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Inpatient Rehabilitation Facility (Acute Rehabilitation): Amputation: Upper Extremity

MCG Health Recovery Facility Care 27th Edition

IRF: I-7007 (RFC) Link to Codes

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Clinical Indications for Admission to Inpatient Rehabilitation Facility (Acute Rehabilitation)

- Inpatient rehabilitation facility (acute rehabilitation) admission may be indicated by ALL of the following(1)(2)(3):
 - No acute hospital care needs
 - Patient status supports active participation in, and benefit from, intensive rehabilitation Skilled care that includes ALL of the following(4):
 - Intense and complex care needs make inpatient care safer and more practical than attempting care at a lower level.
 - Intensive rehabilitation therapy program that includes 1 or more of the following[A][B](2)(3):
 - Therapy at least 3 hours per day for 5 days per week
 - Therapy at least 15 hours per week (7 consecutive days)
 - Other intensive therapy to improve functional capacity at patient's maximum participation level without compromising safety or exceeding ability or tolerance(4)
 - Goals for measurable improvement include identification of **ALL** of the following(3)(4):
 - Nature and degree of improvement
 - Time expected for achievement
 - Functional improvement anticipated to be practical, ongoing, and sustainable
 - Interdisciplinary team care should include close rehabilitation physician monitoring, therapy rehabilitation, nursing rehabilitation and care, and case management/social work services. Physician monitoring should be in-person assessment at least 3 days per week, by a licensed physician determined to have specialized rehabilitation training and experience. [C](2)(3)(4)
 - Therapy services needed, including **ALL** of the following(7)(8):
 - Skilled therapy services needed for 1 or more of the following:
 - Edema management techniques
 - Environmental and activity modification for ADL performance(9)
 - Equipment and adaptive technology use and safety(10)
 - Fall-prevention training
 - · Functional activities evaluation and training
 - · Motor control and balance evaluation and training
 - Orthotic or prosthetic evaluation and training(11)(12)(13)
 - Pain management techniques(14)
 - Positioning techniques and training
 - Range of motion evaluation and training

- Safety awareness training related to functional mobility and ADL performance(9)
- · Strength evaluation and training
- · Therapeutic exercises or activities supervision to ensure patient safety and treatment effectiveness
- Multidisciplinary therapy services needed, including 2 or more of the following(15):
 - Physical therapy (PT)
 - Occupational therapy (OT)(16)
 - Orthotics or prosthetics(17)
- Nursing services needed, including **1 or more** of the following(4)(7)(18):
 - Behavioral health condition monitoring(19)
 - Bowel and bladder management(20)(21)(22)
 - Coordination of care between interdisciplinary team members
 - Infusion therapy management
 - Medical condition monitoring with evaluation of rehabilitation on clinical status
 - Musculoskeletal management(23)
 - Therapy skills incorporated and reinforced in nursing care
 - Time-tabling and routine establishment (eg, for ADL adaptation)
 - Pain management(24)
 - Patient and caregiver education (eg, safety, skin care, medication)
 - Wound management

Length of Stay

Length of stay is displayed as percentiles that are based on the observed utilization of inpatient rehabilitation facility length of stay for this diagnosis. For guidelines with low claims data volume, length of stay statistics that are displayed are from combined categories (eg, major postoperative and major medical). Individual patients may require shorter or longer stays as appropriate for their clinical status and care needs. This table is designed to allow organizations to define their goals for inpatient rehabilitation utilization by choosing from the displayed range.

Inpatient Rehabilitation Facility Commercial Length of Stay					Inpatient Rehabilitation Facility Medicare Length of Stay				
10%ile	20%ile	30%ile	40%ile	50%ile	10%ile	20%ile	30%ile	40%ile	50%ile
6	7	8	9	10	7	9	10	11	12

Evaluation and Treatment

Stage	Clinical Status	Interventions		
1	Clinical indications for admission met IRF admission assessment complete with intensive rehabilitation needs and services identified and evaluation of current level of functioning (eg, Activities of Daily Living (ADL) Scoring Tool Calculator) QM[D](7)	Transition of care planning initiated with evaluation for next level of care QM (25) Interdisciplinary care plan established and implemented QM (26) Education for self-care(16) PT evaluation OT evaluation Possible orthotic or prosthetic evaluation(12)(27) Social work or case management evaluation(28) (29)		
2	 Intensive rehabilitation therapy program established and patient actively participating Unexpected clinical event resolved (eg, infection, DVT, pneumonia)[E](3) Patient demonstrating measurable practical improvement in functional condition with evaluation of current level of functioning (eg, Activities of Daily Living (ADL) Scoring Tool Calculator) QM(7) (30) Physical therapy (PT) progression Occupational therapy (OT) progression 	Interdisciplinary care plan continues QM Ongoing assessment of clinical needs QM Ongoing patient or caregiver education Ongoing equipment (eg, DME training)		

· Other care needs stable or diminished

Ongoing rehabilitation therapy Possible orthotic or prosthetic

training

 Transition of care planning continues with evaluation for next level of care QM (28)

3

- Adequate intensive inpatient rehabilitation completed for safe transfer to next level of care, or patient's condition prevents active participation in intensive therapy program, or patient no longer demonstrating significant functional gains (eg,
 - Activities of Daily Living (ADL) Scoring Tool Calculator)
- Equipment (eg, DME) training completed
- · Gastrointestinal status stable or manageable at lower level of care
- Medical status stable or manageable at lower level of care (eg, vital signs, laboratory values)
- · Neurovascular status stable or manageable at lower level of care
- · Orthotic or prosthetic training completed or manageable at lower level of care
- Pain controlled or manageable at lower level of care
- · Patient and caregiver education completed or manageable at lower level of care
- · Patient transitioned to another level of care due to unexpected clinical event (eg, DVT, infection)
- Wound(s) or dressing changes manageable at lower level of care
- · Transition plans and education understood

- Transition of care planning completed QM
- Safe to go home and transition to community or transition to alternative level of care (eg, skilled nursing facility, home care) QM

Recovery Milestones are indicated in **bold**.

Clinical Assessment

- · Admission and clinical status assessment
 - Physical ability assessment (eg, activities of Daily Living (ADL) Scoring Tool Calculator, Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI), FIM Score, and/or Functional Independence Measure for children (WeeFIM®))[F]
- Psychosocial status assessment. See Psychosocial Assessment
 [™] SR. QM
- Social determinants of health screening. See Social Determinants of Health Screening Tool SR for further information.(47) QM
- Activities of daily living (ADL) and instrumental activities of daily living (IADL) status assessment. See Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) Assessment See Activities of Daily Living (IADL) and Instrumental Activities of Daily Living (IADL) Assessment See Activities Of Daily Liv

Extended Stay

Extended recovery facility stay may be: brief (1 to 3 days), moderate (4 to 7 days), or prolonged (more than 7 days).

- Extended stay beyond goal length of stay may be indicated when ALL of the following exist:
 - No acute hospital care needs
 - o Patient able to make measurable improvement in functional condition in predetermined and reasonable period of time
 - Intensity of medical and rehabilitation management necessitates inpatient stay.
 - o Coordinated interdisciplinary team approach required to manage intensity of medical and rehabilitation needs
 - Therapy services required, including **2 or more** of the following:
 - Physical therapy (PT)
 - Occupational therapy (OT)
 - Orthotics or prosthetics
 - o Patient has had an unexpected clinical event and Skilled care needed on daily basis for 1 or more of the following[F](3):
 - Deep venous thrombosis (DVT) or pulmonary embolus (PE) management; examples include[G]:
 - Pharmacoprophylaxis initiation(49)
 - Hemodynamic measurements outside normal limits
 - Laboratory values outside normal limits; examples include:
 - Oxygen saturation below 90% (or below baseline)
 - Coagulation studies remain outside therapeutic range.
 - · Signs of active bleeding
 - Expect brief stay extension.
 - Fall management; examples include(50):
 - Functional status impaired, impacting ability to actively participate in intensive rehabilitation program
 - Evaluation and treatment of fall injury, injury regimen established within 3 days of fall, and intensive rehabilitation program
 resumed
 - Expect brief stay extension.

