

McKesson  
*Readmissions Resource™*



# CONGESTIVE HEART FAILURE RESOURCE GUIDE

*Prevent • Diagnose • Treat*

**MCKESSON**

**This guide has been assembled using the following resources as source material:**

**Decision Guide Go to the Hospital or Stay Here**

<http://www.decisionguide.org/>

**Lessons Learned From Root Cause Analyses of Transfers of Skilled Nursing Facility (SNF) Patients to Acute Hospitals: Transfers Rated as Preventable Versus Nonpreventable by SNF Staff**

<https://www.ncbi.nlm.nih.gov/pubmed/27052562>

**Effects of self-management intervention on health outcomes of patients with heart failure: a systematic review of randomized controlled trials**

<https://bmccardiovascdisord.biomedcentral.com/articles/10.1186/1471-2261-6-43>

**American Heart Association Heart Failure Tools and Resources**

[http://www.heart.org/HEARTORG/Conditions/HeartFailure/Heart-Failure-Tools-Resources\\_UCM\\_002049\\_Article.jsp#.Wbr1zLKG0pp](http://www.heart.org/HEARTORG/Conditions/HeartFailure/Heart-Failure-Tools-Resources_UCM_002049_Article.jsp#.Wbr1zLKG0pp)

**Heart Failure Nutritional Considerations**

[http://www.nutritionmd.org/health\\_care\\_providers/cardiovascular/heart\\_failure\\_nutrition.html](http://www.nutritionmd.org/health_care_providers/cardiovascular/heart_failure_nutrition.html)

**What is Heart Failure?**

<https://www.nhlbi.nih.gov/health/health-topics/topics/hf>

**Diabetes Mellitus and Congestive Heart Failure**

<http://www.sciencedirect.com/science/article/pii/S0002934317304692>

**Warning Signs of Heart Failure**

[https://www.heart.org/HEARTORG/Conditions/HeartFailure/WarningSignsforHeartFailure/Warning-Signs-of-Heart-Failure\\_UCM\\_002045\\_Article.jsp](https://www.heart.org/HEARTORG/Conditions/HeartFailure/WarningSignsforHeartFailure/Warning-Signs-of-Heart-Failure_UCM_002045_Article.jsp)

**Routine Lab Tests for CHF patients**

[http://www.chfpatients.com/tests/routine\\_tests.htm](http://www.chfpatients.com/tests/routine_tests.htm)

**Rise Above Heart Failure**

[https://www.heart.org/HEARTORG/Conditions/HeartFailure/Heart-Failure\\_UCM\\_002019\\_SubHomePage.jsp](https://www.heart.org/HEARTORG/Conditions/HeartFailure/Heart-Failure_UCM_002019_SubHomePage.jsp)

**National Heart, Lung, and Blood Institute**

<https://www.nhlbi.nih.gov/health/health-topics/topics/hf/causes>

**Centers for Disease Control and Prevention**

[https://www.cdc.gov/dhdspl/data\\_statistics/fact\\_sheets/fs\\_heart\\_failure.html](https://www.cdc.gov/dhdspl/data_statistics/fact_sheets/fs_heart_failure.html)

**Agency for Healthcare Research and Quality (AHRQ)**

<https://www.ahrq.gov>

# Guide Reference

## Overview



Overview of CHF.....	1
CHF and Readmissions .....	2

## Symptoms of CHF



Symptoms of CHF.....	4
----------------------	---

## Prevention



Indicator Tools.....	7
Multi-vitamins/Supplements.....	9
Pain Relief.....	10
Maintenance.....	10
Smoking Cessation .....	10
Medication Compliance .....	11
Side Effect Management .....	11
Nutrition .....	12

## Diagnosis



Diagnostic Analyzers/Lab Tests.....	17
Lab Supplies .....	18
EKG Monitor .....	18
Indicator Tools.....	19
AED .....	20

## Treatment



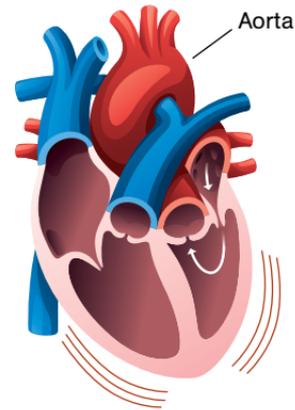
IV Hydration .....	22
Respiratory .....	23
EKG Monitor .....	23
Incontinence.....	24

