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Inpatient Rehabilitation Facility (Acute Rehabilitation): Stroke

IRF: I-5083 (RFC)

[Link to Codes](#)

MCG Health
Recovery Facility Care
30th Edition

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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):[NN](#)

- o No acute hospital care needs
- o Preadmission screening completed; assessment examples include[A][B](1):
 - Level of function prior to the event
 - Condition that caused the need for rehabilitation
 - Expected level of improvement
 - Expected length of time to achieve level of improvement
 - Risk for clinical complications
 - Combination of treatments needed (PT, OT, SLP, or orthosis/prosthesis)
 - Anticipated discharge destination
- o Patient status supports **active** participation in, and benefit from, intensive rehabilitation Skilled care that includes **ALL** of the following[C](2)(16):[N](#)
 - Intensity and complexity of nursing, medical management, and rehabilitation needs required and can be expected to benefit from an inpatient stay and interdisciplinary team approach[N](#)
 - Ability to actively participate in Intensive rehabilitation therapy program
 - Patient can reasonably be expected to demonstrate Goals for measurable improvement [D]
 - Requires physician supervision to assess the patient both medically and functionally[E]
 - Requires an intensive and coordinated Interdisciplinary team care approach[F]
- o Therapy services needed, including **ALL** of the following(4)(31)(32)(33)(34)(35):[N](#)
 - Skilled therapy services needed for **1 or more** of the following(40)(41):
 - Augmentative and alternative communication device training(42)
 - Edema-management techniques(42)
 - Environmental and activity modification for ADL performance(43)(44)
 - Equipment and adaptive technology use and safety
 - Fall-prevention and recovery training(45)(46)
 - Functional activities evaluation and training(44)
 - Gait evaluation and training(27)(47)(48)
 - Motor control and balance evaluation and training(46)
 - Neurobehavioral and neurocognitive assessment and treatment strategies (eg, learning, memory, attention, problem-solving, abstract reasoning, and impulsivity)(21)(42)(49)
 - Orthosis or prosthesis evaluation and training(46)(50)
 - Pain-management techniques(42)
 - Positioning techniques and training(51)
 - Range of motion evaluation and training(44)(51)
 - Restoration of speech or swallowing with services of speech-language pathologist (SLP)(52)
 - Safety awareness training related to functional mobility and ADL performance(49)
 - Strength evaluation and training(44)
 - Therapeutic exercises or activities supervision to ensure patient safety and treatment effectiveness(44)
 - Multidisciplinary therapy services needed, including **2 or more** of the following(53)(54)(55):
 - Physical therapy (PT)
 - Occupational therapy (OT)
 - Other therapy, including **1 or more** of the following:
 - o Speech-language pathology (SLP) therapy
 - o Orthosis or prosthesis

- o Nursing services needed, including **1 or more** of the following(4)(16)(56)(57):
 - Behavioral health condition monitoring(53)
 - Bowel and bladder management(58)(59)(60)
 - Coordination of care between interdisciplinary team members(44)
 - Infusion therapy management
 - Medical condition monitoring with evaluation of rehabilitation on clinical status(46)(51)
 - Musculoskeletal management(61)
 - Nutritional management(62)(63)
 - Respiratory management(34)(46)
 - Therapy skills incorporated and reinforced in nursing care
 - Time-tabling and routine establishment (eg, for ADL adaptation)
 - Pain management(50)
 - Patient and caregiver education (eg, safety, skin care, medication)(44)
 - Wound management(63)

Alternative Levels of Care

- Patient may be candidate for other levels of care, including:
 - o Subacute or skilled care. See:
 - Stroke [RFC](#)
 - Subarachnoid Hemorrhage, Nonsurgical Treatment [RFC](#)
 - o Home care. For admission criteria, see:
 - Stroke [HC](#)
 - Subarachnoid Hemorrhage, Nonsurgical Treatment [HC](#)

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	8	10	12	14	7	9	10	12	13

Evaluation and Treatment

General Treatment Course

Stage	Clinical Status	Interventions
1	• Clinical indications for admission met • Inpatient Rehabilitation Admission Assessment complete with intensive rehabilitation needs and services identified and evaluation of current level of functioning (eg, Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI)) QM [G][H] • Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) Assessment  SR complete for evaluation of current level of functioning (eg,  Activities of Daily Living (ADL) Scoring Tool Calculator) QM • Physical ability assessment (eg, FIM Score®, Functional Independence Measure for children (WeeFIM®)) • Pressure injury assessment (ie, risk for new or presence of existing pressure injury). See Wounds Due to Surgery, Injury, or Pressure  SR for further information. QM • Psychosocial status assessment. See Psychosocial Assessment  SR. QM • Social determinants of health screening. See Social Determinants of Health Screening Tool  SR for further information. QM(67) • Hospital readmission risk factor evaluation QM (68)(69)	• Transition of care planning initiated with evaluation for next level of care QM (70) • Interdisciplinary care plan established and implemented QM [I](2)(71) ▢ Provide treatments and monitoring: ◦ Behavioral management(72) ◦ Bladder management(46) ◦ Bowel management(46) ◦ Chronic condition management as indicated(73) ◦ Cognitive management techniques(72)(74) ◦ Fall risk management QM (75) ◦ Fluid and electrolyte management ◦ Infusion (IV or subcutaneous) therapy management (eg, fluids, antibiotics, parenteral nutrition)(76) ◦ Laboratory testing or monitoring, if ordered(77) ◦ Medication management QM (78) ◦ Nutrition management(62) ◦ Pain management(42) ◦ Pressure injury management QM (4)(79) ◦ Respiratory care(80)(81) ◦ Thromboprophylaxis(82) ◦ Tracheostomy management(73) ◦ Wound or dressing management(63) • Education for self-care • Physical therapy (PT) evaluation • Occupational therapy (OT) evaluation(83) • Speech-language pathology (SLP) evaluation • Neuropsychological (eg, neurocognitive and neurobehavioral) evaluation, if indicated(49) • Orthosis or prosthesis evaluation, if indicated(4)(32) • Social work or case management evaluation(1)(2)(84)

2

- **Intensive rehabilitation therapy program established and patient actively participating**[J]
- Unexpected clinical event resolved (eg, infection, DVT, pneumonia)[K]
- 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**(85)
- **Physical therapy (PT) progression**
- **Occupational therapy (OT) progression**
- **Speech-language pathology (SLP) progression**
- **Other care needs stable or diminished**

- Interdisciplinary care plan continues **QM**
- Ongoing assessment of clinical needs **QM**
- Provide treatments and monitoring:
 - Behavioral management
 - Bladder management
 - Bowel management
 - Chronic condition management as indicated
 - Cognitive management techniques
 - Fall risk management **QM**
 - Fluid and electrolyte management
 - Infusion (IV or subcutaneous) therapy management (eg, fluids, antibiotics, parenteral nutrition)
 - Laboratory testing or monitoring, if ordered
 - Medication management **QM**
 - Nutrition management
 - Pain management
 - Pressure injury management **QM**
 - Respiratory care
 - Thromboprophylaxis
 - Tracheostomy management
 - Wound or dressing management
- Ongoing patient or caregiver education
- Ongoing equipment (eg, DME) training
- Ongoing rehabilitation therapy(2)
- Ongoing neuropsychological management, if indicated
- Orthosis or prosthesis training, if indicated
- Transition of care planning continues with evaluation for next level of care **QM** (86)

