Delivery of Care

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STRATEGIES FOR COST-EFFECTIVE CARE

Length of Stay (LOS)

- ▶ Number of days a patient stays in a healthcare facility
- ► Used to assist in determining cost savings

Utilization Review

- ► Evaluating necessity, appropriateness, and efficiency of healthcare services for a specific patient population
- ► Can be preformed either by the third-party payor or by a department of a hospital

Clinical Pathways

- ► Assists in evidence-based practice
- ► Developed by interdisciplinary team
- ▶ Protocols agreed to by physician can automatically be implemented without an order

Clinical Practice Guidelines

- ▶ Designed to decrease cost and increase quality
- ► Can be used in conjunction with clinical pathways

- ▶ Provide diagnosis-based, step-by-step intervention for providers to follow in an effort to promote quality care
- ► Also called standardized clinical guidelines

Demand Management (Care Management)

- ► Approach used by managed care organizations
- ▶ Decrease members' (enrollees') demand for health services
- ▶ Encourage members (enrollees) to maintain good health and a healthy lifestyle

Standards of Care

- ▶ Minimum accepted actions expected from professionals and healthcare organizations
- ▶ Developed by professional organizations, Nurse Practice Acts, and other regulatory agencies

Benchmarking

- ► Identifies best practice
- ► Continuously comparing one's performance with that of the industry's leader

Evidence-Based Practice

► Identifies high-quality, clinically relevant research that can be applied to clinical practice and the development of health policy

Total Quality Management (TQM)

- ► Also known as Continuous Quality Improvement (CQI)
- ▶ Developed by W. Edwards Deming
- ▶ Based on the premise that the person is the focal element on which production and service depend
- ► Focused on doing the right things the right way the first time, and problem-prevention planning, not retrospective and reactive problem-solving

Health Promotion, Disease, and Illness Prevention

- ► Encourages people to become partners in maintaining their own health
- ► Education is the key

Evidence-Based Practice

- ▶ Patient care is based on the best evidence available.
- ► Integrated problem-solving technique using:

- ▶ Literature review and critical appraisal of the research
 - > Systematic reviews of randomized clinical trials
 - ▶ Descriptive and qualitative studies
- Use of one's own expertise
- ▶ Patient's preferences and values
- ► Formulating the clinical question
 - ▶ PICO (Patient population, Intervention, Comparison, and Outcome)
 - ▶ Patient: age, gender, race, ethnicity, values, problem
 - ▶ Intervention: treatment or diagnostic test
 - > Comparison: comparing one intervention against similar interventions
 - ⊳ Outcome: end result
- ▶ Literature review
 - ▶ Databases (e.g., CINAHL, MEDLINE, and Cochrane Database)
 - ► Search strategy
 - ▶ Formulate question
 - ▷ Determine database
 - Determine best study design to answer question
 - ▷ Determine subject heading and key words (using PICO)
 - ⊳ Search and apply inclusion and exclusion criteria
- ► Critically examine the literature
- ▶ Applying the evidence: change personal practice or seek channels to institute change

Risk Management

- ► Goal is to maintain a safe and effective healthcare environment and reduce or prevent loss to the healthcare organization
- ▶ Identification of risks, real or perceived (by employees, patients, and public)
- ► Occurrence or incident reports
 - Completed after untoward event, regardless of injury
 - Medication errors
 - ▶ Falls
 - Should be detailed, objective, and factual
 - ▶ No opinions, assumptions, or accusations

RESEARCH PROCESS

- ► Conceptual phase
 - ▶ Identify the problem

- ▶ Designing and planning phase
 - Select design of the study
 - ▶ Identify study population
 - ▶ Determine sampling method
 - ► Finalize plan
 - ▶ Pilot study
- ► Empirical phase
 - ► Collect data
- ► Analysis phase
 - ► Analyze data
- ► Dissemination phase
 - Communicate findings

Research Utilization

- ► Select a problem
- ► Retrieve relevant literature
- ▶ Read theories and studies
- ▶ Critique studies
- ▶ Decide on use of each study in data synthesis
- ► Implement practice change
- Evaluate change and modify practice as needed

