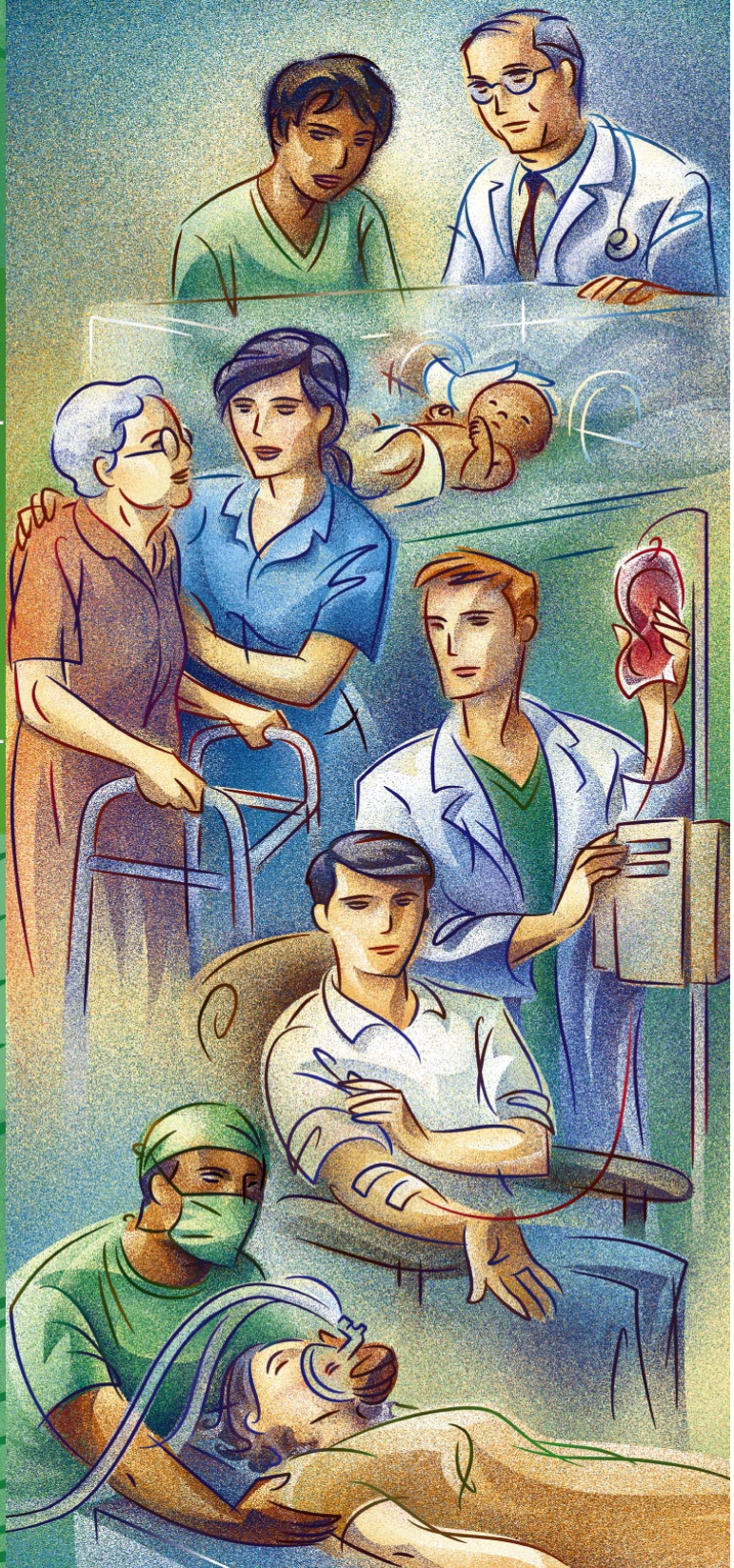




AHRQ QUALITY INDICATORS

# Patient Safety Indicators

SOFTWARE DOCUMENTATION



**AHRQ Quality Indicators**

**Patient Safety Indicators:  
Software Documentation,  
Version 3.1  
SAS**

Department of Health and Human Services  
Agency for Healthcare Research and Quality  
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**Table 4. Data Elements and Coding Conventions**