## Overview of Congestive Heart Failure

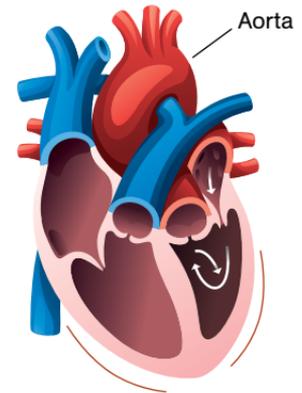
Congestive Heart Failure (CHF) is a complex syndrome resulting in the heart's inability to effectively pump oxygenated blood to the brain, organs and muscles. This ineffective circulation **leads to fluid retention in the body and causes the heart to overcompensate** when there are increased demands on it.

Symptoms like these can result in unplanned hospital readmissions. Although CHF affects people of all ages, it is the leading cause of readmissions in adults over the age of 65. **Sixty-one percent of CHF readmissions occur within the first 15 days**, and in the long-term care setting, **27-43% of readmission rates are caused by heart failure** alone.

Healthy Heart



Heart Failure



## CHF and Readmissions

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Over 6 million  
adults in the  
U.S. have CHF



**50%** will die within 5  
years of diagnosis

**75%**  
of those affected have at  
least one comorbidity  
(e.g., hypertension, diabetes,  
stroke, obesity, sleep apnea, or  
cardiovascular disease)



CHF costs  
more than  
**\$30B**  
annually



## CHF and Readmissions

More than 870,000 new cases of CHF are diagnosed each year, and with no identified cure, **evidence-based practice must be used** to manage the condition.

To reduce the likelihood of CHF readmissions:

- Ensure appropriate discharge planning
- Create an individualized, patient-centered care plan
- Properly reconcile patient medication
- Provide adequate patient and caregiver education
- Promote strong clinical competency regarding disease management
- Schedule physician follow-up appointments or ancillary referrals

Post-acute care providers should also **focus on symptom relief** to reduce readmission rates associated with CHF, and thus improve overall patient outcomes.

For every 100 Medicare patients admitted to a hospital within a 30-day period,

**24.5%**  
*were admitted  
because of CHF*



## Symptoms of CHF

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Pay careful attention to the signs of CHF. They may worsen suddenly or gradually over time. Worsening of symptoms, commonly known as an exacerbation, should be properly addressed by clinicians.

If the following symptoms occur in a patient, seek help immediately.



**Shortness of breath**



**Diminished capacity  
for exercise**



**Swelling in legs,  
ankles and feet**



**Sudden weight gain from  
fluid retention**



**Rapid or irregular  
heartbeat**



**Fatigue and  
weakness**



# Prevention

## Discharge Planning



Utilize discharge planning tools:

- Facility readiness assessments
- Hospital to post-acute transfer forms
- Post-acute care capabilities checklists
- Medication reconciliation worksheets

## Clinical Competency

- Create a patient-centered care plan
- Perform a complete physical assessment to establish a baseline and help identify signs and symptoms of early CHF exacerbation
- Monitor for indicators of fluid retention, such as edema, persistent cough or Orthopnea/Paroxysmal Nocturnal Dyspnea (PND)
- Increase understanding of clinical guidelines for managing CHF

## Patient Screening

Screen symptomatic patients with common comorbidities. Perform diagnostic testing, including a complete physical assessment, medication review and labs.