Resources for Quality Patient-Care Guidelines

- ► AHRQ Agency for Healthcare Research and Quality (www.ahrq.gov)
- ► NGC National Guideline Clearinghouse (www.guideline.gov)

Models of Research Utilization in Nursing

- ► CURN Project: Conduct and Utilization of Research in Nursing, 1975–1980
 - ▶ Developed clinical protocols to direct the use of selected research findings in practice
 - Encouraged collaborative practice
- ▶ Stetler Model of Research Utilization (National Collaborating Centre for Methods and Tools, 2011).
 - Outlines a series of steps to assess and use research findings
 - ► Facilitates evidence-based practice (EBP)
 - ▶ Practitioner-focused
 - ► Emphasizes critical thinking
- ▶ Iowa Model for Research in Practice (Titler et al., 2001).
 - Provides framework for nurses to make day-to-day decisions

- ▶ Infuses research into practice to improve quality of care
- ▶ Develop question, search literature, determine quality of results, conduct study if not happy with the results, develop guidelines, compare recommended practice to current practice
- ▶ Make changes using principle of planned change
- ▶ Rosswurm and Larrabee (Pipe, Wellik, Buchda, Hansen, & Martyn, 2005).
 - Guides practitioners through EBP process
 - Used in primary care settings
 - ▶ Adopted as standard of care (SOC) in acute-care settings
 - ▶ Nurses find this model easy to understand (resembles the Nursing Process)

NATIONAL DATABASE OF NURSING QUALITY INDICATORS (NDNQI)

- ▶ Identifies nursing-sensitive indicators that enhance patient outcomes
- www.nursingquality.org

PATIENT CARE CONSIDERATIONS

CONTINUITY OF CARE

- ► An interdisciplinary process that includes patients, families, and significant others in the development of a coordinated plan of care
- ► Facilitates patient's transition between settings and healthcare providers based on changing needs and available resources
 - ▶ *Nursing Scope and Standards of Practice* (American Nurses Association, 2010)
 - ► For additional information, go to the American Nurses Association (www.nursingworld.org) or your state board of nursing

DIFFERENTIATED NURSING PRACTICE

- ▶ Models of clinical nursing practice that recognize the level of education and clinical skills
- Outcomes include but are not limited to organizations capitalizing on the varied education programs leading to RN licensure
- ► Focuses on the division of labor needed to meet patient needs and to provide distinctive level of practice

PATIENT CLASSIFICATION SYSTEMS

- ▶ Grouping of patients according to specific characteristics
- ▶ Hours of nursing care assigned for each patient classification
- ▶ Unique to a specific institution
- ► Ongoing review is critical
- ▶ Internal or external forces affecting the unit influence on the classification system

PATIENT CARE MODELS

- ► Care delivery models change for a variety of reasons (e.g., economic factors, staff shortages or excess, philosophy, tasks, technology)
- ► Care delivery models
 - ► Total patient care
 - ▷ Oldest method
 - Nurse assumes total responsibility for meeting the needs of all assigned patients during his or her shift
 - ► Functional nursing
 - ▷ Evolved as a result of World War II
 - Team and modular nursing
 - ▶ Ancillary personnel collaborate to provide care to a group of patients under the direction of a professional nurse
 - ▶ Requires extensive team communication and regular team planning conferences
 - Primary nursing
 - ▷ Originally designed for an all-RN staff
 - Primary nurse assumes 24-hour responsibility for planning of care for one or more patients from start of hospitalization to discharge
 - During work hours, the primary nurse provides direct care for those patients
 - Case management
 - Collaborative process that assesses, plans, implements, coordinates, monitors, and evaluates options and service to meet an person's health needs through communication and use of available resources to promote quality and cost-effective outcomes (Glettler & Leen, 1996)

 - > Focuses on individual patient not population of patients

SELECTION OF APPROPRIATE PATIENT-CARE DELIVERY MODEL

- ► Skill and expertise of the staff
- ► Availability of registered professional nurses
- ► Economic resources of the organization
- ► Acuity of the patients
- ► Complexity of the tasks to be completed
- ▶ Need for interprofessional and multidisciplinary collaboration
- ► The ultimate goal is maintenance of a therapeutic and safe environment for the patient to provide the highest quality of care and meet the goal and priorities of the individual patient

