Nursing diagnoses for a client with pulmonary emphysema and community-acquired pneumonia, according to Imogene King's conceptual model, and the Taxonomy II, North American Nursing Diagnosis Association (NANDA): case study.

SILVA, Myria Ribeiro*
OLIVEIRA, Patrícia Peres**
SANTOS, Eduarda Ribeiro***
RODRIGUES, Adriana Silva***

Introduction: Pulmonary emphysema is a chronic obstructive pulmonary disease (COPD), characterized by abnormal and permanent dilation of air distal spaces of end bronchioles, with destruction of their walls, thus causing a progressive and irreversible obstruction of the air flux. The main symptoms include dyspnea and weight loss, with tabagism among the risk factors, representing 80% to 90%. Pneumonia is a consequence of the inflammatory process of the pulmonary parenchyma or tissues, primary or secondary to another pathology, with infectious origin or not. In this particular client, her age and the presence of COPD increased the susceptibility to pneumonia. The nursing process is the application of the scientific method; it provides for professional improvement; it improves care quality and increases professional satisfaction. Its steps encompass assessment, diagnosis, planning, implementation and evaluation. The nursing diagnosis is a clinical judgement of the individual’s, the family’s, and the community’s responses to actual or potential (risk) health problems, and to the vital processes that make the foundation to select nursing interventions to achieve the outcomes the nurses are responsible for (NANDA, 2004). The nurse has to offer a systematic, individualized, and humane nursing care to the admitted clients by meeting their needs, developing selfcare if possible to improve the clients’quality of life based on technical-scientific knowledge. Nurses are permanently in search for alternatives for nursing problems’ resolutions. The use of a scientific method demands the development of critical thinking skills. This is a cognitive process
that requires the analysis of all possible information; it involves a formulation ability, an idea, and a conclusion; it demands practice and time, a process which allows the nurse to use the following criteria to develop this skill: questions designing to justify the causes of the eventual situations; survey of the necessary information to consider all the involved aspects; checking of the obtained information; information analysis to arrive at a conclusion; flexibility and consideration of the relevant facts; assessment of advantages and disadvantages of all available options, all these after a critical reflection to make a decision. For an effective use of the Nursing Process there must be an adjustment to a Nursing Theory. Here, we decided to adjust it to the Imogene King’s theory, which aims at goal achievement, and has the open system structure as its origin. The nursing focus is the care of individuals, and its goal is the individual’s health and group care. Nursing phenomena are organized into three interaction systems: personal (individual, holistic, perception, self, body image, space, time, learning); interpersonal (interaction, communication, transaction, role, stress); social (families, religious groups, educational system, occupational group, friends). King developed the theory of goal achievement from concepts and systems of her previously referred conceptual framework by reminding the need of an interaction between the social systems (nurse-client), where both act based on common agreement. Some factors may influence the interpersonal interaction, such as the nurse’s and the client’s perceptions, that is, how each one perceives their own reality; their goals, needs and values which can be different, even inconsistent; the right to know themselves; the right to participate in the decision-making processes that influence their lives and the community services; the right to accept/reject care. Professionals must share information which help individuals to make their own decisions. King, thus, understands the client individually, holistically and perceptively, and there must have nurse-client interaction. Either in theory and practice they have objectives, and their aim is to adjust the stress agents and minimize them the most.