## Nutrition

- Ensure patients adhere to fluid restriction of 1.5-2 L
- For patients taking nutritional supplements, promote calorically dense products that will not negatively impact other disease states
- Recommend nutritional options without extra sodium or glucose that replenish electrolytes



## Education



Educate patients and caregivers on:

- Indication, dosage, schedule and side effects of medications
- Communicate patient dietary needs and restrictions
- Routinely monitor patient weight
- Stress importance of good oral hygiene
- Recommend therapeutic exercise

## OTC Medication



- Prescribe multi-vitamins and supplements
- Recommend smoking cessation
- Manage CHF side effects, like dry skin and muscle aches



# Prevention

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## CHF Exacerbation Screening and Diagnostic Criteria

### Prevention and Management

- Temp >100.5
- Apical HR >100 or <50
- Respirator Rate >28 or <10
- Systolic BP <90 or >200
- Oxygen Saturation <90
- Weight Gain >3lbs in 2 days or >5lbs 72h
- Fingerstick Glucose <70 or >300
- New or Worsening Chest Pain

### Indicators

- Blood Pressure
- Pulse
- Respiratory Rate
- Temperature
- Weight Loss
- Weight Gain



## Prevention

Indicator Tools			
	Manufacturer	Manufacturer #	Item Description
	Welch Allyn	71WT-B	Welch Allyn Connex® Spot Monitor
	Welch Allyn	H-BP100SBP	BP Monitor for Home Use 1 Tube Child or Adult
	McKesson	01-768-641-11ABKGM	Adult Sphyg/Sprague B/P Kit, LF Black
	McKesson	01-670BKGM	Lumeon® Classic Stethoscope Black 1-Tube 28" Double Sided Chestpiece
	3M	2201	Littmann® Classic Stethoscope II S.E. Black 1-Tube 28" Double Sided Chestpiece
	3M	2160	Littmann® Master Cardiology™ Stethoscope Black 1-Tube 27" Double Sided Chestpiece Tunable Diaphragm
	McKesson	16-93651	Handheld Finger Pulse Oximeter



## Prevention

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Indicator Tools			
	Manufacturer	Manufacturer #	Item Description
	McKesson	01-415GM	Oral Rectal Thermometer
	Arkray	500050	Assure® Platinum Blood Glucose Test Strip
	Pelstar	1100KL	Digital Platform Scale - 3 Sided Hand Rail, Bariatric
	Pelstar	500KL	Physicians Scale with Height Rod
	Pelstar	895KLT	Digital Talking Floor Scale



## Prevention

Multi-Vitamins/Supplements			
	Manufacturer	Manufacturer #	Item Description
	SunMark	2483295	Co Q10 Softgels, 100 mg
	SunMark	2149706	Fish Oil Supplement, 1000 mg
	SunMark	57896052101	Multivitamin + Iron
	SunMark	634-12	Magnesium Oxide Tablets, 400 mg
	SunMark	57896084110	Vitamin C Tablets, 500 mg
	SunMark	57896084216	Vitamin C Liquid, 500 mg
	SunMark	57896084150	Vitamin C Tablets, 500 mg
	SunMark	2150449	Vitamin D3 Softgels, 2000 Iu
	SunMark	2150431	Vitamin D3 Tablets, 1000 Iu



## Prevention

Pain Relief			
	Manufacturer	Manufacturer #	Item Description
	Sunmark	60-101-10	Acetaminophen Tablets, 325 mg
	Sunmark	60-201-10	Acetaminophen Tablets, Extra Strength, 500 mg
	Sunmark	1933951	Acetaminophen Caplets, 8-Hr Extra Strength, 650 mg
Maintenance			
	Manufacturer	Manufacturer #	Item Description
	Sunmark	1980440	Aspirin, Low Dose, Adult Chewables, Orange, 81 mg
Smoking Cessation			
	Manufacturer	Manufacturer #	Item Description
	Sunmark	1134980	Nicotine Gum, Original Flavor, Nicotine Polacrilex 4 mg
	SunMark	1348150	Nicotine Gum, Mint, Nicotine Polacrilex 4 mg
	SunMark	1864610	Nicotine Lozenge, Mint, Nicotine Polacrilex 4 mg
	SunMark	3437506	Nicotine Transdermal System, 21 mg
	SunMark	3437498	Nicotine Transdermal System, 14 mg