PAIN MANAGEMENT

Epidemiology

- ▶ Pain is a problem of epidemic proportions.
- ▶ One in 3 persons living in the United States will experience some type of pain (Institute of Medicine [IOM], 2011).
- ▶ Two in 3 persons experiencing acute pain will suffer from unrelieved pain (IOM, 2011).
- ► Fifty to 75% of persons experiencing chronic pain will be partially or totally disabled, temporarily or permanently (IOM, 2011).
- ▶ The person experiencing pain is the only one who can accurately define and describe it.

Theories of Pain

- ► Gate control theory
 - ► Gating mechanism in the spinal cord either permits or prevents pain information transmission to the brain.
 - ▶ Pain is modulated at the substantia gelatinosa in the dorsal horn.
 - Nociceptive neurons transmit pain signals.
- ► Neuromatrix theory
 - Neuron matrix is a widely distributed neurologic network in the brain: body-self neuromatrix
 - ▶ Matrix is made up of somatosensory, limbic, thalamocortical components, synaptic architecture that is determined by genetic and sensory influences (Osborn, Wraa, & Watson, 2010).

Variables Influencing the Patient's Perception of Pain

- ▶ Pain perception
 - ▶ Awareness of a feeling of pain
- ▶ Pain threshold
 - ▶ The point at which the person feels and reports pain
 - ▶ Influenced by environmental and social factors
- ▶ Pain tolerance
 - ▶ Ability to endure pain
 - ▶ Influenced by age, gender, sociocultural background

Types of Pain

- ► Acute
 - ► Sudden onset, temporary, and usually localized
 - ► Has identified cause (e.g., trauma, surgery, inflammation)
 - Lasts 6 months or less
 - ▶ Warns of actual or potential injury to tissue
 - ▶ Initiates fight-or-flight response

TABLE 6-1
TYPES OF PAIN

ТҮРЕ	DESCRIPTION
Somatic	Arises from nerve receptors in skin or close to body surface Sharp, well-localized, or dull and diffuse
Visceral	Arises from body organs Dull, poorly localized Associated factors: nausea, vomiting, hypotension, restlessness Radiates or referred
Referred	Perceived at site distant from stimulus May occur with visceral pain Felt over the skin in any body part sharing the same spinal nerve

Adapted from Ignatavicious & Workman (2013)

- Characteristics of acute pain
 - ▶ Tachycardia
 - Shallow, rapid respirations
 - Dilated pupils
 - ⊳ Pallor

- ▷ Increased blood pressure
- ▷ Sweating

► Chronic pain

- ▶ Prolonged pain lasting longer than 6 months
- ▶ Not always associated with an identified cause
- ▶ Often unresponsive to conventional medical treatment
- ▶ Dull, aching, diffuse

TABLE 6-2
CATEGORIES OF CHRONIC (PERSISTENT) PAIN

ТҮРЕ	DESCRIPTION
Recurrent acute	Relatively well-defined episodes interspersed with pain-free episodes (e.g., migraine, sickle cell crisis)
Ongoing time-limited	Identified by a defined time period (e.g., cancer, burns)
Chronic non-cancer (formerly chronic nonmalignant)	Non-life-threatening; persists beyond expected time for healing (e.g., chronic lower back pain); most common type of chronic pain
Chronic intractable nonmalignant syndrome	Similar to chronic nonmalignant; patient unable to cope well with pain Accompanied by physical, social, or psychology disability, or a combination

- ▶ Common chronic pain conditions
 - ▷ Chronic low back pain
 - ▶ Neuralgias
 - ▶ Reflex sympathetic dystrophies
 - ▶ Hyperesthesias

 - ⊳ Cancer

► Central pain

- ▶ Related to lesion in the brain spontaneously producing high-frequency bursts of impulses perceived as pain
- Perception of body position and movement may be lost
- ► Causes: tumor, vascular lesion, trauma, inflammation

