

Urologic Surgery or Procedure GRG

GRG: SG-US (ISC GRG)

MCG Health

General Recovery Care

30th Edition

Surgical Admission Case

Management GRG  GRG

Note: An appropriate *Optimal Recovery Guideline (ORG)* should be identified and used whenever possible. This *General Recovery Guideline (GRG)* is intended to aid only in situations in which no ORG appears applicable.

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Care Planning - Inpatient Admission and Alternatives

Clinical Indications for Procedure

- Surgery or other procedure covered by this guideline is indicated for **1 or more** of the following(1)(2)(3):
 - ☐ Renal, genital, or urinary system procedure needed, as indicated by **1 or more** of the following(4):
 - Renal biopsy(5)(6)(7)
 - Biopsy or resection of mass^[A](5)
 - Resection for malignancy(8)(9)(10)

- ☐ Testicular-sparing surgical excision for known or suspected malignancy appropriate,^[B] as indicated by **1 or more** of the following(11)(12):
 - Synchronous bilateral testicular tumors
 - Solitary or functionally solitary testicle with mass suspicious for germ cell tumor
 - Metachronous contralateral tumor
 - Small tumor (eg, less than 2 cm) in solitary testis with equivocal ultrasound, normal testosterone levels, and negative tumor markers
 - Suspected benign tumor when performed with intraoperative frozen section pathology and planned conversion to radical orchiectomy if biopsy is positive or suspicious for cancer(13)(14)
 - Prepubertal child with testicular mass and normal alpha-fetoprotein(13)(15)
- Laparoscopic cryoablation, microwave, or radiofrequency ablation (eg, for renal tumor limited to the kidney)(5)(16)(17)(18)
- Endoscopic therapy (photodynamic, electrocautery, laser or thermal ablation, cryosurgery, or excisional biopsy) for low-risk upper tract urothelial cell tumor (eg, more invasive procedure contraindicated or not preferred)^[C](8)(19)
- Urinary flow repair (eg, for ureteral reflux, bladder atony, male urinary incontinence)(4)(20)(21)(22)
- Balloon dilation or direct vision internal urethrotomy for urethral stricture^[D](23)(24)
- ☐ Drug-eluting balloon dilation for urethral stricture, as indicated by **ALL** of the following(23)(25):
 - Recurrent bulbar urethral stricture following previous urethral dilation or urethrotomy procedure
 - Bulbar stricture 3 cm or less in length
- Male sterilization(26)
- Vasovasostomy, as indicated by **1 or more** of the following:
 - Obstructive azoospermia (eg, from infection, trauma, iatrogenic injury)(27)
 - Reversal of prior vasectomy for fertility restoration(27)
 - Chronic post-vasectomy pain not responsive to nonsurgical therapy(28)
- Drainage or closure of fistula(29)
- Male circumcision(30)
- Placement or closure of ostomies (eg, for urinary obstructions)
- Abscess drainage (eg, prostatic, perinephric)(31)
- Cyst aspiration, sclerotherapy, decortication, or deroofing for complications of kidney enlargement from polycystic kidney disease(32)
- Augmentation cystoplasty or bladder neck reconstruction (eg, for neurogenic lower urinary tract dysfunction^[E])(34)(35)
- Surgical sphincter correction (eg, artificial sphincter, sphincterotomy, or bladder sling)(34)(35)
- Other renal, genital, or urinary system procedure needed
- Fournier gangrene(36)
- Congenital anomaly requiring surgical correction(20)(37)
- ☐ Focal subtotal image-guided prostate ablation (eg, cryosurgery, transurethral high-intensity focused ultrasound^[F]) appropriate, as indicated by **ALL** of the following(39)(40):
 - Recurrent prostate cancer following radiation therapy^[G]
 - Absence of metastatic disease
- Repair or reconstruction of renal, genital, perineal, or urologic structure needed (eg, due to trauma)(45)(46)
- Lithotripsy procedure needed (eg, ESWL,^[H] endoscopic lithotripsy)(47)(49)
- Endoscopic combined intrarenal surgery (ECIRS) needed for complex urolithiasis (eg, staghorn calculi, concomitant ureteral and renal stones)^[I](50)
- ☐ Urologic device procedure needed (eg, bladder stimulator, penile implant), as indicated by **1 or more** of the following(51):
 - Device placement
 - Device revision
 - Device replacement

