

SUBACUTE CARE

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Subacute care is an evolving concept in health care delivery. The implementation of the Prospective Payment System by Medicare in the early eighties led to the recognition that there was a group of older patients who no longer required acute care services and did not need (or want) long-term care placement, but who were not yet sufficiently recovered from their acute illness to return home. These patients were often said to be receiving subacute care, to distinguish them from more acutely ill patients who truly required the services of the acute care hospital. Because of the financial pressures of the Prospective Payment System, many of these patients were moved into nursing homes. In this new setting, it was again recognized that these subacute patients required a different type of care than traditional long-term care patients. Over time, a new level of care has emerged to deal with the unique challenges posed by this group of elderly patients with their various combinations of acute on chronic illness, advanced age, geriatric syndromes, functional impairments, polypharmacy, and special needs for social support to live in the community.

Although for the purposes of this text, the term *subacute care* is used to refer to this new level of care, there are many other names that are used relatively interchangeably with this term. Some of the other designations for subacute care more accurately describe the type of care, for example, *restorative care*, with its reference to restoring functional status; *skilled care* and *intensive therapeutic care*, reflecting the need for professional services; and *complex care*, emphasizing the patients' underlying multiple comorbidities. Another group of terms distinguish subacute care from other levels of care: *transitional care* highlights the movement of the patient through the health care system, and *post-acute care* and *extended care* focus on the relationship of this new level of care to conventional hospital care.

Although it is increasingly recognized as a new level of care, subacute care has largely been financed through an established mechanism, the Medicare Skilled Nursing Facility Benefit. This benefit was created at the inception of Medicare as a component of Part A, the hospital insurance portion of Medicare. Beneficiaries are eligible for up to 100 days of skilled nursing facility care if they require daily skilled nursing or skilled rehabilitation services after an acute care hospital stay of at least three days. The benefit provides 100% coverage for the first 20 days and 80% coverage for the remaining 80 days. Most standard Medicare

supplements and Medicaid cover the 20% copayment for days 21 through 100, so this level of care can often be provided to patients at no out-of-pocket cost to them.

The Medicare Skilled Nursing Facility Benefit has been financially beneficial to hospitals and nursing homes. Hospitals obviously gain by earlier discharge of patients for whom they are receiving a set prospective payment based on the Diagnosis Related Group (DRG) at the time of admission. When patients are transferred to a hospital-based skilled nursing facility, the hospital receives additional per diem payments for the care of the patient. Nursing homes also profit from the Medicare Skilled Nursing Facility Benefit because, although the daily rates for the nursing care are subject to "routine cost limits," they are still usually higher than state Medicaid and private pay rates for long-term care patients. Both hospitals and nursing homes have taken advantage of provisions of the Medicare Skilled Nursing Facility Benefit that enable them to receive cost-based reimbursement for capital costs and ancillary services, e.g., therapy provided to patients. The rapid development of subacute care has been further fueled by provisions for up to 4 years of completely cost-based reimbursement for new providers of skilled nursing facility care and "routine cost limit exceptions" for facilities that can prove they provide a higher level of care than average skilled nursing facilities.

The rapid growth in Medicare expenditures for the Medicare Skilled Nursing Facility Benefit in the 1990s has led some observers to question whether subacute care is genuinely a new level of care or just a sophisticated Medicare reimbursement scam. There are no randomized clinical trials of the effectiveness of subacute care per se, but the effectiveness of inpatient post-acute geriatric care has been established by two landmark studies. In 1984, Rubenstein and colleagues reported the results of a randomized clinical trial of care in a special "geriatric evaluation unit" at the Sepulveda Veterans Administration Medical Center. The unit was staffed by an interdisciplinary team including physicians, nurses; a social worker, a clinical psychologist, a dietitian, occupational and physical therapists, a dentist, and an audiologist and was designed to provide improved diagnostic assessment, therapy, rehabilitation and placement services. Patients were selected to participate in the study if they had an acute care hospitalization of at least 1 week and had a persistent medical, functional, or psychosocial problem that inter-

ferred with discharge home. During the 1-year follow-up period, patients randomized to treatment in the geriatric evaluation unit had a lower mortality, were less likely to have initially been discharged to a nursing home, had fewer total nursing home days, fewer hospital readmissions, and fewer days in an acute care hospital, and were more likely to have improvements in their functional status and morale.

The benefits of a specialized postacute geriatric care unit were also demonstrated by Applegate and his colleagues working in a community rehabilitation hospital. Elderly patients with potentially reversible functional impairments who were recovering from an acute medical or surgical illness requiring hospitalization were randomized to treatment in a "geriatric assessment unit" in the rehabilitation hospital or usual care in the referring hospital. Care in the geriatric assessment unit was provided by an interdisciplinary team including physicians, rehabilitation nurses, social workers, nutritionists, physical therapists, occupational therapists, and specialists in speech therapy and audiology. After 6 months, patients treated in the geriatric assessment unit demonstrated significant improvements in bathing, dressing, and the ability to transfer and were more likely to be residing in the community. These patients also had a decreased mortality rate, although it did not reach the level of statistical significance.

Little work has been done to compare subacute care settings with other postacute care options for geriatric patients. Similar types of services including specialized nursing; social work; and physical, occupational, and speech therapy can also be provided in acute rehabilitation hospitals, in chronic care hospitals, and in the community through home health agencies. There is some evidence that patients with more complex problems such as stroke may benefit from the more-intensive services available in a rehabilitation hospital. For patients with hip fracture, the greater costs of a rehabilitation hospital compared with skilled nursing facility care do not seem to be associated with any increased benefits in terms of improved functional status or community residence.