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)[L]
- **Bowel and bladder management training completed**
- **Communication technique training completed**
- **Enteral or parenteral nutrition tolerated, or oral diet**
- **Equipment (eg, DME) training completed**

- **Transition of care planning completed** **QM**(88)
- Safe to go home and transition to community or transition to alternative level of care (eg, skilled nursing facility, home care) **QM**

- **Gastrointestinal status stable or manageable at lower level of care**
- **Genitourinary status stable or manageable at lower level of care**
- **Medical status stable or manageable at lower level of care (eg, vital signs, laboratory values)**
- **Neurobehavioral and neurocognitive status manageable at lower level of care**
- **Neurovascular status stable or manageable at lower level of care**
- **Orthosis or prosthesis 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)
- **Respiratory status stable or manageable at lower level of care**
- **Wound(s) or dressing changes management at lower level of care**
- **Transition plans and education understood**

N

Recovery Milestones are indicated in **bold**.

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
 - 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.
 - 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)
 - Other therapy, including **1 or more** of the following:
 - Speech-language pathology (SLP) therapy
 - Orthosis or prosthesis
- Patient has had an unexpected clinical event and Skilled care needed on daily basis for **1 or more** of the following^{[K](2)}:
 - ☐ Deep venous thrombosis (DVT) or pulmonary embolus (PE) management; examples include⁽⁹¹⁾:
 - Pharmacoprophylaxis initiation⁽⁹²⁾
 - Hemodynamic measurements outside normal limits
 - Laboratory values outside normal limits.
 - Signs of active bleeding
 - Expect brief stay extension.
 - ☐ Fall management; examples include⁽⁹³⁾⁽⁹⁴⁾:
 - 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⁽²⁾

- 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(95)
 - Transition from enteral or parenteral nutrition to oral nutrition(96)
 - Hemodynamic measurements outside normal limits
 - Laboratory values outside normal limits(97)
 - Urinary output below prescribed parameters(97)
 - Expect brief stay extension.
- ☐ Mental status changes; examples include(98):
 - Danger to self or others
 - Behavior crisis management (eg, physical or chemical restraints) needed(99)
 - 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
 - Expect brief stay extension.
- ☐ Pain evaluation and management; examples include(100)(101)(102):
 - Frequent pain assessment using validated diagnostic tool[M]
 - Early referral and treatment of pain
 - Ongoing education and training of pain treatment plan (eg, multimodal pain management)[N][O]
 - Pain medication side effects or risk factors for adverse effects (eg, constipation, sedation, falls)
 - Expect brief to moderate stay extension.
- ☐ Respiratory management; examples include(104)(105):
 - Breathing abnormalities and oxygen regimen not established
 - Laboratory values outside normal limits
 - Respiratory status assessment to evaluate patient's response to treatment (eg, suctioning or pulmonary hygiene that requires skilled intervention or monitoring)
 - Assessment or care unmanageable at lower level of care
 - Expect brief stay extension.
- ☐ Seizure management(106)(107)
 - Seizure management with assessment of clinical status, monitoring for complications, administering medication and evaluating effect, airway management, and injury prevention
 - Expect brief stay extension.
- ☐ Significant comorbid disease exacerbation with need for skilled clinical intervention and monitoring; examples include(2)(108):
 - Hyperglycemia or hypoglycemia
 - Hypertension or hypotension
 - Inadequate pain management
 - Condition assessment or care unmanageable at lower level of care
 - Expect brief extension stay.
- ☐ Urinary management; examples include(109)(110):
 - Urinary catheter or percutaneous suprapubic tube complications

- Urinary output inadequate for medical condition(111)
 - Laboratory values outside normal limits(77)(112)
 - Expect brief stay extension.
- ☐ Wound management; examples include(113):
- Wound status changed with new type of dressing or procedure
 - New wound developed (eg, pressure injury)
 - Healing impeded due to comorbidities (eg, diabetes, malignancy)
 - Nutrition or hydration inadequate for normal duration of healing
 - Expect brief stay extension.

Rehabilitation Treatment Plan

Physical Therapy Treatment Plan

- **Physical therapy** treatment plan includes(114):

- ☐ Goals of physical therapy(63)(115)
- Activity tolerance and functional endurance improved
 - ADL/IADL performance, independence, and safety optimized(55)
 - ADL/IADL restrictions, precautions, or activity guidelines understood
 - Awareness of community resources optimized
 - Chronic condition modifiable risk factor management strategies maximized(116)
 - Durable medical equipment usage optimized
 - Energy conservation techniques and proper body mechanics maximized
 - Exercise tolerance and functional endurance improved
 - Fall-risk-reduction strategies maximized
 - Functional independence and safety with mobility-related tasks maximized
 - Home rehabilitation program and recommendations understood
 - Orthosis or prosthesis management and independence maximized(117)(118)(119)
 - Pain-management techniques optimized
 - Potential personality or emotional changes understood(55)
 - Pressure injury and contracture risk prevention maximized
 - Respiratory status and breathing techniques improved
 - Risk and disability associated with disease, injury, or surgical procedure understood
 - Self-management of health, injury, surgical procedure, or disease process optimized
 - Self-reported quality of life improved(55)
 - Strength and range of motion improved
 - Postdischarge complication risk factors minimized
- ☐ Rehabilitation techniques and training(4)(46)
- Abnormal tone or spasticity management(120)
 - ADL training
 - Age-appropriate functional strategies and techniques in alignment with developmental progression(121)
 - Compression bandage or garment management
 - Constraint-induced movement therapy and/or modified constraint-induced movement therapy(73)
 - Contracture prevention or management(122)(123)