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_	Fever management; examples include(51):
	Temperature status outside prescribed limits
	Laboratory values outside normal limits; examples include(52):
	Electrolyte abnormalities
	WBC count abnormalities
	 Cultures positive or identification of infective source pending, and treatment regimen not established
	Oxygen saturation below 90% or below baseline
	Hemodynamic measurements outside normal limits
	Behavioral symptoms (eg, agitation, somnolence, or inappropriate behavior) that interfere with medical care
	Expect brief stay extension.
	Infusion therapy; examples include(3)(53):
	• Administration of agent (eg, chemotherapy, new intravenous medication) that requires clinical management and may require
	brief break in intensive therapy rehabilitation program(54)
	Expect brief stay extension.
	Malnutrition, dehydration, or electrolyte management; examples include:
	 Oral nutrition and hydration not tolerated and enteral or parenteral nutrition implemented
	Enteral or parenteral nutrition complications present(55)
	 Transition from enteral or parenteral nutrition to oral nutrition(56)
	Hemodynamic measurements outside normal limits
	 Laboratory values outside normal limits; examples include(57):
	Electrolyte abnormalities
	Liver or renal function abnormalities
	Urinary output below prescribed parameters(57)
_	Expect brief stay extension.
_	Mental status changes; examples include(58)(59):
	Danger to self or others
	 Behavior crisis management (eg, physical or chemical restraints) needed(60)
	Behavioral symptoms (eg, agitation, somnolence, or inappropriate behavior) that interfere with medical care
	• Sudden disturbances in consciousness, changes in cognition (eg, disorientation, memory loss, or language impairment), or
	disturbances in thought that prevent intensive therapy services
	Laboratory values outside normal limits; examples include:
	Electrolyte abnormalities
	CBC abnormalities
	 Chemistry screen abnormalities (eg, BUN, creatinine, glucose)
	 Cultures positive, or identification of infective source pending and treatment regimen not established
	 Oxygen saturation below 90% or below baseline
	Expect brief stay extension.
_	Pain evaluation and management; examples include(61)(62)(63):
	Frequent pain assessment using validated diagnostic tool[H]
	Early referral and treatment of pain
	Ongoing education and training of pain treatment plan (eg, multimodal pain management)[l][J]
	Pain medication side effects or risk factors for adverse effects (eg, constipation, sedation, falls)
	Expect brief to moderate stay extension.
-	
	Hyperglycemia or hypoglycemia
	Hypertension or hypotension
	Inadequate pain management
	Condition assessment or care unmanageable at lower level of care
	Expect brief extension stay.
-	
	Trimary management, examples metado(00)(00).
	 Urinary catheter or percutaneous suprapubic tube complications Urinary output inadequate for medical condition(67)
	 Laboratory values outside normal limits; examples include(68)(69): Cultures positive, or identification of infective source pending, and treatment regimen not established
	Cultures positive, or identification of infective source pending, and treatment regimen not established Renal function not at baseline or values inconsistent with renal function return
	WBC count abnormalities Electrolyte abnormalities
	Electrolyte abnormalities Expect brief stay extension
	Expect brief stay extension. Mound management examples include (70):
	- · · · · · · · · · · · · · · · · · · ·
	Wound status changed with new type of dressing or procedure

• Expect brief stay extension.

• New wound developed (eg, pressure injury)

Healing impeded due to comorbidities (eg, diabetes, malignancy)Nutrition or hydration inadequate for normal duration of healing

Rehabilitation Treatment Plan

Physical Therapy Treatment Plan

- Physical therapy treatment plan includes(71)(72):
 - Goals of physical therapy
 - Activity tolerance and endurance improved
 - ADL/IADL performance, independence, and safety maintained or improved
 - ADL/IADL restrictions, precautions, or activity guidelines understood
 - Awareness of community resources improved
 - Balance improved to reduce risk of falls
 - Chronic disease modifiable risk factor interventions understood
 - Durable medical equipment (DME) independence improved
 - Exercise tolerance and endurance improved
 - Fall risk reduction techniques understood
 - Functional independence and safety with mobility-related tasks maximized
 - Home rehabilitation program and recommendations understood
 - Independence with energy conservation techniques and proper body mechanics maximized
 - Pain management techniques understood and pain managed during functional activities
 - Potential personality or emotional changes understood
 - Prosthetic management and independence maximized(17)
 - Risk and disability associated with disease, injury, or surgical procedure understood
 - Self-management of health, injury, surgical procedure, or disease process understood
 - Self-reported quality of life improved
 - Strength and range of motion (ROM) improved
 - Tone managed to prevent pressure injury and contractures
 - Prepare for safe discharge.
 - Rehabilitation techniques and training(73)(74)
 - Education of therapeutic program with patient and caregiver
 - ADL training
 - Age-appropriate functional strategies and techniques in alignment with developmental progression(75)
 - Amputation recovery, including residual limb care and preparation for prosthetic
 - Behavior management strategies and techniques (eg, cognitive behavioral therapy, cognitive rehabilitation techniques)(76)
 - Cast, immobilizer, brace, or orthotic management(77)
 - Compression dressing or garment management
 - Contracture prevention or management(17)(78)
 - Edema prevention or management(79)
 - Energy conservation and work simplification
 - Equipment and device use and training
 - Exercise program setup and progression, which may include(8):
 - · Aerobic exercises or endurance conditioning
 - · Balance or coordination techniques
 - Proprioception training(80)
 - · Range of motion techniques
 - Resistance exercises
 - · Sports-specific retraining, as indicated
 - · Strengthening exercises
 - · Stretching exercises
 - Fall prevention **QM** (81)
 - Functional mobility
 - Bed mobility
 - Transfer training
 - Lifting as prescribed for diagnosis
 - Manual therapy: manipulation, passive joint or soft tissue mobilization techniques, scar management, or massage(80)
 - Neuromuscular re-education and balance training
 - Pain management strategies and techniques(74)(82)
 - Posture, positioning, or body mechanics as prescribed for diagnosis
 - Pressure injury prevention or management(83)(84)
 - Prosthetic management(12)
 - Safety awareness education
 - Self-management strategies and techniques
 - Sensory stimulation and integration techniques
 - Stress management techniques(85)
 - Therapeutic physical modalities, as indicated(86)
 - · Cold modalities
 - Thermal modality precautions related to circulatory deficiency, areas of desensitization, open wounds, or fractures
 - Transcutaneous electrical nerve stimulation (TENS)

- ☐ Discharge recommendations, which may include:
 - Activity modifications
 - Environmental adaptation(9)
 - Home modifications
 - Pre-driver assessment and automobile modification, if indicated
 - Vocational rehabilitation(87)

Occupational Therapy Treatment Plan

- Occupational therapy treatment plan includes (88) (89) (90) (91):
 - Goals of occupational therapy
 - ADL/IADL activity tolerance and endurance improved
 - ADL/IADL performance, independence, and safety maintained or improved
 - ADL/IADL restrictions, precautions, or activity guidelines understood
 - Balance and body alignment for ADL/IADL improved
 - Home rehabilitation program and recommendations understood
 - Pain management techniques understood and pain managed during functional activities
 - Potential personality or emotional changes understood
 - Upper body range of motion, strength, and functional use for ADL or IADL maintained or improved
 - Prepare for safe discharge.
 - Rehabilitation techniques and training(92)(93):
 - Education of therapeutic program with patient and caregiver
 - Behavior management strategies and techniques (eg, cognitive behavioral therapy, cognitive rehabilitation techniques)(94)(95)
 (96)
 - Cast, immobilizer, brace, or orthotic management(13)(97)
 - Compensatory strategies for completion of ADL/IADL
 - Energy conservation(97)
 - · One-handed techniques
 - · Perceptual deficits management
 - · Sensory impairment management
 - Visual impairment management
 - Work simplification
 - Compression garment application and use
 - Contracture prevention or management(98)
 - Edema prevention or management(88)
 - Environmental and activity modification for ADL/IADL performance
 - Equipment and device use and training(99)(100)(101)
 - Fall prevention QM
 - Functional skills practice(102)
 - Manual therapy: manipulation, passive joint or soft tissue mobilization techniques, scar management, or massage(103)
 - Mobility training (eg, transfer)
 - Neuromuscular re-education and balance training(50)
 - Pain management strategies and techniques
 - Physical agent modalities (eg, heat or ice packs) use and training(104)
 - Posture, positioning, and body mechanics as prescribed for diagnosis(98)
 - Prosthetic management, as indicated
 - Safety awareness education
 - Self-management strategies and techniques
 - Sensory stimulation or modulation
 - Stress management techniques(85)
 - Upper body therapeutic strengthening exercise program, as indicated(102)(105)
 - Wheelchair mobility use and training for ADL/IADL participation(106)(107)

Patient Education

• Patient and caregiver education. See Inpatient Rehabilitation Facility (Acute Rehabilitation): Musculoskeletal: Patient Education for Clinicians

Discharge Planning

See Discharge Planning Tool SR.