DEFINING SUBACUTE CARE

The origins of subacute care represent the efforts of many individual providers of geriatric health care services to meet local needs. Subacute care programs have simultaneously arisen in hospitals and free-standing nursing homes, often within the same community. Because the subacute care program typically shares a sense of mission as well as resources and staffing with the parent institution, the nature of subacute care varies widely depending on the setting. Subacute care can be further defined and classified according to the services provided and the types of patients. The various permutations of setting, services, and types of patients have led to a multitude of subacute care programs. Some of these programs are highly specialized and oc-

cupy a particular niche within the health care delivery system; for example, the care of patients who are dependent on ventilator. Other subacute care programs offer general services and accept a broad range of patients. Two formal definitions of subacute care are presented in Table 35-1. Common settings, services, and types of patients are reviewed next.

Medicare certifies three different types of facilities to provide skilled nursing care: (1) traditional free-standing nursing homes, which typically designate a portion of their skilled beds for Medicare patients; (2) "distinct-part" hospital-based nursing facilities within the walls of acute-care hospitals; and (3) rural hospitals with swing beds (beds that can either be used for acute or long-term care). Hospital-based programs typically offer more "high-tech" services than do free-standing facilities, but it is otherwise difficult to distinguish programs on the basis of setting alone.

Eligibility for the Medicare Skilled Nursing Facility benefit is defined by the need for daily (5 days per week) skilled nursing or rehabilitation services. Specific qualifying services are detailed in Table 35-2. Skilled nursing services include (1) direct services such as administration of parenteral medications and intravenous fluids, enteral feedings, and wound care; (2) teaching and training activities to enable the patient or family to provide needed care; (3) management and evaluation of a care plan; and (4) skilled observation and assessment of a potentially unstable condition. Skilled rehabilitation services include those provided by physical therapists, occupational therapists, and speech pathologists. Rehabilitation services can only be provided if there is a reasonable expectation of improvement in the patient's condition or to establish a maintenance program to be carried out by others. In addition to the usual skilled nursing and rehabilitation, some programs provide more specialized services. Examples include chemotherapy, dialysis, total parenteral nutrition, and ventilator support.

Subacute care programs are broadly divided into medically complex subacute care, where the focus is on skilled nursing services, and subacute rehabilitation programs, with an emphasis on physical and occupational therapy; however, these distinctions are somewhat arbitrary. Medically complex patients are often physically deconditioned and require rehabilitation services to gain functional independence before discharge. Subacute rehabilitation patients typically have comorbid medical illnesses that prevent them from qualifying for acute rehabilitation. (Medicare requires that acute rehabilitation patients be able to participate in 3 or more hours of therapy per day.) These comorbid conditions frequently necessitate skilled nursing services in addition to therapy services.

A recent strategy in the development of subacute care has been to target patients with particular diseases or conditions early in their hospital stay for potential discharge to subacute care. As hospitals have become more sophisticated in their approach to the Prospective Payment System, algorithms for optimal cost-efficient management of patients in particular DRGs

TABLE 35-1
Definitions of Subacute Care

<p>Joint Commission on Accreditation of Healthcare Organizations</p>	<p>Subacute care is comprehensive inpatient care designed for someone who has had an acute illness, injury, or exacerbation of a disease process. It is goal-oriented treatment rendered immediately after or instead of acute hospitalization to treat one or more specific, active, complex medical conditions or to administer one or more technically complex treatments, in the context of a person's underlying long-term conditions and overall situation. Generally, the individual's condition is such that the care does not depend heavily on high technology, monitoring, or complex diagnostic procedures.</p>
<p>National Subacute Care Association</p>	<p>Subacute care requires the coordinated services of an interdisciplinary team including physicians, nurses, and other relevant professional disciplines, who are trained and knowledgeable to assess and manage these specific conditions and perform the necessary procedures. It is given as part of a specifically defined program, regardless of the site.</p>
<p>National Subacute Care Association</p>	<p>Subacute care is generally more intensive than traditional nursing facility care and less than acute care. It requires frequent (daily to weekly) recurrent patient assessment and review of the clinical course and a treatment plan limited (several days to several months) period, until a condition is stabilized or a predetermined treatment course is completed.</p>
<p>National Subacute Care Association</p>	<p>Subacute care is a comprehensive cost-effective inpatient level of care for patients who: (a) have had an acute event resulting from injury, illness, or exacerbation of a disease process; (b) have a determined course of treatment; and (c) although stable, require diagnostics or invasive procedures but not intensive procedures requiring an acute level of care. The severity of the patient's condition requires (a) active physician direction with frequent on-site visits, (b) professional nursing care, (c) significant ancillary services, (d) an outcomes focused interdisciplinary approach utilizing a professional team, and (e) complex medical and/or rehabilitative care. Typically short term, subacute care is designed to return patients to the community or transition them to a lower level of care.</p>

have been developed. These algorithms, also called critical pathways or care maps, can be used in two ways to identify possible subacute care patients. First, certain DRGs are associated with a high likelihood of some type of postacute care, e.g., major joint replacements. For these DRGs, subacute care can be built into the algorithm as an option for postacute care, along with outpatient rehabilitation or home health services. Second, algorithms can be used to identify patients who

are not progressing toward discharge in the expected time frame for their particular DRG. Often, these patients have a concomitant decline in functional status and can benefit from a period of skilled nursing and rehabilitation care. Diagnostic Related Groups that are associated with subacute care use are listed in Table 35-3. Hospitals with highly specialized services may also target patients in DRGs related to these services; for example, a hospital with oncology services may develop

TABLE 35-2
Common Skilled Nursing and Rehabilitation Services

SKILLED NURSING SERVICES	TEACHING AND TRAINING ACTIVITIES
Intravenous, intramuscular, or subcutaneous injections	Self-administration of injectable medications or complex medical regimens
Nasogastric, gastrostomy, or jejunostomy feedings	Diabetic teaching
Insertion or sterile irrigation of suprapubic or urethral catheters	Self-administration of medical gases
Dressings involving prescription medicines or sterile technique	Gait training and prosthesis care for amputees
Treatment of stage III or worse pressure sores	Caring for a new colostomy or ileostomy
Heat treatments that are part of an active treatment program	Self intermittent catheterization
Institution and supervision of bowel and bladder training programs	Administration of enteral feedings
Initial phases of a regimen of medical gases such as bronchodilator therapy	Care of central venous lines
Care of a colostomy or ileostomy during the early postoperative period	Care and use of braces, splints, and orthotics
Skilled management and evaluation of a care plan	Specialized wound or skin care
Skilled observation and assessment of potentially unstable condition	
SKILLED REHABILITATION SERVICES	
Assessment	Hot packs, infrared treatments, paraffin baths, and whirlpool baths
Therapeutic exercises	Ultrasound, shortwave, and microwave diathermy treatments
Gait training	Occupational therapy
Range-of-motion tests	Speech therapy
Maintenance therapy that requires complex and sophisticated procedures	

a subacute program that can handle patients receiving combination chemotherapy and/or radiation therapy.

