

**DRAFT MEASURE SPECIFICATIONS:  
SKILLED NURSING FACILITY HEALTHCARE-ASSOCIATED INFECTIONS  
REQUIRING HOSPITALIZATIONS FOR THE SKILLED NURSING FACILITY  
QUALITY REPORTING PROGRAM**

**Project Title:**

Development of the Skilled Nursing Facility (SNF) Healthcare-Associated Infections (HAIs) Requiring Hospitalizations Measure for the Skilled Nursing Facility Quality Reporting Program (SNF QRP).

**Project Overview:**

The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC to develop a claims-based quality measure of healthcare-associated infections (HAIs) for the SNF QRP. The contract name is Quality Reporting Program Support for the Long-Term Care Hospital, Inpatient Rehabilitation Facility, Skilled Nursing Facility/Nursing Facility QRPs and Nursing Home Compare (PAC QRP) Support (75FCMC18D0015).

**Date:**

September 2020

**Measure Names:**

Skilled Nursing Facility (SNF) Healthcare-Associated Infections (HAIs) Requiring Hospitalizations

**Background:**

Healthcare associated infection (HAI) is defined as an infection acquired while receiving care at a health care facility that was not present or incubating at the time of admission.<sup>1</sup> If the prevention and treatment of HAIs are poorly managed, they can cause poor health care outcomes for patients and lead to wasteful resource use. Most HAIs are considered potentially preventable because they are outcomes of care related to processes or structures of care. In other words, these infections typically result from inadequate management of patients following a medical intervention, such as surgery or device implantation, or poor adherence to hygiene protocol and antibiotic stewardship guidelines. Measuring HAIs among SNF residents can therefore provide valuable information about SNFs' quality of care.

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<sup>1</sup> World Health Organization. (n.d.). The burden of health care-associated infection worldwide. Retrieved from [https://www.who.int/gpsc/country\\_work/burden\\_hcai/en/](https://www.who.int/gpsc/country_work/burden_hcai/en/)

HAIs are associated with longer lengths of stay, use of higher-intensity care (e.g., critical care services and hospital readmissions), and increased mortality.<sup>2,3,4</sup> HAIs also lead to increased health care costs and present an economic burden.<sup>5,6,7</sup> Addressing HAIs in SNFs is particularly important because several factors place SNF residents at high risk for infection, including increased age, cognitive and functional decline, use of indwelling devices, frequent care transitions, and close contact with other residents and health care workers.<sup>8,9</sup> A recent report from the OIG (2014) estimated that 1 in 4 adverse events among SNF residents are due to HAIs and that more than half of all HAIs are potentially preventable.<sup>10</sup>

Existing literature indicates that there is opportunity for SNF providers to improve the quality of care they deliver. Infection prevention and control programs with core components in education, monitoring, and feedback on infection rates from surveillance programs or feedback on infection control practices from audits have been found to be successful interventions for reducing HAIs.<sup>11</sup> Past research shows that HAI rates are associated with staffing levels in nursing homes. For example, both urinary tract infections (UTIs) and multidrug resistant organisms (MDROs) rates were negatively related to the RN staff rating component of the Nursing Home Five-Star Quality Rating System.<sup>12</sup>

Preventing and reducing HAIs is crucial to delivering safe and high-quality care across the health care system and has been a priority objective at the federal, state, and local levels. For example, the Office of Disease Prevention and Health Promotion has created a National Action Plan to Prevent Health Care-Associated Infections, with specific attention to HAIs in long-term

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<sup>2</sup> Office of Inspector General. (2014). Adverse events in skilled nursing facilities: National incidence among Medicare beneficiaries. Retrieved from <https://oig.hhs.gov/oei/reports/oei-06-11-00370.pdf>

<sup>3</sup> Ouslander, J. G., Diaz, S., Hain, D., & Tappen, R. (2011). Frequency and diagnoses associated with 7- and 30-day readmission of skilled nursing facility patients to a nonteaching community hospital. *Journal of the American Medical Directors Association*, 12(3), 195–203. <http://dx.doi.org/10.1016/j.jamda.2010.02.015>

<sup>4</sup> Zimlichman, E., Henderson, D., Tamir, O., Franz, C., Song, P., Yamin, C. K., . . . Bates, D. W. (2013). Health care-associated infections: A meta-analysis of costs and financial impact on the US health care system. *JAMA Internal Medicine*, 173(22), 2039–2046. <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/1733452>

<sup>5</sup> Refer to footnote 2

<sup>6</sup> Refer to footnote 4

<sup>7</sup> Centers for Disease Control and Prevention (2009). The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospitals and the Benefits of Prevention. Retrieved from [https://www.cdc.gov/hai/pdfs/hai/scott\\_costpaper.pdf](https://www.cdc.gov/hai/pdfs/hai/scott_costpaper.pdf)

<sup>8</sup> Office of Disease Prevention and Health Promotion. (2013). Long-term care facilities. In U.S. Department of Health and Human Services, National action plan to prevent health care-associated infections: Road map to elimination (pp. 194-239). Retrieved from: <https://health.gov/our-work/health-care-quality/health-care-associated-infections/national-hai-action-plan>

<sup>9</sup> Montoya, A., & Mody, L. (2011). Common infections in nursing homes: A review of current issues and challenges. *Aging Health*, 7(6), 889–899. <http://dx.doi.org/10.2217/ahe.11.80>

<sup>10</sup> Refer to footnote 2

<sup>11</sup> Lee, M.H., Lee GA, Lee SH, Park YH (2019). Effectiveness and core components of infection prevention and control programmes in long-term care facilities: a systematic review. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/30794854/>

<sup>12</sup> Gucwa, A. L., Dolar, V., Ye, C., & Epstein, S. (2016). Correlations between quality ratings of skilled nursing facilities and multidrug-resistant urinary tract infections. *American Journal of Infection Control*, 44(11), 1256–1260. <https://dx.doi.org/10.1016/j.ajic.2016.03.015>

care facilities (LTCFs).<sup>13</sup> In 2017, CMS launched the Meaningful Measures framework. Making Care Safer by Reducing Harm Caused in the Delivery of Care is one of the six meaningful measure domains and is a companion priority for quality assurance and improvement work at CMS. The meaningful measure area of HAIs is under this domain.

As part of the measure development process, we sought input on the Skilled Nursing Facility (SNF) Healthcare-Associated Infections (HAIs) Requiring Hospitalizations measure concept and specifications from a technical expert panel (TEP). The TEP consisted of stakeholders with a diverse range of expertise, including SNF and post-acute care subject matter knowledge, clinical and infectious disease expertise (including representation from the Centers for Disease Control and Prevention), patient and family perspectives, and measure development experience. The TEP supported the measure concept and provided substantive input about the measure’s specifications. Subject matter experts also provided ongoing clinical and technical direction and expertise throughout the process. A summary of the TEP proceedings and discussion is included in the TEP Summary Report, available here:

[https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Downloads/SNF-HAI-Final-TEP-Report-7-15-19\\_508C.pdf](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Downloads/SNF-HAI-Final-TEP-Report-7-15-19_508C.pdf).

## **Descriptive Information:**

### **Measure Type**

Outcome

### **Population**

Medicare Fee-for-Service (FFS) SNF beneficiaries

### **Brief Measure Description**

*Skilled Nursing Facility (SNF) Healthcare-Associated Infections (HAIs) Requiring Hospitalizations measure* will estimate the risk-standardized rate of HAIs that are acquired during SNF care and result in hospitalization. SNF HAIs that are acquired during SNF care and result in hospitalization will be identified using the principal diagnosis on the Medicare hospital claims for SNF residents, during the time window beginning on day four after SNF admission and within day three after SNF discharge. The measure is risk adjusted to “level the playing field” to allow comparison based on residents with similar characteristics between SNFs.

It is important to recognize that HAIs in SNFs are not considered “never-events.” The goal of this risk-adjusted measure is to identify SNFs that have notably higher rates of HAIs that are acquired during SNF care and result in hospitalization, when compared to their peers.

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<sup>13</sup> Refer to footnote 7

## Crosscutting Areas

Make care safer by reducing harm caused in the delivery of care: Healthcare-associated infections.

### Measure Specifications:

The measure does not have a simple form for the numerator and denominator because the risk adjustment is incorporated into the measure calculation rather than applied after the observed rate is calculated. The purpose of risk adjustment is to account for risk factor differences across SNFs, when comparing quality of care between them. In other words, risk adjustment “levels the playing field” and allows for fairer quality-of-care comparisons between SNFs by controlling for differences in resident case-mix. Risk adjustment is particularly important for outcome measures because resident outcomes may be determined by factors such as age, gender, and health status that go beyond the quality of care delivered by SNFs. The statistical methods used to construct the measure’s risk adjusted numerator and denominator are described below.

### Numerator Statement and Details

#### *Measure Outcome (Unadjusted Numerator)*

The number of stays with an HAI acquired during SNF care and results in an inpatient hospitalization. The hospitalization must occur during the period beginning on day four after SNF admission and within three days of SNF discharge. Emergency department visits and observation stays are excluded from the numerator.