▶ Phantom pain

- Occurs after amputation
- ▶ May be because of stimulation of severed nerves at amputation site
- ▶ Symptoms: itching, twisting, pressure, tingling, burning, stabbing, cramping

► Psychogenic pain

- Experienced in the absence of any diagnosed physiologic cause or event
- ► Emotional needs prompt pain sensations
- ▶ Physiologic changes may occur
- ▶ May result from interpersonal conflicts, need for support, or desire to avoid traumatic or stressful event

Factors Affecting Response to Pain

► Age

- ▶ Older adults have decreased perception and higher pain tolerance because of physiological aging changes.
- ▶ Older adults perceive pain as a normal consequence of aging.
- ▶ Older adults are hesitant to take pain medication because of potential for addiction.

► Sociocultural influences

- ▶ Response to pain is strongly influenced by family, community, and culture.
- ► Sociocultural influences affect a person's pain tolerance, interpretation, and verbal and nonverbal reaction to pain.
- ► Responses to pain vary greatly among cultures.
- ▶ Nurses must have cultural competence when assessing and managing pain.

► Emotional status

- Factors that increase pain

 - ⊳ Fear
 - > Other conditions or symptoms occurring simultaneously
 - ▶ Fatigue

 - ▷ Depression
- ▶ Past experiences with pain
- ► Source and meaning
- ▶ Knowledge

History

- ▶ Pain onset
- Description
- ▶ Localization
- ► Intensity
- Quality
- ► Pattern

- Factors that relieve or intensify
- Patient's reaction to the pain

Pain Intensity Rating Scales

- ▶ Numeric Rating Scale (NRS, 0–10; National Initiative on Pain Control [NIPC], n.d.)
 - ▶ Use in clinical settings
- ► Visual Analog Scale (VAS, 0–100; NIPC, n.d.)
 - ▶ Use in research settings
- ► Visual Analog Scale with Anchors (NIPC, n.d.)
 - ► Horizontal or vertical line with anchors: "no pain" to "pain as bad as it could be"
- ► FACES (NIPC, n.d.)
 - ▶ Used primarily in pediatric population; can be used with adults
- ► FLACC Scale (0–10) (Merkel, Voepel-Lewis, Shayevitz, & Malviya, 1997)
 - ▶ Observer-rated scale; originally used for children
 - ► Can be used for the nonverbal and dementia patient
 - ▶ Five areas observed: face, legs, activity, crying, and consolability
- ▶ PAINAD (Pain Assessment in Advanced Dementia, 0–10; Warden, Hurley, & Volicer, 2003)
 - Adapted from the FLACC and Discomfort Scale for Dementia of the Alzheimer's Type (DS-DAT) tools
 - Assesses five areas for possible indicators of pain in patients with severe dementia
 - ▶ Breathing
 - ▶ Vocalization
 - ▶ Facial expression
 - ⊳ Body language

Nursing Management

Pharmacologic Treatment

- ▶ Nonnarcotic agents (analgesics & nonsteroidal anti-inflammatory drugs [NSAIDs])

 - ▶ NSAIDs & aspirin act on peripheral nerve endings; minimize pain by interfering with prostaglandin synthesis
- Opioid analgesics
 - ▷ Codeine, hydrocodone, morphine, tramadol, oxycodone, fentanyl, methadone
 - ▶ Used for moderate to severe pain

- ▷ Bind to opiate receptors within and outside central nervous system (CNS)
- ▶ When taken as recommended, risk of addiction is low
- ▶ When pain is not adequately treated, patient may seek more narcotic relief, thus increasing risk of tolerance
- Adjuvant medications
 - ▶ Antidepressants (tricyclics) act on the retention of serotonin in the CNS and inhibit pain sensation
 - ▷ Used for neuropathic pain in cancer patients
 - - ⊳ Benzocaine, lidocaine
 - ▶ Block initiation and transmission of nerve impulses in local area, blocking pain
 - ▶ Anticonvulsants
 - ⊳ Gabapentin (Neurontin), pregabilin (Lyrica), phenytoin (Dilantin), carbamazepine (Tegretol)
 - ▶ Treat neuropathic pain by reducing neuronal hyperactivity and suppressing paroxysmal discharge
 - Steroids
 - ⊳ Prednisone, dexamethasone (Decadron)
 - ▶ Used for neuropathic pain in cancer patients with tumor infiltration or compression
 - Nerve blocks
 - ⊳ Steroid injections