- Device removal (eg, temporary implanted prostatic device or temporarily implanted nitinol device (iTind))
- Penile procedure needed (eg, ischemic priapism, paraphimosis)(52)(53)(54)(55)
- ☐ Scrotal, testicular, or epididymal procedure needed, as indicated by **1 or more** of the following(31)(56):
 - Drainage abscess (eg, scrotal, epididymal)
 - Treatment of testicular torsion(57)
 - Treatment of undescended testicle(57)(58)
 - Hydrocele excision[J](57)
 - Neurectomy or neurolysis(59)
 - Other scrotal, testicular, or epididymal procedure needed(57)
- ☐ Enlarged prostate requiring a procedure, as indicated by **ALL** of the following(60)(61)(62):
 - Significant symptoms, as indicated by **1 or more** of the following:
 - Significant lower urinary tract symptoms (eg, International Prostate Symptom Score of 8 or higher) secondary to enlarged prostate refractory to or intolerant of medical therapy  IPSS Calculator
 - Urinary retention secondary to enlarged prostate refractory to tolerated medical therapy
 - Renal insufficiency secondary to enlarged prostate
 - Recurrent or persistent urinary tract infections secondary to enlarged prostate
 - Recurrent gross hematuria secondary to enlarged prostate
 - Recurrent bladder stones secondary to enlarged prostate
 - Alternative to standard transurethral resection approach judged appropriate,[K] including **1 or more** of the following(60)(61)(62)(64):
 - Simple prostatectomy(60)(61)(63)
 - Bipolar transurethral resection in saline(61)(65)
 - Transurethral laser ablation, vaporization, or enucleation (eg, potassium titanyl phosphate (KTP), holmium, or thulium laser)(60)(61)(66)(67)
 - Transurethral electrovaporization of the prostate (also known as plasma vaporization)(60)
 - Transurethral bipolar enucleation(68)(69)
 - Transurethral incision of the prostate (for patient with prostate volume 30 mL or less)(60)(61)
 - Prostatic urethral lift procedure and **ALL** of the following(60)(61)(70)(71):
 - Prostate volume 80 mL or less
 - Absence of obstructive middle lobe
 - Convective water vapor thermal ablation(60)(72)(73)
 - Aquablation (high-pressure waterjet dissection)(60)(61)(74)(75)
 - Prostatic stent or expansion device(63)(76)
 - Prostatic artery embolization[L](60)(63)(77)
 - Temporary implanted prostatic device[M] and **ALL** of the following(63)(78):
 - Prostate volume 75 mL or less
 - Absence of obstructive middle lobe

Alternatives to Procedure

- Alternatives may include(1)(2)(3)(79):
 - Chemotherapy or radiation for cancer(8)(10)(11)
 - Trimodality treatment for bladder cancer (transurethral resection of bladder tumor, radiation, and chemotherapy)(8)
 - Immunotherapy (eg, cytokine therapy, tyrosine kinase inhibitor, mTOR inhibitor, PD-L1 inhibitor, or vascular endothelial growth factor inhibitors) for cancer(8)(10)(17)

- Intravesical therapy (chemotherapy or immunotherapy)(8)
- Medical management of disease or disorder (eg, urinary flow problems, congenital abnormalities)(22)(31)(34)(60)(61)(64)(80)
- Nerve block, phenylephrine injection, or aspiration for priapism(52)(54)(81)
- Lifestyle changes (eg, caffeine and alcohol avoidance, timing of fluid intake or diuretics, bladder and pelvic floor muscle training exercises)(22)(33)(60)
- Medical expulsive therapy (for urolithiasis)(47)(82)
- Intermittent or indwelling urethral catheterization or self-dilation (eg, for neurogenic bladder or urethral stricture)(22)(24)(34)
- Transurethral or suprapubic catheterization (eg, for trauma, obstruction, or stricture)(22)(24)(46)
- Transurethral resection of the prostate. See Transurethral Resection of Prostate (TURP) [↗](#) ISC.

Operative Status Criteria

Search by CPT® code for specific procedure Benchmark Length of Stay (BLOS).

Note: The definition of an ambulatory procedure depends on payer-provider contractual agreement or regulatory language (eg, CMS' Two-Midnight Rule). An ambulatory procedure may include one postoperative overnight stay in a facility; therefore, a Benchmark Length of Stay (BLOS) of ambulatory refers to patients discharged the day of or the day after the procedure. Depending on various patient and procedural factors, some patients undergoing a procedure with an ambulatory BLOS require inpatient care (eg, medical necessity for hospital-based care across 2 or more postoperative midnights).