#### *HAI Definition*

The HAI definition was developed with input from a Technical Expert Panel and subject matter experts with clinical expertise specific to infectious diseases and the SNF population. See **Appendix A Table 1**. (columns A – C) for the draft list of HAI conditions. The HAI definition includes conditions selected based on the following conceptual criteria:

- Infections that are likely to be acquired during SNF care and severe enough to require hospitalization (e.g., life-threatening methicillin-resistant *Staphylococcus aureus* infections)
- Infections related to invasive (not implanted) medical devices (e.g., infections associated with catheters, insulin pumps, and central lines; infection of tracheostomy stoma)

The HAI definition excludes infections that meet any of the following criteria:

- Chronic infections (e.g. chronic viral hepatitis B with or without delta-agent)
- Infections that typically require a long period of time to present (e.g. typhoid arthritis)
- Infections that are likely related to the prior hospital stay (e.g. postprocedural retroperitoneal abscess)

- Sequela and subsequent encounter codes (e.g. sequelae of inflammatory diseases of central nervous system)
- Codes that include “causing disease classified elsewhere” (e.g. meningitis in bacterial diseases classified elsewhere)
- Codes likely to represent secondary infection, where the primary infection would likely already be coded (e.g. viral endocarditis, pericarditis, myocarditis or cardiomyopathy)
- Infections likely to be community acquired (e.g. echinococcus granulosus infection of liver)
- Infections common in other countries and/or acquired through animal contact (e.g. subacute and chronic melioidosis)
- Pre-existing infections that fall within the Center for Disease Control and Prevention’s (CDC) National Healthcare Safety Network (NHSN) Repeat Infection Timeframe (RIT) of 14 days.<sup>14</sup> The HAI measure applies a slight modification to the CDC NHSN’s RIT. Rather than using the date of infection identification (i.e., lab diagnosis date) as Day 1, HAI uses the prior IP discharge date as Day 1 since discharge indicates clinical stability. See *Appendix A Table 1* (columns D and E) for conditions that are considered as pre-existing on the prior qualifying hospital claims when linked to the principal diagnosis codes (column B) on the re-hospitalization claim

### *HAI Identification*

HAI are identified using the principal diagnosis code and the Present on Admission (POA) indicator on the re-hospitalization claim within a specified incubation window. The HAI definition applies a repeat infection timeline of 14 days to exclude pre-existing infections from the numerator count. The repeat infection timeline is defined as the number of days between inpatient (IP) stays, which is calculated by taking the difference between the discharge date of the most proximal IP stay prior to SNF admission and the admission date of the readmitting IP stay. Pre-existing infections are determined using all of the diagnosis codes on the prior IP claim immediately preceding the SNF admission. The pre-existing infection recorded in the prior proximal hospitalization must be a diagnosis that is related to the HAI recorded in the re-hospitalization. If the number of days between the re-hospitalization and the prior proximal hospitalization is less than 14 days and a pre-existing infection is recorded in any of the diagnosis codes for the prior IP stay, then the HAI is excluded from the numerator.

HAI are identified using the following steps:

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<sup>14</sup> Center for Disease Control and Prevention. (2020). Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance. Retrieved from [https://www.cdc.gov/nhsn/pdfs/pscmanual/2psc\\_identifyinghais\\_nhsncurrent.pdf](https://www.cdc.gov/nhsn/pdfs/pscmanual/2psc_identifyinghais_nhsncurrent.pdf)

Step 1: Identify IP readmissions beginning on day four of SNF stay and three days post-SNF discharge.

Step 2: Search for HAI diagnosis on the principal diagnosis of the readmitting IP claim.

- See *Appendix A Table 1*. (columns A – C) for the draft list of HAI diagnosis codes.
- If HAI diagnosis is found and it is marked as POA proceed with Step 3.
- If no HAI diagnosis is found, or if the HAI diagnosis is not marked as POA, then the readmission does not count toward the numerator.

Step 3: Calculate the number of days between IP stays to apply repeat infection timeline.

- Subtract the prior IP discharge date from the IP re-hospitalization admission date.
- If the number of days is less than 14 days, then search for HAI-related conditions in the prior IP stay. Proceed to Step 4.
- If the number of days is 14 days or greater, then do not account for diagnosis information recorded in prior IP stay. The case counts as an HAI and it is included in the numerator.

Step 4: Search for HAI-related condition in all diagnosis codes of the prior IP stay.

- See *Appendix A Table 1*. (columns D and E) for conditions that are considered as pre-existing.
- If a pre-existing condition is found, then exclude case from numerator.
- If a pre-existing condition is not found, then include case in the numerator.

### *Adjusted Numerator*

The final numerator is a risk-adjusted estimate of the number of SNF stays predicted to have an HAI that is acquired during SNF care and results in hospitalization. This estimate starts with the observed count of the measure outcome, which is then risk adjusted for resident characteristics (listed below) and a statistical estimate of the SNF effect beyond resident case mix. The SNF effect accounts for clustering of patients within the same facility and captures variation in the measure outcome across SNFs, which helps isolate the differences in measure performance that are due to provider-specific behavior and characteristics.

### **Denominator Statement and Details**

#### *Eligible Stays (Unadjusted Denominator)*

The eligible stays for this measure are all Medicare FFS SNF stays that do not meet the exclusion criteria during the measurement period. Residents who died during the SNF stay or

during the post-discharge window (three days after SNF discharge) and residents with a missing discharge date (or have “active” SNF stays) are included in the denominator. SNF stays are excluded from the denominator if they meet one or more of the following criteria:

1. Resident is less than 18 years old.  
Rationale: Residents under 18 years old are not included in the target population for this measure. There are few pediatric residents and they may have different patterns of care than adults.
2. The SNF length of stay was shorter than four days.  
Rationale: HAIs that require hospitalization beginning day four after SNF admission will be identified as SNF HAIs. SNF stays shorter than four days will not be long enough for identifying SNF HAIs.
3. Residents who were not continuously enrolled in Part A FFS Medicare during the SNF stay, 12 months prior to the measure period, and 3 days after the end of SNF stay.  
Rationale: Certain risk adjustment elements for this measure require information on acute inpatient claims for one year prior to the SNF admission, and acute care utilization must be observable in the observation window following discharge. Residents without Part A coverage or who are enrolled in Medicare Advantage plans will have incomplete inpatient claims.
4. Residents who did not have a short-term acute care hospital stay within 30 days prior to the SNF admission date. The short-term stay must have positive payment and positive length of stay.  
Rationale: This measure requires information from the prior short-term acute care hospital stay in the elements used for risk adjustment.
5. Residents who were transferred to a federal hospital from the SNF.  
Rationale: Residents who are transferred to federal hospitals will have incomplete inpatient claims.
6. Residents who received care from a provider located outside of the United States, Puerto Rico, or a U.S. territory.  
Rationale: Residents who received care from foreign providers may have incomplete inpatient claims, and these providers may not be subject to the same policy decisions related to the measure outcome.
7. SNF stays in which data were missing or problematic on any variable used in the measure construction or risk adjustment. This also includes stays where Medicare did not pay for the stay.  
Rationale: The measure calculation requires accurate and complete information from the SNF stay, prior short-term acute-care hospital stays, and resident characteristics used for risk adjustment.

### *Adjusted Denominator*

The measure denominator is the risk adjusted “expected” number of SNF stays with the measure outcome. The calculation of the “expected” number of stays starts with the total eligible SNF stays which is then risk adjusted for resident characteristics excluding the SNF effect. The “expected” number of stays with the measure outcome represents the predicted number of stays with the measure outcome if the same SNF residents were treated in the “average” SNF.

### **Risk Adjustment Type**

Statistical Risk Model

### **Statistical Risk Model and Variables**

The statistical risk model is a hierarchical logistic regression model, which predicts the probability of an HAI that is acquired during SNF care and results in hospitalization. Risk adjusters are predictor variables in the model. Resident characteristics related to each stay and a marker for the specific SNF will be included in the equation. The equation will be hierarchical in that both individual resident characteristics, as well as clustering of residents into SNFs, will be accounted for.

The model estimates both the average predictive effect of resident characteristics across all SNFs, and the degree to which each SNF has an effect on the outcome that differs from that of the average SNF. The SNF effect can be assumed to be randomly distributed around the average (according to a normal distribution). When computing the SNF effect, hierarchical modeling accounts for the known predictors of the outcome, on average, such as resident characteristics, the observed SNF rate for this outcome, and the number of SNF stays eligible for the measure. The estimated SNF effect will primarily be determined by the SNF’s own data if the number of stays is relatively large, as the estimate would be relatively precise. The estimated SNF effect will be adjusted toward the average if the number of stays is small, as small samples yield less precise estimates.

We used the following model:

Let  $Y_{ij}$ , denote the outcome (equal to 1 if the resident  $i$  has an HAI that is acquired during SNF care and results in hospitalization) for a resident  $i$  at SNF  $j$ ;  $Z_{ij}$  denotes a set of risk factors. We assume the outcome is related linearly to the covariates via a logit function with dispersion:

$$\text{logit}(P(Y_{ij} = 1 | Z_{ij})) = \log\left(\frac{P(Y_{ij} = 1 | Z_{ij})}{1 - P(Y_{ij} = 1 | Z_{ij})}\right) = \alpha_j + \beta * Z_{ij} + \varepsilon_{ij}$$

$$\alpha_j = \mu + \omega_j ; \omega_j \sim N(0, \tau^2)$$

where  $Z_{ij} = (Z_{ij1}, Z_{ij2}, \dots, Z_{ijk})$  is a set of  $k$  resident-level covariates.  $\alpha_j$  represents the SNF specific intercept of the  $j$ -th SNF which is assumed to follow a normal distribution;  $\mu$  is the adjusted average outcome over all SNF providers; and  $\tau^2$  is the between SNF variance component; and  $\omega_j$  is the SNF-specific deviation from the adjusted average  $\mu$ ; and  $\varepsilon \sim N(0, \sigma^2)$  is

the error term. The hierarchical logistic regression model is estimated using Stata 16 software<sup>15</sup> (melogit).

The estimated equation will be used twice in the measure. The sum of the probabilities of HAIs, including both the effects of resident characteristics and SNFs, will be the “predicted number” of HAIs that are acquired during SNF care and result in hospitalization after adjusting for case mix. The same equation will be used without the SNF effect to compute the “expected number” for the same residents at a SNF whose quality is at the national average level. The ratio of the predicted-to-expected number of HAIs will measure the degree to which the number of HAIs that are acquired during SNF care and result in hospitalization are higher or lower than what would otherwise be expected. This ratio is called the standardized risk ratio, which will then be multiplied by the overall observed rate of the measure outcome in the target population (all SNF stays included in the measure) to obtain the risk adjusted rate of HAIs that are acquired during SNF care and result in hospitalization, for each SNF.

The following risk adjustment variables are considered and under testing:

- Age/sex categories
- Original reason for Medicare entitlement (age and disability/ESRD)
- Surgery category (if present) on prior short-term claim (e.g., cardiothoracic, orthopedic), grouped using the Clinical Classification Software (CCS) for ICD-10 procedures developed by the Agency for Healthcare Research and Quality (AHRQ)<sup>16</sup>
- Receiving dialysis but not ESRD patients (defined as beneficiaries who receive ESRD Medicare benefits)
- Principal diagnosis on prior short-term claim, grouped clinically using the CCS for ICD-10 diagnoses developed by AHRQ
- Comorbidities from secondary diagnoses on the prior short-term claim and diagnoses from earlier short-term stays up to one year before SNF admission (these are clustered using the Hierarchical Condition Categories [HCC] software version 22 groups used by CMS)
- Length of stay in the prior short-term hospital stay (categorical to account for nonlinearity)
- Prior acute ICU/CCU utilization in the prior short-term hospital stay

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<sup>15</sup> StataCorp. 2019. Stata Statistical Software: Release 16. College Station, TX: StataCorp LLC.

