Understanding InterQual® Benchmark Length of Stay Data

Overview

Hospital inpatient care constitutes almost one-third of all health care expenditures in the United States. Ensuring the right care, at the right time, in the right setting is critical not only to ensure quality of care but also to control costs. Using a target length of stay can help minimize avoidable delays and ensure that transitions to alternate levels of care occur at the right time. This in turn can help free up capacity and enable access to those patients who need inpatient services but might not otherwise be admitted due to bed shortages. The InterQual benchmark length of stay values are derived from a select set of claims data from Change Healthcare, one of the industry’s largest claims clearinghouses, representing millions of patient discharges. Length of stay values are based on specific conditions or surgical procedures and create guidance designed to facilitate efficient management of the patient to that target.

Benchmark length of stay values are included in the following content:

- InterQual® Acute Adult
- InterQual® Acute Pediatric
- InterQual® Procedures
- InterQual® Adult and Geriatric Psychiatry (Inpatient only)
- InterQual® Child and Adolescent Psychiatry (Inpatient only)
- InterQual® Substance Use Disorders (Inpatient and Inpatient Detoxification)

Data Detail

The data are gathered as follows:

- De-identified primary claims data draws from a nationwide pool of hospitals submitting claims through Change Healthcare. Acute and Procedures data includes approximately 9 million claims from all regions of the US. Behavioral Health data includes approximately 400,000 mental health and substance abuse patient encounters.
• Claims are for patients discharged from general acute care, critical access, children’s hospitals, rural hospitals, psychiatric hospitals and psychiatric units.

• Acute Adult, Acute Pediatric, and Procedures claims are from a rolling 12-month period, which is continually updated and includes the following payers: Medicare, Medicaid, Commercial/HMO, and Blue Cross Blue Shield.

• Adult and Geriatric Psychiatry, Child and Adolescent Psychiatry, and Substance Use Disorders claims are from a 2 year period, which is updated annually and includes the following payers: Medicare, Medicaid, and Commercial.

• Acute Adult, Acute Pediatric, Adult and Geriatric Psychiatry, Child and Adolescent Psychiatry, and Substance Use Disorders data are based on ICD-10 codes as a single diagnosis or, for patients with multiple diagnoses, to address comorbidity for the age groups: Pediatric (0-17), Adult (18-80).

• Procedures data is based on MS-DRG claims for age groups: Pediatric (0-17), Adult (18-80).

• Count of observed patients are identified by each patient admission (patients can have more than one).

• Length of stay values are rounded to the nearest whole number value.

• Length of stay values represent the Geometric Mean Length of Stay (GMLOS) for that condition.

**Analysis Approach**

• Hospital claims with a length of stay of one day or greater were included in the analysis.

• Conditions with too few claims to calculate a statistically accurate average GMLOS were excluded.

• The claims for the Acute Adult, Acute Pediatric, Adult and Geriatric Psychiatry, Child and Adolescent Psychiatry, and Substance Use Disorders content were grouped by the ICD-10 code for the principal diagnosis. (The GMLOS was calculated for all claims with the same code.)

• For the Acute Adult, Acute Pediatric content, Adult and Geriatric Psychiatry, Child and Adolescent Psychiatry, and Substance Use Disorders content some diagnoses (e.g., acute myocardial infarction, adjustment disorder) have multiple available ICD-10 codes. For those diagnoses, the GMLOS for the diagnosis is the weighted average based on the number of claims for each included ICD-10 code.
Statistical Validation

To validate the claims data and confirm the analysis methodology, InterQual partnered with Scheuren-Ruffner Consultants.

Scheuren-Ruffner consultants are a business consulting group with an extensive background serving clients in the US Healthcare industry on patient privacy, HIPAA compliance and statistical disclosure limitation. Clients include large healthcare companies operating on a national level, analytic companies, covered entities, and healthcare clearing houses including some of the largest organizations to comply with the requirements of the HIPAA privacy rules when de-identifying and sharing health information.