The Ambulatory Surgery Exception Criteria [↗](#) GRG can help with this determination.

- Ambulatory: Benchmark Length of Stay (BLOS) = A
- Inpatient, as indicated by **1 or more** of the following:
 - Benchmark Length of Stay (BLOS) = 2 or more days postoperative (eg, medical necessity for hospital-based care across 2 or more postoperative midnights)
 - Procedure is usually performed on ambulatory basis, but inpatient stay is needed. See Ambulatory Surgery Exception Criteria [↗](#) GRG.
 - Medicare patient, and specific procedure is on CMS Inpatient Only List

Hospitalization

General Recovery Course

Stage	Level of Care	Clinical Status	Interventions
1	• OR to ICU or intermediate care[N] • Social Determinants of Health Assessment • Discharge planning. See Discharge Planning Tool ↗ SR.	• Clinical Indications met[O] • Procedure completed	• Inpatient interventions as needed • Perioperative antibiotics
2	• Floor • Social Determinants of Health Assessment	• No ICU or intermediate care needs	• Inpatient interventions continue • Transition to oral routes

3

- **Activity level acceptable**
- Social Determinants of Health Assessment
- Floor to discharge
- Complete discharge planning
- **Hemodynamic stability**
- **Operative site and other wounds acceptable**
- **Pain and nausea absent or adequately managed**
- **Temperature status acceptable**
- **Renal function acceptable**
- **Urinary postoperative status acceptable**
- **Obstructive uropathy or nephropathy absent, stable, or resolving**
- **General Discharge Criteria met**
- **Intake acceptable**
- **No inpatient interventions needed**

(1)(4)(9)(20)(29)(31)

Recovery Milestones are indicated in **bold**.

Benchmark Length of Stay (BLOS): Access diagnosis and procedure code-specific BLOS via Search functions.

Discharge Criteria

- Continued inpatient stay is needed until **1 or more** of the following are present:
 - Acceptable patient status for next level of care is achieved.
 - **ALL** of the following are present:
 - ☐ Hemodynamic stability, as indicated by **1 or more** of the following:
 - Hemodynamic abnormalities at baseline or acceptable for next level of care
 - Patient hemodynamically stable, as indicated by **ALL** of the following(83)(84):
 - Tachycardia absent
 - Hypotension absent
 - No evidence of inadequate perfusion (eg, no myocardial ischemia)
 - No other hemodynamic abnormalities (eg, no Orthostatic hypotension)
 - ☐ Operative site and other wounds acceptable, as indicated by **1 or more** of the following(85):
 - Wounds absent
 - Wound site clean and intact, with minimal to no drainage and without signs of infection
 - Current wound care performable at next level of care
 - ☐ Pain and nausea absent or adequately managed, as indicated by **1 or more** of the following(86)(87)(88)(89)(90):
 - No pain or nausea
 - Minimal discomfort on oral medications
 - Pain and nausea managed on regimen performable at next level of care
 - ☐ Temperature status acceptable, as indicated by **1 or more** of the following(91)(92)(93):
 - Temperature less than 100.5 degrees F (38.1 degrees C) (oral) and greater than 96.8 degrees F (36 degrees C) (rectal)
 - Temperature as expected for disease process and appropriate for management at next level of care
 - ☐ Renal function acceptable, as indicated by **1 or more** of the following(94)(95)(96):
 - Renal function normal (GFR of 90 mL/min/1.73m² (1.50 mL/sec/1.73m²) or more)  eGFR - Adult Calculator  eGFR - Pediatric Calculator

