User's Guide to Outpatient Procedure Tables

Outpatient Procedures Data Collection in Vermont

Analysis of outpatient procedures data quantifies trends in hospital utilization and monitors the phenomenon of shifting care from inpatient to outpatient settings for hospital-based procedures. There are other types of hospital-based outpatient services that are not captured in the hospital discharge dataset due to current limits on data collection.

Collection of Vermont hospital outpatient procedures data, formerly referred to as ambulatory surgery in the Monograph series, began in January 1989, under the authority of the Vermont Hospital Data Council. Data collection continued when statutory authority to collect and manage hospital data was passed to the Vermont Health Care Authority, which later became the Division of Health Care Administration in the Department of Banking, Insurance, Securities and Health Care Administration (BISHCA). Like the inpatient data file, the outpatient procedures file is provided by the Vermont Association of Hospitals and Health Systems - Network Services Organization (VAHHS-NSO) and then managed by the Vermont Department of Health (VDH) under an agreement with BISHCA.

Definitions

Procedures

Hospitals report procedures using the International Classification of Disease codes (9th Revision, Clinical Modification - ICD-9-CM). Although up to twenty procedures (the principal and 19 secondary procedures) can be listed on every outpatient discharge record, only the first procedure that is in the ICD-9-CM range 00.0 – 86.99 is analyzed in this report.

There are over 3,500 specific procedure codes in the ICD-9-CM coding system. These codes are composed of two digits, followed by a decimal, and two additional digits. The first two digits describe broad categories. For example, 13 is the category "Operations on Lens of Eye." There are 100 two-digit ICD-9-CM categories. The two digits following the decimal provide greater specificity. For example, 13.41 is "Phacoemulsion and aspiration of cataract." In the following outpatient procedure tables, procedures have been grouped into categories based on the first two digits of their ICD-9-CM codes.

What procedures should be included in analyses?

With recent changes in technology, the definition of "outpatient procedures" has become a complicated issue. The Center for Disease Control's National Center for Health Statistics notes that, "The distinction between surgical and non-surgical procedures has become less meaningful in the last two decades with the development of minimally invasive and non-invasive procedures. The procedures classified as non-surgical may not have less operative or anesthetic risk or require less highly trained personnel or special equipment than those classified as surgical."[1] As outpatient data collection evolves, revision of the definition of outpatient procedures and inclusion of new categories of outpatient services, such as magnetic resonance imaging (MRI) and other diagnostic services, will be required in order to measure changes in the health care delivery system. BISHCA and VDH are currently exploring the issues pertaining to categorizing outpatient data and future Monographs will address this.

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[1]Kozak LJ, Lawrence L. National Hospital Discharge Survey: Annual summary, 1997. National Center for Health Statistics. Vital Health Stat 13(144). 1999. P. 45.

Recent Changes in Definition of Outpatient Procedures

The outpatient data collected from 1989-2000 were limited to surgical procedures performed in hospital operating rooms. In reporting year 2001, the outpatient definition was revised to include procedures coded within the ICD-9-CM code range 01-86.99 that occurred in other ambulatory surgery settings in addition to designated operating rooms.

BISHCA, VAHHS-NSO and VDH adopted the new definition for the dual purposes of capturing comparable outpatient data among Vermont hospitals and being compatible with the definition used by the state of New Hampshire and the New Hampshire Hospital Association. Beginning with reporting year 2001, the outpatient dataset also includes records of Vermont residents using New Hampshire hospitals for outpatient procedures.

In reporting year 2002, a small number of procedures in the new ICD-9-CM code range beginning 00 began to appear in the outpatient procedures dataset. While these procedures are outside the currently required reporting range, they are included in the analyses here and may be included in future reporting requirements for all hospitals.

Beginning with reporting year 2003, two changes were made to the records selected for inclusion in outpatient procedure analyses. Records with certain patient types (observation bed records "O" and series patient records "X') in addition to those designated as ambulatory surgery (patient type "A") were included if they had a procedure in the defined range. At the same time, records that originated in the emergency department (ED) were excluded from most analyses, even if they had a procedure in the defined range. In 2005, records that originated in the ED, without an associated ER revenue code beginning 45, Emergency Room, but did have a procedure in range were also included.

