

IMPACT Case Study

All-Condition Risk-Adjusted Potentially Preventable Hospital Readmissions

Measure Domain	All-Condition Risk-Adjusted Potentially Preventable Hospital Readmissions Rates
Wicasure Domain	NQF Number: 1789
Case Study	Patient Presentation: ST is a 72-year-old Caucasian male who is being admitted into an acute care hospital with a diagnosis of exacerbation of congestive heart failure (CHF). This is his second admission in 30 days for the same diagnosis. ST has been receiving Home Health Care services since his last admit. His wife passed away 6 months prior, and he has been living at home alone since that time. He reports a good appetite but does not know how to cook. Family and friends bring him food and he has been buying frozen meals and canned soup. ST denies any change in fluid intake. He reports his Home Health Nurse was attempting to set up Meals on Wheels for healthier food choices. ST can shop for food but does not know what to buy and expresses concern about meal preparation beyond heating food in microwave. ST does not recall talking with a Registered Dietitian Nutritionist (RDN) at his first admission. Other diagnoses include coronary artery disease (CAD) and depression (diagnosed after wife passed away but no medications ordered). Medications include metoprolol (Lopressor) and furosemide (Lasix). ST's nutrition-focused physical examination reveals 3+ pitting edema of bilateral lower extremities. ST's height is measured at 72"/182.9 cm and current weight is measured at 275 pounds/125 kg. ST reports a 20-pound weight gain over the past 6 months, and a 10-pound weight gain since last admission 3 weeks prior. His usual body weight (UBW) is around 250 pounds. ST is on a 2-gram sodium diet and is consuming 100% of the meals served but is expressing his displeasure in the lack of seasoning of the food in the hospital. Biochemical data includes: Potassium = 3.8 mmol/L Na = 142 mEq/L BUN = 20 mg/dL Creat = 1.2 mg/dL B-type Natriuretic Peptide (BNP) = 850 pg/ml



Using recommended guidelines and current research, nutrition needs may be recommended at:

Energy: ~1920-2110 kcal (using Mifflin-St. Jeor + 10%, using UBW due to fluid status)

Protein: 115-135 grams of protein (using 1.0-1.2 gm/kg of UBW)

Fluids: 1920-2110 ml (using 1ml/kcal)

Nutrition Diagnosis:

Excessive mineral (sodium) intake (NI-5.10.2{7}) AND food- and nutrition- related knowledge deficit (NB-1.1) **related to** overconsumption of convenience food items **as evidenced by** increase in edema of lower extremities AND unable to explain purpose of the nutrition prescription or rationale for nutrition prescription in relationship to disease/health.

Nutrition Interventions:

The Nutrition Prescription, or the diet order, is recommended at $^{\sim}1920$ -2110 kcal, 115-135 gm protein and 1920-2110 ml fluids per day. It is recommended to limit sodium foods, with a goal of 2000 mg sodium per day. Nutrition education provided on the prescribed therapeutic diet.

Additional nutrition interventions RDN with a Home Health Agency and to community program.

Nutrition Monitoring and Evaluation:

- Anthropometric measurements
 - Weight measurements daily for weight change
- Biochemical data, medical tests, and procedures, including:
 - o Potassium
- Nutrition focused physical findings:
 - Edema of bilateral lower extremities: 3+ pitting
- Food and nutrition-related history:
 - Types of food and meals
 - Area(s) and level of knowledge/skill
 - Self-monitoring at agreed-upon rate
 - Participation community programs



Sample Comprehensive Nutrition Assessment

Initial Comprehensive Nutrition Assessment using the Nutrition Care Process

Food / Nutrition-Related History

- Food and Nutrient intake Good appetite, no limit on any nutrients or change in fluid intake
- Medications furosemide (Lasix)
- Food and Nutrient Administration 2-gram sodium diet
- Knowledge/Beliefs/Attitudes lack of understanding of CHF and nutrition recommendations
- Factors Affecting Access to Food and Food/Nutrition-Related Supplies participation in community programs and ability to shop, plan, and prepare food