- Renal function that is **ALL** of the following:
 - Impaired (estimated GFR less than 90 mL/min/1.73m² (1.50 mL/sec/1.73m²)) but stable or improving  eGFR - Adult Calculator
 -  eGFR - Pediatric Calculator
 - Appropriate for management at next level of care
- Renal function at baseline and appropriate for management at next level of care
- Dialysis needed and performable at next level of care
- ☐ Urinary postoperative status acceptable, as indicated by **ALL** of the following(1)(97)(98):
 - ☐ Urinary status acceptable, as indicated by **1 or more** of the following(20)(99):
 - Adequate spontaneous voiding (eg, no severe urinary retention)
 - Urinary catheter and management regimen in place that is performable at next level of care
 - Urinary system bleeding absent, or status acceptable, as indicated by **1 or more** of the following:
 - No bleeding
 - Status acceptable, as indicated by **ALL** of the following:
 - No surgical hemostasis intervention planned
 - No large clots noted
 - Urinary flow greater than 150 mL over 4 hours
 - No clot retention
 - Pelvic drain absent, able to be managed by patient or caregiver, or acceptable for next level of care(100)
 - Obstructive uropathy or nephropathy absent, stable, or resolving
- ☐ Activity level acceptable, as indicated by **1 or more** of the following:
 - Patient ambulatory and can perform ADL as appropriate for age and development
 - Activity at baseline
 - Activity level acceptable for next level of care
- ☐ Intake acceptable, as indicated by **1 or more** of the following(101):
 - Oral hydration, medications, and diet
 - Enteral hydration, medications, and diet
 - Administration routes performable at next level of care
- ☐ No inpatient interventions needed; examples include:
 - Vital signs, neurologic signs, or vascular checks more often than feasible at next level of care
 - IV fluid to replace significant ongoing losses
 - Emergent dialysis access placement
 - Hemodialysis associated with hemodynamic instability
 - Continuous bladder irrigation for persistent gross hematuria
 - Drain care: drains in place with high-volume output requiring continuing observation and care that cannot be managed at next level of care
 - Urgent cystoscopy
 - Procedure or care needed not appropriate for next level of care
- ☐ General Discharge Criteria  GRG met or Pediatric General Discharge Criteria  GRG met (if either is relevant or necessary for patient's condition)

Case Management

See Surgical Admission Case Management GRG [↗](#) GRG for further information.

Discharge Destination

- Post-hospital levels of admission may include:
 - Home.
 - Home healthcare. See Surgical Admission Home Care GRG [↗](#) HC or Geriatric Admission Home Care GRG [↗](#) HC for further information.
 - Recovery facility care. See Surgical Admission Recovery Facility Care GRG [↗](#) RFC or Geriatric Admission Recovery Facility Care GRG [↗](#) RFC for further information.
 - Inpatient rehabilitation facility. See Inpatient Rehabilitation Facility (IRF) Admission Recovery Facility Care GRG [↗](#) RFC for further information.

Evidence Summary

Criteria

The evidence for the clinical indications found in this guideline includes 41 published peer reviewed articles, 16 specialty society or other evidence-based guidelines, 1 Cochrane systematic review, and 11 book sections.

Rationale

Use of this MCG care guideline helps the clinician identify, for a given procedure, which patient-specific factors and clinical conditions are appropriate for that procedure. The evidence-based clinical criteria assist the clinician in the decision to appropriately perform a procedure, evaluating whether the potential benefits of a procedure outweigh the potential risks. For Medicare enrollees, surgical MCG care guidelines also identify which procedures CMS has designated as inpatient only.

Use of these evidence-based clinical criteria to support decision making around the need for a given procedure is of benefit to the patient, as all procedures come with inherent risk that must be balanced by anticipated clinical benefit. Utilizing evidence-based clinical criteria enables a more accurate and patient-specific decision-making process. In addition, the use of evidence-based guidelines can help reduce unwarranted variation in care, such as divergent clinical thresholds to perform a procedure for clinically similar patients that vary across geographic regions, between facilities, and among individual clinicians.

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 412.3(102); 42 CFR 419.22(103); 42 CFR 422.101(104)

Internet-Only Manual (IOM) Citations: CMS IOM Publication 100-02, Medicare Benefit Policy Manual, Chapter 1 - Inpatient Hospital Services Covered Under Part A(105); CMS IOM Publication 100-02, Medicare Benefit Policy Manual, Chapter 6 - Hospital Services Covered Under Part B(106); CMS IOM Publication 100-02, Medicare Benefit Policy Manual, Chapter 15 - Covered Medical and Other Health Services(107); CMS IOM Publication 100-08, Medicare Program Integrity Manual, Chapter 6, Section 6.5 - Medical Review of Inpatient Hospital Claims for Part A Payment(108)

Medicare Coverage Determinations: Medicare Coverage Database(109)

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Footnotes

[A] A specialty society guideline recommends minimally invasive (laparoscopic or robot-assisted) surgical excision of renal masses over open surgical procedures unless oncologic efficacy or renal function would be compromised by a minimally invasive procedure.(5) [A in Context Link 1]