- Edema prevention or management(124)
- Education of therapeutic program with patient and caregiver(125)(126)
- Energy conservation and work simplification(127)
- Equipment and device use training(118)(128)
- Exercise program setup and progression within precautions, which may include(31)(35)(48)(129):
 - Aerobic exercises or endurance conditioning(27)
 - Balance training
 - Coordination exercises
 - Range-of-motion techniques
 - Respiratory exercises and training (eg, respiratory muscle training, coughing techniques, deep breathing exercises, incentive spirometry exercises, pursed lip and diaphragmatic breathing)
 - Strengthening exercises
 - Stretching exercises
- Fall-prevention and recovery training **QM** (130)(131)
- Functional skills training with applicable durable medical equipment (eg, walker, transfer board)(35)(132)
 - Bed mobility training
 - Body weight-supported gait training (eg, robot-assisted gait training)
 - Gait training on level and uneven surfaces
 - Stair management
 - Transfer training
 - Wheelchair mobility and management(133)(134)(135)
- Joint-protection techniques and mobilization
- Lifting as prescribed for diagnosis (eg, medical, surgical)
- Manual therapy (eg, soft tissue mobilization techniques, scar management, massage)(136)
- Neuromuscular re-education (eg, proprioception training)
- Pain-management strategies and techniques(137)(138)
- Posture, positioning, and body mechanics as prescribed for diagnosis or surgical approach
- Pressure injury prevention or management(139)
- Safety awareness education(140)
- Self-management of health, injury, surgical procedure, or disease process(55)(125)(141)
- Sensory stimulation and integration techniques
- Splint, brace, cast, prosthesis, or orthosis management(35)(142)
- Therapeutic physical modality use and training, as indicated(143)
 - Cold modalities or cryotherapy with precautions related to circulatory deficiency, areas of desensitization, open wounds, or fractures
 - Functional or neuromuscular electrical stimulation
 - Thermal modality with precautions related to circulatory deficiency, areas of desensitization, open wounds, or fractures
 - Transcutaneous electrical nerve stimulation (TENS)
- Vestibular rehabilitation or vertigo management(46)(144)

☐ Discharge recommendations, which may include:

- Activity modifications
- Environmental adaptation
- Home exercise program as prescribed
- Home modifications

Occupational Therapy Treatment Plan

- **Occupational therapy** treatment plan includes(83)(145)(146)(147):

☐ Goals of occupational therapy(41)(148)

- Activity tolerance and functional endurance improved
- ADL/IADL performance, independence, and safety optimized
- ADL/IADL restrictions, precautions, or activity guidelines understood
- Balance and body alignment for ADL/IADL improved
- Cognitive skills for ADL/IADL improved
- Fall-risk-reduction strategies maximized
- Home rehabilitation program and recommendations understood
- Pain-management techniques optimized
- Participation arousal within environment improved
- Potential personality or emotional changes understood
- Proper posture for sitting, ADL, and transfers maximized
- Upper body range of motion, strength, and functional use for ADL or IADL maximized
- Upper extremity joint range of motion for functional tasks maximized
- Upper extremity motor control improved
- Visual and visual perception function for safe participation in functional tasks optimized
- Postdischarge complication risk factors minimized

☐ Rehabilitation techniques and training(41)

- Abnormal tone or spasticity management
- ADL or IADL training
- Behavior-management strategies and techniques (eg, cognitive behavioral therapy, cognitive rehabilitation techniques)(149)
- Compensatory strategies for completion of ADL/IADL
 - Cognition impairment management(150)
 - Energy conservation(151)
 - One-handed techniques
 - Perceptual deficits management
 - Sensory impairment management
 - Visual impairment management
 - Work simplification
- Compression bandage or garment management
- Constraint-induced movement therapy and/or modified constraint-induced movement therapy(152)
- Contracture prevention or management(122)
- Edema prevention or management(153)
- Education of therapeutic program with patient and caregiver
- Environmental and activity modification for ADL/IADL performance(154)
- Equipment and device use training
- Exercise program setup and progression within precautions, which may include:
 - Balance training
 - Coordination exercises
 - Range-of-motion techniques

- Strengthening exercises
- Stretching exercises
- Fall-prevention and recovery training **QM** (130)
- Functional skills training with applicable durable medical equipment (eg, shower chair, commode)(155)
 - Bed mobility training
 - Transfer training
 - Wheelchair mobility and management(133)
- Joint-protection techniques and mobilization
- Manual therapy (eg, soft tissue mobilization techniques, scar management, massage)(136)
- Neuromuscular re-education (eg, proprioception training)(156)
- Pain-management strategies and techniques(157)
- Posture, positioning, and body mechanics as prescribed for diagnosis or surgical approach
- Safety awareness education
- Sensory stimulation and integration techniques
- Splint, brace, cast, prosthesis, or orthosis management
- Stress-management techniques(158)
- Therapeutic physical modality (eg, heat or ice packs) use and training, as indicated(159)
- ☐ Discharge recommendations, which may include(160):
 - Activity modifications
 - Environmental adaptation
 - Home exercise program
 - Home modifications
 - Pre-driver assessment and automobile modification
 - Vocational rehabilitation(158)

Speech-Language Pathology Treatment Plan

- **Speech-language pathology** treatment plan includes(150)(161):
 - ☐ Aphasia management(162)(163)(164)
 - Goals of speech-language pathology therapy
 - Auditory comprehension for simple to complex language (eg, yes/no questions to open-ended questions) improved
 - Compensatory communication techniques to include use of gestures and environmental controls improved
 - Linguistic memory without delay improved for word recall, sentences, and lists
 - Word-finding improved
 - Written language comprehension, expression, and use improved
 - Rehabilitation techniques and training(165)
 - Compensatory communication training
 - Computer-based communication training program
 - Education of therapeutic program with patient and caregiver
 - Expressive language facilitation techniques
 - Receptive language facilitation techniques
 - ☐ Apraxia of speech management(164)(166)(167)
 - Goals of speech-language pathology therapy

- Compensatory communication techniques to include use of gestures and environmental controls improved
- Motor speech accuracy for speech sound production improved
- Rhythm, rate, and intonation of connected speech improved
- Speech intelligibility and clarity in connected/conversational speech improved
- Rehabilitation techniques and training(165)
 - Compensatory communication training
 - Education of therapeutic program with patient and caregiver
 - Repetitive articulation exercises for improved motor speech accuracy(168)
 - Speech production activities targeting initiation, fluency, and effort level of speech
- ☐ Augmentative and alternative communication (AAC) management(164)(167)(169)(170)(171)
 - Goals of speech-language pathology therapy
 - AAC supports or devices used
 - Compensatory communication techniques to include use of gestures and environmental controls improved
 - Rehabilitation techniques and training(165)
 - Compensatory communication training
 - Education of therapeutic program with patient and caregiver
 - High-technology communication device use (eg, speech synthesizers, computer-based systems, FM systems)(172)
 - Low-technology communication device use (eg, picture boards, word boards, alphabet boards, dry erase boards)
 - Equipment, supplies, or supportive device training; examples include:
 - AAC device (eg, word or picture boards, computer-based system)
- ☐ Cognitive-communicative deficit management(164)(173)
 - Goals of speech-language pathology therapy
 - Attention and awareness improved
 - Cognitive-communication function improved
 - Compensatory communication techniques to include use of gestures and environmental controls improved
 - Memory, organization, initiation, reasoning, problem-solving, and executive function improved
 - Social language skills improved
 - Rehabilitation techniques and training(165)
 - Attention training (eg, sustained attention, focused attention, divided attention)
 - Communication effectiveness training
 - Compensatory communication training(168)
 - Education of therapeutic program with patient and caregiver
 - Immediate, short-term, and long-term memory training(168)
 - Organization, initiation, reasoning, problem-solving, and executive function training
 - Orientation training (eg, person, place, time, event, situation)
 - Pragmatic/social language training (eg, eye contact, turn taking, topic maintenance, affect, body language)
 - Verbal integration training (eg, understand and use abstract language, cause-effect, if-then situations, and compare-contrast ideas)
 - Equipment, supplies, or supportive device training; examples include(174):
 - Memory and organization support systems for daily use (eg, computer or smartphone for calendar, planner, and reminders; signs within home; use of calendar or datebook; direct access to emergency phone numbers)
- ☐ Dysarthria management(164)(167)(175)
 - Goals of speech-language pathology therapy