SUBACUTE CARE OPERATIONS

The continued widespread use of the term *subacute care* is in many ways unfortunate because it implies that this

level of care is somehow "less" than acute care, whereas it actually has evolved over time into something much more complex. Typical subacute care patients have multiple medical problems, are taking many prescription and nonprescription medications, and are at high risk for complicating geriatric syndromes including delirium, falling, malnutrition, incontinence, and pressure sores. In addition to the usual physician visits and nursing care, these patients require the coordinated care of professionals from many other disciplines in-

TABLE 35-3
Diagnosis Related Groups Commonly Associated with Subacute Care

TYPE OF PROGRAM	MEDICAL CONDITION	DRG	DRG DESCRIPTION
Subacute rehabilitation	Stroke	014	Specific cerebrovascular disorders except transient ischemic attack
	Orthopedic	209	Major joint and limb reattachment procedures of lower extremity
		210	Hip and femur procedures except major joint procedures, age greater than 17, with complication or comorbid condition
		211	Hip and femur procedures except major joint procedures, age greater than 17, without complication or comorbid condition
	Amputation	113	Amputation for circulatory disorders except upper limb and toe
Medically Complex Subacute Care	Respiratory	088	Chronic obstructive pulmonary disease
		089	Simple pneumonia and pleurisy, age greater than 17, with complication or comorbid condition
		475	Respiratory system diagnosis with ventilator support
	Cardiac	127	Heart failure and shock
	Malnutrition	296	Nutritional and miscellaneous metabolic disorders, age greater than 17, with complication or comorbid condition
	Complex Wound Care	263	Skin graft and/or debridement for skin ulcer or cellulitis, with complication or comorbid condition
271		Skin ulcers	

cluding social workers, pharmacists, therapists, and dietitians in order to make clinical and functional improvements. Another layer of complexity is created by the multitude of regulations governing the use of the Medicare skilled nursing facility benefit. The day-to-day operations of subacute care units are more involved than traditional medical-surgical acute care units and, in fact, rival the management challenges of other highly evolved and specialized inpatient units such as intensive care units.

The hallmark of subacute care is the use of interdisciplinary teams to achieve specific measurable patient outcomes. Operational details vary widely from program to program, but the functions of the interdisciplinary teams include (1) development of specific admission criteria with a mechanism for screening pa-

tients prior to admission to ensure that they can potentially benefit from this level of care; (2) a detailed assessment involving all relevant professional disciplines; (3) regularly scheduled team meetings (often on a weekly basis) to define problems, identify goals, create a plan of care and then monitor progress toward goals, (4) a discharge planning process that involves the patient and family is goal-oriented and is incorporated into the plan of care from the beginning.

The professional disciplines involved in the team process include at a minimum the physician(s), nurses, therapists (physical, occupation, and speech) and social worker. Medicare skilled nursing facility regulations also mandate specific roles for pharmacists, dietitians, and recreation therapists or activity coordinators, and these individuals often participate in team

meetings. Depending on the type of subacute care program, there may be other disciplines involved including respiratory therapists, psychologists, chaplains, prosthetists, and enterostomal therapists. Once the plan of care is established by the team, a "case manager" (usually a nurse or social worker) may be designated to oversee its implementation.

The complexity of this level of care requires strong leadership. Medicare regulations mandate an administrator, a director of nursing, and a medical director for skilled nursing facility certification. The facility must be in compliance with all federal, state, and local laws and with accepted professional standards and principles pertinent to this level of care. A quality assessment and assurance committee must be established consisting of the director of nursing, a physician (usually but not necessarily the medical director), and at least three other members of the staff. This committee meets at least quarterly and must develop and implement appropriate plans of action to identify and correct quality deficiencies. An infection control program must also be established to investigate, prevent, and control infections.

The Role of Physicians in Subacute Care

The medical director is specifically responsible for implementation of resident care policies and coordination of medical care in the facility (see Table 35-4 for details). To fulfill this responsibility, the medical director must be an active participant in (1) administrative meetings to provide input regarding facility design, policies and procedures, and necessary equipment; (2) quality assurance activities to provide the required oversight of coordination of care and overall quality of care; and (3) educational programs for physicians and other professional staff to help set and maintain high standards for patient care. The American Medical Directors Association (AMDA) is a professional organization that has helped develop standards for the professional role of medical directors as well as for clinical care in skilled nursing facilities including specific standards for subacute care programs. The AMDA can be contacted at 10480 Little Pauxent Parkway, Suite 760, Columbia, Maryland, 21044 or by telephone at (410) 740-9743.

Historically, it has been difficult to find well-qualified physicians who were willing to work in the skilled nursing facility setting. Lower fee schedules, limits on numbers of visits, and lack of familiarity with this level of care all contributed to the problem. Consequently, free-standing skilled nursing facilities often have open medical staffs and are grateful when a physician comes into the facility to see patients. With the development of subacute care and the concurrent increasing federal regulation of skilled nursing facility care, the need to have medical staff with specific knowledge of this level of care has become increasingly important. Some subacute care programs have closed medical staffs, mean-

TABLE 35-4
Responsibilities of the Medical Director of a Skilled
Nursing Facility (42 CFR 483.75)

Implementation of resident care policies	Admissions, transfers, and discharges
	Infection control
	Use of restraints
	Physician privileges and practices
	Responsibilities of non-physician health care workers
	Accidents and incidents
	Ancillary services including laboratory, radiology, and pharmacy
	Use of medications
	Use and release of medical information
	Overall quality of care
Coordination of medical care	Oversight and supervision of physician services
	Oversight of overall clinical care of residents
	Evaluating reports of possible inadequate care and taking corrective actions if necessary
	Ensuring the support of essential medical consultants

ing only a few selected physicians have admitting privileges. A compromise approach is to limit medical staff to those physicians who are interested in caring for subacute patients and have or are willing to acquire the necessary expertise.