Variable name	Description	Format	Value description	Comments
KEY	Sequence Number. Unique case identifier.	Numeric	User defined unique numeric identifier for each discharge record	Not used by the QI programs, but should be present to facilitate possible exploration; allows user to link the records from the PSSAS1.SAS program output file back to the original input data file.
AGE	Age in Years at Admission	Numeric	Age in years	If this data element is missing the discharge record will be excluded from the analysis.
AGEDAY	Age in Days (coded only when the age in years is less than 1)	Numeric	Age in days	Used to identify newborns in PSI 17.
RACE	Race of Patient.	Numeric 1 2 3 4 5 6	White Black Hispanic Asian or Pacific Island Native American Other	The values 1 through 5 are used directly in the QI software. All other ethnicity codes are mapped to an 'other' category.
SEX	Sex of Patient	Numeric 1 2	Male Female	If this data element is missing the discharge record will be excluded from the analysis.
PAY1	Expected Primary Payer	Numeric 1 2 3 4 5 6	Medicare Medicaid Private, incl. HMO Self-pay No charge Other	The values 1, 2, 3, and 4 are used directly in the QI software. All other payer codes are mapped to an 'other' category.  This data element is used to stratify only the Provider-level PSIs (PSI01-PSI20).
PSTCO	Location of Patient Residence or Hospital Location (FIPS State/County Code)	Numeric ssccc	Modified Federal Information Processing Standards State/county code <sup>3</sup>	Available at: <a href="http://www.census.gov/popest/geographic/codes02.pdf">http://www.census.gov/popest/geographic/codes02.pdf</a> If this data element is missing the discharge record will be excluded from rate calculations.
HOSPID	Data Source Hospital Number	Numeric	Hospital identification number	Used to facilitate data exploration and possible trouble shooting. May also be selected as a stratifier (see Table 6. PSSASP2 Aggregation Possibilities).
DISP	Disposition of Patient	Numeric 1 2 3 4 5 6 7 20	Routine Short-term hospital Skilled nursing facility Intermediate care Another type of facility Home health care Against medical advice Died in the hospital	The values 2 and 20 are referenced by the QI code (to identify transfers to another short-term hospital and patients who died in the hospital).

<sup>3</sup> Federal Information Processing Standard, as defined by the U.S. Department of Commerce, National Institute of Standards and Technology (formerly National Bureau of Standards). Note: Certain independent cities (Baltimore City, Carson City and St. Louis City), and areas within Hawaii and Virginia, are assigned to different area groupings in the Modified FIPS categories as compared to the U.S. Census Bureau groupings. The AHRQ QI software uses the Modified FIPS code assignment of these areas. Failure to use the Modified FIPS codes assignment will result in the use of incorrect denominator estimates for area indicators.

Variable name	Description	Format	Value description	Comments
ATYPE	Admission Type	Numeric 1 2 3 4 5 6	Emergency Urgent Elective Newborn Trauma Center <sup>4</sup> Other	The values 3 and 4 are referenced by the PSI code (to identify elective surgeries and newborn admissions). PSIs 10, 11, 13, and 17 will be affected if ATYPE values are missing.
ASOURCE	Admission Source	Numeric 1 2 3 4 5	ER Another hospital Another facility incl LTC Court/law enforcement Routine/birth/other	The values 2 and 3 are referenced by the PSI code (to identify transfers from another hospital or facility)
LOS	Length of Stay	Numeric	Number of days from admission to discharge	
APR_DRG	APR_DRG Category	Numeric	APR-DRG from 3M software	Not used by the PSI program. If not present in the input data file it is not necessary to create a dummy variable.
SEVERTY	APR_DRG Severity Score	Numeric	APR-DRG Severity Score from 3M software	Not used by the PSI program. If not present in the input data file it is not necessary to create a dummy variable.
RISKMORT	APR_DRG Mortality Score	Numeric	APR-DRG Risk of Mortality Score from 3M software	Not used by the PSI program. If not present in the input data file it is not necessary to create a dummy variable.
DRG	Diagnosis Related Group	Numeric	DRG from federal (CMS) Grouper	
MDC	Major Diagnostic Category	Numeric	MDC from federal (CMS) grouper	
DISCWT	Weight to assign to discharge	Numeric	Format as "nn.nnn"	Cases with missing values are assigned a value of 1. Assigning a weight of zero has the effect of removing the case from the analysis.
DX1 – DX30	ICD-9-CM Diagnosis Codes. DX1 is the principal diagnosis. DX2-DX30 are secondary diagnoses. Note: If e-codes are separated from secondary diagnoses in the input data file, the variable should be renamed and included as a secondary diagnosis variable (e.g., e-codes would be labeled as DX10 in a data file where the last secondary DX field is DX9).	String, 3, 4 or 5 characters (do not include decimal point)	Diagnosis codes	Users must specify the number of diagnoses in the parameter &NDX in the CONTROL_PSI.SAS program to reflect the number of diagnoses.

