Introduction
The educational training of a nurse begins with the concept of critical thinking, to create a plan of care. These care plans provide a road map for the treatment team to follow, and serve to prevent important issues from being neglected. The care plan is composed of the main elements of the Nursing Process. Once a comprehensive assessment is complete, a problem list is identified that includes the patient’s strengths and barriers to optimal outcome. The problem list not only includes the physician diagnoses of disease, but also the nursing diagnoses of the response the individual, family, or community has to the actual or potential health problem, or life process. Nurse Life Care Planners use this care planning process over a continuum of the injured person’s lifetime for current and future needs, with associated costs, for individuals who have experienced injury or have chronic health care needs.

The Nursing Process
Independent nursing actions are based upon the foundation of clinical nursing, the nursing process. The building blocks of the nursing process are: assessment, a diagnostic statement, identification of expected outcomes, development of a plan to achieve outcomes, implementation of the plan, and evaluation of the effectiveness of the plan. The following briefly describes the components of the nursing process.

In assessment, the nurse completes a comprehensive review of data and health history, a review of the systems, and often a physical exam/assessment. The assessment data will fall into two categories, objective and subjective. Objective data are the physical exam, and diagnostic findings. Subjective data is the patient’s personal perspective of their problems, and includes their biological, social, spiritual, and psychological response to their illness or injury.

Once the patient’s clinical status has been determined, a diagnostic statement is developed. The nurse uses his/her professional judgment in determining the nursing diagnosis. The data collected, reveals the patient’s ability to meet basic needs, in the various health categories or domains, and identifies what interventions/recommendations the nurse can provide that will assist the patient in achieving their highest level of function. Potential complications that impede function in any health category or domain are identified by the words “at risk for”. The terminology in the nursing diagnosis doesn’t state the need, it states the problem. Example: “Risk for aspiration” is used in place of “choking”.

The outcome identification in the nursing process is derived from the nursing diagnosis. These are the short term and long term goals that are expected to be achieved. Goals are measurable, and patient behavior focused. In the nursing diagnosis “Risk for aspiration”, the expected outcomes may include such recommendations as: patient tolerates 250ml of tube feeding, respiratory secretions are clear and odorless, patient has normal bowel sounds, patient’s temperature and white blood cell count remain normal, etc.

The plan of care is the nurse’s written plan of action. It documents the scientific method used in the nursing process. Contained in the plan of care is: the nursing diagnosis, expected outcomes, and nursing interventions/recommendations, giving a clear guideline to the role of each member of the team providing care.

Independent and/or dependent interventions/recommendations are those actions the nurse implements/recommends to resolve the patient’s nursing problems and meet health care needs. Independent interventions/recommendations, not requiring a physician order, include for instance, patient teaching, health promotion, and assistance with activities of daily living. Dependent interventions are based upon instructions from a physician or other professional. Interventions/recommendations for the nursing diagnosis “Risk for aspiration” may include; respiratory assessment every four hours for signs of aspiration, monitor for alterations in neurological status that may affect oral intake, monitor vital signs to detect signs of impaired gas exchange, suction as needed to keep airway clear, assess gag and swallow reflex, etc.

The evaluation phase of the nursing process assesses the effectiveness of the plan of care. It determines if the patient has received a high level of care. The patient response to the interventions is examined, and in the event of a poor response, alternate nursing diagnoses, interventions/recommendations are identified. The plan is then modified and re-evaluated. This process is ongoing and occurs as needed.
The Nursing Diagnosis

The nursing diagnosis does not treat disease conditions, but implements a plan of interventions to address the human response to health conditions. Nursing diagnoses provide the basis for selection of nursing interventions to achieve outcomes for which the nurse is accountable." (NANDA, 1990). The Nursing Diagnosis element of the Nursing Process is researched and evidence based in identifying those conditions accountable to nursing.

The American Nurses Association (ANA) in its 1973 publication Standards of Nursing Practice mentioned nursing diagnosis as a separate and definable act performed by the registered nurse. In 1991, the ANA published its revised standards of clinical practice, which continued to list nursing diagnosis as a distinct step of the nursing process. In 1973, the North American Nursing Diagnosis Association (NANDA) began a formal effort to classify nursing diagnoses. NANDA was the first nursing classification to be recognized by the American Nurses Association. The ANA has recognized NANDA as the nursing organization responsible for developing and maintaining a nursing diagnosis classification. In 1982, NANDA International was formed. As of 2005-2006, there are 167 NANDA International approved nursing diagnoses. Each nursing diagnosis provides a description of a patient problem that the nurse can legally manage.

Nurse Practice Act

Nursing licensure was proposed in 1899, and the first State to enact licensure law was North Carolina in 1905. Nurses are licensed through each individual State, and the Nurse Practice Act varies from State to State. Yet, each State defines the practice of professional nursing based upon adherence to National professional standards and State standards. In approximately two thirds of States, nurse practice acts use the term "diagnosis". This carries an important legal implication. It can be argued that nurses who practice in states that include nursing diagnosis as part of the responsibilities of the registered nurse are obligated legally to derive and document nursing diagnoses for the clients they serve.

Nurse Life Care Plans

Nurses have practiced in a variety of settings outside of the hospital including rehabilitation, home health care, and case management. Rehabilitation nurses and nurse case managers have played an integral part in the rehabilitation of catastrophically injured patients. Nurse case managers have learned to perform an assessment of the injured person's home and their ability to access the community, facilitate equipment recommendations and replacement of worn or ill fitting items, provide resource options for treatment goals, and serve as an educator to the patient and the legal community.