- Compensatory communication techniques to include use of gestures and environmental controls improved
- Motor speech accuracy for speech sound production improved
- Voice quality, pitch, loudness, resonance, or prosody (rhythm and cadence) improved
- Speech intelligibility and clarity in connected/conversational speech improved
- Rehabilitation techniques and training(165)
 - Compensatory communication training
 - Education of therapeutic program with patient and caregiver
 - Modification and training of rhythm, rate, and intonation of speech
 - Motor speech accuracy training targeting distortions, substitutions, omissions, and other errors
 - Oral motor exercises for increased strength, accuracy, and speed of articulation
 - Relaxation exercises and stretching to reduce spasticity or rigidity of musculature
 - Respiratory support training for speech production
- Equipment, supplies, or supportive device training; examples include(174):
 - Memory and organization support systems for daily use (eg, computer or smartphone for calendar, planner, and reminders; signs within home; use of calendar or datebook; direct access to emergency phone numbers)
 - Oral prosthesis fitting use and care(176)(177)

☐ Dysphagia management[P](164)(167)(174)(179)(180)

- Goals of speech-language pathology therapy
 - Diet advanced from nonoral to oral intake
 - Education and training on dietary modifications and restrictions provided
 - Education on aspiration signs, symptoms, and prevention provided(80)
 - Effective swallowing strategies, techniques, or maneuvers safely used
 - Oral, pharyngeal, and laryngeal coordination for airway protection during swallowing improved(181)
 - Oral, pharyngeal, and laryngeal motor strength, range of motion, and endurance for secretion and bolus management improved(181)
 - Recommended diet and liquids safely tolerated, reducing or eliminating risk of aspiration
 - Respiratory support and glottal closure for swallowing improved
- Rehabilitation techniques and training(177)(178)
 - Airway protection techniques
 - Aspiration pneumonia or recurrent pneumonia management and prevention(80)
 - Aspiration precaution training(80)
 - Bolus management and control training
 - Compensatory swallowing maneuver training, as indicated
 - Compensatory swallowing strategy training
 - Education of therapeutic program with patient and caregiver
 - Neuromuscular electrical stimulation
 - Optimal diet consistency identification and preparation training to minimize risk of choking and aspiration(182)(183)
 - Oral pharyngeal exercises
 - Saliva management and control techniques
 - Sensory stimulation
 - Trial oral feedings for diet advancement(183)
- Equipment, supplies, or supportive device training; examples include(174)(184)(185):
 - Adaptive feeding equipment use (eg, different size or shaped spoon, nose cut-out cup)
 - Liquid thickeners

- Positioning devices during oral intake (eg, chair, wedges, pillows)
- Removable dentures, obturators, or other oral device/appliance management(176)(177)

Voice disorder management(164)(166)(169)(186)(187)

- Goals of speech-language pathology therapy
 - Compensatory communication techniques to include use of gestures and environmental controls improved
 - Respiration and speech coordination improved
 - Ventilator-assisted or tracheostomy vocalization techniques used(188)(189)
 - Voice quality, pitch, loudness, resonance, or prosody (rhythm and cadence) improved
- Rehabilitation techniques and training(165)
 - Compensatory communication and optimal voice usage training (eg, phone calls, interaction with caregivers, communication when there is background noise)
 - Education of therapeutic program with patient and caregiver
 - Oral, pharyngeal, and laryngeal exercises
 - Respiratory support training
 - Use of ventilator-assisted or tracheostomy vocalization techniques(188)(189)
 - Vocal behavior modification (eg, intensity, pitch, resonance, rate)
- Equipment, supplies, or supportive device training; examples include:
 - Digitized or synthesized speech(171)
 - Speaking valve or cap for tracheostomy or ventilator(188)(189)
 - Voice amplification device(172)

Discharge recommendations, which may include(63)(190):

- Activity modifications(171)
- Environmental adaptation
- Home exercise program
- Home modifications

Patient Education

- Patient and caregiver education. See:
 - Stroke: Hemorrhagic: Patient Education for Clinicians  SR
 - Stroke: Ischemic: Patient Education for Clinicians  SR
 - Subarachnoid Hemorrhage, Nonsurgical Treatment: Patient Education for Clinicians  SR

Discharge Planning

- Transition of care planning may include(32):**NNN**

Assessment and early establishment of anticipated discharge destination and plans for care, including(206):

- Treatment plan development involving multiple providers
- Premorbid functioning
- Patient and caregiver preferences and abilities
- Evaluation for skilled services at next level of care as appropriate for patient's continued needs
- Psychosocial status. See Psychosocial Assessment  SR for further information. **QM**(207)

- Social determinants of health screening. See Social Determinants of Health Screening Tool [SR](#) for further information. **QM**(67)
- Acceptance for care for patient at next level of care, as appropriate
- Transition of care plan complete, which may include:
 - Patient and caregiver education complete. See Teach-Back Tool [SR](#) for further information.
 - ☐ Medication reconciliation completion includes **QM** (208)(209):
 - Compare patient's discharge list of medications (prescribed and over-the-counter) against provider's admission or transfer orders.
 - Assess each medication for correlation to disease state or medical condition.
 - Report medication discrepancies to prescribing provider, attending physician, and primary care provider, and ensure accurate medication order is identified.
 - Provide reconciled medication list to all treating providers.
 - Confirm that patient or caregiver can acquire medication.
 - Educate patient and caregiver.
 - Provide complete medication list to patient and caregiver.
 - Importance of presenting personal medication list to all providers at each care transition, including all provider appointments
 - Reason, dosage, and timing of medication (eg, use "teach-back" techniques)(126)(210)
 - Encourage communication between patient, caregiver, and pharmacy for obtaining prescriptions, setting up home medication delivery, and reviewing for drug-drug interactions.
 - See Medication Reconciliation Tool [SR](#) for further information.
 - ☐ Appointments planned or scheduled(86):
 - Primary care provider
 - Behavioral health provider(55)(211)
 - Dietitian(212)
 - Neurologist
 - Neuropsychologist(63)(213)
 - Outpatient imaging, tests, or procedures(51)
 - Palliative or end-of-life care provider(214)
 - Physiatrist or rehabilitation provider(55)(215)
 - Pulmonologist
 - Rehabilitation therapy (eg, PT) at next level of care(40)(55)(86)
 - Respiratory therapy(55)
 - Specialists for management of comorbidities as needed
 - Surgeon
 - Other
 - ☐ Referrals made for assistance or support, which may include:
 - Alcohol and other drug abuse or dependence treatment, as needed **QM**
 - Behavioral health support (eg, counseling)
 - Community services(44)(216)(217)
 - Educational program (eg, chronic condition management, self-management)(126)(218)
 - End-stage disease planning(219)
 - Financial, for follow-up care, medication, and transportation
 - Home architectural modifications(220)