The regulatory obstacles to physician involvement in subacute care have been reduced in the last few years as the importance of improving quality of care in the long-term care setting has been recognized. Given that subacute care is usually licensed under skilled nursing facility regulations, physician reimbursement for subacute care is the same as for long-term care. Fortunately, new billing codes have been created that more

accurately reflect the work to be done. The physician work component of the Resource-Based Relative Value Scale (RBRVS) for nursing home visits has been adjusted upward and now more closely approximates that for hospital visits, resulting in increased physician reimbursement. Arbitrary limits on physician visit frequency have been removed, and the physician is allowed to determine the visit frequency on the basis of medical considerations. Physician visits in subacute care typically occur once or twice a week (compared with one to four times per month in traditional long-term care) but can occur daily if indicated.

Midlevel Practitioners

Because of the shortage of physicians in subacute care settings, midlevel practitioners including physician assistants, clinical nurse specialists, and nurse practitioners often provide part of the medical care to patients. Federal regulations permit the attending physician to delegate any required physician task to a midlevel practitioner, as permitted by state law. The physician must personally perform every other routine visit (visits are mandated every 30 days for the first 90 days and every 60 days thereafter). In the subacute setting, where visits are generally required more frequently because of the patient's medical condition, the majority of the visits can potentially be made by midlevel practitioners. The physician must provide supervision but is not required to be on-site, and the midlevel practitioner can bill for this care in his or her own name and be reimbursed at 85 percent of the physician rate.

Subacute Care Nursing

Nursing care in the subacute setting differs from both acute care and long-term care. The required skills and staffing patterns cannot be simply derived from taking the average between the two types of care. Subacute care nurses need to have acute care skills plus the special knowledge of geriatric syndromes required for long-term care. Nursing assessment skills are particularly important, as physicians are not seeing the patients daily. The combination of medical severity of illness and functional impairment can result in higher nursing acuity in subacute care units than in acute care settings. Nursing hours per patient day in subacute care may be more than double that seen in traditional skilled nursing facilities, averaging 4 to 8 hours per day compared with 3 to 5 hours per day. This level of staffing is comparable to some acute care units, but the professional mix is different, with subacute care units employing more licensed practical nurses and nursing assistants and fewer registered nurses.

Federal regulations (Nursing Home Reform Amendments of the Omnibus Budget Reconciliation Act of 1987 frequently referred to as OBRA '87) mandate the use of the Resident Assessment Instrument (RAI) for assessment and care planning for patients

whose subacute care is being provided through the Medicare Skilled Nursing Facility Benefit and who stay in subacute care longer than 14 days. Because of the shorter length of stay, subacute care programs often complete the initial assessment component within 3 days. Nursing staff are usually responsible for completing this document, but all professional disciplines including physicians need to assess the patient and participate in the care planning process. The RAI consists of a Minimum Data Set (MDS) and Resident Assessment Protocols (RAPs). The Minimum Data Set is actually a comprehensive multidisciplinary assessment tool with built-in algorithms designed to help identify clinical problems in 18 areas (Table 35-5). When the MDS suggests a potential problem, a RAP is triggered. Each RAP provides a more detailed assessment of the potential problem and, when warranted, helps create a plan of care to manage the problem.

The Role of Other Subacute Care Professionals

Social workers are responsible for helping subacute care patients attain or maintain their highest practical physical, mental, and psychosocial well-being. Social services particularly come into play when the patient needs access to services or people outside the facility including family and informal caregivers, financial or legal services, assistive devices, and durable medical equipment. Social workers also help provide emotional support and counseling to patients (and their families) as they learn to cope with the medical condition(s) that precipitated their need for subacute care. Finally, in subacute settings, social workers frequently devote the majority of their time to discharge planning, including arranging any needed home services or placement in a lower level of care once the patient's subacute plan of care has been completed.

Recreation therapists (or other activities professionals licensed or certified by the state) are charged with the same responsibilities as social workers for helping patients attain or maintain their highest practical physical, mental, and psychosocial well-being. Activities that help promote the patient's well-being are incorporated into the plan of care. These activities may be individual, group, or bedside but should reflect life-long interests, e.g., music, reading, pets, hobbies, religious services, or cultural celebrations. In subacute care programs, community reintegration activities such as grocery shopping or a trip to the mall can be important in achieving goals for independent community living.

Dietitians are responsible for meeting the nutritional needs of patients with food that is palatable, attractive, and served at the proper temperature and with a consistency appropriate for the particular patient. Facilities must provide three meals per day and a bedtime snack. Assistive devices for eating, such as large-handle utensils or plate guards, should be provided when needed. Feeding tubes should be used only

TABLE 35-5
 Problem Areas Identified by the Minimum Data Set That
 Require Resident Assessment Protocols and Care
 Planning

Delirium
Cognitive loss/dementia
Visual function
Communication
ADL functional/rehabilitative potential
Urinary incontinence and indwelling catheter
Psychosocial well-being
Mood state
Behavioral symptoms
Activities
Falls
Nutritional status
Feeding tubes
Dehydration/fluid maintenance
Dental care
Pressure ulcer
Antipsychotic drug use
Physical restraints

ADL, activities of daily living.

if clinically necessary. Therapeutic diets must be provided when ordered by the physician. The dietitian helps ensure that patients maintain acceptable parameters of hydration and nutritional status including body weight and blood work, e.g., serum proteins, hemoglobin, and electrolytes. In the subacute care setting, dietitians also spend part of their time teaching patients (and family caregivers) about therapeutic diets and how to maintain or improve their nutritional status after discharge.