Nurse Life Care Planning utilizes the Nursing Process in the collection and analysis of comprehensive client specific data, pertinent to the situation, in the preparation of a dynamic document that provides an organized, concise plan of estimated reasonable and necessary current and reasonably certain to be necessary future healthcare needs with associated costs for individuals who have experienced injury or have chronic healthcare needs. Nurse Life Care Planners work within their individual State’s professional scope of practice and, wherever necessary, incorporate the collaborative opinions of various health care providers into the life care plan. The Nurse Life Care Plan is considered a flexible document and is evaluated and updated as needed.

This definition of a Nurse Life Care Plan is provided by the American Association of Nurse Life Care Planners and clearly demonstrates that the Nurse Life Care Plan is a continuation of the nursing process over the continuum of an injured person’s lifetime. The Nursing Process provides a researched and evidence based critical thinking model that helps define the Nurse Life Care Planner’s professional practice and serves as the ultimate foundational tool in supporting recommendations made in the plan.

2 Ibid.
4 Ibid.
7 Ibid.
NURSING DIAGNOSES in SPINAL CORD INJURY LIFE CARE PLANS

Spinal Cord Injury is a complex situation requiring individualized rehabilitation interventions. Nurses developing Spinal Cord Injury Life Care Plans have the opportunity to include selected nursing diagnoses into their plan, addressing these individualized needs. NANDA International Nursing Diagnoses: Definitions and Classification lists new and revised nursing diagnoses. Examples of nursing diagnoses used in Spinal Cord Injury Life Care Plans may include:

- **Ineffective Airway Clearance**
  Weakness of the respiratory muscles in individuals with T12 injury, or above, may result in occurrences of pneumonia. Nursing interventions in the Life Care Plan may include assistance with positioning to facilitate lung expansion and ventilation, ensuring optimal coughing and deep breathing, provision of adequate humidification, suctioning, monitoring of weight, sufficient hydration, and monitoring of sputum secretions.

- **Impaired Skin Integrity**
  Individuals with spinal cord injury may have a decreased tolerance to sitting and a predisposition to shearing injuries. Nursing interventions for possible inclusion in the Life Care Plan are: routine skin inspection, frequent position changing and proper positioning to avoid skin injury, use of preventative skin care devices, use of positioning equipment to avoid shearing force, monitoring of nutritional intake, and promotion of clean and dry skin.

- **Chronic Pain**
  Causes of pain may be musculoskeletal located in an upper extremity, neuropathic pain which is a complex situation, or visceral pain caused by kidney stones, gallbladder stones, or appendicitis. Nursing interventions may vary dependent upon the cause of pain. Intervention options for consideration in the Life Care Plan include: promotion of proper body positioning, medication adjuncts (massage, relaxation techniques, bathing, repositioning, heat or cold if indicated), promotion of uninterrupted sleep to prevent or decrease fatigue, positioning aids to reduce muscle spasm or redistribute pressure on body parts, and activity options to provide distraction and help the individual focus on non pain related issues.

- **Bowel Incontinence**
  Individuals with a spinal cord lesion at or below T12 to L1 have a flaccid bowel resulting in fecal incontinence and fecal retention. Nursing interventions for a bowel program, described in the Life Care Plan, may include equipment items such as a commode, personal assistance for transfer and skin care, and supplies such as suppositories, gloves, lotions and creams, and protective clothing.

- **Total Urinary Incontinence**
  Neurogenic bladder, a complication of spinal cord injury, requires a bladder management program to preserve the upper urinary tract, and storage and evacuation pressures. Nursing interventions in the Life Care Plan may include: assistance with indwelling catheters, suprapubic catheters, external catheters, urinals, and incontinence aids. The intervention goals prevent skin breakdown by keeping the urine away from the skin, inhibiting infection, reduce drainage pooling, eliminate reflux urine into the bladder, and avoiding tension on the bladder and sphincter.

- **Impaired Physical Mobility**
  The ability to be mobile is an integral component in spinal cord injury rehabilitation. Mobility assists in maintaining muscle strength and range of motion. Mobility helps prevent contractures, thrombus formation, skin breakdown, and respiratory complications. Nursing interventions which may be included in the Life Care Plan include; range of motion, turning and positioning using positioning aids, and equipment to aid in mobility (trapeze, side rails, transfer board, lift systems, scooters, walker, cane, etc.)

These diagnoses are not to be considered, by the reader, as all-inclusive, rather options for consideration.
Conclusion
The nurse Life Care Planner possesses unique, critical and foundational practice tools to support the recommendations in the Life Care Plan, through utilization of the researched and evidence based Nursing Process, and the Nursing Diagnoses supporting the interventions/recommendations. The Nurse Life Care Planner recognizes that nursing diagnoses do not treat disease conditions, but are part of the process in implementing a plan of interventions/recommendations to address the human response to health conditions.

About the Author
Kathleen Voucher RN CCM CNLCP LNCC has practiced as a Registered Nurse for 29 years. She has been a Certified Nurse Life Care Planner since 2000. Kathleen is currently employed as division manager for Advanced Practice Consulting providing life care plans and legal nurse consulting to the medical/legal community. She is a member of AANLCP, AALNC, CISA, and NANDA. Kathleen has served as AANLCP Board Secretary since 2004.

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