- Home healthcare(127)
 - Local electric or power company regarding need for life support if ventilator needed at home(127)
 - Protective services or legal authorities, if indicated
 - Self-help or support groups(55)(212)
 - Social services (eg, social programs, advance directives)
 - Tobacco use treatment, as needed **QM** (221)(222)(223)(224)
 - Vocational rehabilitation(55)(158)
 - Other
- ☐ Medical equipment and supplies coordinated (ie, delivered or delivery confirmed), as indicated(225):
- ADL-supportive equipment
 - Cardiac care equipment and supplies (eg, compression stockings)(91)
 - Medication equipment and supplies
 - Nutritional care equipment and supplies
 - Orthopedic equipment
 - Respiratory equipment and supplies
 - Urinary care equipment and supplies
 - Wound care equipment and supplies
 - Other
- Transition plan communicated to all members of patient's care team **QM**

Quality Measures

- HEDIS® Measures include(70):
 - Medication reconciliation is completed.
 - Transition of care needs are assessed and addressed.
 - Psychosocial status (eg, depression screening) is assessed and addressed.
 - Fall risk is assessed and addressed.
 - Tobacco use is assessed and addressed.
 - Immunization status is assessed and addressed.
 - Readmission risk is assessed and addressed.
 - Alcohol and substance misuse is assessed and addressed.
 - Social needs screening and intervention is completed.
- Inpatient Rehabilitation Facility Compare Quality Measures include(226):
 - Pressure injury risk is assessed and addressed.
 - ADL status is assessed for improvement.
 - Fall risk is assessed and addressed.
 - Transfer of health information to provider and patient is completed.
 - Healthcare-associated infection risk is reduced
 - Medication reconciliation is completed.
 - Discharge to the community is completed.
 - Readmission risk is assessed and addressed.
- Inpatient Rehabilitation Facility Quality Reporting Program measures include(226):
 - Pressure injury risk is assessed and addressed.

- o ADL status is assessed for improvement.
- o Fall risk is assessed and addressed.
- o Transfer of health information to provider and patient is completed.
- o Readmission risk is assessed and addressed.
- o Medication reconciliation is completed.
- o Immunization status is assessed and addressed.
- o Discharge to the community is completed.

Evidence Summary

Criteria

The evidence for the clinical indications found in this guideline includes 29 published peer reviewed articles, 1 specialty society or other evidence-based guideline, 1 Cochrane systematic review, and 25 book sections.

The American Heart Association (AHA) and the American Stroke Association (ASA) guidelines for adult stroke rehabilitation stress a preference for inpatient rehabilitation facility when there is a requirement for skilled nursing services, regular physician contact, or need for multiple therapeutic interventions.(4) **(EG 2)**

A scoping review including 47 studies highlighted that patients admitted for inpatient rehabilitation are at high risk of medical complications, with infections and neurologic and cardiorespiratory complications being prominent. Patients admitted following stroke, traumatic brain injury/trauma, or cancer are particularly vulnerable.(5) **(EG 2)** An observational study of 402 stroke patients age 65 or older found that advanced age is associated with reduced functional improvements and greater complications; however, intensive rehabilitation may produce significant functional gains regardless of age. Variables predicting function outcome were age, previous stroke, stroke severity, and functional status at admission.(6) **(EG 2)** An observational cohort study of 99,185 stroke patients found that discharge from acute care to an inpatient rehabilitation facility (IRF) was associated with improved physical mobility and self-care function compared with discharge to a skilled nursing facility.(7) **(EG 2)** A retrospective observational cohort study of 8397 adult stroke patients who received care in an IRF found that patients who made greater functional gains between IRF admission and IRF discharge were more likely to have better postdischarge quality of life and independence, and were less likely to be readmitted to the hospital.(8) **(EG 2)** A retrospective analysis of 5,033,820 Medicare patients discharged from acute care to post-acute care found that those discharged to an 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.(9) **(EG 2)** A retrospective cohort study of 5423 patients discharged from an acute hospital setting to an 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.(10) **(EG 2)** A retrospective descriptive study of 130,988 acute ischemic stroke patients found that patients discharged to a skilled nursing facility had longer length of hospital stay, more comorbidities, and higher modified ranking scores compared with patients discharged to an IRF.(11) **(EG 2)** A single-center retrospective study of 107 hemorrhagic stroke patients admitted to an IRF suggested that patients with surgically managed hemorrhagic stroke, while older and more dependent on admission, achieved comparable FIM® score gains, discharge FIM®, and discharge to home rates compared with those who were managed nonsurgically.(12) **(EG 2)** A retrospective review of over 1.9 million inpatient rehabilitation patients discharged between January 2016 and December 2019 showed that 70% of patients had at least one ICD-10 pain diagnosis; pain diagnosis was common among all impairment groups, affecting half of patients in each group, with the highest prevalence in the arthritis and pain syndromes impairment group.(13) **(EG 2)**

Alternatives

A systematic review and meta-analysis of 21 randomized controlled trials and randomized clinical trials involving 1412 adult stroke patients receiving rehabilitation services in post-acute care (eg, inpatient rehabilitation facility or community setting) found that an increase in time spent in the same type of rehabilitation resulted in

little to no difference in meaningful activities (eg, activities of daily living and activities of the upper and lower limb), but did result in a small benefit in measures of motor impairment. The study indicated that if the amount of time spent in rehabilitation exceeds a threshold, this may lead to improved outcomes.(17) **(EG 1)**

Length of Stay

A comparison of a retrospective and prospective cohort study of 129 stroke patients admitted to an inpatient rehabilitation facility (IRF) found that benchmarking the IRF length of stay upon admission and setting a discharge target date resulted in an 11-day mean reduction in IRF length of stay without adversely affecting patient recovery.(89) **(EG 2)** A population-based retrospective study of 2686 IRF admissions of patients with stroke between 2014 and 2017 showed that younger patients had longer lengths of stay (LOS), patients with higher admission FIM® score had shorter LOS, and patients with longer acute care LOS in the preceding acute stroke event had slightly longer rehabilitation.(90) **(EG 2)**