Quality Measures

- HEDIS Measures include(25):
 - o Transition of care needs are assessed and addressed.
 - Psychosocial status (eg, depression screening) is assessed and addressed.
 - Fall risk is assessed and addressed.

- o Immunization status is assessed and addressed.
- Social needs screening and intervention is completed.
- Inpatient Rehabilitation Facility Compare Quality Measures include(108):
 - o Pressure injury risk is assessed and addressed.
 - o ADL status is assessed for improvement.
 - o Fall risk is assessed and addressed.
 - Transfer of health information to provider and patient is completed.
 - Healthcare-associated infection risk is reduced
 - o Medication reconciliation is completed.
 - o Discharge to the community is completed.
- Inpatient Rehabilitation Facility Quality Reporting Program measures include(108):
 - o Pressure injury risk is assessed and addressed.
 - o ADL status is assessed for improvement.
 - Fall risk is assessed and addressed.
 - Transfer of health information to provider and patient is completed.

Evidence Summary

Background

Outcomes: For outcomes after inpatient rehabilitation for a variety of diagnoses including physical trauma, musculoskeletal disorders, and degenerative neurologic disease (eg, Parkinsonism and multiple sclerosis), a study of 178 such consecutive rehabilitation inpatients found that diagnosis at admission correlated with functional results, but the number and types of comorbidities did not seem to affect functional outcomes of treatment.(31) (EG 2) A retrospective study of 479 Medicare patients who received rehabilitation in a nursing home or inpatient rehabilitation facility (IRF) setting found that patient-reported outcomes suggested that 1 in 3 patients reported no functional improvement during rehabilitation; greater odds of reporting no improvement included high school education or less, impaired instrumental activities of daily living, less than one month total duration of rehabilitation, and no outpatient rehabilitation services. (32) (EG 2) A retrospective review of 343,193 Medicare patients discharged from acute inpatient care to an inpatient rehabilitation facility (IRF) found that those who received vertically integrated care in a hospital-based IRF had shorter inpatient and IRF lengths of stay with maintained or improved health outcomes, fewer readmissions, and were more likely to be discharged home with home health services when compared with patients who received care in a freestanding IRF (ie, IRF with hospitals within the same health system but not hospital-based). (33) (EG 2) A systematic review of 24 articles including adult patients in post-acute care (eg, inpatient rehabilitation facilities (IRFs), long-term care hospitals, skilled nursing facilities, or home health settings) found that occupational therapy interventions may reduce or manage preventable adverse events. Strong strength of evidence was found to support an exercise program to reduce risk of falls in an IRF. Moderate strength of evidence was found to support facility-wide pressure injury reduction programs to reduce pressure injuries; dysphagia management through multidisciplinary care and strengthening exercises for swallowing; and a multidisciplinary, multicomponent falls program. (34) (EG 1) A retrospective analysis of 5,033,820 Medicare patients discharged from acute care to post-acute care found that those discharged to an inpatient rehabilitation facility (IRF) were least likely to demonstrate cognitive impairment, use a bowel appliance, or be on a therapeutic diet, and had the shortest average length of stay when compared with other post-acute settings.(35) (EG 2) A retrospective cohort study of 5423 patients discharged from an acute hospital setting to an inpatient rehabilitation facility (IRF) found that delayed discharge to the IRF because of IRF capacity strain (ie, bed unavailability, understaffing) was associated with prolonged IRF lengths of stay. This study shows that reducing capacity strain in the IRF setting could reduce discharge delays from acute care and improve rehabilitation efficiency.(36) (EG 2)

Rehabilitation frequency: Studies suggest that care models incorporating close to 7-day-per-week care, as compared with 5-day-per-week care, may have positive effects upon patient outcomes, such as functional independence measure scores.(37) (EG 2) A retrospective review of 1808 patients in an inpatient rehabilitation setting who received therapy 7 days per week as compared with 1692 patients who received therapy 5 days per week found length of stay in the former group was significantly reduced by 5%, but there were no significant differences between the groups in terms of functional improvement, discharge destination, or goals met.(38) (EG 2) A claims-based study of 1.4 million Medicare beneficiaries discharged from an acute care hospital to a post-acute care setting, including an inpatient rehabilitation facility (IRF), a skilled nursing facility (SNF), or home care (HC), found that more hours of occupational therapy and physical therapy services were associated with a higher risk for 30-day hospital readmission across all post-acute care settings.(39) (EG 2)

Readmission risk considerations: An observational review of 567,850 inpatient rehabilitation facility (IRF) Medicare inpatient stays in 1166 facilities during 2013 to 2014 found that adjusted hospital readmission rate 30 days post-IRF discharge was in the range of 12.4% to 13.1%, but almost 75% of facilities demonstrated readmission rates that were significantly different than this average. The mean number of days to readmission was 13.0, which varied significantly by rehabilitation diagnosis.(40) (EG 2) A retrospective cohort study of a Medicare claims database involving 371,846 patients discharged from inpatient rehabilitation from 2013 to 2014 found that functional independence at discharge was associated with lower rates of potentially preventable hospital readmissions. Readmission rates for highest vs lowest quartiles within each functional domain were 3.4% vs 6.9% for self-care, 3.3% vs 7.2% for mobility, and 3.5% vs 6.2% for cognition; 44.1% of readmissions were for infection-related conditions, 31.2% were for inadequate management of chronic conditions, and 24.7% were for inadequate management of other unplanned events.(41) (EG 2) A retrospective cohort analysis of 539 geriatric patients discharged from acute care to geriatric rehabilitation found that predictors of acute readmission include severe infection, fracture secondary to falls, intra-abdominal complications, cardiac complications, and acute neurologic events.(42) (EG 2) An observational cohort study of 682 geriatric patients in an inpatient rehabilitation facility (IRF) found that risk factors for 30-day and 90-day readmissions included a high fear of falling and higher Charlson Comorbidity Index and Cumulative Illness Rating Scale (CIRS) scores.(43) (EG 2) A retrospective analysis of 1,102,785 patient discharges from 944 inpatient rehabilitation facilities (IRFs) found that patient factors associated with 30-day readmissions to acute care included older age, male sex, White race, married, Medicare insured, longer duration of impairment, lower

dysphagia, pneumonia, and weekend admission to the IRF.(44) **(EG 2)** A retrospective analysis of 3294 patients age 55 years or older discharged from inpatient acute care to either home without home healthcare, home with home healthcare, or an inpatient rehabilitation facility (IRF) found that most readmissions and emergency department/observation visits within 24 hours came from IRFs. The study also found that patient characteristics associated with readmission from an IRF included younger age, less chronic illness burden, and greater and more recent functional decline.(45) **(EG 2)**

