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Development of education curriculum and standards of practice for the management of acute confusion syndrome/delirium among hospitalized patients

Nora Nurten Moti

DEVELOPMENT OF EDUCATIONAL CURRICULUM AND STANDARDS OF PRACTICE FOR THE MANAGEMENT OF ACUTE CONFUSION SYNDROME/DELIRIUM AMONG HOSPITALIZED PATIENTS

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Nursing

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by

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March 2003

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ABSTRACT

The primary objective of this project is the development and implementation of an educational program for the staff nurses for the effective management of Acute Confusion (AC)/Delirium among hospitalized patients at Kaiser Hospital in Fontana.

A secondary objective is to provide nursing staff with a screening tool to assess AC/Delirium and follow the standards of practice protocol to minimize complications, i.e. falls, restraint and sitter use, thus, improve clinical outcomes. The development of these materials included a systemic review of management of Acute Confusion, delirium, agitation and restraint reduction articles in electronic databases (Medline, CINAHL, etc.). Full text reviews were done on 48 studies. Educational curriculum was developed with cooperation of the Nursing Managers, Hospital and Nursing Quality Improvement Managers, Educators, Clinical Nurse Specialist and Union Partners at Kaiser Permanente in Fontana. This protocol will be used to help nursing staff implement the best evidence based practice available in the care of confused patients. This educational program and standards of practice have been accepted by the Kaiser Permanente,

Fontana Education and Training Department for immediate implementation.

ACKNOWLEDGMENTS

The help of the following people is deeply appreciated. My husband for his relentless encouragement, Dr. S. L. Lloyd for her guidance in completing this project and Ms. N. Gonzalez for her patience and care in the typing.

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CHAPTER ONE

BACKGROUND

Introduction

Acute Confusion (AC), also known as delirium, is a multifaceted, commonly occurring phenomenon and a major contributor to poor healthcare outcomes among hospitalized geriatric patients (Ludwick, 1999; Foreman et al., 1999). It is estimated that depending on the population studied, 24-80% of all elderly hospitalized clients experience some degree of confusion (Evans et al., 1993). Indeed, approximately 50% of all patients admitted with hip fractures develop confusion during the course of their hospitalization (Rateau, 2000).

AC/Delirium has long been associated with poor patient outcomes including increased length of stay, morbidity and mortality. The management of AC/Delirium is becoming a major area of concern of healthcare professionals (Justic, 2000).

Yet, AC/Delirium is frequently under diagnosed and inappropriately treated resulting in increased medical complications, poor patient outcomes, higher nursing care hours and greater financial costs. One study showed that hospitals could suffer $30,000 loss for every confused

patient. Thus, one extra day of length of stay (LOS) for each confused patient can cost Medicare up to $2 billion annually (Foreman & Zane, 1996).

Confused patients more frequently develop pressure ulcer infections, experience adverse reactions to therapeutic doses of medications and falls. Because they are not able to think clearly they exhibit unsafe behaviors such as, pulling intravenous lines and other tubes and wandering out of their rooms. They require close nursing observation such as sitters or they are physically restrained to prevent them from harming themselves (Sullivan-Marx, 1994).

It is also estimated that one in five elderly clients are physically restrained at some time during their hospitalization due to aggression, confusion, agitation and withdrawal (Mion & Strumpt, 1994; Strumpt & Evans, 1988).

Reducing the use of physical restraints has become a major focus of accrediting and regulatory agencies, i.e., Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The study showed that in two acute care hospitals, there was an approximate 20% reduction in restraint use at the end of the implementation of a comprehensive program. The program included a

confusion/delirium assessment, management strategies and fall prevention strategies in addition to anchoring/securing therapeutic devices, i.e., peripheral intravenous (IV) lines, nasogastric tubes and indwelling bladder catheters (Mion et al., 2001).

Purpose of the Project

The purpose of this project was to develop an educational curriculum and standards of practice for a multidisciplinary, comprehensive approach to managing Acute Confusion/Delirium among hospitalized patients for implementation among the nursing staff at the Kaiser Permanente Fontana Medical Center.

Previously collected data assessing staff nurses knowledge level of Acute Confusion (AC) including its etiology, assessment and differentiation from dementia, demonstrated the need for a comprehensive educational program. This program requires participation of other disciplines and support of all the stakeholders, i.e., Physicians, Staff, Managers, Educators, the Clinical Nurse Specialist and Quality Improvement professionals.

At the Kaiser Permanente Fontana facility, the number of acute inpatient falls in the first quarter of 2001 increased by two fold comparing to the same period a year

ago (1st Quarter QI Report, 2001). In addition, in 2001, approximately $1.5 million was spent on sitters for confused patients who required close monitoring. At present at the Fontana Medical Center, there are fragmented nursing management strategies dealing with fall prevention, reduction of physical restraints and sitter use in addition to monitoring of wandering and missing patients. All these activities hold the common thread of "confusion."

Scope of the Project

The scope of this project includes:

1. A review of previously collected data related to Critical Care staff nurses knowledge level of Acute Confusion/Delirium among hospitalized patients.
2. Development of an educational curriculum program for Critical Care staff nurses related to Acute Confusion/Delirium among hospitalized patients.
3. Development of specific standards of practice for Critical Care staff nurses to use when hospitalized patients demonstrate Acute Confusion/Delirium at Kaiser Permanente,

Fontana, based on previously published standard tools.

4. Development of a pre-post test for Critical Care staff nurses to evaluate personal knowledge of Acute Confusion/Delirium before and after completion of the educational curriculum.

Significance of the Project

Most nurses function as a generalist (Rapp et al., 2001). The Advance Practice Nurse (APN) has been conceptualized within five complementary role components: expert clinical practice, education, research, consultation and clinical leadership (CA BRN, 1998). Therefore, one of the primary activities of the APN is to provide expert care, education consultation and leadership in program development. APN's act as consultants in developing multidisciplinary comprehensive approaches to management of confused hospitalized patients.

The implementation of this program hopefully will have an impact on positive patient outcomes.

Limitations of the Project

Some project limitations included the size and the decision making structure of the organization's guidelines in developing and implementing projects and the multi

level (local, divisional and regional) oversight committees involvement in approving the project for implementation which caused a tremendous amount of time delay in developing this project. Furthermore, overall assessment data had weak external validity due to being conducted in Critical Care units, and then generalized to the entire medical-surgical inpatient areas.

Definition of Terms

The following terms are defined as they apply to the project.

Acute Confusion (AC)/Delirium is defined as a reversible confusional state, which is usually noted between the third and seventh day after admission to the hospital and generally resolves within 48 hours after discharge (Ballard, 1981).

The term acute confusion state, acute confusion, and delirium are used interchangeably by most healthcare professionals in describing a specific type of cognitive impairment. One of the easiest ways to characterize the difference is; nurses tend to view this cognitive phenomenon more broadly and call it acute confusion whereas physicians view the phenomenon as delirium (Rapp et al., 2001). However,

it is important to differentiate Acute Confusion/Delirium from dementia.