<sup>16</sup> Surgery categories were developed for the Hospital-Wide All-Cause Unplanned Readmission measure and are available in SAS programs that are maintained and available upon request.

- Count of prior short-term discharges within a one-year lookback from the SNF admission date, excluding the most proximal hospitalization claim prior to the SNF admission

The data used in the risk model are available through the data sources listed below; no new data collection is required.

**Type of Score**

Rate/proportion

**Interpretation of Score**

Lower scores indicate better quality of care

**Measure Calculation Algorithm**

The following steps describe the calculation algorithm:

Step 1: Identify residents meeting the denominator (eligible stays) criteria.

Step 2: Identify residents meeting the numerator criteria, i.e., HAIs that are acquired during SNF care and result in hospitalization, beginning day four after SNF admission and within three days of SNF discharge. An HAI is excluded from the numerator if it is a pre-existing infection. A pre-existing infection is defined as an HAI that was reported in any of the diagnosis code fields on the most proximal hospitalization claim prior to the SNF admission with a discharge date that is less than 14 days from the admission date of the readmitting inpatient (IP) stay. The pre-existing infection recorded in the prior proximal hospitalization must be a diagnosis that is related to the HAI recorded in the re-hospitalization.

Step 3: Identify presence or absence of risk adjustment variables for each resident.

Step 4: Calculate the predicted and expected number of HAIs that are acquired during SNF care and result in hospitalization for each SNF using the hierarchical logistic regression model.

The predicted number of HAIs is calculated as the sum of the predicted probability of having an HAI that is acquired during SNF care and results in hospitalization for each resident included in the measure from the SNF, including the SNF-specific effect. The model-specific standardized risk ratio of HAIs that are acquired during SNF care and result in hospitalization for each SNF is calculated as follows:

To calculate the predicted number of HAIs pred<sub>j</sub> for SNF stays at provider *j*, we used

$$\text{pred}_j = \frac{\exp(\widehat{\alpha}_j + \widehat{\beta} * Z_{ij})}{\exp(\widehat{\alpha}_j + \widehat{\beta} * Z_{ij}) + 1}$$

where the sum is the overall stays in provider *j*. To calculate the expected number exp<sub>j</sub>, we used

$$\text{exp}_j = \frac{\exp(\hat{\mu} + \hat{\beta} * Z_{ij})}{\exp(\hat{\mu} + \hat{\beta} * Z_{ij}) + 1}$$

Then, as a measure of excess or reduced HAIs that are acquired during SNF care and result in hospitalization among stays at SNF provider  $j$ , we calculate the provider-wide standardized risk ratio,  $SRR_j$ , as

$$SRR_j = \frac{\text{Predicted Value}_j}{\text{Expected Value}_j} = \frac{\sum \text{logit}^{-1}(\hat{\alpha}_j + \hat{\beta} * Z_{ij})}{\sum \text{logit}^{-1}(\hat{\mu} + \hat{\beta} * Z_{ij})}$$

**Step 5:** Calculate the standardized risk ratio for each SNF as the ratio of the predicted to expected number of HAIs that are acquired during SNF care and result in hospitalization. The value obtained from equation above, the  $SRR_j$ , is the SNF provider-wide standardized risk ratio for provider  $j$ .

**Step 6:** Calculate the risk-adjusted rate of HAIs that are acquired during SNF care and result in hospitalization for each SNF, by multiplying the  $SRR_j$  (calculated in Step 5) by the overall national observed rate of HAIs for all SNF stays,  $\bar{Y}$ .

$$\text{Risk-adjusted rate of HAIs} = SRR_j * \bar{Y}$$

NOTE: Because the statistic described in Step six is a complex function of parameter estimates, re-sampling and simulation techniques (e.g., bootstrapping) may be necessary to derive a confidence interval estimate for the final risk adjusted rate, to characterize the uncertainty of the estimate.

### **Missing Data**

Observations with missing data for any of the covariates in the risk adjustment model will be excluded from the sample; however, given the data source is claims data, issues with missing data are anticipated to be minimal.

### **Data Sources**

This measure uses data from the Medicare eligibility database (EDB), SNF claims, and inpatient claims, which are basic to the operation of the Medicare payment systems. The EDB file provides information on residents' date of birth, demographics, and periods of Part A enrollment. Data elements from the SNF claims include residents' date of admission and discharge. Inpatient claims provide hospitalization information and diagnoses, as well as elements used for risk adjustment including residents' prior acute care utilization. This measure is calculated entirely using administrative claims data. There will be no additional data collection or submission burden for SNF providers.

### **Level of Analysis**

- Facility

### **Care Settings**

- Skilled Nursing Facility

## **Feasibility**

The measure is constructed entirely from Medicare FFS claims, which are already collected by CMS for payment and quality purposes. Claims data are considered accurate and reliable for measure development, as they are used for payment and subject to audit. Claims data are used to calculate quality measures that are implemented and publicly reported in CMS QRPs, including the inpatient and post-acute care QRPs. The data needed to calculate this measure are readily available and require no additional data submission beyond what is already collected on claims in the normal course of business. This measure poses no additional data collection burden to SNF providers.

## **Usability and Use**

CMS is developing the *SNF HAIs Requiring Hospitalizations* measure for future public reporting in the SNF setting. This measure will provide valuable information regarding SNF quality of care to consumers and allow SNF providers to track and improve their performance in this measure area.

One potential unintended consequence of this measure is that it may lead SNFs to selectively enroll residents, either by encouraging or avoiding admission of certain types of residents and residents with certain characteristics. The measure could also incentivize very short SNF stays leading to inadequate care, since the measure excludes SNF stays shorter than 4 days. Providers' performance is evaluated among their peers after adjusting for difference in resident case-mix across SNFs. The risk adjustment methodology applied to this measure will help mitigate providers' incentive to selectively enroll residents or transfer residents to hospitals early. The variables included in the risk adjustment model are designed to capture resident characteristics that are associated with higher rates of HAIs. Therefore, providers' performance on this measure will be adjusted for the characteristics of their resident population and "level the playing field" across providers. If implemented, this measure will be monitored to identify unintended consequence, including patient selection patterns, which could lead to future re-specification of the measure as needed.

## **Related and Competing Measures**

Related measures include:

- NQF #0684: Percent of Residents with a Urinary Tract Infection (Long-Stay) (NQF #0684)
- NQF #0138: National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infections (CAUTI)
- NQF #0139: NHSN Central Line-Associated Bloodstream Infections (CLABSI)
- NQF #1717: NHSN Facility-Wide Inpatient Hospital-onset *Clostridium difficile* Infection Outcome Measure
- Skilled Nursing Facility 30-Day Potentially Preventable Readmission after Hospital Discharge measure (SNFPPR)

- NQF #2510: Skilled Nursing Facility 30-Day All-Cause Readmission measure (SNFRM)
- Potentially Preventable 30-Day Post-Discharge Readmission Measure for SNF QRP

None of these measures directly compete with *Skilled Nursing Facility (SNF) Healthcare-Associated Infections (HAIs) Requiring Hospitalizations*. NQF #0684, NQF #0138, NQF #0139 and NQF #1717 all report on specific types of infections rather than on the overall HAI rate and are not specific to the SNF setting. SNFPPR, SNFRM, and Potentially Preventable 30-Day Post-Discharge Readmission Measure for SNF QRP are not focused on infections. Rather, the existing SNF readmission measures assess readmissions due to several reasons such as inadequate management of chronic conditions, inadequate injury prevention and inadequate management of other unplanned events and include readmissions due to infection without accounting for pre-existing or repeated infections. Additionally, there are no measures that focus on HAIs acquired during the SNF stay that require hospitalization, a criterion that can be used to assess the severity of infections, and SNF providers' management of these infections. Thus, The HAI measure focuses on severe infections and captures several infection types in the SNF setting to generate actionable data on infection rates that can be used to target quality improvement in the highest impact areas.

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**APPENDIX A**

**Table 1. Draft ICD-10 codes for Identifying Skilled Nursing Facility Healthcare-Associated Infections Requiring Hospitalizations**

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Infections related to devices or stumps	T80211A	Bloodstream infection due to central venous catheter, initial encounter	T80211A	Bloodstream infection due to central venous catheter, initial encounter
			T80212A	Local infection due to central venous catheter, initial encounter
			T80218A	Other infection due to central venous catheter, initial encounter
			T80219A	Unspecified infection due to central venous catheter, initial encounter
	T80212A	Local infection due to central venous catheter, initial encounter	T80212A	Local infection due to central venous catheter, initial encounter
			T80218A	Other infection due to central venous catheter, initial encounter
			T80219A	Unspecified infection due to central venous catheter, initial encounter
	T80218A	Other infection due to central venous catheter, initial encounter	T80218A	Other infection due to central venous catheter, initial encounter
			T80212A	Local infection due to central venous catheter, initial encounter
			T80219A	Unspecified infection due to central venous catheter, initial encounter
	T80219A	Unspecified infection due to central venous catheter, initial encounter	T80219A	Unspecified infection due to central venous catheter, initial encounter

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Infections related to devices or stumps	T80219A	Unspecified infection due to central venous catheter, initial encounter	T80218A	Other infection due to central venous catheter, initial encounter
			T80212A	Local infection due to central venous catheter, initial encounter
	T83510A	Infection and inflammatory reaction due to cystostomy catheter, initial encounter	T83510A	Infection and inflammatory reaction due to cystostomy catheter, initial encounter
			T83511A	Infection and inflammatory reaction due to indwelling urethral catheter, initial encounter
			T83512A	Infection and inflammatory reaction due to nephrostomy catheter, initial encounter
			T83518A	Infection and inflammatory reaction due to other urinary catheter, initial encounter
	T83511A	Infection and inflammatory reaction due to indwelling urethral catheter, initial encounter	T83510A	Infection and inflammatory reaction due to cystostomy catheter, initial encounter
			T83511A	Infection and inflammatory reaction due to indwelling urethral catheter, initial encounter
			T83512A	Infection and inflammatory reaction due to nephrostomy catheter, initial encounter
			T83518A	Infection and inflammatory reaction due to other urinary catheter, initial encounter
T83512A	Infection and inflammatory reaction due to nephrostomy catheter, initial encounter	T83510A	Infection and inflammatory reaction due to cystostomy catheter, initial encounter	
		T83511A	Infection and inflammatory reaction due to indwelling urethral catheter, initial encounter	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Infections related to devices or stumps	T83512A	Infection and inflammatory reaction due to nephrostomy catheter, initial encounter	T83512A	Infection and inflammatory reaction due to nephrostomy catheter, initial encounter
			T83518A	Infection and inflammatory reaction due to other urinary catheter, initial encounter
	T83518A	Infection and inflammatory reaction due to other urinary catheter, initial encounter	T83510A	Infection and inflammatory reaction due to cystostomy catheter, initial encounter
			T83511A	Infection and inflammatory reaction due to indwelling urethral catheter, initial encounter
			T83512A	Infection and inflammatory reaction due to nephrostomy catheter, initial encounter
			T83518A	Infection and inflammatory reaction due to other urinary catheter, initial encounter
	T83590A	Infection and inflammatory reaction due to implanted urinary neurostimulation device, initial encounter	T83590A	Infection and inflammatory reaction due to implanted urinary neurostimulation device, initial encounter
			T83591A	Infection and inflammatory reaction due to implanted urinary sphincter, initial encounter
			T83592A	Infection and inflammatory reaction due to indwelling ureteral stent, initial encounter
			T83593A	Infection and inflammatory reaction due to other urinary stents, initial encounter
			T83598A	Infection and inflammatory reaction due to other prosthetic device, implant and graft in urinary system, initial encounter