References

- Inpatient Rehabilitation Facility Prospective Payment System. [Internet] Centers for Medicare and Medicaid Services. Accessed at: https://www.cms.gov/medicare/medicare-fee-for-service-payment/inpatientrehabfacpps/index.html. Updated 2022 Aug [accessed 2022 Oct 14] [Context Link 1]
- 2. Centers for Medicare and Medicaid Services. "Basis of payment." 42 CFR Pt. 412.622 Washington, DC 2022 Oct [accessed 2022 Oct 17] Accessed at: https://www.ecfr.gov/. [Context Link 1, 2, 3, 4]
- 3. Chapter 1 Inpatient hospital services covered under part A Rev. 10892. In: Medicare Benefit Policy Manual [Internet] Centers for Medicare & Medicaid Services. 2021 Aug Accessed at: https://www.cms.gov/manuals/. [accessed 2022 Oct 14] [Context Link 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]
- 4. Pryor J, O'Reilly K, Bonser M, Garret G, McKenchnie D. Rehabilitation for the individual and family. In: Chang E, Johnson A, editors. Living With Chronic Illness and Disability. 4th ed. Chatswood NSW 2067: Elsevier; 2022:161-182. [Context Link 1, 2, 3, 4, 5]
- 5. Centers for Medicare & Medicaid Services. Inpatient Rehabilitation Facilities: CMS Flexibilities to Fight COVID-19. Coronavirus Waivers & Flexibilities. [Internet] Centers for Medicare & Medicaid Services. Accessed at: https://www.cms.gov. Updated 2022 Aug 18 [accessed 2022 SEp 23] [Context Link 1, 2 1
- 6. COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers. [Internet] Centers for Medicare & Medicaid Services. 2022 Oct Accessed at: https://www.cms.gov/coronavirus-waivers. [accessed 2022 Oct 27] [Context Link 1, 2]
- 7. Transitional planning: understanding levels and transitions of care. In: Powell SK, Tahan H, editors. Case Management a Practical Guide for Education and Practice. 4th ed. Philadelphia, PA: Wolters Kluwer, Lippincott, Williams & Wilkins; 2019:156-211. [Context Link 1, 2, 3, 4]
- 8. Hryvniak D, Wilder RP, Jenkins J, Statuta SM. Therapeutic exercise. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:291-315.e4. [Context Link 1, 2]
- 9. Schmitz TJ. Examination and modification of the environment. In: O'Sullivan SB, Schmiz TJ, Fulk GD, editors. Physical Rehabilitation. 7th ed. Philadelphia, PA: F.A. Davis; 2019. [Context Link 1, 2, 3]
- 10. Technical aids and assistive technology. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:319-337. [Context Link 1]
- 11. Chen CK. Upper limb orthoses. In: Cifu DX, Lew HL, editors. Braddom's Rehabilitation Care: A Clinical Handbook. 6th ed. Philadelphia, PA: Elsevier; 2018:66-74. [Context Link 1]
- 12. Wong CK, Edelstein JE. Prosthetics. In: O'Sullivan SB, Schmiz TJ, Fulk GD, editors. Physical Rehabilitation. 7th ed. Philadelphia, PA: F.A. Davis; 2019. [Context Link 1, 2, 3]
- 13. Orthotics. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:289-304. [Context Link 1, 2]
- 14. Bang MS, Jung SH. Phantom limb pain. In: Frontera WR, Silver JK, Rizzo TD Jr, editors. Essentials of Physical Medicine and Rehabilitation: Musculoskeletal Disorders, Pain, and Rehabilitation. 4th ed. Philadelphia, PA: Elsevier Saunders; 2019:596-598. [Context Link 1]
- 15. Makam AN, Grabowski DC. Policy in clinical practice: choosing post-acute care in the new decade. Journal of Hospital Medicine 2021;16(3):171-174. DOI: 10.12788/jhm.3577. [Context Link 1] View abstract...
- 16. Leland NE, Roberts P, De Souza R, Hwa Chang S, Shah K, Robinson M. Care transition processes to achieve a successful community discharge after postacute care: a scoping review. American Journal of Occupational Therapy 2019 Jan/Feb;73(1):7301205140. DOI: 10.5014/ajot.2019.005157. [Context Link 1, 2] View abstract...
- 17. Cancio JM, Ikeda AJ, Barnicott SL, Childers WL, Alderete JF, Goff BJ. Upper extremity amputation and prosthetics care across the active duty military and veteran populations. Physical Medicine and Rehabilitation Clinics 2019;30(1):73-87. DOI: 10.1016/j.pmr.2018.08.011. [Context Link 1, 2, 3] View abstract...
- 18. Kilgore C. Nursing patients through rehabilitation. In: O'Hanlon S, Smith M, editors. Comprehensive Guide to Rehabilitation of the Older Patient. 4th ed. Elsevier; 2021:69-72. [Context Link 1]
- 19. Cognition and behaviour. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:89-104. [
 Context Link 1]
- 20. Chang SC. Bladder dysfunction. In: Cifu DX, Lew HL, editors. Braddom's Rehabilitation Care: A Clinical Handbook. 6th ed. Philadelphia, PA: Elsevier; 2018:137-142. [Context Link 1]
- 21. Huang YH. Neurogenic bowel: dysfunction and rehabilitation. In: Cifu DX, Lew HL, editors. Braddom's Rehabilitation Care: A Clinical Handbook. 6th ed. Philadelphia, PA: Elsevier; 2018:143-149. [Context Link 1]
- 22. Lee R, Gibson W, Wagg A. Continence and elimination. In: O'Hanlon S, Smith M, editors. Comprehensive Guide to Rehabilitation of the Older Patient. 4th ed. Elsevier; 2021:195-202. [Context Link 1]
- 23. Management of patients with musculoskeletal disorders. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:1113-1151. [Context Link 1]
- 24. Galicia-Castillo MC. Pain. In: O'Hanlon S, Smith M, editors. Comprehensive Guide to Rehabilitation of the Older Patient. 4th ed. Elsevier; 2021:127-131. [
 Context Link 1]
- 25. HEDIS quality measures 2023. [Internet] NCQA. Accessed at: https://www.ncqa.org/hedis/measures/. Updated 2022 [accessed 2022 Oct 19] [Context Link 1, 2]
- 26. Wong R. Care planning meetings. In: O'Hanlon S, Smith M, editors. Comprehensive Guide to Rehabilitation of the Older Patient. 4th ed. Elsevier; 2021:395-398. [Context Link 1]

