Ontario
Health Quality Ontario

30-day readmission rate after leaving hospital for selected conditions

Alternate Name*

Hospital Readmission rate within 30 days of leaving hospital for selected conditions

INDICATOR DESCRIPTION

Description*

Rate of un-planned hospital readmissions within 30 days of discharge after hospitalization for any of the following conditions: pneumonia, diabetes, stroke, gastrointestinal disease, congestive heart failure, chronic obstructive pulmonary disease, heart attack and other cardiac conditions (selected HBAM Inpatient Grouper (HIG) conditions).

Indicator Status*

Active

HQO Reporting tool/product

Public reporting

Dimension*

Effective

Type*

Outcome

DEFINITION AND SOURCE INFORMATION

Unit of Measurement*

Rate per 100 discharges

Calculation Methods*

Numerator divided by the denominator times100

Numerator including inclusion/exclusion*

Ontario
Health Quality Ontario

Number of subsequent non-elective (all-cause) readmissions to an acute care hospital within 30 days of discharge after hospitalization for any of the following conditions: pneumonia, diabetes, stroke, gastrointestinal disease, congestive heart failure, chronic obstructive pulmonary disease, heart attack and other cardiac conditions (selected HBAM Inpatient Grouper (HIG) conditions).
Inclusions:

The hospitalization readmission is counted if:

a. the re-admission date is within 30 days of the index case discharge;

b. the DAD field “admission category” is urgent;

c. the admission is not coded as an acute transfer by receiving hospital

Exclusions:

a.the readmission case is coded as an acute transfer by the receiving hospital

b. there is missing or invalid data for discharge date, admission date, health number,

age and gender.

Denominator including inclusion/exclusion*

Total number of hospital discharges after hospitalization for any of the following conditions: pneumonia, diabetes, stroke, gastrointestinal disease, congestive heart failure, chronic obstructive pulmonary disease, heart attack and other cardiac conditions (selected HBAM Inpatient Grouper (HIG) conditions).
Inclusions:
HIGs and descriptions

Acute Myocardial Infarction (Age ≥ 45)

193a Myocardial Infarction/Shock/Arrest with Coronary Angiogram

193b Myocardial Infarction/Shock/Arrest with Coronary Angiogram with Comorbid

Cardiac Conditions

194a Myocardial Infarction/Shock/Arrest without Coronary Angiogram

194b Myocardial Infarction/Shock/Arrest without Coronary Angiogram with

Comorbid Cardiac Conditions

Stroke (Age ≥ 45)

25 Hemorrhagic Event of Central Nervous System

26 Ischemic Event of Central Nervous System

28 Unspecified Stroke

Ontario
Health Quality Ontario

COPD (Age ≥ 45)

139c Chronic Obstructive Pulmonary Disease with Lower Respiratory Infection

139d Chronic Obstructive Pulmonary Disease without Lower Respiratory Infection

Pneumonia (All ages)

136 Bacterial Pneumonia

138 Viral/Unspecified Pneumonia

143 Disease of Pleura

Congestive Heart Failure (Age ≥ 45)

196 Heart Failure without Cardiac Catheter

Diabetes (All ages)

437a Diabetes, Other

437b Diabetes with renal complications

437c Diabetes with ophthalmic, neurological, or circulatory complications

437d Diabetes with multiple complications

Cardiac (Age ≥ 40)

202 Arrhythmia without Coronary Angiogram

204a Unstable Angina/Atherosclerotic Heart Disease without Coronary Angiogram

204b Unstable Angina/Atherosclerotic Heart Disease without Coronary Angiogram with Comorbid Cardiac Conditions

208a Angina (except Unstable)/Chest Pain without Coronary Angiogram

208b Angina (except Unstable)/Chest Pain without Coronary Angiogram with Comorbid Cardiac Conditions

Gastrointestinal (All ages)

231 Minor Upper Gastrointestinal Intervention

248 Severe Enteritis

251 Complicated Ulcer

253 Inflammatory Bowel Disease

254 Gastrointestinal Hemorrhage

255 Gastrointestinal Obstruction

256 Esophagitis/Gastritis/Miscellaneous Digestive Disease

257 Symptom/Sign of Digestive System

258 Other Gastrointestinal Disorder

285 Cirrhosis/Alcoholic Hepatitis

286 Liver Disease except Cirrhosis/Malignancy

287 Disorder of Pancreas except Malignancy

288 Disorder of Biliary Tract

Cases where the Inpatient HIG atypical code is either '00' (typical cases), '01' (transfer

in cases), '09' (short stay outlier cases), '10' (long stay outlier cases), or '11' (transfer in

long stay cases).

Exclusions:

1. Records with missing valid data on discharge/admission date, health number, age and

gender;

2. Index cases coded as transfers to another acute inpatient hospital, deaths, and sign-outs;

3. Exclude cases with Discharge disposition = '07' (death).

Adjustment (risk, age/sex standardization)- detailed

Risk-adjusted rate = (Crude (observed, actual) rate / Expected rate) * Provincial reference

rate.

Expected Readmissions: To calculate the predicted probability of non-elective readmission to any Ontario acute care hospital for patients discharged with the specified HIGs, a logistic regression model is fitted with HIG, age, gender, prior hospitalizations (within 1, 2 and 3

months), quarterly seasonality and the Charlson co-morbidity adjustment index score as independent variables. Coefficients derived from the logistic model are used to calculate the probability of readmission for each patient. The expected number of readmissions for a hospital/LHIN is the sum of the patient probabilities for all the index admissions in that hospital/LHIN.

Data Source

Discharge Abstract Database (DAD)

Data provided to HQO by

Ministry of Health and Long-Term Care (MOHLTC)

Reported Levels of comparability /stratifications (defined)

Time

Income

Rurality

Region

Sex

RESULT UPDATES

Indicator Results

Click here to view Health Quality Ontario results for this indicator

OTHER RELEVANT INFORMATION

Caveats and Limitations

Not all readmissions are avoidable and this indicator does not capture which readmissions were avoidable and the underlying reasons (e.g. condition aggravation, poor transition, lack of community support/care). Due to age restrictions for some conditions the results are not reported by age groups. The indicator captures hospital readmission only and does not capture return visits to the emergency department.

Comments Detailed

A similar indicator is calculated for enrolled patients and reported at the primary care practice level for the Primary Care Quality Improvement Plan. Patients are included in the numerator and denominator if CAPE (Client Agency Program Enrollment) records show they are enrolled at the time of discharge for the index case. The Urban/Rural designation is derived from the SAC type variable The income quintile is based on postal code and comes from Environics. This is imputed postal code data.

TAGS

TAGS*

Primary Care

Outcome

Readmission

Integration

Effective

Discharge Abstract Database (DAD)

Ontario
Health Quality Ontario

PUBLISH

PUBLISH DATETIME*

28/02/2017 13:24:00