Rehabilitation services are integral to most subacute care programs. Physical therapists commonly work on mobility issues including ambulation or wheelchair use and balance, strength, and endurance. They may also help with wound care when whirlpool treatments or pulsatile lavage techniques are indicated and with pain management when transcutaneous electrical stimulation, ultrasound, or thermal treatments are used. Occupational therapists in subacute care settings focus on restoring functional status, particularly with respect to activities of daily living. They may also play a role in

cognitive evaluation, especially in relationship to the ability to perform more complex activities of daily living such as money management, housework, shopping, and cooking. When physical therapists and occupational therapists are working together with a patient, the physical therapist often concentrates on lower-extremity function while the occupational therapist addresses upper-extremity function. Speech therapists work with patients on speech and other communication skills. They can assess and treat cognitive deficits in relationship to language skills. They also participate in the evaluation and treatment of swallowing disorders.

The role of the pharmacist in subacute care settings has been greatly expanded by federal regulations. In addition to maintaining appropriate stocks, dispensing drugs, and accounting for controlled substances, the pharmacist is responsible for conducting drug regimen reviews at least monthly and more often if warranted by the patient's condition or medications. The pharmacist must report any irregularities including excessive dosage, duplicative therapy (two drugs for the same indication), excessive duration of therapy, inadequate monitoring of therapy, or adverse drug reactions indicating the need for dosage reductions or discontinuation of the drug to the attending physician and the director of nursing. The interpretive guidelines for pharmacy services particularly emphasize review of psychotropic drugs looking for overuse of long-acting benzodiazepines, other anxiolytic and sedative drugs, drugs for sleep induction, and antipsychotic drugs and underuse of antidepressants. When psychotropic drugs are prescribed, there must be evidence that behavioral interventions have also been attempted and that drug dosages are periodically decreased to assess continued medical necessity. The attending physician can accept or reject the recommendations of the pharmacist. The medical director is encouraged to review cases in which the pharmacist and the attending physician disagree about medication usage.

The Process of Care

In subacute care programs, the process of care actually begins prior to admission with the patient selection process. Patients that are referred for admission should be screened to determine whether they are sufficiently medically stable and can benefit from the type of care available in the particular subacute program. It is helpful to referral sources to have a single contact person or telephone number. The initial contact is often with a nurse or social worker who coordinates the screening process, including assessing the patient and reviewing their medical records. The actual decision to admit or not frequently requires input from other members of the interdisciplinary team. If the patient is judged to be appropriate for admission into the subacute care program, information should be provided to the patient and his or her family so that they can make a decision about whether to enter the program. If th

patient agrees to admission, an admission date is set and all the involved parties are notified.

Medicare requires that patients be informed both orally and in writing about their rights and responsibilities during their stay in a skilled nursing facility and acknowledge this information in writing prior to admission. Specific resident rights were mandated by OBRA '87. These regulations are designed to improve overall quality of life in long-term care settings but also apply to patients receiving subacute care in Medicare-certified skilled-nursing facilities. Each patient has the right to a dignified existence; self-determination; communication with and access to persons and services outside the facility; and care that promotes, maintains, and enhances overall quality of life. Guidelines have been written to interpret these general rights for facilities and state survey teams responsible for enforcing them and are summarized in Table 35-6.

If the anticipated subacute care length of stay is greater than 30 days, federal regulations also mandate a separate preadmission screening process known as the PASSAR. This process was designed to prevent inappropriate warehousing of mentally ill or mentally retarded individuals in long-term care facilities. The PASSAR form must be completed and approved before admission of a patient to a Medicare-certified skilled-nursing facility. In the case of patients who have concomitant mental illness or mental retardation, a formal psychological evaluation may be required before approval.

Once the patient is admitted, a comprehensive assessment by all the relevant members of the interdisciplinary team is conducted. There is no universally

accepted time frame for completion of assessments in subacute care, but the complexity and acuity of the subacute patients generally require a more prompt evaluation (often within 48 to 72 hours) than permitted under federal regulations for skilled nursing facility care (14 days for completion of the Minimum Data Set). After completion of the assessments, the team identifies problem areas and, with the patient, establishes the goals for treatment. A care plan can then be created for the patient's subacute care stay. While assessments are usually completed one-on-one with the patient, the identification of problems, the establishment of goals, and the development of the plan of care are typically team activities carried out during interdisciplinary team meetings and family conferences. These group activities are time intensive, and the frequency varies between subacute programs. Commonly, individual patients are discussed at team meetings once a week, and family conferences are held at least once during the patient's stay.

Because of the nature of subacute care, new problems and complications of existing problems often arise during the patient's stay. All subacute programs need to have mechanisms for identifying changes in condition and changing the plan of care in a timely fashion. Typically, problems are identified by the nursing staff and then triaged to the appropriate discipline for management. For example, the attending physician is notified if a patient becomes febrile, and the occupational therapist is called if a hand splint is too tight. Transfer arrangements with acute care facilities are necessary to handle problems that are beyond the scope of subacute care, e.g., a myocardial infarction. Strategies for prevention of nosocomial and iatrogenic problems are also important. Medication reviews, fall-prevention programs, immunization for influenza and pneumococcal infections, removal of bladder catheters placed for convenience, and pressure reduction devices for immobile patients are a few examples.

