Safe Harbor Peer Review:

If a nurse feels he/she is being asked to accept an assignment that would potentially cause the nurse to violate his/her duty to a patient, the nurse may be able to invoke "safe harbor," depending on whether or not the nurse's employer meets requirements that would make it mandatory for the employer to have a peer review plan in place. This is established in the NPA, Chapter 303 *Peer Review*, and in Rule 217.20 *Safe Harbor Peer Review and Whistleblower Protections*. Safe Harbor has two effects related to the nurse's license:

> (1) It is a means by which a nurse can request a peer review committee determination of a specific situation in relation to the nurse's duty to a patient; and
> (2) It affords the nurse immunity from Board action against the nurse's license if the nurse invokes Safe Harbor in accordance with Rule 217.20. For the nurse to activate this immunity status, the nurse must notify the assigning supervisor at the time the assignment request is made, and the nurse must submit the required information in writing as specified in Rule 217.20(d)(3)(A) or on the Board's Safe Harbor Quick Request Form.

Links to Related Articles (all of the following are located on the Board's web page):
- Safe Harbor Form http://www.bon.texas.gov/practice/safe.html
- FAQ on Overtime/Hours of Work http://www.bon.texas.gov/practice/faq-overtime.html
- FAQ on Peer Review http://www.bon.texas.gov/practice/faq-peerreview.html
- FAQ on Staffing Ratios http://www.bon.texas.gov/practice/faq-staffing.html
- FAQ on Floating http://www.bon.texas.gov/practice/faq-floating.html
- FAQ on When Does a Nurse's Duty to a Patient Begin and End
http://www.bon.texas.gov/practice/faq-nurseduty.html

(Adopted 01/2005; Revised 01/2006; 01/2007; 01/2009; 01/2011)
(Reviewed - 01/2008; 01/2010; 01/2012; 01/2013)

15.7 The Role of LVNs & RNs in Management and/or Administration of Medications via Epidural or Intrathecal Catheter Routes

Role of the LVN:

The LVN can provide basic nursing care to patients with epidural or intrathecal catheters. It is the opinion of the Board that the licensed vocational nurse shall not be responsible for the management of a patient's epidural or intrathecal catheter including administration of any medications via either epidural or intrathecal catheter routes. Management of epidural or intrathecal catheters requires the mastery of complex nursing knowledge and skills that are beyond the competencies of the vocational nursing program or a continuing education course.

Role of the RN:

The Board has determined that it may be within the scope of practice of a registered professional nurse to administer analgesic and anesthetic agents via the epidural or intrathecal routes for purposes of pain control. As with all areas of nursing practice, the RN must apply the Nursing Practice Act (NPA) and Board Rules to the specific practice setting, and must utilize good professional judgment in determining whether or not to engage in a given patient-care related activity.

The Board believes that only licensed anesthesia care providers as described by the American Society of Anesthesiologists and the American Association of Nurse Anesthetists, as authorized by applicable laws should perform insertion and verification of epidural or intrathecal catheter placement. Consistent with state law, the attending physician or the qualified provider must order the drugs, dosages, and concentrations of medications to be administered to the patient through the catheter. These interventions are beyond the scope of the registered professional nurse in that independent medical judgment and formal advanced education and skills training are required to achieve and maintain competence in performing these procedures.

RNs who choose to engage in administration of properly ordered medications via the epidural or intrathecal routes must have documentation that the RN has participated in educational activities to gain and maintain the knowledge and skill necessary to safely administer and monitor patient responses, including the ability to:

- Demonstrate knowledge of the anatomy, physiology, and pharmacology of patients receiving medications via the epidural or intrathecal routes;
- Anticipate and recognize potential complications of the analgesia relative to the type of infusion devise and catheter used;
- Recognize emergency situations and institute appropriate nursing interventions to stabilize the patient and prevent complications;
- Implement appropriate nursing care of patients to include:
    a) observation and monitoring of sedation levels and other patient parameters;
    b) administration and effectiveness of medication, catheter maintenance and catheter placement checks;
    c) applicable teaching for both patients and their family/significant others related to expected patient outcomes/responses and possible side effects of the medication or treatment; and
    d) knowledge and skill to remove catheters when applicable.