- 27. Edelstein JE, Wong CK. Orthotics. In: O'Sullivan SB, Schmiz TJ, Fulk GD, editors. Physical Rehabilitation. 7th ed. Philadelphia, PA: F.A. Davis; 2019. [
 Context Link 1]
- 28. Organization of services. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:47-62. [Context Link 1, 2]
- 29. de Wilde C. Social work. In: O'Hanlon S, Smith M, editors. Comprehensive Guide to Rehabilitation of the Older Patient. 4th ed. Elsevier; 2021:91-94. [
 Context Link 1]
- 30. Kee YYK. Measuring progress with rehabilitation. In: O'Hanlon S, Smith M, editors. Comprehensive Guide to Rehabilitation of the Older Patient. 4th ed. Elsevier; 2021:111-115. [Context Link 1]
- 31. Bejor M, Ramella FC, Toffola ED, Comelli M, Chiappedi M. Inpatient rehabilitation outcome: a matter of diagnosis? Neuropsychiatric Disease and Treatment 2013;9:253-7. DOI: 10.2147/NDT.S39922. [Context Link 1] View abstract...
- 32. Simning A, Caprio TV, Seplaki CL, Temkin-Greener H, Szanton SL, Conwell Y. Patient-reported outcomes in functioning following nursing home or inpatient rehabilitation. Journal of the American Medical Directors Association 2018;19(10):864-870. DOI: 10.1016/j.jamda.2018.06.014. [Context Link 1] View abstract...
- 33. Sood N, Shier V, Huckfeldt PJ, Weissblum L, Escarce JJ. The effects of vertically integrated care on health care use and outcomes in inpatient rehabilitation facilities. Health Services Research 2021;56(5):828-838. DOI: 10.1111/1475-6773.13667. [Context Link 1] View abstract...
- 34. Hunter EG, Rhodus E. Interventions within the scope of occupational therapy to address preventable adverse events in inpatient and home health postacute care settings: a systematic review. American Journal of Occupational Therapy 2022;76(1):7601180060. DOI: 10.5014/ajot.2022.047589. [Context Link 1] View abstract...
- 35. Rodriguez A, et al. Who receives post-acute care? Characteristics of national population and field test sample. Journal of the American Geriatrics Society 2022;70(4):991-1000. DOI: 10.1111/jgs.17649. [Context Link 1] View abstract...
- 36. Gorgulu B, et al. Association between delayed discharge from acute care and rehabilitation outcomes and length of stay: a retrospective cohort study. Archives of Physical Medicine and Rehabilitation 2022; Online. DOI: 10.1016/j.apmr.2022.05.017. [Context Link 1] View abstract...
- 37. Hakkennes S, Lindner C, Reid J. Implementing an inpatient rehabilitation Saturday service is associated with improved patient outcomes and facilitates patient flow across the health care continuum. Disability and Rehabilitation 2015;37(8):721-7. DOI: 10.3109/09638288.2014.939772. [Context Link 1] View abstract...
- 38. DiSotto-Monastero M, Chen X, Fisch S, Donaghy S, Gomez M. Efficacy of 7 days per week inpatient admissions and rehabilitation therapy. Archives of Physical Medicine and Rehabilitation 2012;93(12):2165-9. DOI: 10.1016/j.apmr.2012.07.003. [Context Link 1] View abstract...
- 39. Therapy Outcomes in Post-Acute Care Settings (TOPS) Study Chartbook. [Internet] American Occupational Therapy Association, Inc and American Physical Therapy Association. 2021 Apr Accessed at: https://www.aota.org/. [accessed 2022 Oct 12] [Context Link 1]
- 40. Daras LC, et al. Evaluating hospital readmission rates after discharge from inpatient rehabilitation. Archives of Physical Medicine and Rehabilitation 2018;99(6):1049-1059. DOI: 10.1016/j.apmr.2017.07.008. [Context Link 1] View abstract...
- 41. Middleton A, Graham JE, Ottenbacher KJ. Functional status is associated with 30-day potentially preventable hospital readmissions after inpatient rehabilitation among aged Medicare Fee-for-Service beneficiaries. Archives of Physical Medicine and Rehabilitation 2018;99(6):1067-1076. DOI: 10.1016/j.apmr.2017.05.001. [Context Link 1] View abstract...
- 42. Osuafor CN, Sahimi SNM, Enduluri S, McCarthy F. Incidence and outcome of interrupted geriatric rehabilitation requiring acute hospital transfer. Irish Journal of Medical Science 2019;188(4):1451-1454. DOI: 10.1007/s11845-019-01974-0. [Context Link 1] View abstract...
- 43. Wan CS, Reijnierse EM, Maier AB. Risk factors of readmissions in geriatric rehabilitation patients: RESORT. Archives of Physical Medicine and Rehabilitation 2021;102(8):1524-1532. DOI: 10.1016/j.apmr.2021.01.082. [Context Link 1] View abstract...
- 44. Shea CA, et al. Variation in 30-day readmission rates from inpatient rehabilitation facilities to acute care hospitals. Journal of the American Medical Directors Association 2021;22(12):2461-2467. DOI: 10.1016/j.jamda.2021.03.033. [Context Link 1] View abstract...
- 45. Keim SK, Ratcliffe SJ, Naylor MD, Bowles KH. Patient factors linked with return acute healthcare use in older adults by discharge disposition. Journal of the American Geriatrics Society 2020;68(10):2279-2287. DOI: 10.1111/jgs.16645. [Context Link 1] View abstract...
- 46. Centers for Medicare and Medicaid Services. "Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) and IRF-PAI Manual." Version 4.0 Washington, DC 2022 Apr 01 [accessed 2022 Aug 03] Accessed at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/IRF-PAI-and-IRF-PAI-Manual. [Context Link 1]
- 47. Hudson T. The role of social determinates of health in discharge practices. Nursing Clinics of North America 2021;56(3):369-378. DOI: 10.1016/j.cnur.2021.04.004. [Context Link 1] View abstract...
- 48. Pinto SM, Galang G. Venous thromboembolism as predictor of acute care hospital transfer and inpatient rehabilitation length of stay. American Journal of Physical Medicine and Rehabilitation 2017;96(6):367-373. DOI: 10.1097/PHM.0000000000000643. [Context Link 1] View abstract...
- 49. Stevens SM, et al. Antithrombotic therapy for VTE disease: second update of the CHEST guideline and expert panel report. Chest 2021;160(6):e545-e608. DOI: 10.1016/j.chest.2021.07.055. (Reaffirmed 2022 Aug) [Context Link 1] View abstract...
- 50. Mobility and gait. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:251-267. [Context Link 1, 2]
- 51. Blum FC, Biros MH. Fever in the adult patient. In: Walls RM, editor. Rosen's Emergency Medicine. 10th ed. Philadelphia, PA 19103-2899: Elsevier; 2023:90-95.e1. [Context Link 1]
- 52. Assessment of respiratory function. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:462-493. [Context Link 1]
- 53. An overview of professional practice issues and infusion therapy. In: Gorski LA, editor. Phillips's Manual of I.V. Therapeutics. 7th ed. Philadelphia, PA: F.A. Davis; 2018:1-39. [Context Link 1]
- 54. Management of patients with oncologic disorders. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:301-366. [Context Link 1]
- 55. Complications of parenteral nutrition. In: Ayers P, Bobo ES, Hurt RT, Mays AA, Worthington PH, editors. A.S.P.E.N. Parenteral Nutrition Handbook. 3rd ed. Silver Spring, MD: American Society for Parenteral and Enteral Nutrition; 2020:173-198. [Context Link 1]