Acute Confusion/Delirium is a condition of cerebral insufficiency, characterized by the basic properties of impairment of cognitive process and it is potentially reversible.

Dementia is the loss of intellectual functions resulting from gross change in the physical functioning of the brain. It is organic and permanent whereas AC/Delirium is situational and transient.

Disorientation to time, place and person has been regarded as the primary distinguishing feature of AC/Delirium. A patient with delirium is usually more restless than one who is with dementia (Nadelsen, 1976).

AC/Delirium develops in 32% to 50% of patients who have dementia. AC/Delirium that is superimposed on preexisting dementia is difficult to recognize and differentiate from a patient's baseline dementia (Justic, 2000). Therefore, it is necessary to perform a baseline mental assessment on patients.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

The review of the literature related to Acute Confusion/Delirium will focus on: a) the incidence and risk factors, b) presently available tools to measure mental status, c) nurses role in managing the effected population theoretical framework, d) the context of the educational program, and e) social learning theory related to Critical Care nurses.

Incidence and Risk Factors of Acute Confusion/Delirium

It is estimated that 24% to 80% of hospitalized patients experience some degree of AC (Pomzei et al., 1994; Csokasy, 1999). Hospitalized patients are at very high risk for the development of AC/Delirium because of factors such as multiple system illnesses, increased age, multiple drug over or under use and environmental factors. Surgical patients commonly have pain and physical discomfort. Unrelieved pain may contribute to inadequate sleep, exhaustion, agitation and confusion. Adequate pain control by use of proper analgesics is an important factor in managing AC/Delirium (Sveinsson, 1975; Blacher, 1980).

In Critical Care, mechanically ventilated patients require continuous assessment and interventions in managing their pain and discomfort. Although opioids may produce sedating effects, they do not provide amnesia. Therefore, it is recommended that sedation of agitated critically ill patients should be started only after providing adequate analgesia and treating reversible physiological causes (Jacobi et al., 2002).

Risk factors of AC are (a) increasing age, (b) increasing severity of illness, (c) multiple chronic illness, (d) history of cognitive impairment (dementia and depression) or previous experience of confused patients, (e) substance and alcohol use (Foreman et al., 1999). Primary factors could be grouped under four major categories: (1) physiological, (2) psychological, (3) pharmacological, and (4) environmental factors (Rogers & Bocchine, 1999).

Tools to Measure Acute Confusion/Delirium

Three instruments which have acceptable psychometric properties and limited user burden (Rapp et al., 2001) were reviewed. They are as follows: NEECHAM Confusion Scale which consists of three subscales that are designed to collect and evaluate the physiological, psychological

and behavioral manifestations of AC (Neelon et al., 1992). Subscale I evaluates components of cognitive status. Subscale II observes behavior and performance ability. Subscale III assesses vital functions, oxygen stability and continence. The scores may range from zero (minimal function) to 30 (normal function). Score of 0-19 points indicates AC, 20-24 mild disturbance, 25-26 points normal function (Csokasy, 1999).

Confusion Assessment Method (CAM) is a tool used for diagnosis of delirium. It has four features: 1) measures acute onset of mental status changes, 2) evaluates inattention, 3) assesses disorganized thinking, and 4) evaluates the level of consciousness (Inouye et al., 1990). Administration of these tools could take up to 15 to 20 minutes (Rapp, et al., 2001).

Mini-Mental State Examination (MMSE) is a general mental status screen. It evaluates the following: 1) orientation, 2) registration, 3) attention and calculation, 4) recall, and 5) language skills. This 30-point mental state exam used as a practical method for grading the cognitive state of patients for the clinicians. Concurrent validity was determined by correlating MMSE scores with the Wechsler Adult Intelligence Scale of verbal and performance scores. MMSE

versus verbal IQ Pearson r was 0.776. And MMSE versus performance IQ Pearson r was 0.660. The MMSE reliability for multiple tests by multiple examiners had a Pearson r correlation coefficient of 0.887 (Folstein, Folstein, & McHugh, 1975).

MMSE to assess baseline cognitive functioning of patients could be administered in 5-10 minutes (Barker, 1994).

Nurses Role in Managing the Effected Population

In spite of the large number of confused patients in acute care hospitals much remains unknown about the nurses ability to recognize and treat confusion (Ludwick & O'Toole, 1996). Nurses who skillfully assess the mental status of their patient's play an important role in changing the way AC is diagnosed and treated (Levkoff et al., 1992).

In the Linkage Model (Crane, 1985) performance improvement through clinical research utilization, the Advance Practice Nurse (APN) acts as a consultant who links the resource system, research studies, findings and recommendations with the user system, clinical practice (Jones, 2000).

Critical Care nurses working with confused patients often times do not assess their patient's for Acute Confusion, thus inappropriate nursing interventions, i.e., application of chemical or physical restraints are commonly used.

The Context of the Education Programs

Several areas of investigation have been pursued in the area of assessment and proper management of AC/Delirium. Vermersch and Henley (1997) validated the clinical assessment of confusion - A (CAC-A) an observational checklist developed for nurses to measure presence and level of confusion in hospitalized adults. They concluded that AC is a multidirectional phenomenon reflecting at least cognition, motor activity, general behavior, and orientation. Recognition and treatment of the phenomenon not only lives in the truth of the confusion itself, but also in the nurse's view of it. Mion and her colleagues concluded that group educational activities conducted for medical and nursing staff, focusing on AC/Delirium, agitation and falls, the risk factors, proper strategies used to guide nurses' practice were effective in bringing about a 20%-59% reduction in

physical restraint use on the medical floor in two acute care hospitals (Mion et al., 2001).

Csokasy (1999) in response to the inconsistent identification and monitoring of AC, conducted a study in which the NEECHAM Confusion Scale was used to assess the cognitive status of geriatric hospitalized patients. The results of this study indicated that 47% of elderly ICU patients became confused most often within 24 hours of admission. She hypothesized that as nurses become more knowledgeable about AC, they will develop better assessment skills in behavioral and cognitive changes of their patients indicating AC.

Foreman et al., (1999) published their article entitled "Standard of Practice Protocol: Acute Confusion/Delirium" which provides prevention and treatment guidelines of AC patients in order to improve nursing care for this population. They provide guidelines for prevention, elimination and minimization of the etiologic agents, including administering medications judiciously, preventing infections, and maintaining fluid and electrolyte balance in addition to providing therapeutic environment and supportive nursing care. The expected outcomes are improved patient care, increased detection of AC/Delirium, implementation of appropriate

interventions, decreased length of stay, cost, morbidity and mortality.

Social Learning Theory

Social Learning Theory emphasizes that individual's beliefs about their capabilities or their confidence are the best predictors of their actual behavior (Bandura, 1977). Self Efficacy Theory, which is born out of the principles of the Social Learning Theory also emphasizes the individual's beliefs about their personal capabilities can forecast future behavior (Bandura, 1977). Thus increased knowledge of nurses in assessing AC, it's clinical presentation, disease course and progression, appropriate nursing interventions would predict positive outcomes (Rapp et al., 2001).