Treatment

A retrospective study of 479 Medicare patients who received rehabilitation in a nursing home or inpatient rehabilitation facility (IRF) setting found that 1 in 3 patients reported no functional improvement during rehabilitation. Factors associated with greater odds of reporting no improvement included high school education or less, impaired instrumental activities of daily living, less than 1 month total duration of rehabilitation, and no outpatient rehabilitation services.(18) **(EG 2)** A systematic review of 20 randomized controlled trials including 591 patients found that the use of robot-assisted gait trainer alongside conventional rehabilitation may improve walking capability.(19) **(EG 1)** An observational study of 1032 stroke patients in an IRF found that an intervention to teach patients to use cognitive strategies to independently problem-solve functional performance issues was associated with increased likelihood of achieving improvements in motor function during inpatient rehabilitation compared to patients who did not receive the teaching intervention.(20) **(EG 2)** An observational study of 334 stroke patients in an IRF found that identifying patients into subgroups of cognitive impairment on the Montreal Cognitive Assessment can assist providers in predicting functional gain in stroke survivors.(21) **(EG 2)** A meta-analysis of 7 randomized controlled trials found that trunk exercises in stroke patients during inpatient rehabilitation resulted in improvements in balance.(22) **(EG 2)** A retrospective analysis of a prospective cohort of 113 ischemic stroke patients found that patients with higher functional status scores at admission to an IRF were associated with better quality of life at 3-month follow-up.(23) **(EG 2)** A retrospective cohort of 185 unilateral hemispheric stroke patients found that factors associated with regaining gait without physical assistance included younger age, male gender, longer acute hospitalization length of stay, higher initial Berg Balance score, and higher initial lower limb Fugl-Meyer score. Neither the type of stroke nor which side of the cerebral hemisphere affected showed statistically significant differences.(24) **(EG 2)** A retrospective cohort study of 139 stroke patients receiving enteral feeding found that predictors for higher probability of return to complete oral feeding included the absence of aspiration signs with liquids. Predictors for lower probability of return to complete oral feeding included age between 73 and 79 years, the presence of aspiration and/or penetration, and the presence of residue during fiberoptic endoscopic swallowing evaluation.(25) **(EG 2)** A systematic review of 24 articles including adult patients in post-acute care (eg, 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.(26) **(EG 1)** An observational cohort investigation of 257 patients found that number of steps per day, Berg Balance Scale score, and strength were primary predictors of locomotor outcomes in nonambulatory patients poststroke who received high-intensity training during inpatient rehabilitation.(27) **(EG 2)** A retrospective observational study performed at a 178-bed inpatient rehabilitation hospital reported that of the 1008 patients who received a psychiatric consultation during their inpatient rehabilitation hospital stay, the most common conditions associated with a psychiatric consult were amputations (38%), burns (35%), neurologic disorder (28%), deconditioning (14%), and musculoskeletal injury (7%). Although 20% of patients did not meet criteria for psychiatric diagnosis, the most common diagnoses included mood disorder, adjustment disorder, neurocognitive disorder, and delirium.(28) **(EG 2)** A systematic review with meta-analysis of 635 IRF stroke patients supported the use of high-intensity locomotor training over usual care for improving gait speed and gait endurance during inpatient poststroke rehabilitation.(29) **(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 greater functional improvements, and fewer 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.(36) **(EG 2)** A retrospective cohort study of 294 stroke patients in an IRF found that rehabilitation intensity and frequency showed a ceiling effect in patients with mild stroke, a floor effect in patients with severe stroke, and was the most intensive and effective for patients with moderate stroke.(37) **(EG 2)** A retrospective observational study of 273 adults with intracerebral hemorrhage found that an increase in the daily amount of time in rehabilitation therapy may result in better functional outcomes.(38) **(EG 2)** A retrospective study of 3212 patients who were discharged from an IRF found that increased therapy hours were associated with increased functional gains among all types of patients.(39) **(EG 2)**

Care Coordination

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. Mean number of days to readmission was 13.0, which varied significantly by rehabilitation diagnosis.(191) **(EG 2)** A retrospective analysis of 1,051,436 adult stroke patients found that admission to an IRF on a weekend was associated with increased risk for readmission to acute care.(192) **(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.(193) **(EG 2)** An observational cohort study of 682 geriatric patients in an 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.(69) **(EG 2)** A retrospective analysis of 1,102,785 patient discharges from 944 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 admission FIM® cognitive and motor scores, more comorbidities, dysphagia, pneumonia, and weekend admission to the IRF.(68) **(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 IRF found that most readmissions and emergency department/observation visits within 24 hours came from IRFs. A retrospective data review of 1397 adult patients admitted to an IRF after an ischemic or hemorrhagic stroke suggested that, after adjusting for age, stroke severity, functional status, and other social risk factors, having a committed caregiver and caregiver training were significantly associated with community discharge. 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.(194) **(EG 2)** A retrospective cohort study of 380 adult stroke patients with an unplanned readmission to acute care from an IRF found that predictors for a second admission to an IRF after the acute care readmission included hemorrhagic stroke type, non-Medicare insurance, and lower functional status on discharge from the first IRF stay.(195) **(EG 2)** A retrospective analysis of 1219 adult stroke patients who received IRF care found that patients who received home healthcare after IRF discharge were less likely to be readmitted to acute care within 90 days compared to patients who did not receive home healthcare.(196) **(EG 2)** An observational study of 116,073 Medicare stroke patients found that patients with a lower functional score on admission to an IRF had higher odds of readmission to an acute care hospital.(197) **(EG 2)** A retrospective review of 1894 stroke patients admitted to an IRF found that independent predictors for readmission to acute care were comorbid conditions and sedative/hypnotic prescription.(198) **(EG 2)** A retrospective cohort study of 781,021 Medicare beneficiaries discharged from an acute inpatient setting to post-acute care found that patients with less functional independence upon admission to the initial post-acute setting (eg, IRF, skilled nursing facility, or home health) had higher 30-day and 90-day readmission rates compared with patients with more functional independence.(199) **(EG 2)** In a retrospective interventional study of 156 IRF patients, the most influential independent predictors at admission for community discharge were lower admission National Institutes of Health Stroke Scale (NIHSS) score, ambulatory ability, and younger age. The odds of being discharged to the community decreased by 16.1% for every 1-point increase in NIHSS score.(200) **(EG 2)** A univariate analysis of 158 IRF post-acute stroke patients showed that better functional motor status, absence of dysphagia, and an unimpaired nonlinguistic cognitive profile independently predicted discharge to home.(201) **(EG 2)** A retrospective study of 75 patients discharged from an acute IRF between 2013 to 2018 who experienced a potentially preventable readmission (PPR) found that individuals were more likely to be readmitted with a PPR if they had a greater number of comorbidities, were admitted with a spinal cord injury, or had lower admission or discharge FIM® motor scores. The most common PPR diagnoses were sepsis, renal failure, respiratory problems, and urinary tract infection.(198) **(EG 2)** An evidence-based improvement study of 79 patients discharged from a 28-bed IRF showed implementing the teach-back intervention from the Agency for Healthcare Research and Quality (AHRQ) Health Literacy Universal Precautions Toolkit into the discharge process resulted in a mean 45% fewer 30-day readmissions.(202) **(EG 2)** A cross-sectional study of 57 stroke patients discharged from an IRF to home found that activity scores at home were significantly worse than scores at IRF discharge, with the greatest differences being for shower/tub transfer and going up and down stairs.(203) **(EG 2)**