[B] Specialty society guidelines recommend radical orchiectomy, and against testicular-sparing surgery, for patients with suspicious testicular masses and normal contralateral testis.(11)(12) [B in Context Link 1, 2]

[C] Retrospective studies have shown that endoscopic therapy may have similar outcomes to nephroureterectomy for patients with upper tract urothelial cell tumors that are unifocal, less than 1.5 cm, low histologic grade, and without evidence of local invasion on imaging.(8)(19) Nephron-sparing treatment is recommended for patients with bilateral disease, solitary kidney, or renal insufficiency.(8) [C in Context Link 1]

[D] Specialty society guidelines recommend either bare-balloon dilation, direct vision internal urethrotomy, or urethroplasty for initial treatment of urethral stricture. (23)(24) For patients who develop recurrent strictures (eg, after 1 or 2 bare-balloon dilation or direct vision internal urethrotomy procedures), either urethroplasty or drug-eluting balloon dilation is recommended.(23)(24) [D in Context Link 1]

[E] "Neurogenic lower urinary tract dysfunction" is preferred over the term "neurogenic bladder" because it encompasses not only the dysfunction of the bladder, but also of the bladder neck and sphincters, as well as the abnormal hemodynamic changes triggered by urinary retention (autonomic dysreflexia) that are related to a neurologic disorder.(33) [E in Context Link 1]

[F] High-intensity focused ultrasound is a method of thermoablation resulting from application of focused ultrasound waves to specific areas of prostate tissue to induce tissue destruction without affecting surrounding or intervening tissue.(38) [F in Context Link 1, 2]

[G] Focal ablation (eg, cryoablation or high-intensity focused ultrasound (HIFU)) is not recommended as primary therapy for localized prostate cancer due to the lack of studies comparing these modalities with the standard treatments of radiation therapy or radical prostatectomy.(39)(41)(42) For salvage therapy, specialty

society guidelines recommend focal therapy with cryoablation or HIFU as options for treatment of nonmetastatic prostate cancer that recurs after radiation therapy. (39)(40) A systematic review of 13 studies, encompassing 1204 patients with radio-recurrent prostate cancer and negative metastases undergoing HIFU, reported an overall survival of approximately 85% and an average 5-year recurrence-free survival of about 50%, with urinary incontinence rates of about 30%. (43) The only comparative study in this review was a small retrospective analysis of 52 patients that compared salvage HIFU with salvage radical prostatectomy following radiation failure, which found nonsignificant differences in 5-year overall and cancer-free survival, but lower rates of incontinence (22% vs 56%) and severe complications (26% vs 48%) among the HIFU patients. (44) [G in Context Link 1]

[H] Contraindications to ESWL include pregnancy, uncontrolled coagulopathy or bleeding disorder, uncontrolled urinary tract infection, untreated or severe hypertension (eg, diastolic blood pressure greater than 90 mm Hg), obstruction distal to planned ESWL target, aneurysm or tumor in the path of the shock wave, morbid obesity, or skeletal malformation that prevents stone targeting. (47)(48)(49) [H in Context Link 1]

[I] Endoscopic combined intrarenal surgery (ECIRS) is a combined procedure consisting of retrograde endoscopic intrarenal intervention with percutaneous nephrolithotomy in the same setting. (50) [I in Context Link 1]

[J] Hydrocele will spontaneously resolve without surgical intervention in most infants within 12 months. (57) Early surgery is recommended if a concomitant hernia or testicular pathology is suspected. (57) [J in Context Link 1]

[K] A specialty society guideline, based upon a review of the evidence, concluded that transurethral resection of the prostate (TURP), transurethral vaporization of the prostate (TUVF), transurethral incision of the prostate (TUIP), photoselective vaporization of the prostate (PVP), holmium laser enucleation of the prostate (HoLEP), thulium laser enucleation of the prostate (ThuLEP), water vapor thermal therapy, prostatic artery embolization, robotic waterjet treatment (RWT), and prostatic urethral lift are all alternative surgical or interventional options for benign prostatic hyperplasia, each with its own advantages and drawbacks. (60) An amendment to this guideline adds temporary implanted prostatic devices (TIPD) to the list of effective transurethral surgical options. (63) The original guideline and a specialty textbook recommend that the choice of procedure be made after considering the size of the prostate, presence of a middle lobe, risk of side effects, patient tolerability to the procedure and anesthesia, desire to preserve fertility, and experience of the surgeon. (60)(62) [K in Context Link 1]