## Prevention

Medication Compliance			
	Manufacturer	Manufacturer #	Item Description
	Patterson Medical	554844	Pill Organizer 2 x Day
	Silent Knight	108-SK0100	Pill Crusher, Hand-operated Push-down Mechanism
	Silent Knight	63-4415	White Pill Envelopes, Printed
	Silent Knight	108-PC1000	Pill Crusher Pouch
Side Effect Management			
	Manufacturer	Manufacturer #	Item Description
	McKesson	116-BCRM4OZ	Moisturizer THERA™ Body Cream 4 oz Tube Scented Cream
	McKesson	116-BSM4OZ	Skin Protectant THERA™ Moisturizing Body Shield 4 oz Tube Scented Cream
	Performance Health	13407	BioFreeze® Professional Gel 4 oz



## Prevention

Nutrition			
	Manufacturer	Manufacturer #	Item Description
	Nestle	9871616230	Nutren 2.0, 250 ml
	Nestle	9871644146	Nutren 2.0, 1000 ml
	Nestle	18150000	Isosource 1.5, 250 ml
	Nestle	18180100	Isosource 1.5, 1000 ml
	Nestle	9871616245	Replete, 250 ml
	Nestle	28250000	Benecalorie 1.5 oz cup
	Nestle	12187365	Boost Plus Rich Chocolate 8 oz
	Nestle	365100000	Diabetisource AC, 250 ml
	Nestle	40130	ProStat Sugar Free 30 oz
	Kent Precision Foods	J585-C6800	Thickened Water Thick-it AquaCare H2O 8 oz Bottle Unflavored Ready to Use Nectar
	Kent Precision Foods	X353-M2600	Electrolyte Replenishment Drink Mix Sqwincher Quik Stik Zero Fruit Punch Flavor

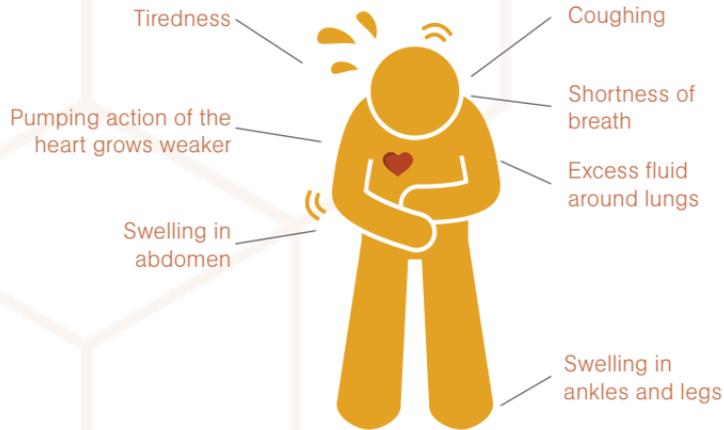


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# Diagnosis

Diagnosing a CHF exacerbation is generally focused on fluid retention. It is widely believed that the symptoms of fluid overload are evident as much as a week before hospitalization. However, some patients do not admit to symptoms to avoid a return to the hospital – often making their situation worse.



To identify potential fluid overload early, clinicians should utilize the following tools:

- Stop and Watch
- Change in Condition Cards
- CHF *QuickPath*



## *Diagnosis*

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### *Ready to move beyond CLIA-waived testing?*

*If you are ready to expand your testing capabilities from CLIA-waived to CLIA-Moderate Complex, our team of experts at Medsol can provide the support you need.*



Learn more at:

<https://mms.mckesson.com/medsol>



## Diagnosis

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If CHF symptoms are present, a full patient assessment should be completed. The patient's medical history should be reviewed, medication compliance should be confirmed, and the physician should be notified of all abnormal assessment results.

### Signs and Symptoms of CHF

#### Symptoms of Fluid Overload

- Weight Gain
  - 3 lbs in one day
  - 5 lbs in one week
- Dyspnea at rest
- Paroxysmal Nocturnal Dyspnea
  - Pillow propping
  - Increased nocturnal urination
- Wheezing/Rales/Abnormal breath sounds
- Peripheral or sacral edema
- Jugular venous distension
- Use of accessory muscles to breath

#### Confusion/anxiety

#### Chest pain

**Palpitations** – stimulation of SNS response

**Anorexia, early satiety** – resulting from decreased GI perfusion

#### Unstable vital signs

- Temp >100.5
- Apical HR >100 or <50
- Respirator Rate >28 or <10
- Systolic BP <90 or >200
- Oxygen Saturation <90



## Diagnosis

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McKesson Medical-Surgical offers several diagnostic tools as well as point-of-care lab testing and cardiovascular testing products to help assess CHF exacerbations.