In Social Learning Theory much behavior is motivated and regulated by internal standards and self-evaluative reactions to the individual's own actions, including self incentives and self-concepts of efficacy (Redman, 1993). Critical Care nurses require skills and perceived self efficacy when delivering competent care to the confused patients. Perceived self efficacy is a belief that Critical Care nurse has the ability to realize the optimal

level of competency and performance in managing confused Critical Care patients.

Summary

Hospitalized patients are at a high risk for development of AC/Delirium due to various factors. These risk factors increase by increased age and severity of their illness. Critical Care patients are among the high risk patients in developing AC/Delirium. Therefore, Critical Care nurses need to be educated to assess the risk factors by utilizing tools available to them. Nurses who are skillful in assessing the mental status of their patients and utilize the knowledge and skills attained by this educational program will be more competent in delivering high quality nursing care to their confused patients, therefore, achieve better patient outcomes.

CHAPTER THREE

METHODOLOGY

Chapter Three documents the steps used in developing this project specifically, planning, development, and management and implementation of the educational course.

Planning of the Project

Permission to do this project was obtained from the Hospital Administration Risk Management Director at Kaiser Permanente, Fontana Hospital (see Appendix A). The planning and development of the project required solicitation of input from all the stakeholders. Department Administrators, Nurse Educators, Clinical Nurse Specialist, Quality Improvement Coordinator, Co-chair Union Partner Staff Nurse and the Risk Management Director, were consulted for their initial and continuous input into the project.

A transition management plan starts where people are and then works forward, step by step, through the process of leaving the past behind, getting through the restraint period, profiting from it and emerging with new attitudes, behaviors and identity. A transition management plan can be initiated from the current possibilities (Bridges, 1994).

Previously collected data assessing staff nurses knowledge of recognition, epidemiological aspects and effective nursing intervention in managing AC/Delirium indicated that there was a need for development of an educational curriculum at Kaiser Hospital in Fontana. Even though there were Patient Falls Protocol, Physical Restraints Protocol, Sitters Protocol, there was not a Standard of Practice Protocol of Acute Confusion/Delirium phenomenon. Where AC/Delirium was the main cause of falls, use of restraints and sitters.

The initial stage of this project required a meeting with the Hospital Quality Improvement Chair who is an MD and the Nursing Quality Improvement (QI) Director who is an RN to discuss the need, purpose, goals and objectives and obtain their support. Subsequent meetings were held with the Risk Management Coordinator, Nursing Director and the Nursing QI Co-chair who also is a union partner. Due to the Union-Management Partnership Agreement, no project could be developed without the union leadership's participation at Kaiser facilities.

Development of the Project

The project was born in April of 2001 as a result of the needs assessment survey in Critical Care areas

identifying the necessity of development of an educational program to train staff nurses to improve the clinical outcomes of their confused patients.

Problem identification began by analyzing the previously collected data in Critical Care and it progressed to the development of pre-test, post-test assessment of the pre-educational curriculum knowledge and level of confidence of Critical Care nurses in managing confused patients. The second step was to facilitate the communication link between the resource system and the users. The resource system consisted of web sites, which supplied access to relevant literature, research, evidence-based practice, and case studies. Users were identified as all the stakeholders of the project. It consisted of the Critical Care Manager, Clinical Nurse Specialist (CNS), Educator, Staff Nurses, Respiratory Therapists and the Quality Improvement Coordinator.

The communication link was established through committee meetings, phone calls, e-mails and one on one meetings with the previously identified parties. An educational packet was developed to address the needs of the Critical Care nurses.

Since the Advanced Practice Nurses (APN's) role often involves management and/or coordination of complex

situations (Hamric, Spross, & Hanson, 2000) it was essential to include safety measures such as prevention of falls and reduction rate of restraint and sitter use into the educational curriculum.

Management of the Educational Course

The first phase of the project concluded with the development of educational curriculum (see Appendix B). Objectives were written in Bloom's Taxonomy cognitive domain (Marzano, 2001). The curriculum includes definitions, etiology, risk factors, nursing assessment, interventions and alternatives to restraint use. A Confusion Algorithm from the literature was described. A Mental Assessment tool was provided (see Appendix C). Standards of Care and Practice were developed (see Appendix D). A pre and post-test (see Appendix E) was developed for evaluation purposes.

Learning outcomes are the result of sound teaching - learning process. And the interaction of subject matter, teaching methods and instructional material are essential for effective learning outcomes (Gronlund, 2000). The preparation stage included the linking of the course content to the organizational goal of delivering

competent, safe care to the confused hospitalized patients.

Implementation of the Project

The project had three major components: a) Development of educational curriculum, b) Development of standards of practice, and c) Development of a pre-post test. Extensive review of the literature including Acute Confusion/Delirium National Standards developed by American Psychiatric Association in addition to Research and Evidence Based Best Practice Guidelines was conducted.

Community standards for management of confused patients were examined. An Advanced Practice Nurse expert and a Clinical Nurse Specialist of Critical Care were consulted. Nursing standards and organizational goals for patient safety for positive outcomes were incorporated into the development of the curriculum, standards of practice, and pre-post tests.

Development of Standards of Practice was based on the American Psychiatric Association National Guidelines for delirium (APA, 2002) and Standard of Practice Protocol for Nursing Acute Confusion/Delirium (Foreman et al., 1999).

The newly developed educational component was presented to the Nursing Leadership Team by using

Empowered Learning Model [ELM] (Covey, 1998). Colorful fliers were added to the Nurse Leadership meeting agenda. Content of the educational curriculum was presented by using colorful overhead slides produced by PowerPoint for perceptual strength (Griffin & Binder, 1998). Furthermore, questions and answer sessions provided participants the opportunity to participate fully in the learning process through sharing with others in an active dialogue.

Nursing Educators will be responsible for the teaching of the educational component of the project to the staff nurses. In addition to paid training time, two units of continuous education units (CEU's) will be offered to all nurses. The curriculum is also being incorporated into the orientation program for all new nurses, including the new graduate nurses.

Implementation will be based on Education and Training Department teaching strategies. It is expected to increase staff nurses knowledge and skills due to social teaching theory which emphasizes the individual's belief about his/her capabilities and forecast future behavior. And increased self-efficacy of the staff will translate to increased competency about the subject.

Summary

The project has potential to evolve a pilot program in Critical Care to a hospital wide program to include all confused patients. It was also expanded to include not only an educational component but also development of standards of practice and pre-post test for evaluation purposes in cooperation with the Education and Training Department.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

Included in Chapter Four was presentation of the result of completing the project. It would include the results of the pilot project and the expected outcomes of the planned education of the nursing staff.

Presentation of the Findings

An assessment of previously collected data at Kaiser Permanente, Fontana Hospital indicated a need for an educational curriculum for Acute Confusion/Delirium patients in a Critical Care unit. Prior to the implementation of teaching the curriculum, a pre-test will be administered by the Critical Care Nurse Educator. After the implementation of the teaching sessions which will be supplemented by guideline handouts, the same test will be given as a post-test. It is expected that there will be an improvement on the post-test which will indicate a positive impact in the knowledge level of staff nurses in Critical Care.