Appropriate nursing policies and procedures that address the education and skills of the RN and nursing care of the patient should be developed to guide the RN in the administration of epidural and/or intrathecal medications. RNs and facilities should consider evidence-based practice guidelines put forth by professional specialty organizations(s), such as the American Association of Nurse Anesthetists and the American Society of Anesthesiologists when developing appropriate guidance for the RN in a particular practice setting. For example, the Association of Women's Health, Obstetric and Neonatal Nurses' (AWHONN) has a clinical position statement on "The Role of the Registered Nurse in the Care of Pregnant Women Receiving Analgesia/Anesthesia by Catheter Techniques (Epidural, Intrathecal, Spinal, PCEA Catheters." This nationally recognized practice guideline states that it is beyond the scope of practice of the obstetrical nurse to institute or change the rate of continuous infusions via epidural or intrathecal catheters. The American Association of Nurse Anesthetists has a similar position.

The Board also encourages the use of the BON's "Six Step Decision Making Model for Determining Nursing Scope of Practice." Finally, standing medical orders approved by the medical and/or anesthesia staff of the facility should include, but not necessarily be limited to, the following:

1) The purpose and goal of treatment;
2) The dosage range of medication to be administered including the maximum dosage;
3) Intravenous access;
4) Treatment of respiratory depression and other side effects including an order for a narcotic antagonist;
5) Options for inadequate pain control; and
6) Physician/CRNA availability and back-up.

(LVN role: BVNE 1994; revised BON 01/2005) (RN role: BON 06/1991; revised 01/2003; 01/2004; 01/2005; 01/2011)
(Reviewed - 01/2006; 01/2007; 01/2008; 01/2009; 01/2010; 01/2012; 01/2013)

15.11 Delegated Medical Acts

In carrying out orders from physicians, podiatrists, or dentists for the administration of medications or treatments, nurses are usually engaged in the practice of vocational or professional nursing in accordance with the applicable licensure of the individual nurse. In carrying out some physician orders, however, LVNs or RNs may perform acts not usually considered to be within the scope of vocational or professional nursing practice, respectively. Such tasks are delegated and supervised by physicians, podiatrists, or dentists. RNs who lack authorization as advanced practice nurses in a specified role and specialty, and LVNs may not engage in "acts of medical diagnosis or prescription of therapeutic or corrective measures" [NPA, Section 301.002(2) and (5)] as these acts require independent medical judgment, which is beyond the scope of practice of the vocational or registered nurse.

In carrying out the delegated medical function, the nurse is expected to comply with the Standards of Nursing Practice just as if performing a nursing procedure. The Board's position is that a LVN or RN may carry out a delegated medical act if the following criteria are met:

1. The nurse has received appropriate education and supervised practice, is competent to perform the procedure safely, and can respond appropriately to complications and/or untoward effects of the procedure [refer to Standards in Rule 217.11(1)(C), (1)(T), (1)(G), (1)(M), (1)(N), and (1)(R)];

2. The nurse's education and skills assessment are documented in his/her personnel record;

3. The nursing and medical staffs have collaborated in the development of written policies/procedures/practice guidelines for the delegated acts, these are available to nursing staff practicing in the facility, and the guidelines are reviewed annually, if applicable;

4. The procedure has been ordered by an appropriate licensed practitioner; and

5. Appropriate medical and nursing back-up is available.

The Board recognizes that nursing practice is dynamic and that acts which today may be considered delegated medical acts may in the future be considered within the scope of either vocational or professional nursing practice. The Board, therefore, advises nurses that they must comply with the Board's Standards of Nursing Practice and any other applicable regulations when carrying out nursing and/or delegated medical acts.

(Board Action 09/1993;Revised: 03/1994; 01/2001; 01/2003; 01/2004; 01/2005; 01/2011)
(Reviewed - 01/2006: 01/2007; 01/2008; 01/2009; 01/2010; 01/2012; 01/2013)

15.12 Use Of American Psychiatric Association Diagnoses by LVNS, RNs, or APRNs

The Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnoses are multi-disciplinary psychiatric diagnoses used for the purpose of applying objective criteria, establishing a practice framework and communicating findings with other health care professionals. The current version, DSM-IV-TR (Fourth Edition, Text Revision) is anticipated to be replaced by the DSM-5 (Fifth Edition) in May of 2013.

In accordance with the Nursing Practice Act (NPA), Section 301.002(2) and (5), acts of medical diagnosis or prescription of therapeutic or corrective measures are beyond the scope of practice for licensed vocational nurses as well as registered nurses who are not Board authorized in an appropriate Advanced Practice Registered Nurse (APRN) role and speciality.