The American Heart Association/American Stroke Association (AHA/ASA) guidelines for adult stroke rehabilitation recommend providing patient poststroke rehabilitation care with customized daily activities of daily living and fall-prevention training specific for their home environment as well as tailored exercises and balance training.(4) **(EG 2)**

A longitudinal observational study of 43 adult inpatient rehabilitation facility (IRF) patients who were not safe to return home at discharge and required a skilled rehabilitation facility placement found that 58.2% of patients returned to baseline independence, and 63.4% of patients who lived at home prior to acute hospitalization returned home.(204) **(EG 2)** A retrospective cohort study of 544 stroke patients admitted to an IRF found that higher self-care and mobility scores at IRF admission, as well as the presence of caregiving ability, predicted discharge to the community, whereas acute stay National Institute of Health Stroke Scale (NIHSS) scores did not.(205) **(EG 2)**

Rationale

Inpatient rehabilitation facilities are designed to provide intensive rehabilitation therapy in a resource intensive inpatient hospital environment. Use of this MCG care guideline helps in the decision to appropriately admit a patient to an acute inpatient rehabilitation facility and assess progress through an interdisciplinary plan of care that incorporates interventions for skilled nursing (eg, wound care, pain management, infusion medication) and rehabilitation therapy (eg, physical, occupational, speech-language) in alignment with CMS requirements.

Use of these evidence-based clinical criteria benefits patients by assisting in the identification of patients who, due to the complexity of their nursing, medical management, and rehabilitation needs, require and can reasonably be expected to benefit from an inpatient stay and an interdisciplinary team approach to the delivery of rehabilitation care. This evidence-based guidance ensures that Medicare and Medicare Advantage patients receive full access to Medicare benefits without risk of delay or decreased access. Additional evidence-based guidance benefits patients by outlining complicated factors (eg, pain exacerbations, infection, comorbid disease exacerbation) that could extend the need for a rehabilitation facility stay. Criteria for transitioning a patient to the next appropriate level of care (eg, acute care, skilled nursing facility, home care) are also provided to assist providers and patients in identifying next steps for the patient's care. This support can increase consistency in treatment thresholds, leading to less variation in care and promoting equitable treatment among patients.

Related CMS Coverage Guidance

This guideline supplements but does not replace, modify, or supersede existing Medicare regulations or applicable National Coverage Determinations (NCDs) or Local Coverage Determinations (LCDs).

Code of Federal Regulations (CFR): 42 CFR 410.38(225); 42 CFR 412.29(3); 42 CFR 412.606(65); 42 CFR 412.610(66); 42 CFR Pt. 412.622(1)

Internet-Only Manual (IOM) Citations: CMS IOM Publication 100-02, Medicare Benefit Policy Manual, Chapter 1 - Inpatient Hospital Services Covered Under Part A(2); CMS IOM Publication 100-08, Medicare Program Integrity Manual, Chapter 6 - Medical Review of Inpatient Hospital Claims for Part A(227)

Medicare Coverage Determinations: Medicare Coverage Database(228)

Other CMS Guidance: Centers for Medicare and Medicaid Services, "Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) and IRF-PAI Manual" Version 4.2(64)

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Footnotes

[A] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) requires a preadmission screening to be conducted within 48 hours preceding the inpatient rehabilitation admission and is to be completed by a licensed or certified clinician or physician either in person or by telephone through review of the referring hospital medical records.(1) [A in Context Link 1]

[B] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) required elements of the preadmission screening include: level of function prior to the event, condition that caused the need for rehabilitation, expected level of improvement and expected length of time to achieve that level of improvement, risk for clinical complications, combinations of treatments needed (PT, OT, SLP, or orthosis), and anticipated discharge destination.(1) [B in Context Link 1]

[C] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) defines reasonable and necessary 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" based on the documented assessment of the patient's individual care needs. In some cases, a service that would originally be considered unskilled may be considered skilled if the patient's underlying conditions or complications require the involvement of licensed personnel to ensure that essential nonskilled care is achieving its purpose.(14)(15) [C in Context Link 1]

[D] There are several scales available to support prediction of functional status and mortality for patients with subarachnoid hemorrhage, including the Hunt and Hess (H&H), World Federation of Neurological Surgeons (WFNS) scale, Subarachnoid Hemorrhage International Trialists (SAHIT) scale, and Brain Aneurysm Institute Scale for Prediction of Unfavorable Subarachnoid Hemorrhage Discharge Outcomes (BAI). These scales may help estimate discharge functional outcomes based on characteristics of the event (eg, Glasgow coma scale, seizure presence, hydrocephalus presence).(30) [D in Context Link 1]

[E] **National guidelines:** According to the Centers for Medicare and Medicaid Services (CMS), the requirement for medical supervision means that a licensed physician who is determined by the inpatient rehabilitation facility to have specialized training and experience in inpatient rehabilitation must conduct face-to-face encounters with the patient at least 3 days per week throughout the patient's stay to assess the patient, as well as to modify the course of treatment as needed to maximize the patient's ability to benefit from rehabilitation. After the first week of physician encounters, CMS will allow a non-physician practitioner to independently conduct one of the three required visits.(2) [E in Context Link 1]

[F] **National guidelines:** According to the Centers for Medicare and Medicaid Services (CMS), the interdisciplinary care team must meet weekly throughout the patient's stay and consist of a registered nurse with specialized training or experience in rehabilitation, a social worker or case manager (or both), a licensed or certified therapist from each therapy discipline involved with the patient's care, and be led by a rehabilitation physician.(2) [F in Context Link 1]

[G] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) 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, and to create an individualized care plan.(64) [G in Context Link 1]

[H] **National guidelines:** Starting October 1, 2024, the Centers for Medicare and Medicaid Services (CMS) requires inpatient rehabilitation facilities to use the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) to assess all inpatients, regardless of payer. The admission IRF-PAI should cover calendar days 1 through 3 of the patient's current admission; the patient assessment schedule is further detailed in the electronic Code of Federal Regulations part 412.610.(65)(66) [H in Context Link 1]

[I] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) requires that an individualized overall plan of care for the patient is developed by a rehabilitation physician with input from the interdisciplinary team within 4 days of the patient's admission.(1) [I in Context Link 1]

[J] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) states that therapy treatments should begin within 36 hours of admission.(1)(2) [J in Context Link 1]

[K] **National guidelines:** The Centers for Medicare and Medicaid Services (CMS) recommends that if an unexpected clinical event occurs that limits a patient's ability to participate in an intensive therapy program for a brief period, not to exceed 3 days, the specific reasons for the break should be documented in the patient's medical record.(2) [K in Context Link 1, 2]

[L] An observational study of 428,192 Medicare inpatient rehabilitation facility (IRF) patients supported the reliability and construct validity of the IRF quality measures "Discharge mobility" and "Discharge self-care scores."(87) [L in Context Link 1]