Discussion of the Findings

The expected improvement rate will only apply to the increased didactive knowledge of the staff nurses in

effective management of AC/Delirium in the Critical Care setting. How this knowledge will apply to the clinical practice for improved patient outcomes in all inpatient settings would be monitored by continuous data collection of prevalence rate of AC/Delirium, falls and use of restraints and sitters. The project has been accepted by the Education and Training Department for immediate implementation.

Summary

At present, it is expected that increased knowledge will translate into improved clinical practice, and that as a result of attending the classes, Critical Care nurses at the Fontana Kaiser facility will be better informed to assess, intervene and evaluate the confused and delirious patients in ICU than they were prior to attending the educational sessions of this program.

CHAPTER FIVE

EVALUATION, CONCLUSIONS AND RECOMMENDATIONS

Introduction

Included in Chapter Five is a presentation of the evaluation and conclusions as a result of completing the project. Further, the recommendations extracted from the project are presented. Lastly, the chapter concludes with a summary.

Evaluation

Effective program evaluation has been defined as systemic investigation of the merit, worth or significance of an object. Four core standards of the program; utility feasibility, propriety and accuracy, addressed by taking six essential steps form the inception of the program (CDC, 1999).

The procedures were useful, feasible, ethical and accurate. All the stakeholders were involved from the inception of the program. In addition, need and expected effects of the project were discussed with the users. Credible evidence of Quality Improvement results and relevant literature were reviewed. New practice standards

were established with the intent to disseminate the knowledge through educational programs.

Summary, Conclusions and Recommendations

Summary

Critical Care nurses have been providing nursing care to the confused patients in Critical Care settings for a long time. When caring for a patient who is confused, it is assumed that confusion is the natural outcome of mostly elderly and frail hospitalized patients (Csokasy, 1999).

Traditional treatment consists of restraint and sitter use and psychotropic medication administration. The cognitive status assessment, and comprehensive nursing standards of practice protocol have been nonexistent in Kaiser Hospital Critical Care settings.

Therefore, this project was developed to provide nurses with an educational curriculum, standards of practice protocol and an evaluation tool, pre-post test to measure their cognitive progress in effective management of AC/Delirium for positive patient outcomes.

Conclusions

The conclusions extracted from the project are as follows:

1) The educational curriculum and standards of practice as developed for Critical Care nurses have been accepted for implementation.

2) The project in its entirety is to be used by the Quality Improvement and Risk Management Department Directors to be shared in the upcoming JCAHO inspection as proof of a Quality Improvement project in response to needs assessment of clinical practice.

3) The project was registered with the Service Quality Department Advisor to be added to the database to be eligible for the Excellence Award.

Recommendations

Recommendations resulting from the project are as follows:

1) There was an agreement by the Nurse Executive and Nurse Educators that the course will be extended to four hour educational sessions with the full support of the Education and Training Director, starting January 2003. Due to budgetary restraints in late 2002, the course could not be made mandatory.

2) It is hoped that Quality Improvement indicators of falls, restraints and sitter use will be collected to compare results of previous assessment data to post project implementation data for expected quantitative improvement scores.

APPENDIX A

AGENCY PERMISSION FORM

Kaiser Foundation Hospitals
9961 Sierra Avenue
Fontana, California 92335

KAISER PERMANENTE

Dr Marcia Raines
California State University
San Bernardino
5500 University Parkway
San Bernardino, California

June 25, 2002

Dear Dr. Raines;

Nora Moti, RN has been working on a thoroughly comprehensive project for the "Management of Confused Patients" with the permission of Hospital Administration and Risk Management.

If you have any questions regarding this matter, please feel free to contact me at 427-7809.