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Infections related to devices or stumps	T83591A	Infection and inflammatory reaction due to implanted urinary sphincter, initial encounter	T83590A	Infection and inflammatory reaction due to implanted urinary neurostimulation device, initial encounter
			T83591A	Infection and inflammatory reaction due to implanted urinary sphincter, initial encounter
			T83592A	Infection and inflammatory reaction due to indwelling ureteral stent, initial encounter
			T83593A	Infection and inflammatory reaction due to other urinary stents, initial encounter
			T83598A	Infection and inflammatory reaction due to other prosthetic device, implant and graft in urinary system, initial encounter
	T83592A	Infection and inflammatory reaction due to indwelling ureteral stent, initial encounter	T83590A	Infection and inflammatory reaction due to implanted urinary neurostimulation device, initial encounter
			T83591A	Infection and inflammatory reaction due to implanted urinary sphincter, initial encounter
			T83592A	Infection and inflammatory reaction due to indwelling ureteral stent, initial encounter
			T83593A	Infection and inflammatory reaction due to other urinary stents, initial encounter
			T83598A	Infection and inflammatory reaction due to other prosthetic device, implant and graft in urinary system, initial encounter

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Infections related to devices or stumps	T83593A	Infection and inflammatory reaction due to other urinary stents, initial encounter	T83590A	Infection and inflammatory reaction due to implanted urinary neurostimulation device, initial encounter
			T83591A	Infection and inflammatory reaction due to implanted urinary sphincter, initial encounter
			T83592A	Infection and inflammatory reaction due to indwelling ureteral stent, initial encounter
			T83593A	Infection and inflammatory reaction due to other urinary stents, initial encounter
			T83598A	Infection and inflammatory reaction due to other prosthetic device, implant and graft in urinary system, initial encounter
	T83598A	Infection and inflammatory reaction due to other prosthetic device, implant and graft in urinary system, initial encounter	T83590A	Infection and inflammatory reaction due to implanted urinary neurostimulation device, initial encounter
			T83591A	Infection and inflammatory reaction due to implanted urinary sphincter, initial encounter
			T83592A	Infection and inflammatory reaction due to indwelling ureteral stent, initial encounter
			T83593A	Infection and inflammatory reaction due to other urinary stents, initial encounter
			T83598A	Infection and inflammatory reaction due to other prosthetic device, implant and graft in urinary system, initial encounter

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Infections related to devices or stumps	T8361XA	Infection and inflammatory reaction due to implanted penile prosthesis, initial encounter	T8361XA	Infection and inflammatory reaction due to implanted penile prosthesis, initial encounter
			T8362XA	Infection and inflammatory reaction due to implanted testicular prosthesis, initial encounter
			T8369XA	Infection and inflammatory reaction due to other prosthetic device, implant and graft in genital tract, initial encounter
	T8362XA	Infection and inflammatory reaction due to implanted testicular prosthesis, initial encounter	T8361XA	Infection and inflammatory reaction due to implanted penile prosthesis, initial encounter
			T8362XA	Infection and inflammatory reaction due to implanted testicular prosthesis, initial encounter
			T8369XA	Infection and inflammatory reaction due to other prosthetic device, implant and graft in genital tract, initial encounter
	T8369XA	Infection and inflammatory reaction due to other prosthetic device, implant and graft in genital tract, initial encounter	T8361XA	Infection and inflammatory reaction due to implanted penile prosthesis, initial encounter
			T8362XA	Infection and inflammatory reaction due to implanted testicular prosthesis, initial encounter
			T8369XA	Infection and inflammatory reaction due to other prosthetic device, implant and graft in genital tract, initial encounter

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Infections related to devices or stumps	T8571XA	Infection and inflammatory reaction due to peritoneal dialysis catheter, initial encounter	T8571XA	Infection and inflammatory reaction due to peritoneal dialysis catheter, initial encounter
	T8572XA	Infection and inflammatory reaction due to insulin pump, initial encounter	T8572XA	Infection and inflammatory reaction due to insulin pump, initial encounter
	T86822	Skin graft (allograft) (autograft) infection	T86822	Skin graft (allograft) (autograft) infection
	T880XXA	Infection following immunization, initial encounter	T880XXA	Infection following immunization, initial encounter
	T8740	Infection of amputation stump, unspecified extremity	T8740	Infection of amputation stump, unspecified extremity
	T8741	Infection of amputation stump, right upper extremity	T8741	Infection of amputation stump, right upper extremity
				T8740
	T8742	Infection of amputation stump, left upper extremity	T8742	Infection of amputation stump, left upper extremity
				T8740
	T8743	Infection of amputation stump, right lower extremity	T8743	Infection of amputation stump, right lower extremity
T8740				Infection of amputation stump, unspecified extremity
T8744	Infection of amputation stump, left lower extremity	T8744	Infection of amputation stump, left lower extremity	
			T8740	Infection of amputation stump, unspecified extremity
Ear/eye infections	B300	Keratoconjunctivitis due to adenovirus	B300	Keratoconjunctivitis due to adenovirus

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim		
Column A:	Column B:	Column C:	Column D:	Column E:	
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)	
Ear/eye infections	B300	Keratoconjunctivitis due to adenovirus	B308 B309	Other viral conjunctivitis Viral conjunctivitis, unspecified	
	B301	Conjunctivitis due to adenovirus	B301 B308 B309	Conjunctivitis due to adenovirus Other viral conjunctivitis Viral conjunctivitis, unspecified	
	B302	Viral pharyngoconjunctivitis	B302 B308 B309	Viral pharyngoconjunctivitis Other viral conjunctivitis Viral conjunctivitis, unspecified	
	B303	Acute epidemic hemorrhagic conjunctivitis (enteroviral)	B303	B303	Acute epidemic hemorrhagic conjunctivitis (enteroviral)
			B308	B308	Other viral conjunctivitis
			B309	B309	Viral conjunctivitis, unspecified
	B308	Other viral conjunctivitis	B308 B309	Other viral conjunctivitis Viral conjunctivitis, unspecified	
	B309	Viral conjunctivitis, unspecified	B309	B309	Viral conjunctivitis, unspecified
			B308	B308	Other viral conjunctivitis
	H05011	Cellulitis of right orbit	H05011	H05011	Cellulitis of right orbit
	H05012	Cellulitis of left orbit	H05012	H05012	Cellulitis of left orbit
	H05013	Cellulitis of bilateral orbits	H05013	H05013	Cellulitis of bilateral orbits
	H02019	Cicatricial entropion of unspecified eye, unspecified eyelid	H02019	H02019	Cicatricial entropion of unspecified eye, unspecified eyelid
			H05011	H05011	Cellulitis of right orbit
			H05012	H05012	Cellulitis of left orbit

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Ear/eye infections	H02019	Cicatricial entropion of unspecified eye, unspecified eyelid	H05013	Cellulitis of bilateral orbits
Gastrointestinal infections	A020	Salmonella enteritis	A020	Salmonella enteritis
			A029	Salmonella infection, unspecified
			A0220	Localized salmonella infection, unspecified
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A021	Salmonella sepsis	A021	Salmonella sepsis
			A029	Salmonella infection, unspecified
			A0220	Localized salmonella infection, unspecified
	A0220	Localized salmonella infection, unspecified	A0220	Localized salmonella infection, unspecified
			A029	Salmonella infection, unspecified
	A0223	Salmonella arthritis	A0223	Salmonella arthritis
			A029	Salmonella infection, unspecified
			A0220	Localized salmonella infection, unspecified

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Gastrointestinal infections	A0224	Salmonella osteomyelitis	A0224	Salmonella osteomyelitis
			A029	Salmonella infection, unspecified
			A0220	Localized salmonella infection, unspecified
	A0225	Salmonella pyelonephritis	A0225	Salmonella pyelonephritis
			A029	Salmonella infection, unspecified
			A0220	Localized salmonella infection, unspecified
	A0229	Salmonella with other localized infection	A0229	Salmonella with other localized infection
			A029	Salmonella infection, unspecified
			A0220	Localized salmonella infection, unspecified
	A028	Other specified salmonella infections	A028	Other specified salmonella infections
			A029	Salmonella infection, unspecified
			A0220	Localized salmonella infection, unspecified
A029	Salmonella infection, unspecified	A029	Salmonella infection, unspecified	
		A0220	Localized salmonella infection, unspecified	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Gastrointestinal infections	A030	Shigellosis due to Shigella dysenteriae	A030	Shigellosis due to Shigella dysenteriae
			A039	Shigellosis, unspecified
	A031	Shigellosis due to Shigella flexneri	A031	Shigellosis due to Shigella flexneri
			A039	Shigellosis, unspecified
	A032	Shigellosis due to Shigella boydii	A032	Shigellosis due to Shigella boydii
			A039	Shigellosis, unspecified
	A033	Shigellosis due to Shigella sonnei	A033	Shigellosis due to Shigella sonnei
			A039	Shigellosis, unspecified
	A038	Other shigellosis	A038	Other shigellosis
			A039	Shigellosis, unspecified
	A039	Shigellosis, unspecified	A039	Shigellosis, unspecified
	A040	Enteropathogenic Escherichia coli infection	A040	Enteropathogenic Escherichia coli infection
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Gastrointestinal infections	A041	Enterotoxigenic Escherichia coli infection	A041	Enterotoxigenic Escherichia coli infection
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A042	Enteroinvasive Escherichia coli infection	A042	Enteroinvasive Escherichia coli infection
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A043	Enterohemorrhagic Escherichia coli infection	A043	Enterohemorrhagic Escherichia coli infection
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A044	Other intestinal Escherichia coli infections	A044	Other intestinal Escherichia coli infections
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A045	Campylobacter enteritis	A045	Campylobacter enteritis
			A049	Bacterial intestinal infection, unspecified