Anthropometric Measurements

- **Height:** 72 inches (182.9 cm)
- Weight: 275 pounds (125 kg)
- **Weight history:** weight gain of 20 pounds or 7.8% over the past 6 months and 10 pounds or 3.8% over the past three weeks
- Body Mass Index: 37.4 kg/m² (obese class II)

Biomedical Data, Medical Tests & Procedures

Altered nutrition related lab values:

BNP: 850 pg/ml ↑

Nutrition-Focused Physical Findings

Non-normal Nutrition Related Physical Findings:

• Edema – 3+ pitting edema of bilateral lower extremities

Client History

- Age 72 years old
- Race / Ethnicity Caucasian
- Gender Male
- Medical History second admission in 30-days for CHF exacerbation
- Social History widowed, no children

Nutrition Diagnosis

P: Excessive mineral (sodium) intake (NI-5.10.2 {7}) AND food- and nutrition-related knowledge deficit (NB-1.1) **related to (r/t)**

E: overconsumption of convenience food items as evidence by (AEB)

S: increase in edema of lower extremities AND unable to explain purpose of the nutrition prescription or rationale for nutrition prescription in relationship to disease/health

Nutrition Prescription

- 1920-2110 kcal (Mifflin-St. Jeor + 10%, using UBW)
- 115-135 grams of protein (using 1.0-1.2 gm/kg of UBW)
- 1920-2110 ml fluids (1ml/kcal)

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Food and/or Nutrient Delivery

1. Modify composition of meals/snacks – modify sodium intake

Nutrition Education

- 1. Provide education materials on nutrition recommendations for heart failure.
- 2. Guidance in choosing lower sodium convenience foods and in quick, easy meal preparation.

Nutrition Counseling

- 1. Self-monitoring.
- 2. Weigh daily to monitor fluid retention.

Coordination of Nutrition Care

1. Referral to community agencies such as Area Agencies on Aging, Congregate Meal Programs, Council on Aging

Goals

Manage fluid retention by:

- 1. Maintain current weight with no further weight gain of more than 3 pounds
- 2. State recommended level of dietary sodium intake
- 3. Distinguish between food sources of high and low sodium
- 4. Use nutrition labels to limit intake of sodium

Nutrition Monitoring and Evaluation				
Indicator	Criteria	Goals	Outcomes	
Food/Nutrient Related History Outcomes:				
Sodium intake less than	Sodium intake less	Sodium intake less than	Sodium intake	
2000 mg per day	than 2000 mg per	2000 mg per day	less than 2000	
	day		mg per day	
Anthropometric Measurements Outcomes:				
Weight Change	Weight Change	Weight Change	Weight	
			Change	
Nutrition-focused Physical Findings Outcomes:				
Appearance of lower	Appearance of	Appearance of lower	Appearance	
extremities	lower extremities	extremities	of lower	
			extremities	



Summary

Readmission within 30 days can be avoided with individualized nutrition interventions directed by the RDN in home health settings. Using a nutrition assessment to determine interventions and education can improve quality of life and reduce risk for acute care hospital readmission. Persons at nutrition risk can improve in a home health setting with professional advisement and direction for high quality nutrition care.

In this Case Study, the CDR has chosen to use the term RDN to refer to both registered dietitians (RD) and registered dietitian nutritionists (RDN) and to use the term NDTR to refer to both dietetic technician, registered (DTR) and nutrition and dietetics technician, registered (NDTR).

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	Margery Gann, MBA, RDN, LDN, FAND Margery has expertise in the management of community programs including in home services, Title IIIC nutrition programs, and the rebalancing of Medicaid funds from institutions to community-based care.

This case study was reviewed for clinical updates by members of the Dietitians in Health Care Communities Dietetic Practice Group of the Academy of Nutrition and Dietetics in 2022.