Thank you,

Kim Sheets RN, MBA

Kim Sheets RN, MBA
Director of Risk Management
Hospital Administration

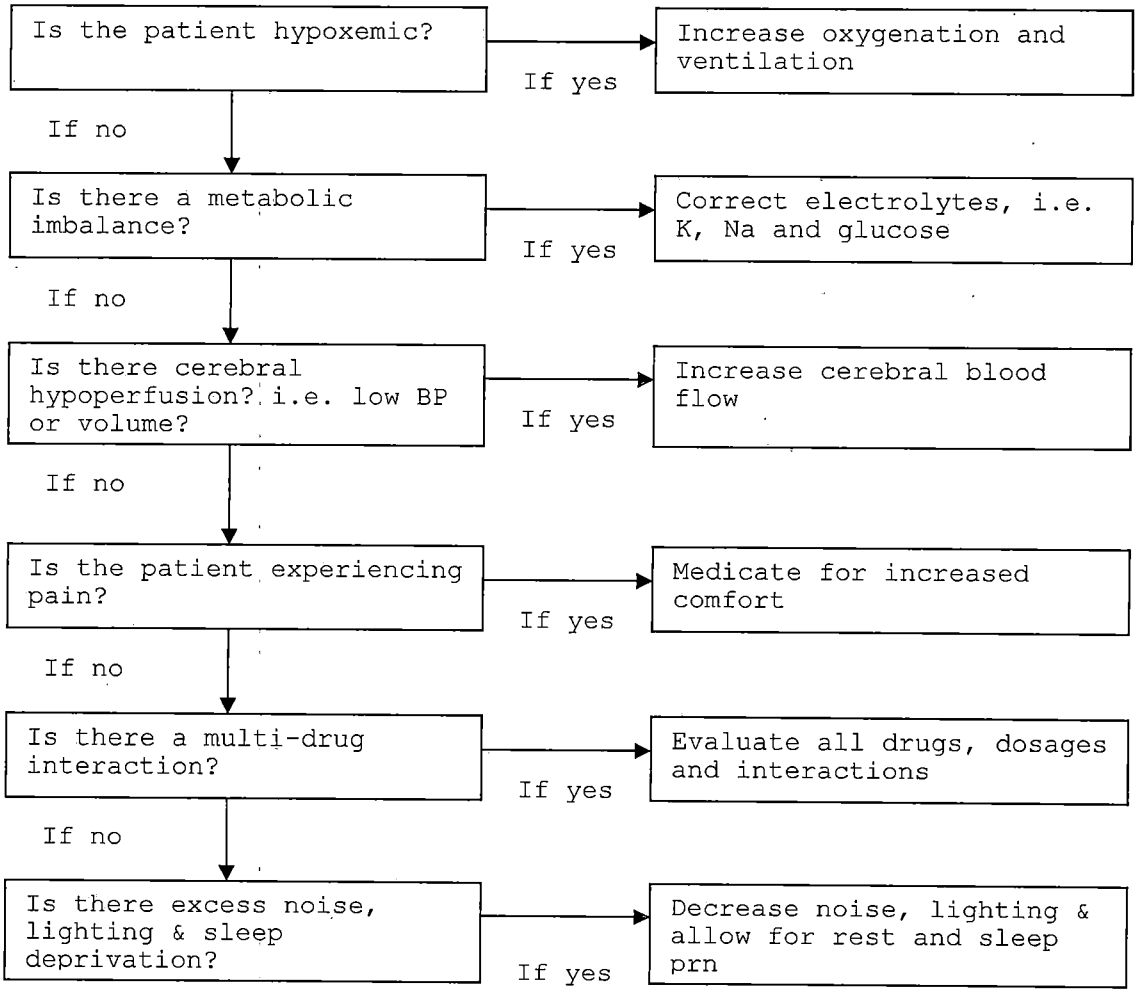
APPENDIX B

EDUCATIONAL CURRICULUM

PROTOCOL FOR ACUTE CONFUSION SYNDROME/DELIRIUM

POSSIBLE CAUSE FACTORS OF

ACUTE CONFUSION/DELIRIUM



Sources: *1. APA National Guidelines*

2. Foreman, M.D., Mion, L.C., Tryestad, L., Flecher, K. (1999). Standard of Practice Protocol: Acute Confusion/Delirium. Geriatric Nursing, 20 (3) 147-152.

Adapted by N. Moti (June, 2002)

Educational Curriculum and Standard of Practice Protocol for Acute Confusion Syndrome/Delirium

Goal - Comprehensive Multidisciplinary Curriculum Development for Nursing Management of Acute Confusion/Delirium

Objectives

I) Define acute confusion/delirium versus dementia

II) Identify etiology and primary risk factors contributing to acute confusion/delirium

- 2.1 Identify physiological factors
- 2.2 Identify psychological factors
- 2.3 Identify pharmacological factors
- 2.4 Identify environmental factors

III) Describe nursing process in management of Acute Confusion/Delirium

- 3.1 Describe assessment/identification of acute confusion, delirium
- 3.2 Mental Assessment Tool (see Appendix C)
- 3.3 Describe appropriate nursing intervention
- 3.4 Describe evaluation of interventions

Definitions

Acute Confusion (AC)/Delirium is a condition of cerebral insufficiency, characterized by the basic properties of impairment of cognitive process, potentially preventable and reversible, confusional state which is normally noted after 24-72 hours following admission and resolves 48 hours after discharge (Ballard, 1981).

Dementia is the loss of intellectual functions resulting from gross changes in the physical functioning of the brain. It is organic and permanent (Nadelsen, 1976).

Prevalence Rate: It is estimated that depending on the population studied 24-80% of all elderly patients' experience some degree of confusion (Evans et al. 1993). 50% of all patients admitted with hip fractures develop confusion during the course of their hospitalization (Pateau, 2000). About 50% of the patients with dementia will develop AC/Delirium (Justic, 2000)

Poor Outcomes: AC/Delirium has long been associated with poor patient outcomes including increase in falls, sitter use, length of stay (LOS), morbidity and mortality. It is estimated that one in five elderly patients is physically restrained during their hospitalization due to confusion, agitation and withdrawal (Mion & Strumpt, 1996).

Etiology

The cause of acute confusion/delirium is often difficult to determine. The elderly seem to be especially prone for many reasons such as multiple chronic medical problems, polypharmacy, altered metabolism, poor nutrition, and increased vulnerability to stressors. Acute physiologic problems, stress or changes in routine may trigger an episode of acute delirium in this population. Patient may experience illusions, hallucinations and delusions (Foreman, 1993). Nocturnal AC/Delirium, also known as "Sundown Syndrome" where confusion is seen primarily and exclusively after dark (Beek-Bates & Rogers, 1990).

Risk Factors

AC/Delirium usually results from the interaction of physiological, psychological and socioenvironmental factors, not just one factor. The clinical significance of this is that removing or treating one factor in isolation may not be sufficient to resolve the AC/Delirium. The four major categories of risk factors are as follows:

1) Physiological factors (Foreman, 1999; Marcantonio, E.R., et al, 1996)

   a) Decreased O2 (hypoxia, peripheral or central cyanosis, accessory muscle use for breathing, tachypnea, decreased PO_2, paradoxical breathing)

   b) CV problems (CHF, dysrhythmias, cardiac surgery, hypo or hypertension, hypo perfusion to brain)

   c) Pulmonary problems (pneumonia causing impaired gases exchange thus decrease oxygenation of vital organs including brain)

   d) Metabolic imbalances (acidosis, alkalosis, renal or liver failure, electrolyte imbalance, hypokalemia K+<3.5 mEQ/L., hypernatremia Na+>146mEQ/L., nausea, vomiting, anorexia)

   e) Infection (most commonly urinary tract and respiratory frequency, urgency, nocturia, incontinence)

   f) Drug intoxication's or withdrawal (ETOH and drugs, delirium, tremors, marked agitation)

   g) GI bleed (decreased blood volume, low cerebral perfusion, dehydration)

   h) Endocrine disturbances (diabetes, hypo-hyper glycemia, hypo or hyper thyroidism)

   i) Nutritional deficiencies (lack of nutrients, protein, vitamins and minerals for proper brain function)

j) Altered temperature regulation (possible cerebral involvement in regulating body temperature or metabolic disturbances)

k) Ineffective processes and physiologic stress (improper comfort measures)

l) Pain (unmanaged or poorly managed pain control)

2) Psychological factors (Fisher & Flowerlew, 1995)

a) Grief, fatigue (due to loss of health and comfort)

b) Anxiety (due to unknown progression of health problems, procedures)

c) Voicelessness/fear (loss of independence and control)

d) Addiction to drugs/alcohol (withdrawal)

e) Personal problems - insecure family/work (depending on the severity of illness, fear of losing work or family support)

f) Financial situations (possible loss of job and income)

g) Depression, paranoia (psychological problems due to severe illness, trauma or surgery)

h) Aggressive, dominant personality (independence vs dependence when in the hospital)

3) Physical environment (Rapp, et al, 2001)

a) Sleep deprivation (hospital procedures, loud noises causing lack of sleep and rest periods)

b) Increased noise (nurses and other healthcare workers, mechanical noises, i.e. ventilators, IV pumps)

c) Constant lighting (lights on 24 hours a day)

d) Unfamiliar environment (different environment than the one patient used to)

e) Sensory deprivation or overload (misperception of visual and auditory stimuli, loud noises)

f) Communication impairment (endotracheal tubes unabling patients to communicate)

g) Immobilization, dependency (altered mobility, restraints)

h) Physical presence of tubes, etc.

4) Pharmacological factors (Rapp, et al, 2001; Kane, A.M, Kurlowicz, L.H 1996)

a) Pain medications (Demerol, Morphine causing altered mental status, confusion, paranoia)

b) Decadron psychosis, euphoria, insomnia, mood swings, personality changes, severe depression to frank psychotic manifestation.

c) Adding more than three medications during hospital stay (drug intoxication).

d) Anticholinergic drugs (atropine, scopolamine, and related compounds), antitussives, anti-Parkinson agents, drugs to control cardiac output and rhythm, the tricyclic antidepressants, and antihistamines may not be recognized as potential causes of untoward psychological effects.