The use of DSM-IV diagnoses by a Registered Nurse recognized by the Board as an Advanced Practice Registered Nurse in the role and specialty of either a Clinical Nurse Specialist (CNS) in Psychiatric/Mental Health Nursing or as a Psychiatric/Mental Health Nurse Practitioner is authorized provided he/she is acting within the scope of his/her advanced practice role and specialty and that the diagnoses utilized are appropriate for the individual APRN's advanced education, experience, and scope of practice. APRNs must also utilize protocols or other written authorization when providing medical aspects of care in compliance with Rule 221"Advanced Practice Nurses." When patient problems are identified that are outside the CNS'/NP's scope of practice or expertise, a referral to the appropriate medical provider is indicated.

(Board Action, 09/1996; revised 01/2005; 01/2006: 01/2008; 01/2009; 01/2010; 01/2011)
(Reviewed - 01/2007; 01/2012; 01/2013)

15.14 Duty of a Nurse in any Practice Setting

In a time when cost consciousness and a drive for increasing productivity have brought about the reorganization and restructuring of health care delivery systems, the effects of these new delivery systems on the safety of clients/patients have placed a greater burden on the licensed vocational nurse (LVN) and the registered professional nurse (RN) to consider the meaning of licensure and assurance of quality care that it provides.

In the interest of fulfilling its mission to protect the health, safety, and welfare of the people of Texas through the regulation of nurses, the Board of Nursing (BON), through the Nursing Practice Act and Board Rules, emphasizes the nurse's responsibility and duty to the client/patient to provide safe, effective nursing care.

Specifically, the following portions of the Board Rules and supporting documents underscore the duty and responsibilities of the LVN and/or the RN to the client/patient:

- The Standards of Nursing Practice differentiate the roles of the LVN and the RN in accepting nursing care assignments, assuring a safe environment for patients, and obtaining instruction and supervision as needed (Rule 217.11); and

- In *Lunsford v. Board of Nurse Examiners*, 648 S.W. 2d 391 (Tex. App.--Austin, 1983), the court in affirming the disciplinary action of the Board, held that a nurse has a duty to the patient which cannot be superseded by hospital policy or physician's order.

    - This landmark case involved a gentleman who arrived to a rural hospital via private vehicle. The gentleman was experiencing severe chest pain, nausea, and sweating—all hallmark symptoms of myocardial infarction (heart attack). Nurse Lunsford was summoned to the ER waiting room by this gentleman's friend. Upon seeing the acute distress the man was experiencing and hearing his symptoms, she instructed his friend to drive the man to the nearest facility equipped to handle heart attack victims. This facility was 24 miles away. The man succumbed to the heart attack 5 miles away from the small hospital.

    - When the Board sought to sanction the nurse's license, the nurse maintained that the ER physician (who never saw the man) told her the man needed to be transported to the larger facility. The facility policy was also to transfer patients experiencing heart attacks (via ambulance) to the larger facility that was equipped to provide the broad range of therapies that might be needed.

    - The court sided with the BON and agreed that the nurse had the knowledge, skills and abilities to recognize the life-threatening nature of the man's symptoms. Because of this knowledge, the court maintained that it was the nurse's duty to act in the best interest of the client by assessing the man, taking measures to stabilize him and to prevent complications, and communicating his condition to other staff (such as the MD) in order to enlist appropriate medical care.

- The Board's Disciplinary Sanction Policies discuss expectations of all nurses regarding behaviors that are consistent with the Board's rules on Good Professional Character, §§213.27-213.29. These policies explain the client's vulnerability and the nurse's "power" differential over the client by virtue of the client's status (with regard to age, illness, mental infirmity, etc) and

by the nature of the nurse:client relationship (where the client typically defers decisions to the nurse, and relies on the nurse to protect the client from harm).

- The delegation rules guide the RN in delegation of tasks to unlicensed assistive personnel who are utilized to enhance the contribution of the RN to the client's/patient's well being. When performing nursing tasks, the unlicensed person cannot function independently and functions only under the RN's delegation and supervision. Through delegation the RN retains responsibility and accountability for care rendered (Rules 224 and 225). The Board may take disciplinary action against the license of a RN or RN administrator for inappropriate delegation.

- RNs with advanced practice authorization from the Board must comply with the same rules applicable to other RNs. In addition, rules specific to advanced practice nursing Chapters 221 & 222, as well as laws applicable to the APRN's practice setting that are outside of the BON's jurisdiction must also be followed.

- Each nurse must be able to support how his/her clinical judgments and nursing actions were aligned with the NPA and Board Rules. The Board recommends nurses use the Six-Step Decision-Making Model for Determining Nursing Scope of Practice when trying to determine if a given task is within the individual nurse's abilities. Congruence with standards adopted by national nursing specialty organizations may further serve to enhance and support the nurse's decision to perform a particular task.

