National Home Infusion Foundation

30-day Hospital Readmission Benchmarking Guide

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Introduction and Purpose

The popularity and effectiveness of benchmarking is widespread with business and management researchers referring to it as a fundamental tool for continuous improvement. Benchmarking is not just seeking to make changes, but to add value and provide a competitive advantage for participating organizations. Due to a plethora of documented research on the positive impact of benchmarking, the National Home Infusion Foundation (NHIF) is committed to creating programs will foster quality improvement, as well as generate confidence and investment in the home and specialty infusion industry.

A benchmark is a point of reference for a measurement. Sometimes this benchmark becomes a standard or a norm. The process of benchmarking involves comparing one's own performance metrics to industry standards. Without the ability to compare results, data from an individual organization lacks context. To determine how a score, a rating, an outcome, or another form of measurement within the home infusion industry compares, there is a need to collect uniform data from multiple providers. Examples of data that may be of interest in benchmarking could include therapy outcomes, patient satisfaction, and staffing numbers, just to name a few. To ensure valid comparisons and thus actionable results, this data needs to be reported using a standard terminology and definitions. Data submitted by various providers using standardized instruments, forms, and definitions can be used to determine averages/norms within the industry. These norms are then used to compare against individual providers. This will allow an individual organization to determine if their data exceeds or falls below the norms and to what degree. If an organization falls below a standard, then interventions to rectify the gap can then be developed and progress can be tracked to determine the effectiveness of the actions taken. Overall, benchmarking makes data more actionable by identifying performance gaps and acknowledging industry best practices.

The benchmarking process creates a standard to which providers can aspire to during goal setting. Benchmarking can also involve setting a specific level of performance that an industry wants to reach or compare against. Equally important, benchmarks allow the comparison of data between similar organizations. Organizational similarities can include location, revenue, and/or service characteristics. Providers that implement action plans based on the benchmarking outcomes will be able to optimize their efforts to improve performance.

Types of Benchmarking

Internal Benchmarks

Internal benchmarking is used when providers want to compare and contrast their historical performance, such as comparing one year's data with another. This process allows providers to track, analyze, and trend their performance over time, or compare different locations within the same organization.

External Benchmarking

External benchmarking establishes a frame of reference for judging results. It is a tool that provides key information on how one provider's service measures up against other "similar" providers. Without this added context, providers lack the perspective of what constitutes good performance. There are three types of external benchmarking as described below.

- National/Industry Benchmarks – These benchmarks are established by aggregating data from a wide range of providers for a particular metric. National benchmarks are the gold standard for measuring individual performance to a industry norm.

- Local Peer Comparable – These benchmarks are most insightful when they are formulated with a group of providers that closely match in characteristics. To achieve this goal, data will be collected about the participating locations.

- Best-in-class Comparable – This is data collected from providers that have won awards or otherwise been recognized for being a high performer in a specific benchmark.

Role of NHIF and Strategic Healthcare Programs

NHIF is a not-for-profit, 501(c)(3) affiliate of the National Home Infusion Association. The mission of NHIF is to advance the field of home infusion through research, leadership and education programs. Benchmarking programs will be funded and administered through NHIF as a research initiative. Data submitted from individual organizations will be used in accordance with all aspects of the Ethics Code of the American Association of Public Opinion Researchers (AAPOR), thereby protecting respondent confidentiality. Data received by NHIF (via the third party data administrator) will be de-identified, therefore NHIF will never have the ability to associate the raw, extracted data with any individual provider who participates in benchmarking.
NHIF will not sell or otherwise provide participating location contact information to anyone, and will retain ownership of all raw data and benchmarks.

SHP
STRATEGIC HEALTHCARE PROGRAMS

Strategic Healthcare Programs (SHP), an affiliate of Managed Healthcare Associates Inc. (MHA), is a data analytics and benchmarking company that supports post-acute care providers in their efforts to improve quality, patient satisfaction, and overall performance. SHP has a long history of collecting and benchmarking home infusion quality data. As a partner to NHIF, SHP is held to the same ethical standards and restrictions regarding ownership, confidentiality and data security; including shielding data from their affiliates. SHP offers support to NHIF by providing participants with a unique identification code that permits the anonymous submission of data and in some instances, collecting data directly for aggregation to NHIF. NHIF will the conduct the data analysis and determine the industry benchmarks.

How to Participate

Participation in NHIF benchmarking is done at the individual home infusion location level. Multi-site organizations can evaluate each location's readiness to contribute validated data to the benchmarking program and phase-in participation if needed. Each home infusion location will be evaluated by NHIF for compliance with the benchmarking participation criteria prior to receiving their validation certificate. (See the section on Recognition of Validation.) Individual locations must receive authorization from the corporate entity/owner in order to participate in NHIF benchmarking programs. Upon signing the Participation Agreement, each location will receive a Data Participation Code (DPC) from SHP. This code will be submitted with each transaction to enable the data administrator and NHIF to track and confirm data transfers in an anonymous manner. Participation in benchmarking is limited to members of NHIA.