[L] A specialty society guideline recommends that this procedure be performed by an interventional radiologist specifically trained in this technique due to the high technical demands and steep learning curve for this procedure. (63) [L in Context Link 1]

[M] The temporarily implanted nitinol device (iTind) is comprised of 3 intertwined nitinol struts connected to an anchoring leaflet that is placed under cystoscopic guidance into the prostatic urethra. The nitinol struts expand against the prostatic urethra and bladder neck; the resultant ischemia leaves longitudinal channels in the prostate that allow for increased urine flow. These channels persist after the implant is removed 5 to 7 days after placement. (78) [M in Context Link 1]

[N] See Intensive, Intermediate, and Telemetry Care Guidelines  ISC. [N in Context Link 1]

[O] See Clinical Indications for Procedure in this guideline. [O in Context Link 1]

Definitions

Activity level acceptable

- Activity level acceptable, as indicated by **1 or more** of the following:
 - Patient ambulatory and can perform ADL as appropriate for age and development
 - Activity at baseline
 - Activity level acceptable for next level of care

General Discharge Criteria met

- General Discharge Criteria met or Pediatric General Discharge Criteria met (if either is relevant or necessary for patient's condition)

Hemodynamic stability

- Hemodynamic stability, as indicated by **1 or more** of the following:
 - Hemodynamic abnormalities at baseline or acceptable for next level of care
 - Patient hemodynamically stable, as indicated by **ALL** of the following(1)(2):
 - Tachycardia absent
 - Hypotension absent
 - No evidence of inadequate perfusion (eg, no myocardial ischemia)
 - No other hemodynamic abnormalities (eg, no Orthostatic hypotension)

References

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Hypotension absent

- Hypotension absent,[A] as indicated by **1 or more** of the following:
 - Hypotension absent in adult patient, as indicated by **1 or more** of the following:
 - Systolic blood pressure greater than or equal to 90 mm Hg[A](1)
 - Mean arterial pressure[B] greater than or equal to 70 mm Hg  MAP Calculator[A](1)(2)
 - Blood pressure at patient's baseline (eg, healthy adult with low systolic blood pressure), at intentional therapeutic goal (eg, patient with heart failure), or acceptable for next level of care (eg, blood pressure stable and no significant signs or symptoms due to low blood pressure)
 - Hypotension absent in pediatric patient, as indicated by **1 or more** of the following:
 - Systolic blood pressure greater than or equal to 110 mm Hg in child 13 to 17 years of age[A](3)
 - Systolic blood pressure greater than or equal to 100 mm Hg in child 6 to 12 years of age[A](3)
 - Systolic blood pressure greater than or equal to 95 mm Hg in child 3 to 5 years of age[A](3)
 - Systolic blood pressure greater than or equal to 90 mm Hg in child 1 or 2 years of age[A](3)
 - Systolic blood pressure greater than or equal to 80 mm Hg in infant 6 to 11 months of age[A](3)
 - Systolic blood pressure greater than or equal to 70 mm Hg in infant 3 to 5 months of age[A](3)
 - Systolic blood pressure greater than or equal to 65 mm Hg in infant 1 or 2 months of age[A](3)
 - Blood pressure at patient's baseline (eg, healthy child with low systolic blood pressure), at intentional therapeutic goal, or acceptable for next level of care (eg, blood pressure stable and no significant signs or symptoms due to low blood pressure)

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Footnotes

- A. Criteria based upon clinician-acquired numeric values (eg, vital signs, oxygen saturation) should be used if they are accurate reflections of the patient's condition. Transitory findings (eg, abnormal only upon initial emergency department intake or only one time out of multiple readings) that rapidly improve with no or minimal treatment usually do not reflect disease severity or risk for deterioration. This does not imply that an initial or one-time reading cannot ever be applicable. The goal is to separate erroneous or incidental findings from those that truly represent the patient's clinical picture.
- B. The mean arterial pressure (MAP) takes into account both SBP and DBP readings.