**Objectives:** To identify the main nursing diagnoses for this client, admitted to a Public General Hospital in the *Grande São Paulo*, based on the North American Nursing Diagnosis Association (NANDA), Taxonomy II, at the light of Imogene King’s theoretical framework. **Methodology:** a descriptive study, with a quantitative approach. Data were collected from Spetember to October 2006,
when the investigation was carried out based on King’s theory. The case study involved AMO, 73 years old, female, Caucasian, from Bahia State, literate, evangelical, retired, widow, a mother of 12 children, with only 4 of them alive. She presently lives with two children. She has smoked since she was 12 years old, about three packets a day; she reports quitting smoking two years ago. She gets the minimum wage a month as a retired worker, and counts on the family help of one minimum wage more. She reports air shortage and cough for thirty years, when she had a diagnosis of pulmonary emphysema. She has had home usage of Ranitidina 150mg twice a day, morning and evening; Predinisona 20 mg once a day in the morning; Floratil 12mcg, twice a day, morning and evening; Amitripilina 25mg once a day in the evening, and oxygen, 3l/min. Referred with a medical diagnosis of pulmonary emphysema and typical community-acquired pneumonia. With data collection we aimed at the identification of the nursing diagnoses, and an interaction with the client to set common goals to achieve the same outcomes. Results: The following diagnoses were surveyed: Ineffective Respiratory Pattern, characterized by dyspnea; use of accessory muscles; increased antero-posterior diameter; respiratory rate of 26 to 32 ipm, related to fatigue; hyperventilation related to pulmonary emphysema, and pneumonia. Ineffective Protection, characterized by dyspnea; inappropriate food ingestion; respiratory alkalosis, related to immunosuppression, use of corticosteroids, hemoglobin level of 0,7 to11,2 mg/dl. Impaired Gas Exchange, characterized by a respiratory rate of 26 to 32 ipm; use of accessory muscles; pH=7.46 to 7.76; pO2=82.7 mmHg to 115.8 mmHg; pCO2=38.8 mmHg to 28.7 mmHg; HCO3-=20.2 to 6.6 mmol/l, related to impaired oxygen exchange through the alveolar and capillary membrane, and to unbalanced ventilation/perfusion. Nutrition, altered: Less than body requirements, characterized by weight loss of 5 kg/month; perceived inability to ingest food; pale conjunctive and mucosa membranes; age-related oral mucositis, use of corticoids, and severe dyspnea. Tissue Perfusion Altered: Cardiopulmonary, characterized by respiratory rate of 26 a 32 ipm; use of accessory muscles; pH=7.46 to 7.76; pO2=82.7 mmHg to 115.8 mmHg; pCO2=38.8 mmHg to 28.7 mmHg; HCO3-=20.2 to 26.6 mmol/l, related to impaired oxygen exchange through the alveolar and capillary membranes, and hemoglobin level of 10.7 to 11.2 mg/dl. Anxiety, characterized by expressed
concerns; insomnia; apprehension and agitation, related to changes in health condition and in role function. **Ineffective Airway Clearance**, characterized by dyspnea; crackles and wheezes in both lungs; extremity cyanosis; respiratory rate of 26 to 32 ipm, related to pulmonary emphysema and pulmonary infection. **Chronic Pain**, characterized by altered sleep pattern; verbal report; fatigue; altered capacity to maintain previous daily activities, related to COPD and pneumonia. **Fatigue**, characterized by dyspnea on minimum exertion; inability to maintain the daily routine; increased corporal needs, related to poor nutrition, pulmonary emphysema, pneumonia and anemia. **Activity Intolerance**, characterized by fatigue; dyspnea on minimum exertion, related to hemoglobin levels of 0.7 to 11.2 mg/dl, unbalance between oxygen supply and demand; weight loss of 5 kilos/month. **Disturbed Sleep Pattern**, characterized by expressed complaint of difficulties to fall asleep; five awakening episodes a night; poor sleeping, related to dyspnea, noise, anxiety and fatigue. **Altered oral membranes**, characterized by vesicules; white plaques, and pseudomembrane, related to immunosuppression, corticosteroid use, mouth breathing, poor nutrient ingestion. **Constipation**, characterized by decreased bowel sounds, and reports of lack of bowel movements for four days, related to poor food ingestion, poor feeding habits, decreased physycal activity, use of antidepressants. **Risk of falls**, related to aging (73 years old), low hemoglobin levels, use of tricyclic antidepressant. **Deficient fluid volume**, characterized by weakness; decreased skin turgor; weight loss of 5 kilos a month, related to poor fluid ingestion and lack of regulatory mechanisms. **Selfcare deficit: Bath and hygiene, dressing and grooming**, characterized by inability to get in and out of bed, related to fatigue, dyspnea, anemia, chronic pain. **Impaired Social Interaction**, characterized by percieved and reported inability to belonging, caring, getting interested, and sharing her life story, related to impaired physical mobility, and environmental barriers. **Selfcare deficit: Dressing and grooming**, characterized by inability to get in and out of bed, related to fatigue, dyspnea, anemia and chronic pain. **Risk for loneliness**, related to affective deprivation; social isolation; fatigue, and physical isolation. **Risk for low self-esteem: Situational**, related to the loss of her eight children; changes in her social role, impaired physical mobility, and environmental barriers. **Conclusions**: By carrying out this study we were able to increase our scientific knowledge to provide for individual nursing care based
on the NANDA’s theoretical framework, at the light of Imogene King’s conceptual model. It also helped us to understand the importance of nurse-client interactions to achieve the client’s goals and promote the client’s balance. Chronic disease patients must be educated about their pathology to know what their expectations are and when to have such expectations, so that they can cooperate in their adjustment and in the improvement of their life quality.