30-Day Hospital Readmission Benchmark Metric

Metric category: Voluntary

Minimum participation (in each therapy category) to report:

Individual Locations = 15 locations

Sample size = 150 patients

Purpose

NHIF proposes this metric to help providers better understand the frequency and reason for re-hospitalization within the first thirty days of initiation of home infusion therapy for patients with congestive heart failure (CHF) receiving either dobutamine or milrinone infusions; and in parenteral nutrition patients referred for home therapy. These populations were selected for the high level of complexity associated with the transition of care, and high patient acuity. Providers will be able to use this information to identify and further investigate the factors that contribute to re-hospitalization in these patient populations, and reduce the rate of re-admission.

Participation Criteria

Providers wishing to participate in the 30-day hospital readmission Benchmark must:

1. **Adopt and report data according to the NHIF standard therapy categories.**

Standardized therapy categories were published by NHIF in October of 2018 to facilitate consistent analysis of benchmarking results by therapy type. This requirement ensures providers can easily identify patients eligible for inclusion in the benchmarking metric.

2. **Adopt, collect, and report data according to the standard NHIF definition for unplanned hospitalization, the reason for unplanned hospitalization, and the outcome of unplanned hospitalization.**

In 2016, NHIA published guidelines for defining and capturing standardized data for unplanned hospitalization events that occur in the home infusion patient population. Providers wishing to participate in the 30-day readmission benchmarking metric must demonstrate that the data being reported is consistent with the NHIA standard definitions for unplanned hospitalization events, reasons, and outcomes.

3. **Adopt, collect, and report data using the NHIF categories for access device type.**

In 2016, NHIA published standardized list of access devices that may be used in the home infusion population. This metric requires providers to classify access devices according to the NHIF standard definitions for access devices in order to facilitate analysis that may identify trends in access device utilization as it related to unplanned hospitalizations.

4. **Adopt an organizational policy describing the methods for identifying benchmarking eligible patients and exclusions, conducting employee training plan, and designing data collection procedures.**

- The organizational policy outlines the sources of data (e.g. reports used for identifying eligible and excluded patients, patient demographic information, and unplanned hospitalization events, reasons, and outcomes.)
- Identifies procedures for training employees on the standard definitions.
- Identifies procedures for internal review and validation of data.

5. **Agree to submit data for all eligible patients.**

6. **Sign the NHIF and SHP participation agreements as applicable.**

Benchmarking Metric

Metric Definition: Frequency of unplanned hospital readmission events within 30 days of initiation of home infusion therapy.

Numerator: Unplanned hospital readmission **events** that occur within the first 30 days after initiation of home infusion.

*Services are considered initiated on the day when the home infusion drug enters the patients' body. The day of initiation = Day 1 for purposes of establishing the 30-day timeframe for data collection.

**Multiple re-admissions for a single patient must be counted as separate events.

Denominator: Patients for whom home infusion services were initiated during the reporting interval.

Example 1: Inotrope Rate of Readmission

Numerator: Re-admission events within 30 days during the reporting interval = 15

Denominator: Total inotrope patients for whom home infusion services were initiated during the reporting interval = 150

Benchmark for 30-day hospital readmission = 0.10 (10%) of inotrope patients can expect to be re-admitted to the hospital within the first 30 days of initiation of home infusion therapy.

Example 2: Percentage of Parenteral Nutrition (PN) Patients Readmitted within 30 Days Due to Access Device Infection

Numerator: Re-admission events associated with Access Device Infection for patients receiving PN within 30 days during the reporting interval = 5

Denominator: Total PN patients for whom home infusion services were initiated during the reporting interval = 150

Benchmark = 0.033 (3.3%) of PN patients can expect to be re-admitted to the hospital due to access device infection within the first 30 days of initiation of home infusion therapy.

*Data can be cross-tabulated by access device, age, diagnosis, etc.

Reporting Interval: Quarterly

Inclusion Criteria:

Any patient for whom services were initiated with one of the following therapies:

- Inotrope therapy with dobutamine or milrinone
- Parenteral nutrition

Exclusion Criteria:

- Hospice patients

Required Data Elements:

- Patient identifier (unique patient ID assigned by the provider location)
- Patient age
- Type of access device (see Appendix A for Access Device Categories)
- Primary diagnosis associated with the infusion therapy (PN only)
- Date of initiation of home infusion services
- Date of unplanned hospitalization
- Unplanned hospital readmission events (see NHIF Definitions in Appendix B)
  - Whether unplanned hospital readmission was related or unrelated to the infusion therapy
  - Reason for unplanned hospital readmission

- Outcome of unplanned hospital readmission

Recognition of Validation

Locations that satisfy the benchmarking participation criteria will receive an NHIF Data Validation Certificate and insignia. The insignia may be printed on the individual location-based reports and materials to indicate the location's data has been independently verified to comply with NHIF standards.