- 56. Parenteral nutrition administration and monitoring. In: Ayers P, Bobo ES, Hurt RT, Mays AA, Worthington PH, editors. A.S.P.E.N. Parenteral Nutrition Handbook. 3rd ed. Silver Spring, MD: American Society for Parenteral and Enteral Nutrition; 2020;141-172. [Context Link 1]
- 57. Rateau MR. Fluid, electrolyte, and acid-base imbalances. In: Harding MM, Kwong J, Roberts D, Hagler D, Reinisch C, editors. Lewis's Medical-Surgical Nursing: Assessment and Management of Clinical Problems. 11th ed. St. Louis, MO: Mosby; 2020:268-296. [Context Link 1, 2]
- 58. Baron DA, Cobb RT, Juarez GM. Other psychiatric emergencies. In: Sadock BJ, Sadock VA, Ruiz P, editors. Kaplan and Sadock's Comprehensive Textbook of Psychiatry. 10th ed. Philadelphia. PA: Lippincott Williams & Wilkins: 2017;2622-2637. [Context Link 1]
- 59. Chiappetta L, Varcarolis EM. Neurocognitive disorders. In: Varcarolis EM, editor. Essentials of Psychiatric Mental Health Nursing. 4th ed. St. Louis, MO: Elsevier; 2021:278-301. [Context Link 1]
- 60. Fosbre CD, Varcarolis EM. Anger, aggression, and violence. In: Varcarolis EM, editor. Essentials of Psychiatric Mental Health Nursing. 4th ed. St. Louis, MO: Elsevier; 2021:377-390. [Context Link 1]
- 61. Pain management. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:196-223. [Context Link 1, 2, 3]
- 62. Opioid analgesics, opioid antagonists, and nonopioid centrally acting analgesics. In: Burchum JR, Rosenthal LD, editors. Lehne's Pharmacology for Nursing Care. 11th ed. Elsevier; 2022:286-306. [Context Link 1]
- 63. Ezidiegwu D, Kim SY. Pain management principles. In: Gonzalez-Fernandez M, Schaaf S, Zumsteg JM, Perret D, Kennedy DJ, editors. Handbook of Physical Medicine and Rehabilitation. Springer Publishing Company; 2022:375-384. [Context Link 1]
- 64. Dowell D, Ragan KR, Jones CM, Baldwin GT, Chou R. CDC Clinical Practice Guideline for Prescribing Opioids for Pain United States, 2022. MMWR Recommendations and Reports 2022;71(3):1-95. DOI: 10.15585/mmwr.rr7103a1. [Context Link 1] View abstract...
- 65. Management of patients with urinary disorders. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:1604-1637. [Context Link 1]
- 66. Doiron RC, Nickel JC. Interstitial cystitis/bladder pain syndrome. In: Loscalzo J, Fauci A, Kasper D, Hauser S, Longo D, Jameson JL, editors. Harrison's Principles of Internal Medicine. 21st ed. McGraw Hill Education; 2022:325-331. [Context Link 1]
- 67. Mount DB. Azotemia and urinary abnormalities. In: Loscalzo J, Fauci A, Kasper D, Hauser S, Longo D, Jameson JL, editors. Harrison's Principles of Internal Medicine. 21st ed. McGraw Hill Education; 2022:331-338. [Context Link 1]
- 68. Fluid and electrolytes. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:224-272. [Context Link 1]
- 69. Boswell B, Thomas AA. Pediatric genitourinary and renal tract disorders. In: Walls RM, editor. Rosen's Emergency Medicine. 10th ed. Philadelphia, PA 19103-2899: Elsevier; 2023:2169-2183.e2. [Context Link 1]
- 70. Ratliff CR. Inflammation and healing. In: Harding MM, Kwong J, Roberts D, Hagler D, Reinisch C, editors. Lewis's Medical-Surgical Nursing: Assessment and Management of Clinical Problems. 11th ed. St. Louis, MO: Mosby; 2020:156-174. [Context Link 1]
- 71. Malone DJ. Introduction to physical therapist management of the acute care patient. In: Malone DJ, Bishop KL, editors. Acute Care Physical Therapy. 2nd ed. Slack, Inc.; 2020:1-50. [Context Link 1]
- 72. Yang W, Houtrow A, Cull DS, Annaswamy TM. Quality and outcome measures for medical rehabilitation. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:100-114.e2. [Context Link 1]
- 73. Braza DW, Yacub Martin JN. Upper limb amputations. In: Frontera WR, Silver JK, Rizzo TD Jr, editors. Essentials of Physical Medicine and Rehabilitation: Musculoskeletal Disorders, Pain, and Rehabilitation. 4th ed. Philadelphia, PA: Elsevier Saunders; 2019:651-657. [Context Link 1]
- 74. Sheehan TP. Rehabilitation and prosthetic restoration in upper limb amputation. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:153-173.e2. [Context Link 1, 2]
- 75. Miller MA. Examination of the pediatric patient. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:42-52.e1. [Context Link 1]
- 76. Soble JR, Schulze ET, Resch ZJ, Critchfield EA, O'Rourke JJF. Psychological assessment and intervention in rehabilitation. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:68-73.e2. [Context Link 1]
- 77. Adler J. Musculoskeletal/orthopedic diseases and disorders. In: Malone DJ, Bishop KL, editors. Acute Care Physical Therapy. 2nd ed. Slack, Inc.; 2020:311-350. [Context Link 1]
- 78. Dicks MA, Verduzco-Gutierrez M. Spasticity and contracture. In: Gonzalez-Fernandez M, Schaaf S, Zumsteg JM, Perret D, Kennedy DJ, editors. Handbook of Physical Medicine and Rehabilitation. Springer Publishing Company; 2022:427-434. [Context Link 1]
- 79. Exercise testing and prescription for populations with other chronic diseases and health conditions. In: American College of Sports Medicine, editor. ACSM's Guidelines for Exercise Testing and Prescription. 11th ed. Wolters Kluwer; 2022:307-377. [Context Link 1]
- 80. Manual techniques. In: Dutton M, editor. Dutton's Orthopaedic Examination, Evaluation, and Intervention. 5th ed. McGraw-Hill Education; 2020:398-422. [
 Context Link 1. 2]
- 81. Ritchey KC, Olney AL, Campen SJ. Falls. In: Gonzalez-Fernandez M, Schaaf S, Zumsteg JM, Perret D, Kennedy DJ, editors. Handbook of Physical Medicine and Rehabilitation. Springer Publishing Company; 2022:337-342. [Context Link 1]
- 82. Chronic pain. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:141-165. [Context Link 1]
- 83. Skin problems. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:195-202. [Context Link 1]
- 84. Ehlers CF. Integumentary disorders and wound management. In: Malone DJ, Bishop KL, editors. Acute Care Physical Therapy. 2nd ed. Slack, Inc.; 2020:639-679. [Context Link 1]
- 85. Rateau M. Stress management. In: Harding MM, Kwong J, Roberts D, Hagler D, Reinisch C, editors. Lewis's Medical-Surgical Nursing: Assessment and Management of Clinical Problems. 11th ed. St. Louis, MO: Mosby; 2020:76-87. [Context Link 1, 2]
- 86. Chen WS, Annaswamy TM, Yang W, Wang TG, Kwon DR, Chou LW. Physical agent modalities. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:338-363.e6. [Context Link 1]

- 87. Aragaki D, Saby A, Zappaterra M, Escorpizo R. Occupational medicine and vocational rehabilitation. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:89-99.e2. [Context Link 1]
- 88. Potter BK, Ritland BM. Amputation. In: Green A, Hayda R, Hecht AC, editors. Postoperative Orthopaedic Rehabilitation. Philadelphia, PA: Lippincott Williams & Wilkins; 2018:680-687. [Context Link 1, 2]
- 89. Walters LS. Amputations and prosthetics. In: Dirette DP, Gutman SA, editors. Occupational Therapy for Physical Dysfunction. 8th ed. Wolters Kluwer; 2021:922-946. [Context Link 1]
- 90. Rowe VT, Zeiner TL. Motor function assessment: range of motion, strength, and endurance. In: Dirette DP, Gutman SA, editors. Occupational Therapy for Physical Dysfunction. 8th ed. Wolters Kluwer; 2021:197-267. [Context Link 1]
- 91. Ciro C, Doucet BM. Sensory assessment and intervention. In: Dirette DP, Gutman SA, editors. Occupational Therapy for Physical Dysfunction. 8th ed. Wolters Kluwer; 2021:176-196. [Context Link 1]
- 92. Schultz-Krohn W, Pendleton HM. Application of the occupational therapy practice framework to physical dysfunction. In: Pendleton HM, Schultz-Krohn W, editors. Pedretti's Occupational Therapy. 8th ed. St. Louis, MO: Elsevier; 2018:24-46. [Context Link 1]
- 93. Amputee rehabilitation. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:615-641. [
 Context Link 1]
- 94. Scaffa ME. Emotion regulation. In: Schell BA, Gillen G, editors. Willard & Spackman's Occupational Therapy. 13th ed. Philadelphia, PA: Wolters Kluwer; 2019:965-979. [Context Link 1]
- 95. Duncan EAS, Fletcher-Shaw S. The cognitive-behavioural frame of reference. In: Duncan EAS, editor. Foundations for Practice in Occupational Therapy. 6th ed. Elsevier; 2021:141-151. [Context Link 1]
- 96. Bargent A. Occupational therapy: function and cognition. In: O'Hanlon S, Smith M, editors. Comprehensive Guide to Rehabilitation of the Older Patient. 4th ed. Elsevier; 2021:65-68. [Context Link 1]
- 97. McMillan IR. The biomechanical frame of reference. In: Duncan EAS, editor. Foundations for Practice in Occupational Therapy. 6th ed. Elsevier; 2021:152-164. [Context Link 1, 2]
- 98. Spasticity and contractures. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:123-139. [
 Context Link 1, 2]
- 99. Roberts ME. Interventions to enhance occupational performance in activities of daily living and instrumental activities of daily living. In: Jacobs K, MacRae N, editors. Occupational Therapy Essentials for Clinical Competence. 3rd ed. Thorofare, NJ: Slack, Inc; 2017;383-398. [Context Link 1]
- 100. James AB, Pitonyak JS. Activities of daily living and instrumental activities of daily living. In: Schell BA, Gillen G, editors. Willard & Spackman's Occupational Therapy. 13th ed. Philadelphia, PA: Wolters Kluwer; 2019:714-752. [Context Link 1]
- 101. Crossley-Marra L, DeBrakeleer B, Croninger WR. Assistive technology. In: Jacobs K, MacRae N, editors. Occupational Therapy Essentials for Clinical Competence. 3rd ed. Thorofare, NJ: Slack, Inc; 2017:467-478. [Context Link 1]
- 102. Robnett RH, Bolduc JJ. Client factors in occupational performance functioning. In: Jacobs K, MacRae N, editors. Occupational Therapy Essentials for Clinical Competence. 3rd ed. Thorofare, NJ: Slack, Inc; 2017:359-382. [Context Link 1, 2]
- 103. Rey-Matias RR. Manipulation, traction, and massage. In: Cifu DX, Lew HL, editors. Braddom's Rehabilitation Care: A Clinical Handbook. 6th ed. Philadelphia, PA: Elsevier; 2018:111-118. [Context Link 1]
- 104. Physical agent modalities. In: Cifu DX, Lew HL, editors. Braddom's Rehabilitation Care: A Clinical Handbook. 6th ed. Philadelphia, PA: Elsevier; 2018:119-125. [Context Link 1]
- 105. Keszler MS, Heckman JT, Kaufman GE, Morgenroth DC. Advances in prosthetics and rehabilitation of individuals with limb loss. Physical Medicine and Rehabilitation Clinics 2019;30(2):423-437. DOI: 10.1016/j.pmr.2018.12.013. [Context Link 1] View abstract...
- 106. Wheelchairs and seating. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:305-317. [
 Context Link 1]
- 107. Lange ML. Wheelchair and seating selection. In: Dirette DP, Gutman SA, editors. Occupational Therapy for Physical Dysfunction. 8th ed. Wolters Kluwer; 2021:511-536. [Context Link 1]
- 108. Care and Compare. Find and Compare Nursing Homes, Hospitals, and Other Providers Near You [Internet] Medicare.gov. Accessed at: https://www.medicare.gov/care-compare/. [accessed 2022 Oct 18] [Context Link 1, 2]