The nurse, by virtue of a rigorous process of education and examination leading to either LVN or RN licensure, is accountable to the Board to assure that nursing care meets standards of safety and effectiveness.

Therefore, it is the position of the Board that each licensed nurse upholds his/her duty to maintain client safety by practicing within the parameters of the NPA and Board Rules as they apply to each licensee.

(Adopted 01/2005; Revised 01/2007; 01/2009)
(Reviewed - 01/2006; 01/2008; 01/2010; 01/2011; 01/2012; 01/2013)

15.17 Texas Board of Nursing/Board of Pharmacy, Joint Position Statement, Medication Error
Medication errors occur when a drug has been inappropriately prescribed, dispensed, or administered. Medication errors are a multifaceted problem which may occur in any health care setting. Consistent with their common mission to promote and protect the welfare of the people of Texas, the Texas Board of Nursing and the Board of Pharmacy issued this joint statement for the purpose of increasing awareness of some of the factors which contribute to medication errors. The Boards note that there are numerous publications available which examine the many facets of this problem, and agree that all elements must be examined in order to identify and successfully correct the problem. This position paper has been jointly developed because the Boards acknowledge the interdisciplinary nature of medication errors and the variety of settings in which these errors may occur. These settings may include hospitals, community pharmacies, doctors' offices/clinics, long-term care facilities, clients' homes, and other locations.

Traditionally, medication errors have been attributed to the individual practitioner. However, reports such as the recently published Institute of Medicine's "To Err Is Human: Building a Safer Health System," suggest the majority of medical errors do not result from individual recklessness, but from basic flaws in the way the health system is organized. It is the joint position of the Boards that a comprehensive and varied approach is necessary to reduce the occurrence of errors. The Boards agree that the comprehensive approach includes three major elements: (1) the individual professional's knowledge of practice; (2) resources available to the professional; and (3) systems designs, problems and failures. Each of these three elements of this comprehensive approach are discussed below.

Professional competence has long been targeted as a source of health care professional errors. To reduce the probability of errors, all professionals must accept only those assignments for which they have the appropriate education and which they can safely perform. Professionals must continually expand their knowledge and remain current in their specialty, as well as be alerted to new medications, technologies and procedures in their work settings. Professionals must be able to identify when they need assistance, and then seek appropriate instruction and clarification. Professionals should evaluate strengths and weaknesses in their practice and strive to improve performance. This ultimate accountability on the part of individual practitioners is a critical element in reducing the incidence of medication errors.

The second element (resources available to all professionals) centers on the concept of team work and the work environment. The team should be defined as all health care personnel within any setting. Health care professionals must not be reluctant to seek out and utilize each other as resources. This is especially important for the new professional and/or the professional in transition. Taking the time to learn about the resources available in any practice setting is the individual professional's responsibility, and can help decrease the occurrence of medication errors. Adequate staffing and availability of experienced professionals are key factors in the delivery of safe effective medication therapy. In addition, health care organizations have the responsibility to develop complete and thorough orientation for all employees, maintain adequate and updated policies and procedures as guidelines for practice, and offer relevant opportunities for continuing staff development.

Analysis of the third element (systems designs, problems and failures) may demand creative and/or innovative thinking specific to each setting as well as a commitment to guarantee client safety. Systems which may have been in place for a long period of time may need to be re-examined for effectiveness. New information and technological advances must always be taken into account, and input should be solicited from all professionals. In addition, the system should contain a comprehensive quality program

for the purpose of detecting and preventing problems and failures. The quality program must encourage all health care professionals to be alert for problems encountered in their daily tasks and to advocate for changes when necessary. In addition, the quality program should include a method of reporting all errors and problems within the system, a system for tracking and analysis of the errors, and an interdisciplinary review of the incident(s). Eliminating systems problems is vital in promoting optimal performance. The table on the following page, while not an exhaustive list, specifies areas which can be reviewed when medication errors occur. These areas encompass all three of the aforementioned contributing elements to the problem of medication errors and can be applied to individuals or systems. Communication is a common thread basic to all of these factors. Effective verbal or written communication is fundamental to successfully resolving breakdowns, either individual or system wide, that frequently contribute to medication errors.

The Boards agree that health care regulatory entities must remain focused on public safety. It is imperative that laws and rules are relevant to today's practice environment and that appropriate mechanisms are in place to address medication errors. The complex nature of the problem requires that there be a comprehensive approach to reducing these errors. It is vital to the public welfare that medication errors be identified, addressed, and reduced.