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Potential Psychological Side Effects of Pharmacological Agents Commonly Used

Name	Effect
Aminocaproic acid	Acute confusion/delirium, hallucinations
Anticonvulsants	Tactile, auditory, and visual hallucinations, delirium, agitation, paranoia, confusion
Antihistamines	Anxiety, hallucinations, delirium
Atropine and anticholinergics	Confusion, memory loss, delirium, auditory and visual hallucinations, paranoia
Barbiturates	Visual hallucinations, depression
Cephalosporins	Confusion, disorientation, paranoia
Corticosteroids	Depression, confusion, paranoia, hallucinations
Digitalis glycosides	Nightmares, confusion, paranoia, hallucinations
Diazepam	Hallucinations, depression
Lidocaine	Disorientation, hallucinations, paranoia
Methyldopa	Hallucinations, paranoia, nightmares
Morphine	Transient hallucinations, disorientation, visual disturbances
Penicillin G	Hallucinations, disorientation, confusion, agitation
Albuterol	Hallucinations, paranoia
Demerol	Acute confusion, delirium

Sources: Easton C. & Mackenzie (1998). Sensory perceptual alterations. Delirium in the Intensive Care Unit. Heart and Lung, 17(3), 229-237.

Adapted by N. Moti (June, 2002)

Distinguishing Between AC/Delirium and Dementia

Characteristics	AC/Delirium	Dementia
Onset	Acute, develops quickly	Insidious
Duration	Hours to days, usually less than one week	Ongoing, irreversible
Course	Worse at night	Essentially stable; may be progressive over time
Associated conditions	Systemic illness commonly present	No systemic condition necessary
Attention span	Attention deficit; unable to focus or shift attention, easily distracted	Typically unaffected until late stages
Arousal level	Fluctuates from lethargy to agitation	Normal until late stages
Orientation to person, place and time	Variably impaired for person and place, almost always for time	Variably impaired for person and place, almost always for time
Cognition	Disorganized thoughts; hallucinations and delusions common	Usually ordered; content impoverished, abstraction poor; loss of common knowledge; may confabulate
Speech and language	Dysarthric, disorganized, slow or rapid, often inappropriate and incoherent	Ordered except in advanced dementia; may have word finding difficulty
Memory	Temporarily impaired	Loss of recent memory; remote memory impaired in later stages
Treatment	Protect the patient and treat the causes	Protect the patient and treat the behaviors

Sources: Foreman, M.D. & Zane, D. (1996). Nursing strategies for acute confusion in elders. American Journal of Nursing 96 (4), 44-51.

Adapted by N. Moti (June, 2002)

Nursing Process for Managing AC/Delirium

Treatment needs to encompass two aspects concurrently; identification, elimination or correction of the underlying cause(s) and general symptomatic and supportive measures.

Assessment

1) Assess for the following factors, which would place patients at high risk for acute confusion/delirium.
   a) Elderly persons (60 and greater) especially post-hip fracture and post-craniotomy.
   b) Pre-existing brain damage (especially dementia) or injury (i.e., motor vehicle injury).
   c) Chronic alcohol and/or drug use (withdrawal symptoms can progress over a period of 24-72 hours to delirium marked by tremors acute confusional state associated with disorientation and hallucinations)
   d) Sensory impairment (windowless ICU rooms, lack of visual stimulation, etc.)
   e) History of acute confusion (if patient has a past history of confusion when hospitalized, it is likely to repeat)
   f) Patient with recent hypoxic event (due to decreased oxygenation of brain cells, brain cell damage)
2) Assess and document the acute onset of any of the following symptoms that are a change from the patient's baseline mental status.
   a) Difficulty paying attention/highly distractible (does the patient have difficulty focusing attention or keeping track of what is being said?)
   b) Incoherent or rambling speech (does the patient exhibit disorganized or incoherent thinking, irrelevant conversation, illogical flow of ideas or unpredictable switching from subject to subject?)
   c) Illusions, hallucinations (does the patient see things that are not there and imagine events that are not real)
      1) May be manifested by climbing out of bed, pulling at tubes, calling out for family, and refusing treatment.
      2) May not be obvious/overt.
      3) Ask patient such questions as "since your were admitted to the hospital, have you witnessed any events that seem abnormal?" or "sine your surgery, do you sometimes imagine things that you don't think can be true?" or "sometimes

when people are in the hospital they have unusual thoughts or experiences that may or may not bother them. Have you had any such experiences or thoughts?"

4) Disorientation (mostly time).

5) Episodes of agitation, especially at night.

6) New onset of memory problems.

7) Fluctuating mental state.

8) Appears frightened and suspicious of others.

9) Increasing lethargy.

(notify MD if any of these symptoms develop)

3) Interview consistent caregivers and family (when possible) to determine patient's baseline behavior.

4) In collaboration with physician, assess organic etiologic factors contributing to acute confusion by reviewing the following:

a) Labs, especially blood chemistries, CBC, ABG, drug levels, U/A (CBC low hemoglobin level - anemia - high WBC's - infection - ABG low O2 saturation - hypoxemia - U/A - high specific gravity - dehydration or presence of blood - system failure)

b) ECG, chest x-ray, CAT scan (if applicable).

c) Medication record (especially those with CNS/anticholinergic side effects, i.e. narcotics, cimetidine, steroids, benadryl, sleeping meds).

d) Vital signs, especially elevated temperature.

e) Pulse oximetry (note: beware of relying solely on pulse oximetry, hypercapnea can also cause acute changes in behavior and mental status and will not be reflected by the pulse ox).

f) Assess pain control.

5) Evaluate when behavior occurs, what provokes it, i.e. during ADL's, only when family present, etc.

a) Try to find out meaning behind behavior from patient (i.e. trying to go to the bathroom, believe you're trying to harm them, etc.).

b) Consider medicating patient 30 minutes prior to activity if stimulus can't be changed.

c) Come back at a later time.

d) Acknowledge patient's fear, don't dismiss it.

6) Assess patient's risk for fall (i.e. how stable is patient's gait? Involve PT as necessary). Institute Fall Prevention standard as necessary.

a) Intervention before hospital admission.

1) Assess patient's mental status.

2) Pre-op visit and teaching by nurses.

b) Interventions after hospital admission

1) Increase and maintain close observation of patient until patient's confusion resolves.

2) Review medication record daily with physician, discontinue, hold (as ordered by physician), or minimize use of unnecessary medication, especially those with CNS/ anticholinergic effects.

3) Monitor vital signs, oxygenation, and I&O every shift and as needed. Quiet cardiac monitor alarms in the rooms.