IMPACT Measure Domain

Potentially Preventable Hospital Readmissions Rates

Measure Domain	All-Condition Risk-Adjusted Potentially Preventable Hospital Readmissions Rates NQF Number 1789
Background	The IMPACT Act of 2014 (IMPACT Act) includes a focus on post-acute care in four settings: Home Health Agencies (HHAs), Skilled Nursing Facilities (SNFs), Inpatient Rehab Facilities (IRFs), and Long-Term Care Hospitals (LTCHs). However, the majority of patients enter these settings from acute care hospitals.
	The IMPACT Act specified domains to be standardized, one of those being "all-condition, risk-adjusted potentially preventable hospital readmission rates".
	The National Quality Forum (NQF) is a voluntary consensus standards-setting organization. Several organizations and agencies submit measures to the NQF. NQF uses its formal Consensus Development Process (CDP) to evaluate and endorse performance measures. This process involves calls for decisions, inputs and appeals from the Consensus Standards Approval Committee (CSAC). The CSAC can grant full endorsement, time-limited endorsement, or deny endorsement. NQF endorsed a single Measures Under Consideration (MUC) ID number that represents readmission measures in the post-acute care setting (#4210), as well as additional measures for each post-acute care setting (see key definitions).
	The fragmentation of care among settings, from acute care through home and primary care has been identified as a problem contributing to less than 30-day readmission to the acute care setting. Different methods for lowering 30-day all-cause readmissions have been proposed and examined, including transitional care management and reengineered discharge programs. A few studies have looked at the risk factors associated with readmission such as weight loss or underweight BMI. Other studies have assessed the impact of oral nutritional supplements (ONS) on readmission rates.
	Hospital readmission data highlights the opportunity to save money and improve efficiency. Evaluation and research are ongoing to find best practice.
	COST SAVINGS CMS Payment Reduction: Under the Affordable Care Act, penalties will be implemented for high readmission rates in health care facilities. In fiscal year 2015, hospitals were penalized for above-average readmission rates (when compared to the prior 3-year period) in one of five clinical conditions: heart failure, acute myocardial infarction, hip or knee replacement, chronic obstructive pulmonary disease, and pneumonia. The IMPACT Act of 2014 followed this pattern by measuring readmission rates from the post-acute care settings and subsequently adjusting payments to these care settings.