[M] Pain assessment should include how pain affects patient's physical and psychosocial function and progress toward treatment goals.(100) [M in Context Link 1]

[N] 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.(100) [N in Context Link 1]

[O] **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, including naloxone education.(103) [O in Context Link 1]

[P] Additional instrumental assessment may be requested to evaluate swallowing physiology and assess safety and effectiveness of diet, strategies, and maneuvers prior to and during a course of therapy. Instrumental assessments may include the videofluoroscopic swallow study (also known as the modified barium swallow study) and the fiberoptic endoscopic evaluation of swallowing (FEES).(164)(178)(179) [P in Context Link 1]

[Q] Voice therapy, exercise, or practice activities should not be initiated until the larynx has been visualized by an otolaryngologist to identify pathology and assess the function and structure of the vocal mechanism.(165)(186) [Q 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)

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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)

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Goals for measurable improvement

- Goals for measurable improvement include identification of **ALL** of the following(1)(2):
 - Nature and degree of improvement
 - Time expected for achievement
 - Functional improvement anticipated to be practical, ongoing, and sustainable

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Intensive rehabilitation therapy program

- Intensive rehabilitation therapy program that includes **1 or more** of the following[A](1)(2):
 - Therapy at least 3 hours per day for 5 days per week
 - Therapy at least 15 hours per week (in a 7 consecutive calendar day period starting from the date of admission)
 - Other intensive therapy to improve functional capacity at patient's maximum participation level without compromising safety or exceeding ability or tolerance(3)

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Footnotes

- A. **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 inpatient rehabilitation facility (IRF) are no longer considered reasonable and necessary.(1)

Interdisciplinary team care

- Interdisciplinary care team meetings held weekly and discipline examples include(1)(2)(3)(4):
 - A rehabilitation physician designated by the Inpatient Rehabilitation Facility to have specialized training and experience in inpatient rehabilitation services
 - A registered nurse with specialized training or experience in rehabilitation
 - A social worker or case manager (or both)
 - A licensed or certified therapist from each discipline involved in evaluating and treating the patient

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Occupational therapy (OT) progression

- OT progression includes **ALL** of the following(1)(2):
 - Ongoing evaluation of treatment plan with measurable short-term and long-term goals
 - Documentation of effectiveness and efficiency toward achieving established goals
 - Patient demonstrates resolving of barriers to transition of care and **1 or more** of the following:
 - Objective measurements document progress toward goals in reasonable and predictable time frame based on treatment plan.[A](4)
 - Minimal progress due to unexpected clinical event, but progress expected to resume toward goals within 3 days as condition improves(5)

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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, Continuity Assessment Record and Evaluation (CARE), WeeFIM®, Tinetti, Berg Balance Scale).(3)(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.

Physical therapy (PT) progression

- PT progression includes **ALL** of the following(1)(2)(3)(4):
 - Ongoing evaluation of treatment plan with measurable short-term and long-term goals
 - Documentation of effectiveness and efficiency toward achieving established goals
 - Patient demonstrates resolving of barriers to transition of care and **1 or more** of the following:
 - Objective measurements document progress toward goals in reasonable and predictable time frame based on treatment plan.[A]
 - Minimal progress due to unexpected clinical event, but progress expected to resume toward goals within 3 days as condition improves

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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, Continuity Assessment Record and Evaluation (CARE), WeeFIM®, Tinetti, Berg Balance Scale). 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.(4)(5)

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 for patient's condition
 - 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

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Skilled care

- Skilled care may be direct (eg, in-person assessment and administration of treatments) or indirect (eg, coordinating care between providers, supervising care aides); examples include(1)(2)(3)(4):
 - Performed or supervised by professional or technical personnel
 - Exceed scope of Custodial care
 - Service is considered skilled as indicated by either of the following:
 - 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" based on the documented assessment of the patient's individual care needs.
 - Service that would originally be considered unskilled may be considered skilled if the patient's underlying conditions or complications require the involvement of licensed personnel to ensure that essential nonskilled care is achieving its purpose.

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Speech-language pathology (SLP) progression

- SLP progression includes **ALL** of the following(1)(2)(3)(4)(5):
 - Ongoing evaluation of treatment plan with measurable short-term and long-term goals
 - Documentation of effectiveness and efficiency toward achieving established goals
 - Patient demonstrates resolving of barriers to transition of care and **1 or more** of the following:
 - Objective measurements document progress toward goals in reasonable and predictable time frame based on treatment plan.^{[A](6)}
 - Minimal progress due to unexpected clinical event, but progress expected to resume toward goals within 3 days as condition improves

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7. National Outcomes Measurement System (NOMS). [Internet] American Speech-Language-Hearing Association. Accessed at: <https://www.asha.org/noms/>. Updated 2025 [accessed 2025 Feb 11]

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, Continuity Assessment Record and Evaluation (CARE), WeeFIM®, National Outcomes Measurement System (NOMS)). 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.(2)(6)(7)

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

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Codes

ICD-10 Diagnosis: I60.00, I60.01, I60.02, I60.10, I60.11, I60.12, I60.2, I60.30, I60.31, I60.32, I60.4, I60.50, I60.51, I60.52, I60.6, I60.7, I60.8, I60.9, I61.0, I61.1, I61.2, I61.3, I61.4, I61.5, I61.6, I61.8, I61.9, I63.00, I63.011, I63.012, I63.013, I63.019, I63.02, I63.031, I63.032, I63.033, I63.039, I63.09, I63.10, I63.111, I63.112, I63.113, I63.119, I63.12, I63.131, I63.132, I63.133, I63.139, I63.19, I63.20, I63.211, I63.212, I63.213, I63.219, I63.22, I63.231, I63.232, I63.233, I63.239, I63.29, I63.30, I63.311, I63.312, I63.313, I63.319, I63.321, I63.322, I63.323, I63.329, I63.331, I63.332, I63.333, I63.339, I63.341, I63.342, I63.343, I63.349, I63.39, I63.40, I63.411, I63.412, I63.413, I63.419, I63.421, I63.422, I63.423, I63.429, I63.431, I63.432, I63.433, I63.439, I63.441, I63.442, I63.443, I63.449, I63.49, I63.50, I63.511, I63.512, I63.513, I63.519, I63.521, I63.522, I63.523, I63.529, I63.531, I63.532, I63.533, I63.539, I63.541, I63.542, I63.543, I63.549, I63.59, I63.6, I63.81, I63.89, I63.9, I69.051, I69.052, I69.053, I69.054, I69.098, I69.120, I69.151, I69.152, I69.153, I69.154, I69.198, I69.251, I69.252, I69.253, I69.254, I69.30, I69.318, I69.319, I69.320, I69.322, I69.331, I69.332, I69.333, I69.334, I69.351, I69.352, I69.353, I69.354, I69.391, I69.392, I69.393, I69.398, I69.853, I69.854, I69.951, I69.952, I69.953, I69.954 [Hide]

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