Discharge planning for subacute care patients begins at the time of admission. Treatment goals need to be set in relationship to the discharge plan. A patient with a hip fracture who resides in a one-level assisted-living facility does not have to be able to climb stairs, but a medically similar patient who lives alone in an older two-story home with the bathroom and bedrooms on the second floor does need to be able to climb stairs. Education for patients and their families can help them assume part of the necessary care, e.g., enteral feedings or dressing changes. Education can also increase awareness and use of community resources, e.g., therapeutic pool programs for patients with rheumatoid arthritis or adult day care for the cognitively impaired. The discharge planning process also needs to include obtaining necessary durable medical equipment and assistive devices to enable the patient to be functional in the community. Sometimes, even home modifications are necessary, for example, the construction of a ramp for wheelchair accessibility into the home. Another important aspect of discharge planning for subacute care patients is the timely transfer of

TABLE 35-6
Resident Rights in Subacute Care Facilities

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|---|
| To choose a personal attending physician |
| To be fully informed about total health status and medical conditions |
| To participate in decisions about medical care and treatment |
| To refuse treatment |
| To refuse to participate in experimental research |
| To formulate an advance directive |
| To privacy and confidentiality of personal and clinical records |
| To freedom from physical and chemical restraints imposed for purposes of discipline or convenience and not required to treat medical symptoms |
| To self-administer drugs if deemed safe by interdisciplinary team |

information to professionals and agencies that will assume responsibility for continuing care after discharge.

Evaluating Subacute Care

Traditionally, medical programs have been evaluated on the basis of structure and process measures. With the rapid rise in Medicare and other health care spending, costs (or, more often, charges because of the difficulty in capturing actual costs) are now also being considered in the evaluation. Health services utilization before, during, and after the program may also be scrutinized as a way of judging value. Subacute care programs distinguish themselves from many other health care programs by a greater emphasis on patient outcome measures in their self-evaluation process.

Patient outcomes that are especially important in subacute care include the relief of discomfort, stabilization of a chronic medical condition, and restoration of function. Curing diseases and preventing death, although important goals, are less often the focus of subacute care. Unfortunately, the ability to quantitate the goals of subacute care lags behind the recognition of their importance. Functional status is probably the most common patient outcome evaluated by subacute care programs, and there are a number of valid and reliable measures. The Functional Independence Measure (FIM) has the advantage of a national database with comparative norms. However, most of the comparative data for the FIM comes from rehabilitation facilities and may not provide valid comparisons when used with medically complex patients. Other groups (Formations in Health Care, Inc., and the Maryland Medical Directors Association, for example) are working on developing measures and national databases that will capture outcomes that are relevant to medically complex patients including scales for pain control, respiratory care and infection management, wound healing measures, and nutritional status indicators. Meaningful comparisons between subacute care programs remain difficult because of the heterogeneity of the patient population, the difficulty in controlling for comorbidity, severity of illness, social support, and even biologic variation related to the aging process itself and regional variations in access to community support services after discharge from subacute care.

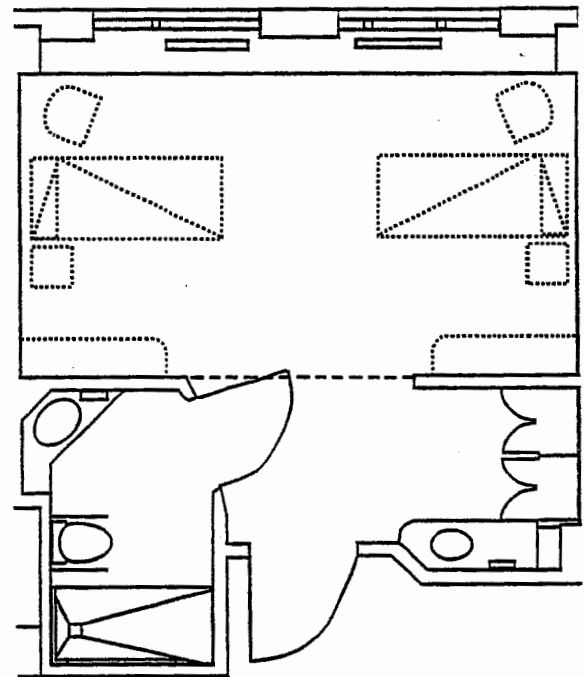
Physical Plant Considerations for Subacute Care

Many subacute care programs operate in facilities that were originally designed for other purposes and must be renovated before use. There are many federal, state, and local regulations and building codes that must be taken into consideration when developing a subacute care facility. Clinical considerations in facility design are sometimes sacrificed to cost, limitations of renovation, or regulatory requirements. There are, how-

ever, physical plant features that promote better patient care in the subacute setting.

Patient rooms should be large enough to accommodate the additional equipment frequently necessitated by subacute care. Wheelchairs, intravenous poles, enteral feeding pumps, equipment for respiratory therapy, and bedside commodes are just a few of the items that take up space in a subacute room. Because of the length of stay and focus on returning to baseline functional status, patients also tend to accumulate personal items, e.g., clothes, books, snacks, and pictures. Optimal work space for staff and mobility space for patients can be provided if semiprivate room size is in the range of 220 to 240 square feet excluding toilets. Wheelchair accessibility for toilets, sinks, showers, and grooming areas is essential. (See Figure 35-1 for an ideal lay-out for patient rooms.) Levers on doors enhance accessibility. Large clocks and calendars help reorient patients with cognitive and/or visual impairments. Hallways should be wide and uncluttered. Carpeting reduces sound and risk of falling. Handrails and strategically placed sitting areas promote increased mobility. Common areas accommodate family visitation and group activities. Alarm systems on beds and doors can reduce the necessity for physical restraints for patients who wander.

FIGURE 35-1



The Transitional Care Unit of the J. Paul Sticht Center on Aging and Rehabilitation in Winston-Salem, North Carolina, uses patient rooms with a toe-to-toe bed configuration to promote patient privacy and provide more space at the bedside for adaptive equipment such as wheelchairs and bedside commodes. The rooms also include roll-in shower and elevated toilets equipped with pull-down side rails to facilitate bathing and toileting. Wheelchair-accessible sinks in the bathroom and entrance area enable both patients to work on grooming skills at the same time.