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	OTHER PROJECTS TO IMPROVE READMISSIONS
	Partnership for Patients:
	A program aimed at reducing hospital readmissions is the Partnership for Patients
	(PFP) (Partnership for Patients CMS Innovation Center). PFP is a public-private
	partnership working to improve quality, safety, and affordability of health care. The
	group includes Hospital Engagement Networks (<u>HOSPITAL ENGAGEMENT NETWORKS:</u>
	CONNECTING HOSPITALS TO IMPROVE CARE CMS), the Community-based Care
	Transitions Program (Community-based Care Transitions Program CMS Innovation
	Center) and Patient and Family Engagement(Patient and Family Engagement Agency
	for Healthcare Research and Quality (ahrq.gov).
	Agency for Healthcare Research and Quality (AHRQ):
	The mission of AHRQ is "to produce evidence to make health care safer, higher quality,
	more accessible, equitable and affordable, and to work with the U.S. Department of
	Health & Human Services and with other partners to make sure that the evidence is
	understood and used". Quality Indicators (QI) are measures of health care quality.
	The AHRQ QI modules represent 4 areas: prevention, inpatient, patient safety, and
	pediatrics.
Key Definitions	Readmission: An admission to an acute care hospital within 30-days of discharge from
,	an acute care hospital.
	Planned readmission: An intentional readmission within 30-days of discharge from an
	acute care hospital that is a scheduled part of the patient's plan of care.
	Risk adjustment: accounts for differences across hospitals in patient demographics
	and clinical characteristics that might be related to the outcome but unrelated to
	quality of care.
NQF Measures	Measure 4210: All-cause readmission to hospital from post-acute care
Submitted to CMS	Measure 2502: All-cause unplanned readmissions measure for 30-days post discharge
	from IRFs
	This measure estimates the risk-standardized rate of unplanned, all-cause
	readmissions for patients discharged from an IRF who were readmitted to a
	short-stay acute-care hospital or a LTCH, within 30-days of an IRF discharge.
	The measure will be based on data for 24 months of IRF discharges to lower
	levels of care or to the community.
	,
	Measure 2010: Skilled Nursing Facility 30-day All-Cause Readmission Measure (SNFRM)
	This measure estimates the risk-standardized rate of all-cause, unplanned,
	hospital readmissions for patients who have been admitted to a SNF (Medicare
	fee-for-service [FFS] beneficiaries) within 30 days of discharge from their prior
	proximal hospitalization. The prior proximal hospitalization is defined as an
	admission to an inpatient prospective payment system (IPPS), critical access
	hospital (CAH), or a psychiatric hospital. The measure is based on data for 12
	months of SNF admissions.
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	Measure 2512: All-Cause Unplanned Readmission Measure for 30 Days Post Discharge
	from LTCHs
	This measure estimates the risk-standardized rate of unplanned, all-cause
	readmissions for patients discharged from a LTCH who were readmitted to a
	short stay- acute-care hospital or a LTCH, within 30-days of an LTCH discharge.
	The measure will be based on data for 24-months of LTCH discharges to lower
	levels of care or to the community.
	Measure 2380: Re-hospitalization during the first 30 days of home health
	Percentage of home health stays in which patients who had an acute inpatient
	hospitalization in the 5-days before the start of their home health stay were admitted
	to an acute care hospital during the 30-days following the start of the home health
	stay.
Nutritional	RDNs can influence readmission rates with effective nutrition screening,
Implications	_
implications	assessment, interventions, and monitoring. The role of nutrition/medical nutrition
	therapy (MNT) in the management of congestive heart failure (CHF), diabetes
	(DM), and chronic pulmonary disease is well-documented.
	Screening protocol identifies patients at risk for malnutrition or under-nutrition.
	Malnutrition is associated with higher mortality, increased length of stay in
	hospital, and higher health care cost. Identifying malnutrition and malnutrition risk
	along with early intervention can improve outcomes.
	The NCP involves assessment, diagnosis, intervention, monitoring, and evaluation
	(ADIME). A complete assessment can identify factors, such as chronic diseases that
	contribute to readmission. These factors could lead to a nutrition prescription and
	individualized plan of care. This information must be shared across care settings.
	utilizing a systemic approach, like the NCP, provides a framework for more
	efficient and effective care.
	In the AHRQ publication, nutrition assistance is one of the items listed to identify in the
	community as a transitional care service.
Outcomes/	
-	Readmission measures are in place to improve quality of care and reduce health
Measures	care spending. The common goal is to reduce readmission rates. Research has
	shown the impact of other clinicians (such as nurses and pharmacist) on improving
	the readmission rates through education and communication. Opportunity exists
	for RDNs/nutrition and dietetic technicians, registered (NDTRs) to participate in
	research on the impact of their role.
Recommendations	• The RDN/NDTR should be familiar with measure(s) that apply to their practice area
	and consider volunteering for committees/teams to improve those measures.
	Many programs for reducing readmissions do not include RDN/NDTRs as an
	interdisciplinary team member. It is within the scope of practice of RDNs to
	complete in-home visits and follow-up phone calls. The special knowledge of the
	dietitian makes them particularly effective in helping patients.
	 The RDN/NDTR should invest time in the discharge process and transitions of care
	for conditions related to readmission. This includes improved communication of
	· ·
	the ADIME process and care plan (health concern, goals, and interventions) related
	to diet, food/fluid intake, weight, weight variations, and patient's

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	choices/preferences. Secure services needed in the community/home include Area
	Agency for Aging and Meals on Wheels. These types of organizations partner with
	RDNs/NDTRs in all settings in caring for older adults.
	Continue the partnership with the Alliance to Advance Patient Nutrition.
Resources	Alliance Nutrition Care Model and Toolkit
	Consensus Statement of the Academy of Nutrition and Dietetics: Malnutrition.
Additional Links	http://www.qualityforum.org/News And Resources/Press Releases/2012/NQF Endo
	rses All-Cause Unplanned Readmissions Measures.aspx
	http://www.qualityforum.org/Publications/2015/04/All-
	Cause Admissions and Readmissions Measures - Final Report.aspx
	http://malnutrition.com/alliance
	http://innovation.cms.gov/Files/reports/patient-safety-results.pdf
	http://partnershipforpatients.cms.gov/
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