<sup>4</sup> The ATYPE value "5" was used to indicate delivery only in the 1988 to 1997 HCUP data files. The UB standards currently use "5" to indicate Trauma Center.

Variable name	Description	Format	Value description	Comments
DXATADMIT1- DXATADMIT30-	Present on admission indicator for each diagnosis code	Numeric	1 = present at the time of inpatient admission 0 = not present at the time of inpatient admission Blank = all other cases (e.g., missing, unreported, not used)	These data will be used for <a href="#">indicator definitions and risk adjust</a> if the &POAFG parameter in CONTROL_PSI.SAS has been set to one. These variables are not needed if the user sets the &POAFG parameter in CONTROL_PSI.SAS to equal zero, indicating that there is no present-on-admission information available.
NDX	Count of the Number of Diagnoses (DX) on the Discharge Record.	Numeric	Count of diagnoses (principal and all secondary diagnoses)	Not used by the SAS program. If not present in the input data file it is not necessary to create a dummy variable. Definition is: if the 1 <sup>st</sup> discharge record has 5 Dx and the 2 <sup>nd</sup> has 10, NDX would be 5 on the 1 <sup>st</sup> and 10 on the 2 <sup>nd</sup> .
PR1 – PR30	ICD-9-CM Procedure Codes. PR1 is the principal procedure, PR2-PR30 are secondary procedures.	String, 3 or 4 characters (do not include decimal point)"	Procedure codes	Users with more or fewer secondary procedures should modify the parameter &NPR in CONTROL_PSI.SAS to reflect the number of procedures.
NPR	Count of the Number of Procedures (PR) on the Discharge Record.	Numeric	Count of procedures (principal and all secondary procedures)	Not used by the SAS program. If not present in the input data file it is not necessary to create a dummy variable. Definition is: if the 1 <sup>st</sup> discharge record has 1 Pr and the 2 <sup>nd</sup> has 2, NPR would be 1 for the 1 <sup>st</sup> record and 2 for the 2 <sup>nd</sup> .
PRDAY1 – PRDAY30	Days from Admission to Procedure. PR1 is the principal procedure, PR2-PR30 are secondary procedures.	Numeric	Days from admission to procedure <sup>5</sup>	Necessary variables if the user sets the &PRDAY parameter in CONTROL_PSI.SAS to equal one. In this case, it is expected that the number of PRDAY variables agrees with the number of Procedure codes present. (See note below for method of calculation).  These variables are not needed if the user sets the &PRDAY parameter in CONTROL_PSI.SAS to equal zero, indicating that there is no procedure day information available.
YEAR	Year of discharge. The patient's year of discharge. For example, a patient discharged on July 7, 2004 would have a discharge year of '2004.'	Numeric	YYYY  Discharge year should be within the range of 1997 to 2006.	

<sup>5</sup> Variables PRDAY1 to PRDAY30 are defined as the number of days from date of admission to date of procedure for each procedure. For example, if the patient was admitted on June 15<sup>th</sup> and had two procedures - the principal procedure on June 15<sup>th</sup> and a second procedure on June 18<sup>th</sup> – then the value of PRDAY1 would be zero (0) and the value of PRDAY2 would be three (3). For more information, consult the HCUP data documentation at <http://www.hcup-us.ahrq.gov/db/vars/prdayn/nisnote.jsp>.











