Footnotes

- [A] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) is currently providing a waiver on the intensity of therapy requirement of at least 15 hours per week that will end at the conclusion of the COVID-19 Public Health Emergency (PHE).(5)(6) [A in Context Link 1]
- [B] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) Medicare Benefit Policy Manual states that admissions that are intended to assess if a patient would benefit and tolerate treatment in an IRF setting are no longer considered reasonable and necessary.(3) [B in Context Link 1]
- [C] National guidelines: The Centers for Medicare and Medicaid Services (CMS) is currently providing waivers around telehealth usage that will end at the conclusion of the COVID-19 Public Health Emergency (PHE).(5)(6) [C in Context Link 1]
- [D] National guidelines: Therapy treatments should begin within 36 hours of admission.(2)(3) [D in Context Link 1]
- [E] National guidelines: If an unexpected clinical event cannot be resolved sufficiently within 3 days for the patient to return to intensive services, consider the patient for transition to another level of care.(3) [E in Context Link 1, 2]

- [F] National guidelines: The Centers for Medicare and Medicaid Services uses a data collection system to establish best practice, understand costs, and identify cost-effective systems and procedures. The current data collection system for eligible patients is the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI). IRF-PAI is an assessment tool used to identify patient problems, strengths, and preferences. The IRF-PAI used to create an individualized care plan can be found at www.cms.gov and search Inpatient Rehabilitation Facility Patient Assessment Instrument.(46) [F in Context Link 1]
- [G] **Evidence**: A retrospective cohort study of 2312 discharges from an inpatient rehabilitation facility for patients being diagnosed with venous thromboembolism (VTE) to those without VTE diagnosis, found that VTE patients were twice as likely to transfer to an acute care hospital, and although they ultimately had comparable improvement in functional independence during rehabilitation, it was associated with significantly less efficiency and an inpatient rehabilitation length of stay 4.7 days longer.(48) [G in Context Link 1]
- [H] Pain assessment should include how pain affects patient's physical and psychosocial function and progress toward treatment goals.(61) [H in Context Link 1]
- [I] The patient's agreed-upon pain treatment plan should include measurable and realistic functional or quality-of-life goals, pain management education, treatment options, and safe use of opioid and nonopioid medications as prescribed.(61) [I in Context Link 1]
- [J] **National guidelines:** The Centers for Disease Control and Prevention (CDC) recommends nonpharmacologic and nonopioid therapy before opioids for management of chronic pain (not due to malignancy). Considerations for opioids should include pain management goal setting and determining if benefits outweigh risks. When opioids are prescribed, they should be provided in conjunction with nonpharmacologic pain management interventions and planned monitoring for misuse or use escalation.(64) [J in Context Link 1]

Definitions

Custodial care

• Custodial care is personal unskilled care to support the patient's care of activities of daily living (ADL), such as bathing, dressing, and eating. (1)

References

1. Mauk KL. Post-acute care. In: Larsen PD, editor. Lubkin's Chronic Illness: Impact and Intervention. 11th ed. Jones & Bartlett Learning; 2022:477-520.

FIM Score

• The Functional Independence Measure (FIM®) is an instrument that classifies a patient's ability to carry out activities and the need for assistance from a person or device. It is a 7-level scale measurement of gradations in behavior (from dependence to independence) that can be used to monitor patient progress throughout rehabilitation and help with care plan development and defining discharge needs.(1)

References

1. Yang W, Houtrow A, Cull DS, Annaswamy TM. Quality and outcome measures for medical rehabilitation. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:100-114.e2.

Intense and complex care needs

• Intense and complex care needs require assessment of the patient's clinical needs, ability, and tolerance for treatment, with an evaluation of logistical requirements of needed services. Care must support positive outcomes and safe transition to the next level of care.(1) Logistical requirements of needed services is the ability to coordinate and transfer the patient from various care settings. Logistical requirements may increase the complexity of the patient's care, for example, conditions requiring extensive assistance (eg, body cast, burns, being bedbound) may create an excessive physical hardship for the patient to receive needed care on an outpatient basis.(2)

References

- 1. Shyu SG. The physiatric history and physical examination. In: Cifu DX, Lew HL, editors. Braddom's Rehabilitation Care: A Clinical Handbook. 6th ed. Philadelphia, PA: Elsevier; 2018:3-13.
- Centers for Medicare and Medicaid Services. "Criteria for 'practical matter'." 42 CFR Pt. 409.35 Washington, DC 2022 Oct [accessed 2022 Oct 17] Accessed at: https://www.ecfr.gov/.

Occupational therapy (OT) progression

- OT progression includes **ALL** of the following(1)(2):
 - Ongoing evaluation of treatment plan with short-term and long-term goals
 - Ongoing evaluation of rehabilitation potential toward achieving goals
 - Patient demonstrates resolution of barriers to transition of care and 1 or more of the following:
 - Measured improvements in performance of short-term goals in reasonable and predictable time frame based on treatment plan[A]
 (3)(4)(5)
 - Minimal progress due to unexpected clinical event, but progress expected to resume toward goals within 3 days as condition improves(6)

References

- 1. Shotwell MP. Evaluating clients. In: Schell BA, Gillen G, editors. Willard & Spackman's Occupational Therapy. 13th ed. Philadelphia, PA: Wolters Kluwer; 2019:369-389.
- 2. Pryor J, O'Reilly K, Bonser M, Garret G, McKenchnie D. Rehabilitation for the individual and family. In: Chang E, Johnson A, editors. Living With Chronic Illness and Disability. 4th ed. Chatswood NSW 2067: Elsevier; 2022:161-182.
- 3. Halmai E. Quality and outcome measures for medical rehabilitation. In: Cifu DX, Lew HL, editors. Braddom's Rehabilitation Care: A Clinical Handbook. 6th ed. Philadelphia, PA: Elsevier; 2018:39-43.
- 4. Steinmetz JP, Bourkel E. Clinical-instrumental evaluation of elderly patients during rehabilitation. In: Masiero S, Carraro U, editors. Rehabilitation Medicine for Elderly Patients. Cham, Switzerland: Springer; 2018:199-212.
- 5. Barker K, Eickmeyer S. Therapeutic exercise. Medical Clinics of North America 2020;104(2):189-198. DOI: 10.1016/j.mcna.2019.10.003.
- Chapter 1 Inpatient hospital services covered under part A Rev. 10892. In: Medicare Benefit Policy Manual [Internet] Centers for Medicare & Medicaid Services. 2021 Aug Accessed at: https://www.cms.gov/manuals/. [accessed 2022 Oct 14]

Footnotes

A. Improvements may be measured by accuracy (percentage or number of correct trials), increased number of repetitions, decreased assistance level (maximum, moderate, or minimal assistance), decreased pain level, decreased level of cues or prompts required (in conjunction with level of assistance), or improvement in standardized functional outcome measures (eg, FIM®).(3)(4) Generally, it is expected that measured improvements should be demonstrable in targeted areas over a 1-week to 2-week period of restorative therapy. Speed of recovery is variable and may be linked to intensity of treatment, patient condition, age, comorbidities, and other factors.