### What to Do

#### **Complete full assessment**

##### **Review patient history**

- Check blood glucose if diabetic
- Review I/O
- Confirm low sodium diet adherence – notify dietician if not

##### **Confirm medication compliance or administration**

#### **Confirm medication profile includes:**

- ACEI/ARB/ARNI
  - e.g., Lisinopril, Diovan
- Aldosterone antagonist
  - e.g., Aldactone
- Diuretic
  - e.g., Lasix, Bumex
- Beta blocker
  - e.g., Coreg, Toprol
- Hydralazine-nitrate
  - e.g., BiDil

#### **Notify doctor of all abnormal assessment results and any deficiencies/non-compliance**

#### **Inform and educate patient, family or caregiver**

**Further diagnostic testing may be requested to include labs (BNP, CMP, CBC, INR, and Blood Glucose) and a portable chest x-ray or an EKG**



# Diagnosis

## Diagnostic Analyzers/Lab Tests

	Manufacturer	Manufacturer #	Item Description	CLIA-Waived/CLIA-Moderately Complex
	Alere	98000XR	Alere Triage® BNP Test (25 Tests)	CLIA-Waived
	Alere	10-959	Alere Cholestech LDX® System (5 Tests)	CLIA-Waived
	Abbott Point of Care	07P0204	Abbott Piccolo Xpress BMP	CLIA-Waived
	Abbott Point of Care	07P0205	Abbott Piccolo Xpress Lipid Panel	CLIA-Waived
	Abbott Point of Care	09P3125	Abbott i-Stat Chem 8+(H/H)	CLIA-Waived
	Abbott Point of Care	03P9325	Abbott i-Stat BNP	CLIA-Moderately Complex
	Abbott Point of Care	03P8924	Abbott i-Stat PT/INR	CLIA-Moderately Complex
	Abbott Point of Care	04J6020	Abbott i-Stat	
	Abbott Point of Care	07P0501	Abbott Piccolo Xpress	
	Abbott Point of Care	07P0416	Abbott Piccolo Pipette Tips	
	Arkray	500001	Assure® Blood Glucose Meter	
	Arkray	500050	Assure® Platinum Blood Glucose Test Strip	
	Alere	575734	Alere Triage® MeterPro	



## Diagnosis

Lab Supplies			
	Manufacturer	Manufacturer #	Item Description
	BD	367283	Vacutainer Safety Lok Blood Collection 23G, 3/4" Needle 50/BX
	BD	364815	Vacutainer Tube Holder
	Abbott Point of Care	06F2430	Dispensing Blood Transfer Tip 100/BX
EKG Monitor			
	Manufacturer	Manufacturer #	Item Description
	McKesson	MLBUR150C-C1X	ECG, Burdick 150C Interp 40 ECG Storage AM12/USB/LAN
	McKesson	MLBUR150C-81X	ECG, Burdick 150C Interp 40 ECG Storage AM12/USB/LAN/Wireless
	McKesson	MLBUR280-C1X	ECG, Burdick 280 Interp 200 ECG Storage AM12/USB/LAN
	McKesson	MLBUR280-W1X	ECG, Burdick 280 Interp 200 ECG Storage WAM/USB/LAN/Wireless
	McKesson	87-230	ECG Tab Electrode
	McKesson	26-9402-061	ECG Recording Paper 8.5" X 138' Z-Fold
	McKesson	26-1005-ORBC	ECG Recording Paper 2" X 100' Roll
	Welch Allyn	CP150A-1ENB	Resting ECG Monitor CP 150™