Intake acceptable

- Intake acceptable, as indicated by **1 or more** of the following(1):
 - Oral hydration, medications, and diet
 - Enteral hydration, medications, and diet
 - Administration routes performable at next level of care

References

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No inpatient interventions needed

- No inpatient interventions needed; examples include:
 - Vital signs, neurologic signs, or vascular checks more often than feasible at next level of care
 - IV fluid to replace significant ongoing losses
 - Emergent dialysis access placement
 - Hemodialysis associated with hemodynamic instability
 - Continuous bladder irrigation for persistent gross hematuria
 - Drain care: drains in place with high-volume output requiring continuing observation and care that cannot be managed at next level of care
 - Urgent cystoscopy
 - Procedure or care needed not appropriate for next level of care

Operative site and other wounds acceptable

- Operative site and other wounds acceptable, as indicated by **1 or more** of the following(1):
 - Wounds absent
 - Wound site clean and intact, with minimal to no drainage and without signs of infection
 - Current wound care performable at next level of care

References

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Orthostatic hypotension

- Orthostatic hypotension,^{[A][B]} as indicated by **1 or more** of the following⁽¹⁾⁽²⁾⁽³⁾:
 - Fall in SBP of 20 mm Hg or more 1 to 3 minutes after patient sits or stands from recumbent position
 - Fall in DBP of 10 mm Hg or more 1 to 3 minutes after patient sits or stands from recumbent position

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Footnotes

- A. Concomitant measurements of the heart rate are important to measure to help diagnose subtypes of orthostatic hypotension (eg, the lack of a compensatory increase in heart rate is typical of autonomic failure and an exaggerated tachycardia may be reflective of volume depletion). However, the heart rate is not a component of the definition of orthostatic hypotension, which relies upon blood pressure alone.⁽¹⁾⁽²⁾⁽³⁾
- B. Criteria based upon clinician acquired numeric values (eg, vital signs, oxygen saturation) should be used if they are accurate reflections of the patient's condition. Transitory findings (eg, abnormal only upon initial emergency department intake or only one time out of multiple readings) that rapidly improve with no or minimal treatment usually do not reflect disease severity or risk for deterioration. This does not imply that an initial or one-time reading cannot ever be applicable. The goal is to separate erroneous or incidental findings from those that truly represent the patient's clinical picture.

Pain and nausea absent or adequately managed

- Pain and nausea absent or adequately managed, as indicated by **1 or more** of the following⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾:
 - No pain or nausea
 - Minimal discomfort on oral medications
 - Pain and nausea managed on regimen performable at next level of care

References

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Renal function acceptable

- Renal function acceptable, as indicated by **1 or more** of the following(1)(2)(3):
 - Renal function normal (GFR of 90 mL/min/1.73m² (1.50 mL/sec/1.73m²) or more)  eGFR - Adult Calculator  eGFR - Pediatric Calculator
 - Renal function that is **ALL** of the following:
 - Impaired (estimated GFR less than 90 mL/min/1.73m² (1.50 mL/sec/1.73m²)) but stable or improving  eGFR - Adult Calculator  eGFR - Pediatric Calculator
 - Appropriate for management at next level of care
 - Renal function at baseline and appropriate for management at next level of care
 - Dialysis needed and performable at next level of care

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Social Determinants of Health Assessment

- Risk of poor health outcomes may be increased by the presence of **1 or more** of the following social determinants of health(1)(2)(3):
 - Housing insecurity, as indicated by **1 or more** of the following:
 - Individual or caregiver's current living situation is **1 or more** of the following(4):
 - Does not have own housing (eg, staying in a hotel, shelter, or with others)
 - Has own housing (eg, house, apartment), but at risk of losing it in the future (ie, behind on rent or mortgage)
 - Has own housing (eg, house, apartment), but has lived in 3 or more places in past year
 - Current housing has **1 or more** of the following:
 - Electrical appliances (eg, stove, refrigerator) not working or unavailable
 - Insufficient heating or cooling
 - Insufficient ventilation
 - Lead paint or pipes
 - Mold
 - Pests (eg, bugs) or rodents
 - Smoke detectors not working or unavailable
 - Food insecurity, as indicated by **1 or more** of the following(5):
 - In the past year, individual or caregiver ran out of food and did not have money to buy more food.
 - In the past year, individual or caregiver worried that they would run out of food before they received money to buy more food.
 - Insufficient transportation, as indicated by **1 or more** of the following(6):
 - In the past year, individual or caregiver missed medical appointments or could not get medications due to lack of transportation.
 - In the past year, individual or caregiver missed nonmedical activities, work, or could not get things needed for daily living due to lack of transportation.
 - Insufficient utilities, as indicated by **1 or more** of the following(7):
 - Utilities (eg, electricity, water, gas, or oil) are currently shut off or unavailable.
 - In the past year, electric, water, gas, or oil company threatened to shut off services.
 - Personal safety risk, as indicated by **2 or more** of the following(5):
 - Individual is sometimes or frequently physically hurt by another person (including family member).