Data Collection and Reporting

NHIF intends to publish industry benchmarks on a quarterly basis according to the calendar year (e.g., January to December). Likewise, data will be collected from participating locations on a quarterly basis. A location must be able to submit data for the entire quarter to participate in any given benchmarking interval. The definitions below describe the various timeframes for collecting and reporting data.

Sample Month is the month in which a patient becomes eligible for reporting due to services being initiated.

Benchmarking Interval is a three (3) month period during which an organization may participate in benchmarking and for which a national standard will be published. The calendar year is divided into four (4) intervals as follows: January to March, April to June, July to September, and October to December.

Data Collection Interval refers to the timeframe for collecting data for eligible patients. Providers will have 45 days from the last day of the benchmarking interval to collect and submit data to NHIF.

Program Timelines

Locations may begin applying for participation in the 30-day hospital readmission benchmarking program starting in May of 2020 for the first data collection interval beginning October 1, 2020. Locations may apply for participation in a benchmarking interval once they can submit data for the entire interval (3 months). The application deadline for each benchmarking interval is the 15th day of the month prior to the start of the interval (e.g., for the interval of January 1, 2021, to March 31, 2021, the deadline for applications is December 15, 2020).

Pilot

A pilot study to test the program participation criteria, data collection methods, and reporting timelines will be conducted from May 1, 2020 to July 31, 2020. Organizations interested in participating in the pilot study may inquire by sending an email to NHIFdata@nhia.org. The deadline to apply for participation in the pilot is March 31, 2020.

Questions

Inquiries about this project may be directed to NHIFdata@nhia.org.

Appendix A

Therapy Categories and Access Device Categories

NHIF Therapy Categories Included

- Parenteral nutrition
- Inotropic

NHIF Access Device Categories

- Central Venous Catheter (CVC), tunneled, cuffed
- Central Venous Catheter (CVC), non-tunneled
- Implanted port
- Intrathecal
- Epidural
- Peripheral (PIV)
- Peripherally inserted central catheter (PICC)
- Midline
- Subcutaneous
- Other: _____

Appendix B

Unplanned Hospitalization Event Definitions

Data Element	Definition	Additional Information/ Examples
Unplanned Hospitalization	When an active home infusion patient requires an unplanned, inpatient admission to an acute care hospital for any reason.	• Patients under "observation" at an acute care facility are not considered hospitalized. • Patients are considered hospitalized when the inpatient benefit is being billed for services.
"Infusion Related" Unplanned Hospitalization	An unplanned hospitalization is "related" to the infusion therapy when it occurs in response to an event associated with the infused medication, access device, administration method, or the diagnosis and/or symptoms being treated.	The following are examples of events would be considered "infusion related" if they result in an unplanned hospitalization. • A patient is admitted to the hospital after developing severe shortness of breath during an infusion of IgG. • A patient is hospitalized for possible treatment of a suspected deep vein thrombosis associated with the access device. • A patient is hospitalized for symptoms of worsening cellulitis despite 2 weeks of treatment with an IV antimicrobial. • A patient is hospitalized with a suspected access device related blood stream infection after reporting to the Emergency Department with fever and chills.

Appendix B

Data Element	Definition	Additional Information/ Examples
"Infusion Unrelated" Unplanned Hospital Readmission	An unplanned hospital readmission is "unrelated" to the infusion therapy when it occurs in response to an event that is NOT associated with the infused medication, access device, administration method or the diagnosis and/or symptoms being treated.	The following are examples of events would be considered "unrelated" to the infusion therapy if they result in an unplanned hospital readmission. • A patient is admitted to the hospital for treatment of injuries resulting from a car accident. • A patient receiving IgG weekly is hospitalized after reporting to the emergency department for extreme emesis and dehydration post chemotherapy treatment received in the oncology clinic.
Unplanned Hospital Readmission Reasons	For "Infusion Related" events only, select the best, most applicable reason for the unplanned hospital readmission. • Adverse Event- Infused Drug Related • Adverse Event- Equipment Related • Adverse Event – Access Device Infection • Adverse Event – Access Device Related - Other than Infection • Change in Eligibility • Insufficient response • Unknown Reason • Other: _____	"Change in eligibility" includes, but is not limited to: unsafe home environment, lack of caregiver support, reimbursement challenges, loss of IV access, desire for home treatment or unable to comply with home treatment orders. "Insufficient Response" includes exacerbations of diagnosis and/or symptoms being treated with home infusion therapy.
Unplanned Hospital Readmission Outcomes	Select the outcome that best describes the impact of the unplanned hospital readmission on the home infusion episode. • Resumption of home infusion services with therapy changes • Resumption of home infusion services without therapy changes • Home infusion services discontinued • Pending/ remains hospitalized at time of reporting	Use "Home Infusion Services Discontinued" for patients that remain hospitalized, but are discharged based on a company policy requiring discharge from infusion services if care is not resumed within a specific number of days after hospitalization. When hospitalized patients remain active or in a "hold" status with the home infusion provider, use the outcome: "Pending/remains hospitalized".