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Gastrointestinal infections	A045	Campylobacter enteritis	A09	Infectious gastroenteritis and colitis, unspecified
	A046	Enteritis due to Yersinia enterocolitica	A046	Enteritis due to Yersinia enterocolitica
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A0472	Enterocolitis due to Clostridium difficile, not specified as recurrent	A0472	Enterocolitis due to Clostridium difficile, not specified as recurrent
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A048	Other specified bacterial intestinal infections	A048	Other specified bacterial intestinal infections
			A049	Bacterial intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A049	Bacterial intestinal infection, unspecified	A049	Bacterial intestinal infection, unspecified
	A073	Isosporiasis	A073	Isosporiasis
			A09	Infectious gastroenteritis and colitis, unspecified
A074	Cyclosporiasis	A074	Cyclosporiasis	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Gastrointestinal infections	A074	Cyclosporiasis	A09	Infectious gastroenteritis and colitis, unspecified
	A078	Other specified protozoal intestinal diseases	A078	Other specified protozoal intestinal diseases
	A0811	Acute gastroenteropathy due to Norwalk agent	A09	Infectious gastroenteritis and colitis, unspecified
			A0811	Acute gastroenteropathy due to Norwalk agent
			A084	Viral intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A0819	Acute gastroenteropathy due to other small round viruses	A0819	Acute gastroenteropathy due to other small round viruses
			A084	Viral intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A082	Adenoviral enteritis	A082	Adenoviral enteritis
			A084	Viral intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A0831	Calicivirus enteritis	A0831	Calicivirus enteritis
A084			Viral intestinal infection, unspecified	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Gastrointestinal infections	A0831	Calicivirus enteritis	A09	Infectious gastroenteritis and colitis, unspecified
	A0832	Astrovirus enteritis	A0832	Astrovirus enteritis
			A084	Viral intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A0839	Other viral enteritis	A0839	Other viral enteritis
			A084	Viral intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A084	Viral intestinal infection, unspecified	A084	Viral intestinal infection, unspecified
			A09	Infectious gastroenteritis and colitis, unspecified
	A088	Other specified intestinal infections	A088	Other specified intestinal infections
			A09	Infectious gastroenteritis and colitis, unspecified
	A09	Infectious gastroenteritis and colitis, unspecified	A09	Infectious gastroenteritis and colitis, unspecified
	A329	Listeriosis, unspecified	A329	Listeriosis, unspecified
A691	Other Vincent's infections	A691	Other Vincent's infections	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Gastrointestinal infections	B150	Hepatitis A with hepatic coma	B150	Hepatitis A with hepatic coma
			B179	Acute viral hepatitis, unspecified
			B199	Unspecified viral hepatitis without hepatic coma
	B159	Hepatitis A without hepatic coma	B159	Hepatitis A without hepatic coma
			B179	Acute viral hepatitis, unspecified
			B199	Unspecified viral hepatitis without hepatic coma
	B169	Acute hepatitis B without delta-agent and without hepatic coma	B169	Acute hepatitis B without delta-agent and without hepatic coma
			B179	Acute viral hepatitis, unspecified
			B1910	Unspecified viral hepatitis B without hepatic coma
			B199	Unspecified viral hepatitis without hepatic coma
	B1710	Acute hepatitis C without hepatic coma	B1710	Acute hepatitis C without hepatic coma
			B179	Acute viral hepatitis, unspecified
B1920			Unspecified viral hepatitis C without hepatic coma	
B199			Unspecified viral hepatitis without hepatic coma	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Gastrointestinal infections	B1711	Acute hepatitis C with hepatic coma	B1711	Acute hepatitis C with hepatic coma
			B179	Acute viral hepatitis, unspecified
			B1920	Unspecified viral hepatitis C without hepatic coma
			B199	Unspecified viral hepatitis without hepatic coma
	B178	Other specified acute viral hepatitis	B178	Other specified acute viral hepatitis
			B179	Acute viral hepatitis, unspecified
			B199	Unspecified viral hepatitis without hepatic coma
	B179	Acute viral hepatitis, unspecified	B179	Acute viral hepatitis, unspecified
			B199	Unspecified viral hepatitis without hepatic coma
	B1910	Unspecified viral hepatitis B without hepatic coma	B1910	Unspecified viral hepatitis B without hepatic coma
			B199	Unspecified viral hepatitis without hepatic coma
	B1920	Unspecified viral hepatitis C without hepatic coma	B1920	Unspecified viral hepatitis C without hepatic coma
			B199	Unspecified viral hepatitis without hepatic coma
	B199	Unspecified viral hepatitis without hepatic coma	B199	Unspecified viral hepatitis without hepatic coma

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Gastrointestinal infections	K9402	Colostomy infection	K9402	Colostomy infection
	K9422	Gastrostomy infection	K9422	Gastrostomy infection
Genito-urinary infections	N10	Acute pyelonephritis	N10	Acute pyelonephritis
			N390	Urinary tract infection, site not specified
	N3001	Acute cystitis with hematuria	N3001	Acute cystitis with hematuria
			N390	Urinary tract infection, site not specified
			N3000	Acute cystitis without hematuria
	N3000	Acute cystitis without hematuria	N3000	Acute cystitis without hematuria
			N390	Urinary tract infection, site not specified
	N340	Urethral abscess	N340	Urethral abscess
			N390	Urinary tract infection, site not specified
	N390	Urinary tract infection, site not specified	N390	Urinary tract infection, site not specified
N410	Acute prostatitis	N410	Acute prostatitis	
		N390	Urinary tract infection, site not specified	
		N451	Epididymitis	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Genito-urinary infections	N451	Epididymitis	N451	Epididymitis
	N453	Epididymo-orchitis	N453	Epididymo-orchitis
			N451	Epididymitis
	N454	Abscess of epididymis or testis	N454	Abscess of epididymis or testis
			N451	Epididymitis
	N493	Fournier gangrene	N493	Fournier gangrene
			N390	Urinary tract infection, site not specified
	N99511	Cystostomy infection	N99511	Cystostomy infection
			N390	Urinary tract infection, site not specified
	N99521	Infection of incontinent external stoma of urinary tract	N99521	Infection of incontinent external stoma of urinary tract
N390			Urinary tract infection, site not specified	
N99531	Infection of continent stoma of urinary tract	N99531	Infection of continent stoma of urinary tract	
		N390	Urinary tract infection, site not specified	
Neurological infections	A390	Meningococcal meningitis	A390	Meningococcal meningitis

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Neurological infections	A390	Meningococcal meningitis	A399	Meningococcal infection, unspecified
			G039	Meningitis, unspecified
	A392	Acute meningococemia	A392	Acute meningococemia
			A399	Meningococcal infection, unspecified
			A394	Meningococemia, unspecified
	A394	Meningococemia, unspecified	A394	Meningococemia, unspecified
	A3981	Meningococcal encephalitis	A3981	Meningococcal encephalitis
			A399	Meningococcal infection, unspecified
	A3982	Meningococcal retrobulbar neuritis	A3982	Meningococcal retrobulbar neuritis
			A399	Meningococcal infection, unspecified
	A3989	Other meningococcal infections	A3989	Other meningococcal infections
			A399	Meningococcal infection, unspecified
	A399	Meningococcal infection, unspecified	A399	Meningococcal infection, unspecified
A850	Enteroviral encephalitis	A850	Enteroviral encephalitis	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Neurological infections	A850	Enteroviral encephalitis	A86	Unspecified viral encephalitis
	A851	Adenoviral encephalitis	A851	Adenoviral encephalitis
			A86	Unspecified viral encephalitis
	A858	Other specified viral encephalitis	A858	Other specified viral encephalitis
			A86	Unspecified viral encephalitis
	A86	Unspecified viral encephalitis	A86	Unspecified viral encephalitis
			A86	Unspecified viral encephalitis
	A870	Enteroviral meningitis	A870	Enteroviral meningitis
			G039	Meningitis, unspecified
			A879	Viral meningitis, unspecified
	A871	Adenoviral meningitis	A871	Adenoviral meningitis
			G039	Meningitis, unspecified
			A879	Viral meningitis, unspecified
A878	Other viral meningitis	A878	Other viral meningitis	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Neurological infections	A878	Other viral meningitis	G039	Meningitis, unspecified
			A879	Viral meningitis, unspecified
	A879	Viral meningitis, unspecified	A879	Viral meningitis, unspecified
			G039	Meningitis, unspecified
	G001	Pneumococcal meningitis	G001	Pneumococcal meningitis
			G039	Meningitis, unspecified
			G009	Bacterial meningitis, unspecified
	G002	Streptococcal meningitis	G002	Streptococcal meningitis
			G039	Meningitis, unspecified
			G009	Bacterial meningitis, unspecified
	G003	Staphylococcal meningitis	G003	Staphylococcal meningitis
			G039	Meningitis, unspecified
			G009	Bacterial meningitis, unspecified
	G008	Other bacterial meningitis	G008	Other bacterial meningitis