- Individual is sometimes or frequently insulted or talked down to by another person (including family member).
- Individual is sometimes or frequently threatened with physical harm by another person (including family member).
- Individual is sometimes or frequently screamed or cursed at by another person (including family member).
- Insufficient dependent care, as indicated by **1 or more** of the following:
 - In the past year, individual or caregiver was unable to work due to lack of dependent care.
 - In the past year, individual or caregiver was unable to work more (additional) hours due to lack of dependent care.
 - In the past year, individual or caregiver missed medical appointments or could not get medications due to lack of dependent care.
 - In the past year, individual or caregiver missed nonmedical activities (eg, school, church, social activity) due to lack of dependent care.
- Depression risk, as indicated by **ALL** of the following(8):
 - In the past 2 weeks, individual had little interest or pleasure in normal activities on at least several days.
 - In the past 2 weeks, individual felt down, depressed, or hopeless on at least several days.

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Tachycardia absent

- Tachycardia[A][B] absent, as indicated by **1 or more** of the following:
 - Heart rate less than or equal to 100 beats per minute in adult[A][B](1)
 - Heart rate less than or equal to 85 beats per minute in child 13 to 17 years of age[A][B](2)
 - Heart rate less than or equal to 95 beats per minute in child 6 to 12 years of age[A][B](2)
 - Heart rate less than or equal to 110 beats per minute in child 1 to 5 years of age[A][B](2)
 - Heart rate less than or equal to 120 beats per minute in infant 3 to 11 months of age[A][B](2)
 - Heart rate less than or equal to 150 beats per minute in infant 1 or 2 months of age[A][B](2)

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Footnotes

- A. Criteria based upon clinician acquired numeric values (eg, vital signs, oxygen saturation) should be used if they are accurate reflections of the patient's condition. Transitory findings (eg, abnormal only upon initial emergency department intake or only one time out of multiple readings) that rapidly improve with no or minimal treatment usually do not reflect disease severity or risk for deterioration. This does not imply that an initial or one-time reading cannot ever be applicable. The goal is to separate erroneous or incidental findings from those that truly represent the patient's clinical picture.
- B. Interpretation of heart rate requires clinical judgment and consideration of several patient-specific factors, such as the patient's baseline heart rate, medications, and clinical impact. For example, an elderly patient on a beta-blocker medication with a baseline resting heart rate of 60 beats per minute may be clinically tachycardic at a heart rate of 94 beats per minute. Likewise, a patient who is upset, in pain, or nervous in the emergency department with a heart rate of 106 beats per minute may meet the technical definition of tachycardia, but this tachycardia (absent associated findings such as chest pain or hypotension) may not be clinically important. The numeric values included in this definition are provided to allow for consistency in terms of a technical definition of the term tachycardia. Whether a heart rate above or below the technical threshold is clinically meaningful is a matter of persistence, context, and clinical judgment.

Temperature status acceptable

- Temperature status acceptable, as indicated by **1 or more** of the following(1)(2)(3):
 - Temperature less than 100.5 degrees F (38.1 degrees C) (oral) and greater than 96.8 degrees F (36 degrees C) (rectal)
 - Temperature as expected for disease process and appropriate for management at next level of care

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Urinary postoperative status acceptable

- Urinary postoperative status acceptable, as indicated by **ALL** of the following(1)(2)(3):
 - Urinary status acceptable, as indicated by **1 or more** of the following(4)(5):
 - Adequate spontaneous voiding (eg, no severe urinary retention)
 - Urinary catheter and management regimen in place that is performable at next level of care
 - Urinary system bleeding absent, or status acceptable, as indicated by **1 or more** of the following:
 - No bleeding
 - Status acceptable, as indicated by **ALL** of the following:
 - No surgical hemostasis intervention planned
 - No large clots noted
 - Urinary flow greater than 150 mL over 4 hours
 - No clot retention

- Pelvic drain absent, able to be managed by patient or caregiver, or acceptable for next level of care(6)

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