4) Don't support disorientation but don't argue with the patient (you can't talk them out of this).

a) Explore emotion behind patient's non-reality based statements (you may state "I can see why you say you are seeing spiders but I do not see them.")

b) Change the subject (re-orient to present time, place person)

c) Attempt to engage the patient in a diversional activity (encourage patient to comb his/her hair)

d) Reinforce reality-based behaviors (that they are in the hospital, their family will be here to visit them)

e) Enhance orientation through the use of aid such as a clock, calendar, familiar objects from home, eyeglasses, hearing aid and night light as needed.

f) Address patient by name (use proper name, Mr. or Mrs.)

g) Get patient's attention before beginning a conversation or giving direction (make eye contact)

5) Minimize use of restraints; use only for short-term, treatment.

   a) Use mittens (apply mittens to hands to prevent patients from pulling lines and tubes)

   b) Apply TAB's (security device applied to the patients that will alarm when patients attempt to leave their beds)

   c) Consider vail bed (special bed which is enclosed at all sides with a zippered opening and a lattice tent)

   d) Ask family to stay with patient (to observe and support patient)

6) Implement safety measures to protect staff and family from the patient's unpredictable behavior. Use security as needed.

   a) Bed in low position (to prevent injury in case patient tries to get out of bed)

   b) If you are placing side rails up routinely to keep a patient in bed, reconsider this. Patient is more likely to be injured if the side rails are up, especially if using split rails.

   c) Provide adequate lighting, especially at night (elderly people need about 50% more lighting to see well).

   d) Keep patient's personal items, water pitcher, call light, urinal, within reach at all times.

   e) Make sure eyeglasses, hearing aid and other assistive devices are available and utilized.

7) Decrease stimulation but avoid sensory deprivation (private room if possible; provide consistent caregiver; decrease room clutter and noise level). Keep in mind that moving the patient closer to the busy nurse's station to keep a better eye on them could over stimulate them and worsen symptoms.

8) Normalize sleep pattern.

   a) Recognize care, especially at night, to provide increased amounts of uninterrupted sleep (consolidate treatments, medications, vital signs).

   b) Increase daytime activities.

9) Consult PT and OT (especially with elderly) as needed.

10) Consider psychiatric consult for psychosis, severe agitation, complex interplay or etiologic factors (for diagnostic evaluation and medication regiment) or if symptoms worsen or do not resolve within 48 hours.

11) Consider pharmacotherapy if the patient's physical safety is endangered. Haloperidol is considered the drug of choice for the treatment of delirium in the critically ill adult. It is particularly effective at subduing symptoms such as hallucinations, paranoid thoughts and severe agitation. In critical care areas, haloperidol should be administered through IV, as research studies indicate extra pyramidal side effects using this route are less likely.

12) Assess and document mental function and behavior every shift until AC/Delirium is resolved.

13) Provide emotional support for patients.

    a) Take time to listen (therapeutic communication techniques help promote understanding between the nurse and patient) (Van Leuven, 2000)

    b) Use touch

    c) Promote physical comfort (will relieve anxiety due to pain and discomfort)

    d) Encourage independence (will provide social wellness)

    e) Provide opportunity for activity (will stimulate intellectual activity)

    f) Teach relaxation techniques (the relaxation response provides calming state) (Brunner & Suddard, 1988)

14) "Debrief" patient/family after AC/Delirium resolves.

15) Involve family in decision-making, but educate family not to give detailed description of events to the patient with AC/Delirium.

Communication

1) Speak slowly and use simple sentences.

2) Always use the same word for the same object.

3) Give the patient time to respond. If the patient does not respond in one or two minutes, repeat the communication in the same manner.

4) Look directly at the patient to get his or her attention before addressing the patient.

5) When performing a task, use one-step commands.

6) Use nonverbal cues to trigger the patient's memory.

Sources: Rapp et al., 2001; Tripp-Reiner, 2001; Foreman et al., 1999

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Adapted by Nora Moti (June, 2002)

ALTERNATIVES TO RESTRAINT USE

Alternatives include, but are not limited to:

- Reorientation to environment and/or plan of care (include patient in their plan of care. Orient patient to person, time and place)
- Family member present (encourage family to stay with patient)
- Scheduled ambulation, rehab or chair activity (scheduled time provides regularity in patients daily activity)
- Bowel/bladder assessment (prevents incontinence)
- Scheduled toileting (prevents patient trying to get out of bed)
- Back rub/repositioning (provides comfort and relaxation)
- Pain management (provides comfort and freedom from pain)
- Night light (provides sleep)
- Music (promotes relaxation)
- Television (provides diversion)
- Snacks (prevents hypoglycemia, provides comfort)
- Change of scenery (provides diversion, prevent boredom)
- Move patient to a room closer to the nursing desk (patient can be in a close observation)
- Use of cushions/pads (provides comfort)
- Diversional activities or reading (prevents boredom or inactivity)
- Lab values checked (monitor electrolyte imbalance)
- Familiar or needed personal object within reach (provides familiarity)
- Structured routine (prevents confusion)
- Assessment of medication side effects (to prevent adverse side effects of medications)
- Rearrangement of furniture (moving IV poles, cardiac monitors, etc. away from patient's sight reduces anxiety, confusion)
- Verbal intervention (reorientation to reality, reassurance)
- Wearing of eyeglasses, dentures, hearing aids (prevents sensory deprivation)
- Discussion with family regarding other mechanisms that were effective when utilized (Van Leuven, 2000)

Mion, L.C., & Strumpt, N. (1994). Use of physical restraints in the hospital setting: implications for the nurse. Geriatric Nursing, 15(3), 127-132.

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Adapted by Nora Moti (June, 2002)

APPENDIX C

MENTAL ASSESSMENT TOOL

MINI MENTAL STATE EXAM (MMSE)

MENTAL ASSESSMENT TOOL Mini Mental State Exam (MMSE)	Addressograph

QUESTION	ANSWER	CORRECT YES OR NO
1. What is today's date?		☐ YES ☐ NO
2. What day is it?		☐ YES ☐ NO
3. Can you tell me the name of this place?		☐ YES ☐ NO
4. What is your telephone number?		☐ YES ☐ NO
5. What is your age?		☐ YES ☐ NO
6. What is your birth date?		☐ YES ☐ NO
7. Who is the current president?		☐ YES ☐ NO
8. Who was the president before him?		☐ YES ☐ NO
9. Spell "ROOM" backwards.		☐ YES ☐ NO
10. Subtract 2 from 20 and keep subtracting 2 from each new number all the way down.		☐ YES ☐ NO

Please respond to the questions below:

1. Do you consume alcohol? ❑ YES ❑ NO
   a) How often? _____
   b) How much? _____
2. Are you taking any sedatives or narcotics? ❑ YES ❑ NO
   a) How often? _____
   b) How much? _____

0-2	Errors	=	Intact
3-4	Errors	=	Mild intellectual impairment
5-7	Errors	=	Moderate intellectual impairment
8-10	Errors	=	Severe intellectual impairment

*Allow one more error if subject had no grade-school education
*Allow one fewer error if subject has had education beyond High School

MEDICAL RECORDS - PLEASE RETURN TO UNIT IF FOUND IN THE CHART

Source: Barker, E. (1994). Mental Assessment. Neuroscience Nursing. St. Louis, Mosby.
Adapted by Nora Moti (June, 2002)