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Neurological infections	G008	Other bacterial meningitis	G039	Meningitis, unspecified
			G009	Bacterial meningitis, unspecified
	G009	Bacterial meningitis, unspecified	G009	Bacterial meningitis, unspecified
			G039	Meningitis, unspecified
	G038	Meningitis due to other specified causes	G038	Meningitis due to other specified causes
G039			Meningitis, unspecified	
G039	Meningitis, unspecified	G039	Meningitis, unspecified	
Respiratory infections	A3700	Whooping cough due to Bordetella pertussis without pneumonia	A3700	Whooping cough due to Bordetella pertussis without pneumonia
			A3790	Whooping cough, unspecified species without pneumonia
	A3701	Whooping cough due to Bordetella pertussis with pneumonia	A3701	Whooping cough due to Bordetella pertussis with pneumonia
			A3700	Whooping cough due to Bordetella pertussis without pneumonia
			A3790	Whooping cough, unspecified species without pneumonia
A3791	Whooping cough, unspecified species with pneumonia	A3791	Whooping cough, unspecified species with pneumonia	
A3710	Whooping cough due to Bordetella parapertussis without pneumonia	A3710	Whooping cough due to Bordetella parapertussis without pneumonia	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	A3710	Whooping cough due to Bordetella parapertussis without pneumonia	A3790	Whooping cough, unspecified species without pneumonia
	A3711	Whooping cough due to Bordetella parapertussis with pneumonia	A3711	Whooping cough due to Bordetella parapertussis with pneumonia
			A3710	Whooping cough due to Bordetella parapertussis without pneumonia
			A3790	Whooping cough, unspecified species without pneumonia
			A3791	Whooping cough, unspecified species with pneumonia
	A3780	Whooping cough due to other Bordetella species without pneumonia	A3780	Whooping cough due to other Bordetella species without pneumonia
			A3790	Whooping cough, unspecified species without pneumonia
	A3781	Whooping cough due to other Bordetella species with pneumonia	A3781	Whooping cough due to other Bordetella species with pneumonia
			A3780	Whooping cough due to other Bordetella species without pneumonia
			A3790	Whooping cough, unspecified species without pneumonia
			A3791	Whooping cough, unspecified species with pneumonia
	A3790	Whooping cough, unspecified species without pneumonia	A3790	Whooping cough, unspecified species without pneumonia
A3791	Whooping cough, unspecified species with pneumonia	A3791	Whooping cough, unspecified species with pneumonia	
		A3790	Whooping cough, unspecified species without pneumonia	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim		
Column A:	Column B:	Column C:	Column D:	Column E:	
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)	
Respiratory infections	A481	Legionnaires' disease	A481	Legionnaires' disease	
	A482	Nonpneumonic Legionnaires' disease [Pontiac fever]	A482	Nonpneumonic Legionnaires' disease [Pontiac fever]	
	B340	Adenovirus infection, unspecified	B340	Adenovirus infection, unspecified	
	B341	Enterovirus infection, unspecified	B341	Enterovirus infection, unspecified	
	B342	Coronavirus infection, unspecified	B342	Coronavirus infection, unspecified	
	J00	Acute nasopharyngitis [common cold]		J00	Acute nasopharyngitis [common cold]
				J069	Acute upper respiratory infection, unspecified
	J09X1	Influenza due to identified novel influenza A virus with pneumonia		J09X1	Influenza due to identified novel influenza A virus with pneumonia
				J1108	Influenza due to unidentified influenza virus with specified pneumonia
				J1100	Influenza due to unidentified influenza virus with unspecified type of pneumonia
J09X2	Influenza due to identified novel influenza A virus with other respiratory manifestations		J09X2	Influenza due to identified novel influenza A virus with other respiratory manifestations	
			J111	Influenza due to unidentified influenza virus with other respiratory manifestations	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J09X3	Influenza due to identified novel influenza A virus with gastrointestinal manifestations	J09X3	Influenza due to identified novel influenza A virus with gastrointestinal manifestations
			J112	Influenza due to unidentified influenza virus with gastrointestinal manifestations
	J09X9	Influenza due to identified novel influenza A virus with other manifestations	J09X9	Influenza due to identified novel influenza A virus with other manifestations
			J1189	Influenza due to unidentified influenza virus with other manifestations
	J0130	Acute sphenoidal sinusitis, unspecified	J0130	Acute sphenoidal sinusitis, unspecified
			J069	Acute upper respiratory infection, unspecified
			J00	Acute nasopharyngitis [common cold]
	J0140	Acute pansinusitis, unspecified	J0140	Acute pansinusitis, unspecified
			J069	Acute upper respiratory infection, unspecified
			J00	Acute nasopharyngitis [common cold]
J020	Streptococcal pharyngitis	J020	Streptococcal pharyngitis	
		J069	Acute upper respiratory infection, unspecified	
		J029	Acute pharyngitis, unspecified	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Respiratory infections	J028	Acute pharyngitis due to other specified organisms	J028	Acute pharyngitis due to other specified organisms
			J069	Acute upper respiratory infection, unspecified
			J029	Acute pharyngitis, unspecified
	J029	Acute pharyngitis, unspecified	J029	Acute pharyngitis, unspecified
			J069	Acute upper respiratory infection, unspecified
	J0300	Acute streptococcal tonsillitis, unspecified	J0300	Acute streptococcal tonsillitis, unspecified
			J069	Acute upper respiratory infection, unspecified
			J020	Streptococcal pharyngitis
			J0390	Acute tonsillitis, unspecified
	J0380	Acute tonsillitis due to other specified organisms	J0380	Acute tonsillitis due to other specified organisms
			J069	Acute upper respiratory infection, unspecified
			J028	Acute pharyngitis due to other specified organisms
J0390			Acute tonsillitis, unspecified	
J0390	Acute tonsillitis, unspecified	J0390	Acute tonsillitis, unspecified	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Respiratory infections	J0390	Acute tonsillitis, unspecified	J069	Acute upper respiratory infection, unspecified
	J040	Acute laryngitis	J040	Acute laryngitis
			J069	Acute upper respiratory infection, unspecified
	J0410	Acute tracheitis without obstruction	J0410	Acute tracheitis without obstruction
			J22	Unspecified acute lower respiratory infection
	J0411	Acute tracheitis with obstruction	J0411	Acute tracheitis with obstruction
			J22	Unspecified acute lower respiratory infection
	J042	Acute laryngotracheitis	J042	Acute laryngotracheitis
			J22	Unspecified acute lower respiratory infection
	J050	Acute obstructive laryngitis [croup]	J050	Acute obstructive laryngitis [croup]
			J069	Acute upper respiratory infection, unspecified
	J0510	Acute epiglottitis without obstruction	J0510	Acute epiglottitis without obstruction
			J069	Acute upper respiratory infection, unspecified
	J0511	Acute epiglottitis with obstruction	J0511	Acute epiglottitis with obstruction

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J0511	Acute epiglottitis with obstruction	J069	Acute upper respiratory infection, unspecified
	J060	Acute laryngopharyngitis	J060	Acute laryngopharyngitis
			J069	Acute upper respiratory infection, unspecified
	J069	Acute upper respiratory infection, unspecified	J069	Acute upper respiratory infection, unspecified
	J1000	Influenza due to other identified influenza virus with unspecified type of pneumonia	J1000	Influenza due to other identified influenza virus with unspecified type of pneumonia
			J1100	Influenza due to unidentified influenza virus with unspecified type of pneumonia
	J1001	Influenza due to other identified influenza virus with the same other identified influenza virus pneumonia	J1001	Influenza due to other identified influenza virus with the same other identified influenza virus pneumonia
	J1008	Influenza due to other identified influenza virus with other specified pneumonia	J1008	Influenza due to other identified influenza virus with other specified pneumonia
			J1108	Influenza due to unidentified influenza virus with specified pneumonia
	J101	Influenza due to other identified influenza virus with other respiratory manifestations	J101	Influenza due to other identified influenza virus with other respiratory manifestations
		J111	Influenza due to unidentified influenza virus with other respiratory manifestations	
J102	Influenza due to other identified influenza virus with gastrointestinal manifestations	J102	Influenza due to other identified influenza virus with gastrointestinal manifestations	
		J112	Influenza due to unidentified influenza virus with gastrointestinal manifestations	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Respiratory infections	J1081	Influenza due to other identified influenza virus with encephalopathy	J1081	Influenza due to other identified influenza virus with encephalopathy
			J1181	Influenza due to unidentified influenza virus with encephalopathy
	J1082	Influenza due to other identified influenza virus with myocarditis	J1082	Influenza due to other identified influenza virus with myocarditis
			J1182	Influenza due to unidentified influenza virus with myocarditis
	J1083	Influenza due to other identified influenza virus with otitis media	J1083	Influenza due to other identified influenza virus with otitis media
			J1183	Influenza due to unidentified influenza virus with otitis media
	J1089	Influenza due to other identified influenza virus with other manifestations	J1089	Influenza due to other identified influenza virus with other manifestations
			J1189	Influenza due to unidentified influenza virus with other manifestations
	J1100	Influenza due to unidentified influenza virus with unspecified type of pneumonia	J1100	Influenza due to unidentified influenza virus with unspecified type of pneumonia
	J1108	Influenza due to unidentified influenza virus with specified pneumonia	J1108	Influenza due to unidentified influenza virus with specified pneumonia
	J111	Influenza due to unidentified influenza virus with other respiratory manifestations	J111	Influenza due to unidentified influenza virus with other respiratory manifestations
	J112	Influenza due to unidentified influenza virus with gastrointestinal manifestations	J112	Influenza due to unidentified influenza virus with gastrointestinal manifestations
	J1181	Influenza due to unidentified influenza virus with encephalopathy	J1181	Influenza due to unidentified influenza virus with encephalopathy
J1182	Influenza due to unidentified influenza virus with myocarditis	J1182	Influenza due to unidentified influenza virus with myocarditis	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J1183	Influenza due to unidentified influenza virus with otitis media	J1183	Influenza due to unidentified influenza virus with otitis media
	J1189	Influenza due to unidentified influenza virus with other manifestations	J1189	Influenza due to unidentified influenza virus with other manifestations
	J120	Adenoviral pneumonia	J120	Adenoviral pneumonia
			J129	Viral pneumonia, unspecified
			J189	Pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
	J121	Respiratory syncytial virus pneumonia	J121	Respiratory syncytial virus pneumonia
			J210	Acute bronchiolitis due to respiratory syncytial virus
			J129	Viral pneumonia, unspecified
			J189	Pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
	J122	Parainfluenza virus pneumonia	J122	Parainfluenza virus pneumonia
			J129	Viral pneumonia, unspecified
		J189	Pneumonia, unspecified organism	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J122	Parainfluenza virus pneumonia	J22	Unspecified acute lower respiratory infection
	J123	Human metapneumovirus pneumonia	J123	Human metapneumovirus pneumonia
			J211	Acute bronchiolitis due to human metapneumovirus
			J129	Viral pneumonia, unspecified
			J189	Pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
	J1289	Other viral pneumonia	J1289	Other viral pneumonia
			J129	Viral pneumonia, unspecified
			J189	Pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
	J129	Viral pneumonia, unspecified	J129	Viral pneumonia, unspecified
			J189	Pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
	J13	Pneumonia due to Streptococcus pneumoniae	J13	Pneumonia due to Streptococcus pneumoniae