The expansion of patient types was made for the following reasons:

1) Limiting records to patient type "A" left some appropriate ambulatory surgery patient records out of analyses. These included those patients whose hospital visit began with ambulatory surgery and were then held overnight for observation (patient type "O") or had follow up treatment planned within the same month (series patients, labeled "X").

2) The 2003 data showed some unexplained changes in patient type designation for records with procedures in the defined range. The number of patient type "A" records at certain hospitals decreased significantly, while the number of patient type "O" or "X" records increased. Some of the increase in "O" and "X" records may be due to coding errors.

A decrease in records occurred due to the exclusion of records that originated in the ED from most tables. Records originating in the ED were excluded from most outpatient procedure analyses in order to handle an apparent inconsistency in how hospitals code ED patients who require a procedure in the ICD-9-CM range 00.0-86.99 (such as skin suturing, for example). Some hospitals label these patients as patient type "A" and some as patient type "E." Limiting most outpatient procedure analyses to only those records not originating in the ED has focused the analyses on what might be called "planned" procedures.

Beginning in 2004, outpatient procedure data also became available from the New York Department of Health for Vermont residents using New York hospitals and free-standing ambulatory surgery centers. New York uses a stricter definition for outpatient procedures than Vermont. New York limits collection of outpatient procedure records to those procedures which require anesthesia and take place in an operating room.

In the following seven outpatient procedure tables, only tables O1 and O2 present data about records that originated in the ED and had a procedure in range (all patient types except Inpatient). The remaining tables use just outpatient records with a procedure in range, that did not originate in the ED (not having an associated revenue code beginning 45, Emergency Room).

Comparison to Previous Monographs

The outpatient procedure tables presented in this Monograph cannot meaningfully be compared to the tables published in the 2002 and earlier Monographs because the change in record selection rules described above affected the nature of the records included. For example, skin suture procedures (ICD-9-CM code 8659) reported in Table O2 decreased from 2,850 in 2002 (with records originating in the ED included) to 513 in 2005 (with records originating in the ED excluded).

Charges

The payments hospitals receive for a procedure rarely equal what is charged. All patients, or insurance plans, do not pay the same amount for similar treatments, supplies and services, even though they may be billed the same amount. Private insurers generally negotiate separately with hospitals to set reimbursement rates. The federal and state governments set reimbursement rates for Medicare and Medicaid independently. Variations in charges and reimbursement may be designed so services are cross subsidized. Comparative analyses of hospital charges must take the limitations of charge data into account.

Charges in this report are defined as "facility" charges. Hospitals subtract professional fees and charges for patient convenience items from the total charge in order to calculate the facility charge. However, facility charge data are not always reported according to this standard definition. Some hospitals include salaried and contracted physician fees in their facility charges.

Charges for hospital admissions with the same principal procedure cannot be expected to be identical, not only because hospitals differ in their assignment of charges, but because patients differ in the severity of their conditions. In general, charges for inpatient procedures tend to be higher than comparable procedures performed in an outpatient setting. In many cases, those treated in an inpatient setting have complicating conditions or other health risks that add to the cost of their care and make them poor candidates for outpatient services.

Sources of Data

Beginning with the new 2001 definition for outpatient procedures, all fourteen of Vermont's civilian acute care hospitals now submit outpatient data to the hospital discharge reporting system. Under the definition in use from 1989-2000, Grace Cottage Hospital was excluded because it does not have an operating room. In 2001, the Veterans Administration hospital in White River Junction also began participating in the outpatient dataset but is not included in the monograph series until 2002.

Data for Vermont residents having outpatient procedures in New Hampshire and New York have been available since 2001 and 2004, respectively. These data are received from the New Hampshire Department of Health and Human Services and the New York Department of Health. The data from New Hampshire and New York appear in selected tables in this Monograph. Outpatient procedure data are not yet available from Massachusetts.

Hospital vs. Hospital Service Area Data

In the tables that follow, outpatient procedures data are reported by hospital, but not by hospital service area. Unlike the inpatient dataset, the outpatient procedures dataset does not include records for Vermont residents who had outpatient procedures in all of its neighboring states.

Data are received from New Hampshire and New York, but not from Massachusetts. Therefore, outpatient procedure rates cannot be calculated on a hospital service area or population basis.