Space for rehabilitation services needs to be available in relatively close proximity to patient rooms. Spacious gym areas promote work on mobility and strength (Fig. 35-2). Homelike settings with kitchen, bedroom, and bathing facilities provide space for occupational therapists to work with patients on activities of daily living (Fig. 35-3). Storage areas for wheelchairs and other assistive devices cut down on clutter. Specialized areas for crafts, horticulture, games, and music can stimulate patients to increase their activity level (Fig. 35-4). A therapeutic pool can be helpful for patients with neuromuscular or orthopedic problems. Respiratory services require careful attention to facility design. Piped medical gas, medical air, and vacuum systems decrease clutter and noise in patient rooms. Negative pressure rooms may be necessary for infection control. Appropriate areas for cleaning and storage of respiratory equipment should be provided.

The members of the interdisciplinary team will all need suitable desk space for paperwork. The nurses' station needs to be able to accommodate the increased numbers of staff who will need access to patients' charts. Conference rooms for team meetings and family conferences need to be more than large enough to accommodate all the professional disciplines.

A separate entrance for the subacute care unit helps identify it as a unique service. It also promotes patient privacy. The entrance should be designed to facilitate access by functionally impaired patients and family members. Designated handicapped parking spaces, curb cuts, and other accommodations for wheelchairs,

and strategically located elevators, all promote access to the facility.

SUBACUTE CARE LICENSURE AND ACCREDITATION

Medicare does not currently have a separate certification process for subacute care. Subacute care programs that provide services to Medicare recipients through the Medicare Skilled Nursing Facility Benefit are licensed and surveyed by the same criteria as are long-term care facilities that provide skilled care. The certification process for skilled-nursing facilities includes annual unscheduled surveys. Structural measures of care including facility standards, adequate kitchen and food service, appropriate staffing, and the existence of policies and procedures applicable to the level of care provided are evaluated. Process measures of care including completion of the Resident Assessment Instrument in a timely fashion, watching a nurse complete a medication pass to determine the number of errors, timing the interval between the repositioning of bed-bound patients are also part of the survey. Outcomes are evaluated by quantifying the numbers of patients with particular conditions thought to be associated with quality of care (Table 35-7). Patients and their families are also interviewed to ascertain quality of life and satisfaction with care and whether rights as specified by federal regulations are being respected.

FIGURE 35-2



Gym space must be adequate to accommodate a wide variety of equipment for strengthening and endurance activities including mats, parallel bars, and exercise machines. This patient is recovering from a prosthetic hip joint infection requiring removal of hardware and is using a rickshaw machine to work on upper-body strength to facilitate ambulation with a walker. Photo courtesy of the J. Paul Sticht Center on Aging and Rehabilitation.

FIGURE 35-3



Simulated home environments permit patients to work on skills needed for activities of daily living. This patient is recovering from a stroke and is working on meal preparation skills at the wheelchair level. Photo courtesy of the J. Paul Sticht Center on Aging and Rehabilitation.

Although there is no separate Medicare licensure and certification process, there are two organizations that have special accreditation standards for subacute care. The Joint Commission on Accreditation of Health Care Organizations is a voluntary accreditation program open to a wide variety of health care facilities.

The standards for subacute care have evolved from the hospital and long-term care standards with some reinterpretation to make them meaningful for subacute care. The Commission on Accreditation of Rehabilitation Facilities (CARF) also offers an accreditation process for subacute rehabilitation programs. While sub-

FIGURE 35-4



Recreational activities are often more interesting and stimulating for older patients than is exercising in the gym. This patient is recovering from a hip fracture and through horticultural therapy is increasing her upper-body strength to facilitate mobility while she is non-weight bearing on her affected hip. Photo courtesy of the J. Paul Sticht Center on Aging and Rehabilitation.

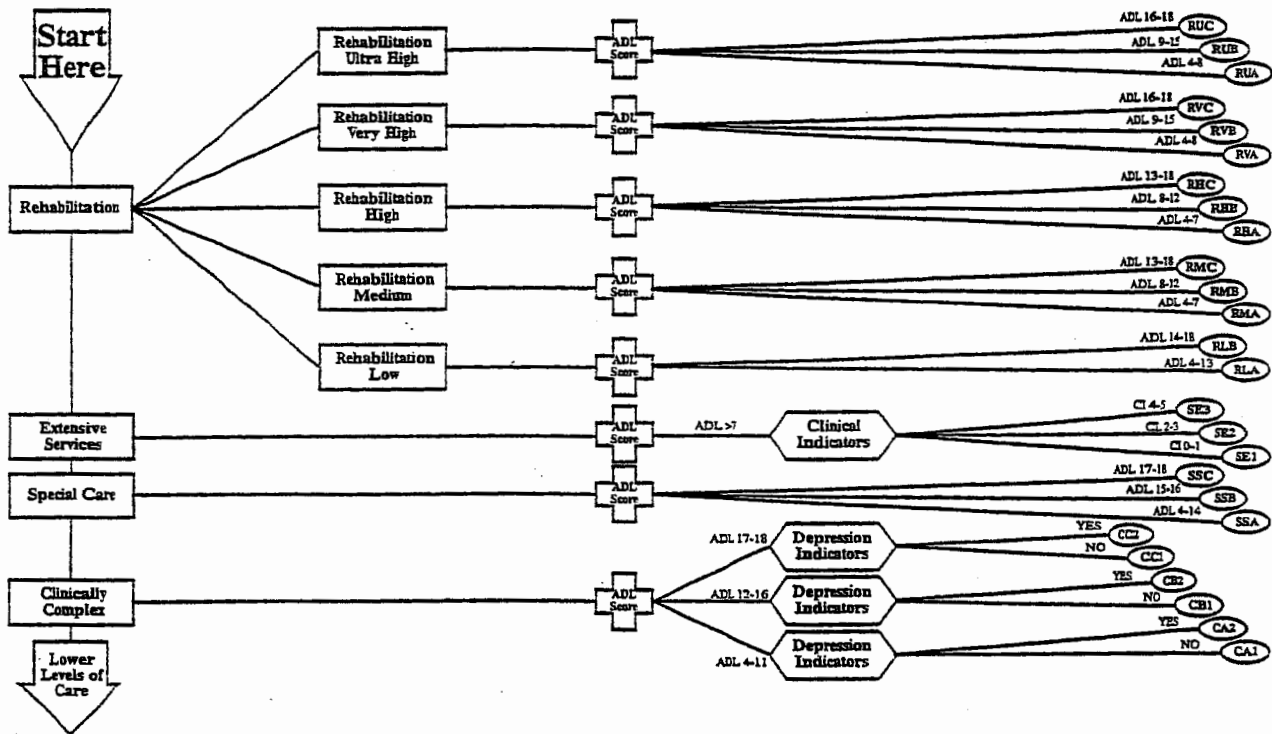
TABLE 35-7

Conditions Reviewed During Surveys of Medicare-Certified Skilled Nursing Facilities