Cognitive-Behavioral Interventions

- Cutaneous stimulation: heat, cold, massage, transcutaneous electrical nerve stimulation (TENS)
- ▶ Relaxation: simple strategies such as slow, rhythmic breathing
- ▶ Distraction: focusing attention on nonpainful stimuli
- ► Imagery: using imagination to develop mental pictures
- Biofeedback: process that makes person aware of body functions and promotes modification of these functions at a conscious level

Evaluation

- ▶ Determine whether relief has been achieved.
- ▶ Determine most effective interventions.
- ► Set realistic goals (complete relief may not be obtainable); determine level of pain patient can tolerate and maintain quality of life.
- ► Reassess as needed.

Patient and Family Teaching

- ▶ The use of narcotics to treat severe pain is unlikely to cause addiction.
- ► Abstain from alcohol when taking narcotics.
- ► Check with healthcare provider before taking over-the-counter agents.
- ► Increase fluids and fiber to prevent constipation.
- Side effects include dizziness, drowsiness, impaired thinking; use caution when driving or making important decisions.
- ▶ Report decreased effectiveness or increased side effects to healthcare provider.

Gerontological Considerations When Using Pain Medications

- ► Start low and go slow.
 - ▶ Increased risk of adverse reactions because of age-related differences in pharmacokinetics and pharmacodynamics.
 - ▶ Watch for delirium; ensure that drug-induced cognitive and behavioral changes are not managed with additional medications.
- ▶ The older adult may not report pain over fear of addiction when narcotics are prescribed.
- ▶ Older adults are more likely to take multiple medications regularly, which increases the risk of adverse effects.
- ► Regular medication assessments including over-the-counter, herbal, and nutraceuticals should be conducted in primary care.

ALTERNATIVE AND COMPLEMENTARY THERAPIES

- ▶ Based on holistic nursing: caring for the mind, body, and spirit
- ► Some evidence-based and integrative (www.ncbi.nlm.nih.gov/pubmed/21063917)
- ▶ Enhance the health and quality of life for those who choose to practice
- ► Complementary therapy: therapy used in addition to conventional therapy
- ► Alternative therapy: unconventional therapy used instead of conventional therapy
- ▶ Best used as complementary therapies, along with conventional therapies
- ► Emphasize "natural mode" of healing

Types of Therapies

- ▶ Biologic-based
 - Dietary therapies
 - Dietary approaches and special diets that are applied for risk factors or chronic diseases
 - ▶ Atkins, Pritikin, South Beach, vegetarian, paleo

▶ Herbal medicine

- > Plant-derived preparations used for therapeutic and preventive purposes
 - ⊳ Garlic, St. John's Wort, chamomile
- ► Megavitamins

► Mind-body

- ▶ Meditation
 - > Naturally occurring rest state to heal, energize, integrate, assimilate
 - ▶ Facilitates sense of being centered
 - ▷ Improves overall sense of well-being

▶ Biofeedback

Use of electronic equipment to read brain wave patterns, muscle tension, or electrical skin resistance

► Aromatherapy

> Use of pure essential oils to heal emotional and physical imbalances

▶ Music

- ▶ Reduces stress and anxiety
- ▶ Involves hands, voice, emotions, mind, and spirit
- Active: playing instruments or singing
- ▶ Passive: listening to music to relax, stimulate, motivate, or soothe the body and mind

► Imagery

- ▷ Mind-body intervention to ease stress and promote sense of peace and tranquility during a stressful time
- ▶ Used as adjunct in postoperative pain control

Guided imagery

- Uses directed mental images to promote physical healing or changes in attitude or behavior
- ▷ Visualization exercises are used as self-help tool.
- ▶ Primary aim is to guide the person to state of a calm, silent, and still mind.