Physical therapy (PT) progression

- PT progression includes **ALL** of the following(1)(2)(3):
 - · Ongoing evaluation of treatment plan with short-term and long-term goals
 - · Ongoing evaluation of rehabilitation potential toward achieving goals
 - Patient demonstrates resolving of barriers to transition of care and 1 or more of the following:
 - Measured improvements in performance of short-term goals in reasonable and predictable time frame based on treatment plan[A] (4)(5)
 - Minimal progress due to unexpected clinical event, but progress expected to resume toward goals within 3 days as condition improves(6)

References

- 1. O'Sullivan SB. Clinical decision making. In: O'Sullivan SB, Schmiz TJ, Fulk GD, editors. Physical Rehabilitation. 7th ed. Philadelphia, PA: F.A. Davis; 2019.
- 2. Malone DJ. Introduction to physical therapist management of the acute care patient. In: Malone DJ, Bishop KL, editors. Acute Care Physical Therapy. 2nd ed. Slack, Inc.; 2020:1-50.
- 3. Centers for Medicare and Medicaid Services. "Skilled services requirements." 42 CFR Pt. 409.44 Washington, DC 2022 Oct [accessed 2022 Oct 17] Accessed at: https://www.ecfr.gov/.
- 4. Yang W, Houtrow A, Cull DS, Annaswamy TM. Quality and outcome measures for medical rehabilitation. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:100-114.e2.
- 5. Barker K, Eickmeyer S. Therapeutic exercise. Medical Clinics of North America 2020;104(2):189-198. DOI: 10.1016/j.mcna.2019.10.003.
- 6. Chapter 1 Inpatient hospital services covered under part A Rev. 10892. In: Medicare Benefit Policy Manual [Internet] Centers for Medicare & Medicaid Services. 2021 Aug Accessed at: https://www.cms.gov/manuals/. [accessed 2022 Oct 14]

Footnotes

A. Improvements may be measured by accuracy (percentage or number of correct trials), increased number of repetitions, decreased assistance level (maximum, moderate, or minimal assistance), decreased pain level, increased ROM/strength, increased balance scores, decreased level of cues or prompts required (in conjunction with level of assistance), or improvement in standardized functional outcome measures (eg, FIM®, WeeFIM®, Tinetti, BERG Balance Scale).(2)(4) Generally, it is expected that measured improvements should be demonstrable in targeted areas over a 1-week to 2-week period of skilled therapy. The speed of recovery is variable and may be linked to intensity of treatment, patient condition, age, comorbidities, and other factors.

Safe to go home

- Patient safe to go home if **ALL** of the following exist(1)(2)(3):
 - Medical condition manageable at home
 - Functional status manageable at home
 - · Mental status stable
 - Medication availability confirmed and reconciliation complete
 - · Patient/caregiver education complete and written discharge instructions provided
 - Caregiver and community resources identified (as needed)
 - Community resources identified and referrals made, as needed
 - · Home care arranged, if indicated
 - Necessary medical equipment delivery arranged or available in home, if indicated

· Necessary medical supplies ordered, or patient/caregiver can obtain, if indicated

References

- 1. Elements of Excellence in Transitions of Care (TOC). TOC Checklist [Internet] National Transitions of Care Coalition. Accessed at: https://www.ntocc.org. [accessed 2022 Oct 24]
- Medical-surgical nursing. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:33-55.
- 3. Client education and discharge planning. In: Smith SF, Duell DJ, Martin BC, Aebersold ML, Gonzalez L, editors. Clinical Nursing Skills. 9th ed. Hoboken, NJ: Pearson Education, Inc.; 2017:112-139.

Skilled care

• Skilled care is that which must be performed or supervised by professional or technical personnel, be reasonable and necessary for patient's treatment, and exceed scope of Custodial care. Skilled care may be direct (eg, in-person assessment and administration of treatments) or indirect (eg, coordinating care between providers, supervising care aides).[A](2)(3)

References

- 1. Centers for Medicare and Medicaid Services. "Criteria for skilled services and the need for skilled service." 42 CFR Pt. 409.32 Washington, DC 2022 Oct [accessed 2022 Oct 17] Accessed at: https://www.ecfr.gov/.
- 2. Transitional planning: understanding levels and transitions of care. In: Powell SK, Tahan H, editors. Case Management a Practical Guide for Education and Practice. 4th ed. Philadelphia, PA: Wolters Kluwer, Lippincott, Williams & Wilkins; 2019:156-211.
- 3. Medical-surgical nursing. In: Hinkle JL, Cheever KH, Overbaugh KJ, editors. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 15th ed. Wolters Kluwer; 2022:33-55.

Footnotes

A. **National guidelines:** The Centers for Medicare and Medicaid Services defines skilled care as a service that is "so inherently complex that it can only be safely and effectively performed by, or under the supervision of, professional or technical personnel."(1)

Transition of care planning completed

- Transition of care planning completed; including ALL of the following(1)(2):
 - Transition plan communicated to all members of patient's healthcare team
 - Summary of inpatient rehabilitation facility admission, current list of medications, and discharge plan communicated to primary care provider at next level of care
 - · Medication reconciliation complete
 - Education on condition management and complications to report provided to patient or caregiver
 - · Follow-up appointments scheduled
 - · Referrals to continue rehabilitation goals (eg, outpatient or home therapy) arranged, if needed
 - Services (eg, equipment, environment modifications, transportation) required for transition to next level of care arranged, if needed
 - · Psychosocial issues addressed, or plan for management at next level of care arranged, if needed

References

- 1. Client education and discharge planning. In: Smith SF, Duell DJ, Martin BC, Aebersold ML, Gonzalez L, editors. Clinical Nursing Skills. 9th ed. Hoboken, NJ: Pearson Education, Inc.; 2017:112-139.
- 2. Saleeby J. Communication and collaboration. In: Perry AG, Potter PA, Ostendorf WR, editors. Nursing Interventions and Clinical Skills. 7th ed. Elsevier; 2020:9-21.

Codes

ICD-10 Diagnosis: S48.011A, S48.011D, S48.011S, S48.012A, S48.012D, S48.012S, S48.019A, S48.019D, S48.019S, S48.021A, S48.021D, S48.021S, S48.022A, S48.022D, S48.022S, S48.029A, S48.029D, S48.029S, S48.111A, S48.111D, S48.111S, S48.112A, S48.112D, S48.112D, S48.119A, S48.119D, S48.119S, S48.121A, S48.121D, S48.121B, S48.122A, S48.122D, S48.122S, S48.129A, S48.129D, S48.129S, S48.911A, S48.911D, S48.911D, S48.912A, S48.912D, S48.912D, S48.912S, S48.912A, S48.912D, S48.912D, S48.912D, S48.92D, S48.92D, S48.92D, S48.92D, S48.92D, S48.92D, S48.92D, S48.92D, S58.011A, S58.011D, S58.011S, S58.012A, S58.012D, S58.012S, S58.019A, S58.019D, S58.019S, S58.021D, S58.021D, S58.021S, S58.022D, S58.022S, S58.029A, S58.029D, S58.029S, S58.111A, S58.111D, S58.111S, S58.112D, S58.112D, S58.111DA, S58.119D, S58.119D, S58.119D, S58.121A, S58.121D, S58.121A, S58.12DD, S58.122A, S58.122A, S58.122A, S58.122A, S58.122A, S58.122A, S58.122A, S58.123A, S58.123A, S58.123A, S58.123A, S58.123A, S58.912A, S58.912A, S58.912A, S58.912B, S58.912B, S58.912B, S58.913A, S58.913B, S58.9

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