(Board Action 10/2000)
(Reviewed - 01/2005; 01/2006; 01/2007; 01/2008; 01/2009; 01/2010; 01/2011; 01/2012; 01/2013)

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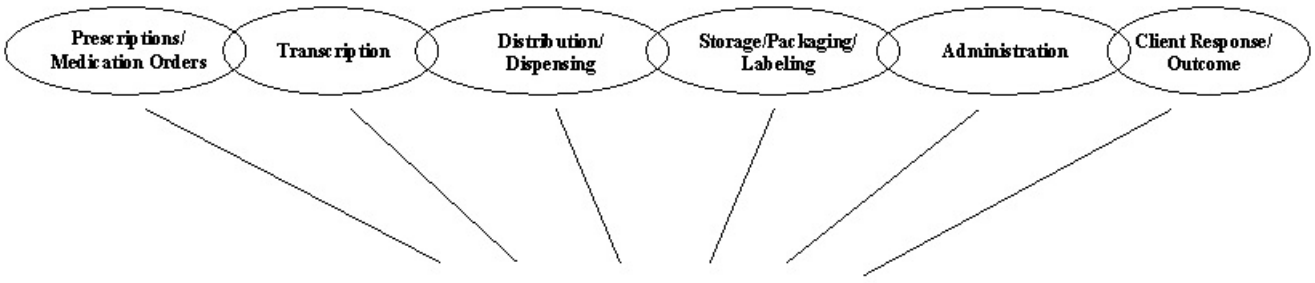
Leape, L. L. (1994). Error in medicine. Journal of the American Medical Association, 272(23), 1851-1857.
Nursing Practice Act, Texas Occupations Code, Chapters 301 and 303.
Texas Pharmacy Act, Texas Occupations Code, Chapters 551 - 566.

Position Statement 15.17 Table: Factors Contributing to Medication Errors



Schematization of a chain representing the interdependent nature of these elements; a weakness in any link impacts the entire system

Prescriptions/ Medication Orders	Transcription	Distribution/ Dispensing	Storage/Packaging/ Labeling	Administration	Client Response/Outcome
* Accurate assessments/ diagnoses * Awareness of allergies, contraindications, and drug reactions/ interactions * Correct drug/dose/ route of administration * Clear and legible documentation of order	* Clarification of orders (written/verbal) if needed * Clear and legible handwriting * Accurate and complete transcription (e.g. MAR, Kardex, Computer) * Proofreading of all transcriptions	* Clarification of orders if needed * Correct client/drug/ dose/route * Checking expiration dates * Medication preparations (mixing of intrave- nous solutions, correct pill count) * Clear and legible audit trail * Client teaching and verification of understanding	* Careful review of instructions for use/ warnings/precautions * Checking expiration dates * Storage to avoid inadvertent mixups/ location of bottles which are similar in appearance * Accurate/legible and complete labeling on original containers * Careful attention to floor stock expiration dates/mixing instructions	* Assessment of client status * Five rights of medication administration - Right patient - Right medication - Right Dose - Right time - Right route * Client teaching and verification of understanding * Accurate documen- tation of medication administration (MAR/client records/narcotics log)	* Assessment of efficacy /adverse reactions * Client compliance * Documentation

15.18 Nurses Carrying out Orders from Advanced Practice Registered Nurses

Advanced practice registered nurses (APRNs) are registered nurses who hold licensure from the board to practice as advanced practice registered nurses based on completion of an advanced educational program acceptable to the Board. The term includes a nurse practitioner, nurse-midwife, nurse anesthetist, and a clinical nurse specialist. The advanced practice registered nurse is prepared to practice in an expanded role to provide health care to individuals, families, and/or groups in a variety of settings, including, but not limited to, homes, hospitals, institutions, offices, industry, schools, community agencies, public and private clinics, and private practice. The advanced practice registered nurse acts independently and/or in collaboration with other health care professionals in the delivery of health care services. Advanced practice registered nurses utilize mechanisms, including Protocols or other written authorization, that provide them with the authority to provide medical aspects of care, including the ordering of dangerous drugs, controlled substances, or devices that bear or are required to bear the legend: "Caution: federal law prohibits dispensing without a prescription" or "RX only" or any other legend that complies with federal law. The Protocols or other written authorization may vary in complexity based on the educational preparation and advanced practice experience of the individual advanced practice registered nurse. Protocols or other written authorization are not required to describe the exact steps that an advanced practice registered nurse must take with respect to each specific condition, disease, or symptom. Protocols or other written authorization are not required for nursing aspects of care.