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J13	Pneumonia due to Streptococcus pneumoniae	J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J14	Pneumonia due to Hemophilus influenzae	J14	Pneumonia due to Hemophilus influenzae
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J150	Pneumonia due to Klebsiella pneumoniae	J150	Pneumonia due to Klebsiella pneumoniae
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J151	Pneumonia due to Pseudomonas	J151	Pneumonia due to Pseudomonas
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J151	Pneumonia due to Pseudomonas	J22	Unspecified acute lower respiratory infection
	J1520	Pneumonia due to staphylococcus, unspecified	J1520	Pneumonia due to staphylococcus, unspecified
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J15211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	J15211	Pneumonia due to Methicillin susceptible Staphylococcus aureus
			J1520	Pneumonia due to staphylococcus, unspecified
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J15212	Pneumonia due to Methicillin resistant Staphylococcus aureus	J15212	Pneumonia due to Methicillin resistant Staphylococcus aureus
			J1520	Pneumonia due to staphylococcus, unspecified
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J15212	Pneumonia due to Methicillin resistant Staphylococcus aureus	J22	Unspecified acute lower respiratory infection
	J1529	Pneumonia due to other staphylococcus	J1529	Pneumonia due to other staphylococcus
			J1520	Pneumonia due to staphylococcus, unspecified
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J153	Pneumonia due to streptococcus, group B	J153	Pneumonia due to streptococcus, group B
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J154	Pneumonia due to other streptococci	J154	Pneumonia due to other streptococci
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J155	Pneumonia due to Escherichia coli	J155	Pneumonia due to Escherichia coli
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J156	Pneumonia due to other Gram-negative bacteria	J156	Pneumonia due to other Gram-negative bacteria
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J157	Pneumonia due to Mycoplasma pneumoniae	J157	Pneumonia due to Mycoplasma pneumoniae
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J158	Pneumonia due to other specified bacteria	J158	Pneumonia due to other specified bacteria
			J189	Pneumonia, unspecified organism

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J158	Pneumonia due to other specified bacteria	J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J159	Unspecified bacterial pneumonia	J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J168	Pneumonia due to other specified infectious organisms	J168	Pneumonia due to other specified infectious organisms
			J189	Pneumonia, unspecified organism
			J159	Unspecified bacterial pneumonia
			J22	Unspecified acute lower respiratory infection
	J180	Bronchopneumonia, unspecified organism	J180	Bronchopneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
	J181	Lobar pneumonia, unspecified organism	J181	Lobar pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
	J182	Hypostatic pneumonia, unspecified organism	J182	Hypostatic pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J188	Other pneumonia, unspecified organism	J188	Other pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
			J189	Pneumonia, unspecified organism
	J189	Pneumonia, unspecified organism	J189	Pneumonia, unspecified organism
			J22	Unspecified acute lower respiratory infection
			J200	Acute bronchitis due to Mycoplasma pneumoniae
	J200	Acute bronchitis due to Mycoplasma pneumoniae	J200	Acute bronchitis due to Mycoplasma pneumoniae
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J201	Acute bronchitis due to Hemophilus influenzae	J201	Acute bronchitis due to Hemophilus influenzae
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J202	Acute bronchitis due to streptococcus	J202	Acute bronchitis due to streptococcus
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
J203	Acute bronchitis due to coxsackievirus	J203	Acute bronchitis due to coxsackievirus	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J203	Acute bronchitis due to coxsackievirus	J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
			J204	Acute bronchitis due to parainfluenza virus
	J204	Acute bronchitis due to parainfluenza virus	J204	Acute bronchitis due to parainfluenza virus
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J205	Acute bronchitis due to respiratory syncytial virus	J205	Acute bronchitis due to respiratory syncytial virus
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J206	Acute bronchitis due to rhinovirus	J206	Acute bronchitis due to rhinovirus
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J207	Acute bronchitis due to echovirus	J207	Acute bronchitis due to echovirus
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J208	Acute bronchitis due to other specified organisms	J208	Acute bronchitis due to other specified organisms
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J209	Acute bronchitis, unspecified	J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J210	Acute bronchiolitis due to respiratory syncytial virus	J210	Acute bronchiolitis due to respiratory syncytial virus
			J219	Acute bronchiolitis, unspecified
			J209	Acute bronchitis, unspecified
			J205	Acute bronchitis due to respiratory syncytial virus
			J22	Unspecified acute lower respiratory infection
	J211	Acute bronchiolitis due to human metapneumovirus	J211	Acute bronchiolitis due to human metapneumovirus
			J219	Acute bronchiolitis, unspecified
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J218	Acute bronchiolitis due to other specified organisms	J218	Acute bronchiolitis due to other specified organisms
			J219	Acute bronchiolitis, unspecified
			J209	Acute bronchitis, unspecified
			J208	Acute bronchitis due to other specified organisms
			J22	Unspecified acute lower respiratory infection
	J219	Acute bronchiolitis, unspecified	J219	Acute bronchiolitis, unspecified
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J22	Unspecified acute lower respiratory infection	J22	Unspecified acute lower respiratory infection
	J391	Other abscess of pharynx	J391	Other abscess of pharynx
J069			Acute upper respiratory infection, unspecified	
J029			Acute pharyngitis, unspecified	
J028			Acute pharyngitis due to other specified organisms	
J40	Bronchitis, not specified as acute or chronic	J40	Bronchitis, not specified as acute or chronic	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Respiratory infections	J40	Bronchitis, not specified as acute or chronic	J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J440	Chronic obstructive pulmonary disease with acute lower respiratory infection	J440	Chronic obstructive pulmonary disease with acute lower respiratory infection
	J470	Bronchiectasis with acute lower respiratory infection	J470	Bronchiectasis with acute lower respiratory infection
			J209	Acute bronchitis, unspecified
			J22	Unspecified acute lower respiratory infection
	J852	Abscess of lung without pneumonia	J852	Abscess of lung without pneumonia
	J9502	Infection of tracheostomy stoma	J9502	Infection of tracheostomy stoma
	J95851	Ventilator associated pneumonia	J95851	Ventilator associated pneumonia
			J22	Unspecified acute lower respiratory infection
	U071	2019-nCoV acute respiratory disease	U071	2019-nCoV acute respiratory disease
			B9729	Other coronavirus as the cause of diseases classified elsewhere
	B9729	Other coronavirus as the cause of diseases classified elsewhere	B9729	Other coronavirus as the cause of diseases classified elsewhere
			U071	2019-nCoV acute respiratory disease

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Sepsis	A400	Sepsis due to streptococcus, group A	A400 A491 A419	Sepsis due to streptococcus, group A Streptococcal infection, unspecified site Sepsis, unspecified organism
	A401	Sepsis due to streptococcus, group B	A401 A491 A419	Sepsis due to streptococcus, group B Streptococcal infection, unspecified site Sepsis, unspecified organism
	A403	Sepsis due to Streptococcus pneumoniae	A403 A491 A419	Sepsis due to Streptococcus pneumoniae Streptococcal infection, unspecified site Sepsis, unspecified organism
	A408	Other streptococcal sepsis	A408 A409 A419 A491	Other streptococcal sepsis Streptococcal sepsis, unspecified Sepsis, unspecified organism Streptococcal infection, unspecified site
	A409	Streptococcal sepsis, unspecified	A409 A419	Streptococcal sepsis, unspecified Sepsis, unspecified organism
	A4101	Sepsis due to Methicillin susceptible Staphylococcus aureus	A4101  A412  A419  A4901	Sepsis due to Methicillin susceptible Staphylococcus aureus  Sepsis due to unspecified staphylococcus  Sepsis, unspecified organism  Methicillin susceptible Staphylococcus aureus infection, unspecified site
	A4102	Sepsis due to Methicillin resistant Staphylococcus aureus	A4102  A412	Sepsis due to Methicillin resistant Staphylococcus aureus  Sepsis due to unspecified staphylococcus

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Sepsis	A4102	Sepsis due to Methicillin resistant Staphylococcus aureus	A419	Sepsis, unspecified organism
			A4902	Methicillin resistant Staphylococcus aureus infection, unspecified site
	A411	Sepsis due to other specified staphylococcus	A411	Sepsis due to other specified staphylococcus
			A412	Sepsis due to unspecified staphylococcus
			A419	Sepsis, unspecified organism
	A412	Sepsis due to unspecified staphylococcus	A412	Sepsis due to unspecified staphylococcus
	A413	Sepsis due to Hemophilus influenzae	A419	Sepsis, unspecified organism
			A413	Sepsis due to Hemophilus influenzae
			A492	Hemophilus influenzae infection, unspecified site
	A414	Sepsis due to anaerobes	A419	Sepsis, unspecified organism
			A414	Sepsis due to anaerobes
	A4150	Gram-negative sepsis, unspecified	A4150	Gram-negative sepsis, unspecified
	A4151	Sepsis due to Escherichia coli [E. coli]	A419	Sepsis, unspecified organism
			A4151	Sepsis due to Escherichia coli [E. coli]
A4150			Gram-negative sepsis, unspecified	
A4152	Sepsis due to Pseudomonas	A419	Sepsis, unspecified organism	
		A4152	Sepsis due to Pseudomonas	
A4153	Sepsis due to Serratia	A4150	Gram-negative sepsis, unspecified	
		A419	Sepsis, unspecified organism	
A4153	Sepsis due to Serratia	A4153	Sepsis due to Serratia	
		A4150	Gram-negative sepsis, unspecified	