Validity = 0.776
Reliability = 0.660

APPENDIX D

ACUTE CONFUSION/DELIRIUM

STANDARDS OF CARE AND PRACTICE

STANDARD: MANAGEMENT OF PATIENTS WITH MENTAL STATUS CHANGE/AC/DELIRIUM

PATIENT POPULATION: All adult patients at risk for acute confusion

Standards of Care	***Standards of Practice***
Any change in patient's mental status will be recognized and documented	• Mental status will be documented on admission by using mental status tool. • Premorbid mental status will be documented if any change occurs while hospitalized. • Description of patient behavior will be documented including: level of consciousness, attention span, ability to follow directions, presence of hallucinations, agitation.
Confused patients will be identified	• Purple ID band will be applied to the patient. • Patient Care Record will be tagged.
Patient will be assessed to attempt to determine cause of mental status change	• General assessment will include evaluation of: • Medication • O2 saturation • Pain • Infection • History of ETOH use • MD will be notified, orders will be implemented which may include lab screening (i.e. CBC, Cr, Na)
Patient will not harm himself or others	• Assess for the presence of behaviors which may impede caregiving: • Impulsiveness • Resistance to care • Pulling at tubes • Wandering from treatment areas - consider TABS or vail bed • /Explosive or unpredictable behavior • Provide support to prevent harm, consider: relative support to stay with patient • Patient near nurse's station for observation • Removal of any nonessential tubes

Standards of Care	*Standards of Practice*
	• Least restrictive restraint option (mittens) • Reduce demands placed on patient for nonessential procedures • Promote adequate rest • If medications are used, nursing staff will monitor target behaviors and possible side effects • Document target behavior • Titrate to minimize sedation/side effects
Patient will not feel threatened	• Provide the least amount of intervention that will diffuse patient's agitation • Approach patient as if he/she is frightened: approach slowly, from the front • Provide consistent caregivers • Reassure patient that this is unusual behavior and staff is attempting to find the cause
Patient's mental status will begin to return to baseline	• Patient will continue to be assessed re: • LOC • Attention span • Hallucinations • Ability to follow directions • Agitation • Behavior will begin to resolve and return to baseline
Patient and family will be aware of assessment of behavior, medical work up, and monitoring	• Education patient/family regarding symptoms and causes of AC/Delirium • Reassure family that ongoing monitoring and work up is occurring • Reassure family that acute mental status changes typically resolve with time

DOCUMENTATION: 24 Hour Patient Care Record

Source: Foreman, M.D. & Zane, D. (1996). Nursing strategies for acute confusion in elders. American Journal of Nursing 96(4), 44-51.

Adapted by Nora Moti (June, 2002)

APPENDIX E

ACUTE CONFUSION/DELIRIUM

PRE AND POST TEST

UNDERSTANDING AND MANAGING ACUTE CONFUSION/DELIRIUM TEST

Name: _____ Unit: _____ Date: _____

1. AC/Delirium is an acute cognitive impairment or state of:

   a. dementia
   b. confusion
   c. pain
   d. traumatic injury

2. Common triggers of AC/Delirium in the elderly include:

   a. a routine without changes
   b. pain
   c. stress-free lifestyle
   d. early postoperative mobilization

3. A patient with AC/Delirium may have both periods of hypoactivity and hyperactivity.

   a. True
   b. False

4. Physical restrains placed on a patient with AC/Delirium:

   a. increase agitation and worsen delirium
   b. are gentle to the patient's skin
   c. should be removed at least every 4 hours
   d. have no serious drawbacks

5. Chemical restraints such as haloperidol:

   a. decrease sedation and confusion
   b. have no detrimental effects for an older adult
   c. should be administered if the patient is suffering from severe agitation
   d. should be administered at the first sign of delirium

6. Which of the following drugs is the best choice for pain control in the elderly?

   a. Diazepam IV
   b. Morphine IV
   c. Haloperidol IV
   d. Meperidine IV

7. Which of the following interventions is appropriate when your patient exhibits signs of AC/Delirium:

   a. check patient at least every 2 to 3 hours
   b. move patient to a stimulating, noisy area
   c. offer to walk patient to the bathroom every 4 to 6 hours
   d. have patient's family or significant other stay with them

8. To help a patient with AC/Delirium you should:

a. play loud music
c. put all the side rails up for safety
b. keep bed in the highest position
d. use validation and reminiscence techniques

9. To prevent your patient from pulling out the IV line, you should:

a. restrain wrists
b. administer haloperidol
c. cover the line with gauze
d. use mittens or netting

10. Which of the following interventions is appropriate if a patient with delirium tries to get out of bed?

a. restrain him/her
b. sedate patient with psychotropic drug
c. if patient is steady on his/her feet, walk with him/her
d. medicate him/her with meperidine

11. If you must apply a physical restraint as a last resort, JCAHO recommends using:

a. a chemical restrain tool
c. the most restrictive device possible
b. a vest restraint
d. the least restrictive device possible

12. Which characteristic of AC/Delirium is described as dysarthric, slow and often inappropriate?

a. memory
c. cognition
b. speech and language
d. attention span

13. Which of the following patients is at greatest risk for development of AC/Delirium in the hospital?

a. a 10-year old girl who is receiving dialysis
b. a 50-year old man who is a victim of a multiple trauma
c. a 17-year old girl who is a substance abuser
d. a 45-year old man who has chronic cardiovascular disease

14. When attempting to determine the contributing factors related to a patient's delirium, nursing & medical staff should recognize the primary reversible factor is:

a. acuity of illness
c. patient's medications
b. patient's sex
d. patient's support systems

15. Which of the following questions would most likely encourage an ICU patient to discuss his/her perception of the ICU experience?

    a. What are you thinking right now?
    b. Do things in the ICU seem abnormal to you?
    c. Why are you pulling at your IV tubing?
    d. Can't you understand that no one here wants to hurt you?

16. AC/Delirium can be precipitated by sleep deprivation?

    a. True b. False

17. Incidence of post-op AC/Delirium can not be reduced by preoperative orientation:

    a. True b. False

18. Most important factor in preventing sensory deprivation is the total care approach of the nurse who orients the patient and explains procedures:

    a. True b. False

19. AC/Delirium is twice as frequent in windowless ICU's:

    a. True b. False

20. Illusions, delusions, hallucinations experienced in the ICU may not be revealed until the patient has transferred out of the ICU:

    a. True b. False

21. If the cause of AC/Delirium cannot be found or treating a known cause does not help, the delirious behavior can usually be suppressed with IV Haldol and Ativan can be added as a sedative:

    a. True b. False

22. Over or under medicated patients display the signs and symptoms of AC/Delirium:

    a. True b. False

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Adapted by Nora Moti, 2002

Inpatient Nursing Quality Indicators Program
Labor-Management Program
Delirium Indicator - Answer Key to Post Test

1. b
2. b
3. a
4. a
5. c
6. b
7. d
8. d
9. b
10. c
11. d
12. b
13. c
14. c
15. b
16. a
17. b
18. a
19. a
20. a
21. a
22. a

APPENDIX F

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