# Diagnosis

Indicator Tools			
	Manufacturer	Manufacturer #	Item Description
	Welch Allyn	H-BP100SBP	BP Monitor for Home Use 1 Tube Child or Adult
	McKesson	01-768-641-11ABKGM	Adult Sphyg/Sprague B/P Kit, LF Black
	McKesson	01-670BKGM	Lumeon® Classic Stethoscope Black 1-Tube 28" Double Sided Chestpiece
	3M	2201	Littmann® Classic Stethoscope II S.E. Black 1-Tube 28" Double Sided Chestpiece
	3M	2160	Littmann® Master Cardiology™ Stethoscope Black 1-Tube 27" Double Sided Chestpiece Tunable Diaphragm
	McKesson	16-93651	Handheld Finger Pulse Oximeter
	Pelstar	1100KL	Digital Platform Scale - 3 Sided Hand Rail, Bariatric
	Pelstar	500KL	Physicians Scale with Height Rod
	Pelstar	895KLT	Digital Talking Floor Scale
	McKesson	01-415GM	Oral Rectal Thermometer
	American Diagnostic	427	Infrared Adtemp 429 Hand Held Non Contact Thermometer



## Diagnosis

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AED			
	Manufacturer	Manufacturer #	Item Description
	Zoll	228008 10102011000	Zoll Automated External Defibrillator Package



Login to **SupplyManager** to order products.



## Treatment

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CHF can be treated in place according to physician orders. An automated external defibrillator (AED) should also be available on site.

### Stay in Facility

- Monitor patient vital signs and input/output every 4 to 8 hours
- Monitor electrolytes and renal function
- Provide supplemental oxygen, if necessary
- Consider:
  - Increasing dosage of diuretics
  - Increasing other cardiac medications to optimize use and efficacy
  - Use of a portable chest x-ray
- Update advance care plan and directives



We offer an array of products and solutions to treat CHF. Speak to your McKesson sales representative about the resources we have to support quality care. You may also refer to the information found in this resource guide.



## Treatment

IV Hydration			
	Manufacturer	Manufacturer #	Item Description
	McKesson	25-8821	IV Start Kit, w/Tegaderm STR LF
	B. Braun	352229	Administration Set Vista 15 Drops/ml, 113" 1 Port
	EMED Technologies	FLO-100	Flow Regulator Set, AccuFlo, 21-250 ml/hr, 92" 1 Port
	B. Braun	4251628-02	Introcan Safety Peripheral IV Cath 22 g 1" Sliding Safety Needle
	B. Braun	4252500-02	Introcan Safety Peripheral IV Cath 24 g 3/4" Sliding Safety Needle
	B. Braun	473045	Extension Set 8" Tubing, 0.55ml Priming Volume, Needleless Connector
	Bard	IV0521	IV StatLock Select Catheter Stabilization Device



# Treatment

Respiratory			
	Manufacturer	Manufacturer #	Item Description
	McKesson	32637	Oxygen Nasal Cannula Low Flow Adult Curved Prong
	McKesson	32646	Oxygen Tubing, 25 foot
	CareFusion	1841	Oxygen Swivel Connector, Airlife
	McKesson	32630	Dry Humidifier
	CareFusion	1861	Trap Water F/Oxygen Tubing

EKG Monitor			
	Manufacturer	Manufacturer #	Item Description
	McKesson	MLBUR150C-C1X	ECG, Burdick 150C Interp 40 ECG Storage AM12/USB/LAN
	McKesson	MLBUR150C-81X	ECG, Burdick 150C Interp 40 ECG Storage AM12/USB/LAN/Wireless
	McKesson	MLBUR280-C1X	ECG, Burdick 280 Interp 200 ECG Storage AM12/USB/LAN
	McKesson	MLBUR280-W1X	ECG, Burdick 280 Interp 200 ECG Storage WAM/USB/LAN/Wireless



## Treatment

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Incontinence			
	Manufacturer	Manufacturer #	Item Description
	McKesson	172-5445-9	Catheter Securement Device for Foley Catheter
	McKesson	ONBMR	Extended Wear Brief, Medium/Regular
	McKesson	ONBLXL	Extended Wear Brief, Large/XLarge



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## **McKESSON**

For more information on the McKesson Readmissions Resource™, visit [mms.mckesson.com/readmissions-care](https://mms.mckesson.com/readmissions-care).

### **Have additional questions?**

Contact our Clinical Resource Team at [readmissionsresourceinfo@mckesson.com](mailto:readmissionsresourceinfo@mckesson.com).

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