<b>Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge</b>			<b>Principal and Comorbid Diagnoses on Prior Hospital Claim</b>	
<b>Column A:</b>	<b>Column B:</b>	<b>Column C:</b>	<b>Column D:</b>	<b>Column E:</b>
<b>Category</b>	<b>ICD 10 Code (principal diagnosis)</b>	<b>ICD 10 Label (principal diagnosis)</b>	<b>ICD 10 Code (principal + comorbid diagnosis)</b>	<b>ICD 10 Label (principal + comorbid diagnosis)</b>
Sepsis	A4153	Sepsis due to Serratia	A419	Sepsis, unspecified organism
	A4159	Other Gram-negative sepsis	A4159 A419	Other Gram-negative sepsis Sepsis, unspecified organism
	A4181	Sepsis due to Enterococcus	A4181 A419	Sepsis due to Enterococcus Sepsis, unspecified organism
	A4189	Other specified sepsis	A4189 A419	Other specified sepsis Sepsis, unspecified organism
	A419	Sepsis, unspecified organism	A419	Sepsis, unspecified organism
	A4901	Methicillin susceptible Staphylococcus aureus infection, unspecified site	A4901	Methicillin susceptible Staphylococcus aureus infection, unspecified site
	A4902	Methicillin resistant Staphylococcus aureus infection, unspecified site	A4902	Methicillin resistant Staphylococcus aureus infection, unspecified site
	A491	Streptococcal infection, unspecified site	A491 A419	Streptococcal infection, unspecified site Sepsis, unspecified organism
	A492	Hemophilus influenzae infection, unspecified site	A492 A4150	Hemophilus influenzae infection, unspecified site Gram-negative sepsis, unspecified
	A493	Mycoplasma infection, unspecified site	A493	Mycoplasma infection, unspecified site
	B376	Candidal endocarditis	B376 B377	Candidal endocarditis Candidal sepsis
	B377	Candidal sepsis	B377 A419	Candidal sepsis Sepsis, unspecified organism
	I2601	Septic pulmonary embolism with acute cor pulmonale	I2601 A419	Septic pulmonary embolism with acute cor pulmonale Sepsis, unspecified organism

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Sepsis	I2690	Septic pulmonary embolism without acute cor pulmonale	I2690	Septic pulmonary embolism without acute cor pulmonale
			A419	Sepsis, unspecified organism
	I76	Septic arterial embolism	I76	Septic arterial embolism
			A419	Sepsis, unspecified organism
	R6520	Severe sepsis without septic shock	R6520	Severe sepsis without septic shock
			A419	Sepsis, unspecified organism
	R6521	Severe sepsis with septic shock	R6521	Severe sepsis with septic shock
		A419	Sepsis, unspecified organism	
	R7881	Bacteremia	R7881	Bacteremia
			A419	Sepsis, unspecified organism
	A480	Gas gangrene	A480	Gas gangrene
			L089	Local infection of the skin and subcutaneous tissue, unspecified
Skin infections	A4852	Wound botulism	A4852	Wound botulism
			L089	Local infection of the skin and subcutaneous tissue, unspecified
	B86	Scabies	B86	Scabies
			L089	Local infection of the skin and subcutaneous tissue, unspecified
	B870	Cutaneous myiasis	B870	Cutaneous myiasis
			L089	Local infection of the skin and subcutaneous tissue, unspecified
	B871	Wound myiasis	B871	Wound myiasis
		L089	Local infection of the skin and subcutaneous tissue, unspecified	
	L00	Staphylococcal scalded skin syndrome	L00	Staphylococcal scalded skin syndrome

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Skin infections	L00	Staphylococcal scalded skin syndrome	L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0103	Bullous impetigo
	L0100	Impetigo, unspecified	L0100	Impetigo, unspecified
			L089	Local infection of the skin and subcutaneous tissue, unspecified
	L0102	Bockhart's impetigo	L0102	Bockhart's impetigo
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0100	Impetigo, unspecified
	L0103	Bullous impetigo	L0103	Bullous impetigo
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0100	Impetigo, unspecified
	L03011	Cellulitis of right finger	L03011	Cellulitis of right finger
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03113	Cellulitis of right upper limb
			L03019	Cellulitis of unspecified finger
L03012	Cellulitis of left finger	L03012	Cellulitis of left finger	
		L089	Local infection of the skin and subcutaneous tissue, unspecified	
		L0390	Cellulitis, unspecified	
		L03114	Cellulitis of left upper limb	
		L03019	Cellulitis of unspecified finger	
L03019	Cellulitis of unspecified finger	L03019	Cellulitis of unspecified finger	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Skin infections	L03019	Cellulitis of unspecified finger	L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
	L03031	Cellulitis of right toe	L03031	Cellulitis of right toe
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03115	Cellulitis of right lower limb
			L03039	Cellulitis of unspecified toe
	L03032	Cellulitis of left toe	L03032	Cellulitis of left toe
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03116	Cellulitis of left lower limb
			L03039	Cellulitis of unspecified toe
	L03039	Cellulitis of unspecified toe	L03039	Cellulitis of unspecified toe
			L089	Local infection of the skin and subcutaneous tissue, unspecified
L0390			Cellulitis, unspecified	
L03111	Cellulitis of right axilla	L03111	Cellulitis of right axilla	
		L089	Local infection of the skin and subcutaneous tissue, unspecified	
		L0390	Cellulitis, unspecified	
		L03313	Cellulitis of chest wall	
		L03312	Cellulitis of back [any part except buttock]	
L03112	Cellulitis of left axilla	L03319	Cellulitis of trunk, unspecified	
		L03112	Cellulitis of left axilla	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Skin infections	L03112	Cellulitis of left axilla	L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03313	Cellulitis of chest wall
			L03319	Cellulitis of trunk, unspecified
	L03113	Cellulitis of right upper limb	L03113	Cellulitis of right upper limb
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03221	Cellulitis of neck
			L03313	Cellulitis of chest wall
			L03312	Cellulitis of back [any part except buttock]
			L03319	Cellulitis of trunk, unspecified
	L03114	Cellulitis of left upper limb	L03119	Cellulitis of unspecified part of limb
			L03114	Cellulitis of left upper limb
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
L03221			Cellulitis of neck	
L03313			Cellulitis of chest wall	
L03312			Cellulitis of back [any part except buttock]	
L03115	Cellulitis of right lower limb	L03319	Cellulitis of trunk, unspecified	
		L03119	Cellulitis of unspecified part of limb	
		L03115	Cellulitis of right lower limb	
		L089	Local infection of the skin and subcutaneous tissue, unspecified	
			L0390	Cellulitis, unspecified
			L03314	Cellulitis of groin

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Skin infections	L03115	Cellulitis of right lower limb	L03119 L03319	Cellulitis of unspecified part of limb Cellulitis of trunk, unspecified
	L03116	Cellulitis of left lower limb	L03116 L089 L0390 L03314 L03319 L03119	Cellulitis of left lower limb Local infection of the skin and subcutaneous tissue, unspecified Cellulitis, unspecified Cellulitis of groin Cellulitis of trunk, unspecified Cellulitis of unspecified part of limb
	L03119	Cellulitis of unspecified part of limb	L03119 L089 L0390	Cellulitis of unspecified part of limb Local infection of the skin and subcutaneous tissue, unspecified Cellulitis, unspecified
	L03211	Cellulitis of face	L03211 L089 L0390 L03811	Cellulitis of face Local infection of the skin and subcutaneous tissue, unspecified Cellulitis, unspecified Cellulitis of head [any part, except face]
	L03221	Cellulitis of neck	L03221 L089 L0390 L03811 L03211	Cellulitis of neck Local infection of the skin and subcutaneous tissue, unspecified Cellulitis, unspecified Cellulitis of head [any part, except face] Cellulitis of face
	L03311	Cellulitis of abdominal wall	L03311 L089 L0390	Cellulitis of abdominal wall Local infection of the skin and subcutaneous tissue, unspecified Cellulitis, unspecified

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Skin infections	L03311	Cellulitis of abdominal wall	L03313	Cellulitis of chest wall
			L03319	Cellulitis of trunk, unspecified
	L03312	Cellulitis of back [any part except buttock]	L03312	Cellulitis of back [any part except buttock]
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03319	Cellulitis of trunk, unspecified
	L03313	Cellulitis of chest wall	L03313	Cellulitis of chest wall
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03319	Cellulitis of trunk, unspecified
	L03314	Cellulitis of groin	L03314	Cellulitis of groin
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03311	Cellulitis of abdominal wall
			L03319	Cellulitis of trunk, unspecified
	L03315	Cellulitis of perineum	L03315	Cellulitis of perineum
L089			Local infection of the skin and subcutaneous tissue, unspecified	
L0390			Cellulitis, unspecified	
L03314			Cellulitis of groin	
L03312			Cellulitis of back [any part except buttock]	
L03316	Cellulitis of umbilicus	L03316	Cellulitis of umbilicus	
		L089	Local infection of the skin and subcutaneous tissue, unspecified	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Skin infections	L03316	Cellulitis of umbilicus	L0390	Cellulitis, unspecified
			L03319	Cellulitis of trunk, unspecified
	L03317	Cellulitis of buttock	L03317	Cellulitis of buttock
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
			L03312	Cellulitis of back [any part except buttock]
			L03319	Cellulitis of trunk, unspecified
	L03811	Cellulitis of head [any part, except face]	L03811	Cellulitis of head [any part, except face]
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
	L03818	Cellulitis of other sites	L03818	Cellulitis of other sites
			L089	Local infection of the skin and subcutaneous tissue, unspecified
			L0390	Cellulitis, unspecified
	L03319	Cellulitis of trunk, unspecified	L03319	Cellulitis of trunk, unspecified
			L089	Local infection of the skin and subcutaneous tissue, unspecified
L0390			Cellulitis, unspecified	
L03221			Cellulitis of neck	
L0390	Cellulitis, unspecified	L0390	Cellulitis, unspecified	
		L089	Local infection of the skin and subcutaneous tissue, unspecified	
L0889	Other specified local infections of the skin and subcutaneous tissue	L0889	Other specified local infections of the skin and subcutaneous tissue	
		L089	Local infection of the skin and subcutaneous tissue, unspecified	

Principal Diagnosis for Hospitalizations Between Day Four after SNF Admission and Day Three after SNF Discharge			Principal and Comorbid Diagnoses on Prior Hospital Claim	
Column A:	Column B:	Column C:	Column D:	Column E:
Category	ICD 10 Code (principal diagnosis)	ICD 10 Label (principal diagnosis)	ICD 10 Code (principal + comorbid diagnosis)	ICD 10 Label (principal + comorbid diagnosis)
Skin infections	L089	Local infection of the skin and subcutaneous tissue, unspecified	L089	Local infection of the skin and subcutaneous tissue, unspecified
	L303	Infective dermatitis	L303	Infective dermatitis
Unknown site and unknown bugs	B348	Other viral infections of unspecified site	B348	Other viral infections of unspecified site
	B349	Viral infection, unspecified	B349	Viral infection, unspecified
	A488	Other specified bacterial diseases	A488	Other specified bacterial diseases
	A498	Other bacterial infections of unspecified site	A498	Other bacterial infections of unspecified site
	A499	Bacterial infection, unspecified	A499	Bacterial infection, unspecified

*Note:* FY2019 ICD-10 codes are presented in this table. A year specific list is used for the measure construction and calculation.