The Board recognizes that in many settings, nurses and advanced practice registered nurses work together in a collegial relationship. A nurse may carry out an advanced practice registered nurse's order in the management of a patient, including, but not limited to, the administration of treatments, orders for laboratory or diagnostic testing, or medication orders. A physician is not required to be physically present at the location where the advanced practice registered nurse is providing care. The order is not required to be countersigned by the physician. The advanced practice registered nurse must function within the accepted scope of practice of the role and specialty in which he/she has been authorized by the Board.

As with any order, the nurse must seek clarification if he/she believes the order is inappropriate, inaccurate, nonefficacious or contraindicated by consulting with the advanced practice registered nurse or the physician as appropriate. The Nurse carrying out an order from an advanced practice registered nurse is responsible and accountable for his/her actions just as he/she would be with any physician order.

(Board Action, 01/2001; Revised 01/2005; 01/2009; 01/2012)
(Reviewed - 01/2006; 01/2007; 01/2008; 01/2010; 01/2011; 01/2013)

15.19 Nurses Carrying out Orders from Pharmacists for Drug Therapy Management

In response to Senate Bill 659 enacted in 1995 during the 74th Legislative Session, the Texas State Board of Pharmacy and the Texas Medical Board (TMB) entered into a joint rule-making effort to delineate the processes by which a pharmacist could engage in drug therapy management (DTM) as delegated by a physician. The result of this joint effort was the adoption of rules by both the Pharmacy Board [22 TAC §295.13, 1997], and the Texas Medical Board's [22 TAC §193.7, 1999]. The Texas Medical Board amended its rules subsequent to the adoption of §157.101 *Delegation to Pharmacist,* in the Medical Practice Act during the 76th Legislative Session (1999).

According to definitions listed in the Pharmacy Act [Tex. Occ. Code Ann. § 551.003], the "Practice of Pharmacy" includes *"(F) performing for a patient a specific act of drug therapy management delegated to a pharmacist by a written protocol from a physician licensed in this state in compliance with Subtitle B."* The Pharmacy rules further define DTM as *"the performance of specific acts by pharmacists as authorized by a physician through written protocol." [22 TAC § 295.13(b)(4)]*. Rule 295.13(b)(6) further adds the clarification that a *"written protocol [is] a physician's order, standing medical order, standing delegation order, or other order or protocol as defined by rule of the Texas Medical Board under the Medical Practice Act."* The TMB's Rule [22 TAC §§ 193.7] reflects similar language to the Pharmacy Board rules.

Nurses frequently communicate and collaborate with both the client's physician and the pharmacist in providing optimal care to clients. It is, therefore, the Board's position that a nurse may carry out orders written by a pharmacist for DTM provided the order originates from a written protocol authorized by a physician. Any nurse carrying out DTM orders from a pharmacist may wish to review the TMB Rule193, *Physician Delegation*, in its entirety. The components of the rule related to physician delegation for a pharmacist to engage in DTM are set forth in §193.7(e) as follows:

(1) A written protocol must contain at a minimum the following listed in subparagraphs (A)-(E) of this paragraph:

(A) a statement identifying the individual physician authorized to prescribe drugs and responsible for the delegation of drug therapy management;

(B) a statement identifying the individual pharmacist authorized to dispense drugs and to engage in drug therapy management as delegated by the physician;

(C) a statement identifying the types of drug therapy management decisions that the pharmacist is authorized to make which shall include:

(i) a statement of the ailments or diseases, drugs, and type of drug therapy management authorized; and

(ii) a specific statement of the procedures, decision criteria, or plan the pharmacist shall follow when exercising drug therapy management authority;

(D) a statement of the activities the pharmacist shall follow in the course of exercising drug therapy management authority, including the method for documenting decisions made and a plan for communication or feedback to the authorizing physician concerning specific decisions made. Documentation shall be recorded within a reasonable time of each intervention and may be performed on the patient medication record, patient medical chart, or in a separate log book; and

(E) a statement that describes appropriate mechanisms and time schedule for the pharmacist to report to the physician monitoring the pharmacist's exercise of delegated drug therapy management and the results of the drug therapy management.

(2) A standard protocol may be used, or the attending physician may develop a drug therapy management protocol for the individual patient. If a standard protocol is used, the physician shall record, what deviations if any, from the standard protocol are ordered for that patient (22 Tex. Admin. Code §193.7(e)).