ABILITY TO PERFORM ACTIVITIES OF DAILY LIVING	
Bathing	
Dressing	
Transferring	
Toilet Use	
Eating	
BOWEL/BLADDER STATUS	MOBILITY
Catheters	Bed-bound
Urinary incontinence	Chair-bound
Bowel incontinence	Ambulation status
Bladder training program	Physical restraints
Bowel training program	Contractures
MENTAL STATUS	SKIN INTEGRITY
Mental retardation	Pressure sores
Depression	Preventive skin care
Psychiatric diagnosis	Rashes
Dementia	
Behavioral symptoms	
SPECIAL CARE	
Hospice	Ostomy care
Radiation therapy	Suctioning
Chemotherapy	Injections
Dialysis	Tube feedings
Intravenous therapy	Mechanically altered diets
Respiratory treatment	Rehabilitative services
Tracheostomy care	Assistive devices while eating
MEDICATIONS	OTHER
Any psychoactive medication	Unplanned weight loss or gain
Antibiotics	Advance directives
Pain management program	Inability to communicate in language of facility
	Nonoral communication device

FIGURE 35-5

RUGs III Classification System



Graphic illustration of the Resource Utilization Groups that represent a Medicare Skilled Nursing Facility level of care. The Ultra High Rehabilitation category requires a minimum of 720 minutes of therapy per week, involving two different disciplines. The Low Rehabilitation category requires only 45 minutes per week of formal therapy services but also requires nursing rehabilitation services for at least 15 minutes 6 days of the week. The Extensive Services category is for patients who require intravenous feeding or medication, suctioning, tracheostomy, or ventilator care. Special Care and Clinically Complex Care are determined by particular diagnoses (multiple sclerosis, quadriplegia, cerebral palsy, burns, coma, septicemia, pneumonia, for example) and the need for particular services (wound care, tube feedings, radiation therapy, oxygen, for example). These categories are further subdivided based on the ability to perform activities of daily living (ADL) and signs of depression, as determined by the Minimum Data Set.

acute care accreditation is voluntary, it can help a program set and maintain high standards. As managed care insurers have begun to recognize the benefits of subacute care, they often preferentially contract with accredited programs in order to help ensure their patients are receiving high-quality care.

THE FUTURE OF SUBACUTE CARE

Subacute care is a rapidly evolving and rapidly growing part of our health care system. Its development was triggered by implementation of Medicare's Prospective Payment System for acute care and the recognition that there were many elderly patients who do not meet strict criteria for acute or long-term care. Because of relatively generous reimbursement policies for Medicare Skilled Nursing Facility Benefit, the health care industry responded with the creation of a "new" level of care. Clinicians from many professional disciplines

with interests in the care of geriatric patients have been employed by subacute care programs to provide the needed clinical care. Over time, clinical practices have evolved that improve the care of this complex group of patients. Most notably, there has been an emphasis on interdisciplinary team approaches to care with a focus on achieving specific clinical goals necessary for the patient to transition to a lower level of care. This outcomes-oriented approach has attracted the attention of managed care companies who have triggered further development of subacute care to include services for younger patients, especially those with complex or chronic illnesses.

The rapid growth in subacute care has led to exponentially increasing spending by the Health Care Financing Administration for the Medicare Skilled Nursing Benefit. Consequently, the Balanced Budget Act of 1997 includes provisions for prospective payment for this level of care. The payments will be made on a per diem basis with adjustments for case-mix based on Resource Utilization Groups developed in the Multistate Nursing Home Case Mix and Quality Demonstration.

The Resource Utilization Groups are based on the ability of the patient to perform certain activities of daily living (bed mobility, eating, transfers, and toileting), the presence certain diagnoses, the need for specific types of nursing care, and the number of minutes of rehabilitation services that are provided to the patient. The algorithm for determining a patient's Resource Utilization Group utilizes 108 of the data elements in the Minimum Data Set. There are a total of 44 Resource Utilization Groups but only 26 are considered Medicare skilled level of care (see Fig. 35-5). For subacute care patients, the entire Minimum Data Set will have to be collected on a regularly scheduled basis (Table 35-8) to determine the appropriate Resource Utilization Group and the per diem payment.

In addition to beginning a Prospective Payment System, the Health Care Financing Administration is developing transfer rules that will penalize hospitals for early transfer of patients in certain DRGs to postacute care providers including home health agencies, rehabilitation and chronic care hospitals as well as skilled-nursing facilities. Under the transfer rules, hospitals will get a reduced payment that is prorated if the patient is discharged prior to a DRG-specific time. It is

TABLE 35-8
Schedule for Completion of the Minimum Data Set for
Prospective Payment

PAYMENT PERIOD	MDS COMPLETION DATE
Days 1-14	Day 7
Days 15-30	Day 14
Days 31-60	Day 30
Days 61-90	Day 60
Days 91-100	Day 90

MDS, Minimum Data Set.

anticipated that transfer rules will be expanded to include additional DRGs if they are successful in containing Medicare costs.

Although the provisions of the Balanced Budget Act are likely to decrease subacute care utilization by Medicare fee-for-services patients, the number of Medicare managed care patients is growing in many parts of the country. Contractual arrangements between managed care insurers, hospitals, and subacute care providers are likely to increase the use of subacute care in this population. The ultimate future of subacute care will depend on the extent to which it represents a truly new level of care for geriatric patients with improved outcomes.

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