► Manipulation or body-based

► Chiropractic

- > Manual adjustment or manipulation of the vertebral column and extremities
- ▷ Uses direct hand contact and mechanical and electrical treatment modalities

Massage

- > Kneading or manipulating muscles and soft tissue to improve health and comfort
- ▷ Increases blood circulation

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► Craniosacral therapy

▶ Manual manipulation aimed at remedying supposed distortions in the structure and function of the brain and spinal cord, bones of skull, sacrum, and interconnected membranes

► Reflexology

- ▶ Pressure applied specific points on hands and feet that are alleged to correspond to certain organs, glands, and body parts
- ⊳ Similar to acupressure (see below)
- ▷ Used for sinus congestion, headaches, asthma, premenstrual syndrome

▶ Energy-based

- ▶ Healing touch
 - ▶ Hands-on and energy-based technique intended to balance and align human energy field, accelerate wound healing, relieve pain, promote relaxation, prevent illness, and ease the dying process

▶ Reiki

▷ Light hand placement intended to channel healing energies to the recipient

► Acupuncture

- ▷ Insertion of thin, flexible needles into the skin along alleged energy meridians to stimulate and influence physiological, psychological, and emotional functions in the mind and body
- ▶ Goal is to restore overall energy balance.
- ▶ Used in treatment of low back pain, arthritis, tendonitis, Ménière's disease

Acupressure

- ▶ Finger pressure along alleged energy meridians to manipulate soft tissue at specific points

SAFETY AND ENVIRONMENTAL ASSESSMENT

Patient Safety

- ► National Patient Safety Goals
 - Developed by the Joint Commission
 - ► Require healthcare facilities to focus on specific safety practices
- ► Hospital Report Cards
 - ► Consumer-oriented reports cards available to the public

- ▶ Information on

 - ▷ Hospital's experience in providing care
- ► Rapid Response Teams/Medical Emergency Teams (RRT/MET)
 - ▶ Intervene when the patient is beginning to decline
 - Do not replace the code team

Disaster Preparedness

- ▶ A plan to ensure the organization can respond and function under extreme circumstances
- Required by licensing and accreditation agencies
- ► Internal and external plans
- ► Any situation that may overwhelm hospital resources
 - ▶ Internal

 - ⊳ Power failure
 - ▶ Water shortage
 - ▶ External

 - ▶ Natural disaster
 - ▷ Structural collapse

Potential Sources of Injury

- ► Falls
 - Assess risk and monitor closely
 - ▶ Falls are the leading cause of injury that results in death in older patients.
 - ▶ Prevention is key
 - ▶ Physical assessment
- ► Restraints
 - ▶ Use alternative methods first
 - ▶ Follow institutional policy and monitor patient
- ► Medications
 - ► Five Rights or Six Rights (includes documentation)
 - - ▶ Right patient
 - ▶ Right time and frequency of administration

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- ⊳ Right dose
- ▶ Right route of administration
- ▶ Right drug
- ⊳ Six Rights
 - ⊳ Right medication
 - ⊳ Right route
 - ⊳ Right time
 - $\quad \triangleright \ Right \ patient$
 - ⊳ Right dosage
 - ▶ Right documentation
- ▶ Know patient allergies and reactions
- Question unusual orders
- ▶ Inadequate patient education
 - ▷ Assess knowledge before and after teaching
 - ▶ Use return demonstration when possible

► Transfer of care

- ▶ Be clear when transferring care
- ▶ Document completion of treatment

► ICARE

- ▶ Introduction
- ▶ Chief complaint or current status
- ► Assessment
- ► Results
- Evaluate
- ▶ Disposition

► SBAR

- ► Situation
- ► Background
- ► Assessment
- Request or recommendation

▶ Time outs

- ► Conducted before any surgery or procedure
- ▶ Involves active communication and documentation of minimally:

 - ▷ Correct procedure to be completed
 - ▷ Correct site

- ▷ Correct informed consent if appropriate
- ► Malfunctioning equipment
 - ▶ Check equipment regularly.
 - ▶ Notify appropriate persons regarding malfunction equipment.

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