The protocol under which a pharmacist initiates DTM orders for a patient should be available to the nurse at the facility, agency, or organization in which it is carried out. As with any order, the nurse must seek clarification if he/she believes the order is inappropriate, inaccurate, nonefficacious or contraindicated by contacting the pharmacist and/or the physician who authorized the DTM protocol as appropriate (22 Tex. Admin. Code §217.11(1)(N)). The nurse carrying out an order for DTM written by a pharmacist is responsible and accountable for his/her actions just as he/she would be with any physician order.

(Board Action 01/2002; revised 01/2005; 01/2006; 01/2007; 01/2011)
(Reviewed - 01/2008; 01/2009; 01/2010; 01/2012; 01/2013)

15.21 Deleted 01/2005

15.22 APRNs Providing Medical Aspects of Care for Themselves or Others with Whom there is a Close Personal Relationship

Advanced Practice Registered Nurses often find themselves in situations where they may feel compelled to provide medical aspects of care or prescribe medications for themselves, their family members, or other individuals with whom they have a close personal relationship. Such practices raise a number of ethical questions. The Board is concerned that advanced practice registered nurses in these situations risk allowing their personal feelings to cloud their professional judgment and objectivity. It is the opinion of the Board of Nursing that advanced practice registered nurses should not provide medical treatment or prescribe medications for themselves or any individual with whom they have a close personal relationship.

(Board Action 10/2003; 01/2009)
(Reviewed - 01/2006; 01/2007; 01/2008; 01/2010; 01/2011; 01/2012; 01/2013)

15.26 Simulation in Prelicensure Nursing Education

Simulation, in some form, has been used as a teaching strategy in nursing education since the first nurse tried to teach the first nursing student how to task properly (Jeffries & Rizzolo, 2006). Recently, however, high-fidelity simulation, with the increased level of sophistication and realism it brings to the laboratory setting, has elicited the possibility of simulation being used as a substitute for actual clinical experience (NCSBN, 2009). These technological advances combined with other factors, including shortages of available clinical sites, faculty shortages, national mandates for safety, and the complexity of today's health care environment, have led many Texas nursing programs to consider utilizing simulation to fulfill clinical needs in the curriculum. The Texas Board of Nursing ("Board" or "BON") has put forth this position statement in an effort to clarify the role and limitations of simulation in prelicensure nursing education so that educators can best develop simulation programs that are educationally sound and meaningful.

Overview of Simulation

The National Council of State Boards of Nursing (NCSBN) Position Paper, *Clinical Instruction in Prelicensure Nursing Programs (2005)*, has defined simulation as "Activities that mimic the reality of a clinical environment and are designed to demonstrate procedures, decision-making and critical thinking through techniques such as, role-playing and the use of devices such as interactive videos or mannequins. A simulation may be very detailed and closely imitate reality, or it can be a grouping of components that are combined to provide some semblance of reality" (p. 2).

Benefits and limitations of Simulation

The benefits of simulation are well documented:

- Simulation allows deliberate practice in a controlled, safe environment. Students are able to practice a procedure prior to performance on a live patient (Jeffries, 2007).
- Simulation promotes active learning and participation, to enhance students' critical thinking skills (Billings & Halstead, 2005).
- Educators can apply well-founded simulation approaches not only to help students in clinical rotations to attain educational goals, but also to evaluate teaching methods, as well as to investigate alternatives to the goals and methods themselves (Kyle & Murray, 2008).
- Simulation can be used to demonstrate competence outcomes in nursing programs (Luttrell, Lenburg, Scherubel, Jacob, & Koch, 1999).
- Simulated experiences offer the opportunity for diverse styles of learning not offered in the classroom environment and can result in an increase in confidence felt by the student (Jeffries & Rizzolo, 2006).

Despite these benefits, limitations to the use of simulation also exist. Preliminary studies indicate that, although simulation helps prepare students for real clinical practice, it cannot substitute for the hands-on care to live patients. Nurse educators must consider whether technology can address communication, interpersonal interaction, compassionate caring, and nursing understanding (Issenberg, Gordon, Gordon, Safford, & Hart, 2001). The NCSBN holds the position that simulation shall not take the place of clinical experiences with actual patients (NCSBN, 2005). The American Association of Colleges of Nursing (AACN) also holds that simulation should be used as an adjunct or complement to, not a substitute for, clinical experiences with real patients, and direct patient care experiences provide important opportunities for student learning not found in other experiences (AACN, 2008).

Types of Simulation

When discussing simulation, it is important to understand the concept of fidelity. Fidelity is the term utilized in the simulation domain to describe the degree of accuracy of the system being used. The

purpose of simulation is to be realistic in a manner adequate to convince the user that the scenario performed resembles real-life. Fidelity can be divided into three categories: low, moderate, and high-fidelity. Low-fidelity allows the user to practice skills in isolation. Examples include administration of an intramuscular injection into an orange or injection pillow. Moderate-fidelity offers more realism, but does not have the user completely immersed in the situation. Examples include a manikin with breath sounds but no corresponding chest rise. High-fidelity simulation refers to structured learning experiences with computerized manikins that are anatomically precise and reproduce physiologic responses. The environment mimics the clinical setting, and provides the user with the cues necessary to suspend their disbelief during the immersive, hands-on scenarios (NCSBN, 2009). High fidelity units must not only have the physical appearance of reality (cosmetic fidelity) but must also react in realistic ways to student interactions (Seropian, Brown, Gavilanes, & Driggers, 2004).

Computer based simulation involves the use of software developed to simulate a subject or a situation in order to test various aspects of learning such as knowledge, skills, and critical thinking. The software may be of low, moderate, or high-fidelity. Task and skill trainers are the most common type of simulation in nursing education. These trainers are designed to allow students to practice skills and techniques. Task trainers also vary in fidelity, ranging from low- fidelity static body models (such as a rubbery IV arm) to high-fidelity virtual reality trainers. Full scale high-fidelity simulation, the most recognized form of simulation in nursing education today, attempts to recreate all the elements of real life clinical situations. This type of simulation typically involves the use of full body computerized manikins, real people, real interactions, and realistic responses in an environment that is made to resemble the clinical environment as closely as possible in order to immerse learners in an experience that mirrors real life (Seropian et al., 2004).

Components of Effective Simulation

Integral components of a successful simulated learning experience identified in the professional literature include: the educator or preceptor, the student(s), key educational practices, and the simulated environment. The simulation must challenge the student to use problem solving skills and critical thinking to assess the situation and determine the correct treatment path. The educator should act as a facilitator providing cues when necessary, but not as an active participant in the simulation. It is important, however, for the facilitator to intervene when a catastrophic outcome is imminent. Unless the objectives specifically call for death, as in an end of life situation, the scenario should end with a viable patient (Jeffries, 2007; Kyle & Murray, 2008). Each simulated experience must have clearly stated objectives that are presented to the student prior to engaging in the simulation experience. Students are required to prepare for a clinical simulation experience in the same manner as they would prepare for an actual patient care experience. An orientation to both the simulation technology and the environment is required. The educator assumes the role of facilitator, providing cues when necessary, but is not an active participant in the simulation. The educator and the student should participate in an active debriefing immediately following the simulation experience. Each simulation session should also include an evaluation of the overall experience by both the educator and student (Jeffries, 2007).

The Texas Board of Nursing's Position on Simulation

The fact that simulation provides a valuable adjunct to traditional clinical learning experiences is well documented. However, while emerging research clearly supports the use of simulation in nursing education, the evidence has not been established to support the use of simulation as a direct substitute for clinical learning experiences with real patients. Nor has evidence been established for parameters regarding the amount of time that can be or should be spent in simulated experiences. Therefore, the Texas Board of Nursing has not promulgated percentages or ratios of simulation versus actual clinical learning education. Nursing education should be based on sound educational principles, and accordingly there should be a reasonable balance between simulation and direct patient care and with rationale,

which are clearly appropriate for the study of vocational/professional nursing.

The BON believes that simulation can be an effective teaching method to prepare students for clinical practice when used in combination with traditional skills lab practice and direct patient care experiences. However, simulation cannot replace experiences with real patients, role models, and mentors in the traditional clinical setting (Knight, 1998). In order to satisfy the Board rule requirements for clinical learning experiences promulgated in Chapters 214: Vocational Nursing Education and 215: Professional Nursing Education, and to appropriately incorporate simulation into nursing curricula, educators must be cognizant of the following criteria:

- Nursing education programs shall include clinical education experiences with actual patients that are sufficient to meet program outcomes as well as rule requirements found in Chapters 214 and 215.
- Nursing education programs shall include clinical learning experiences with actual patients that are across the life span.
- Clinical education experiences (including simulated experiences) should be supervised by qualified faculty as defined in Chapters 214 and 215.
- Faculty members retain the responsibility to demonstrate that programs have clinical experiences with actual patients that are sufficient to meet program outcomes.
- Additional research needs to be conducted on the use of simulation in prelicensure nursing education and clinical competency.

The BON recommends that nursing programs adhere to the guidelines put forth in this position statement to ensure that students receive optimal learning experiences.

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(Adopted: 07/2010)
(Reviewed: 01/2011; 01/2012; 01/2013)