Line List: Procedures Excluded from the SIRs (2015 Baseline)

Description

For the surgical site infections (SSI) module, there are inclusion and exclusion criteria that are applied to procedures and associated events. The line list of procedures excluded from the standardized infection ratio (SIR) is an NHSN analysis report that is intended to assist users in reviewing the procedures that are excluded from the SIRs and the reasons for the exclusion. This list of exclusion criteria is often called the universal exclusion criteria and applies to procedures, regardless of the SSI model. Often, the reason for procedure exclusion from the SIRs is due to data quality issues, which can be addressed, if applicable. The list of universal exclusion criteria have been updated, under the new 2015 NHSN baseline, from the previous baseline. For a list of exclusion criteria, please see page 25 of the NHSN Guide to the SIR": https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf.
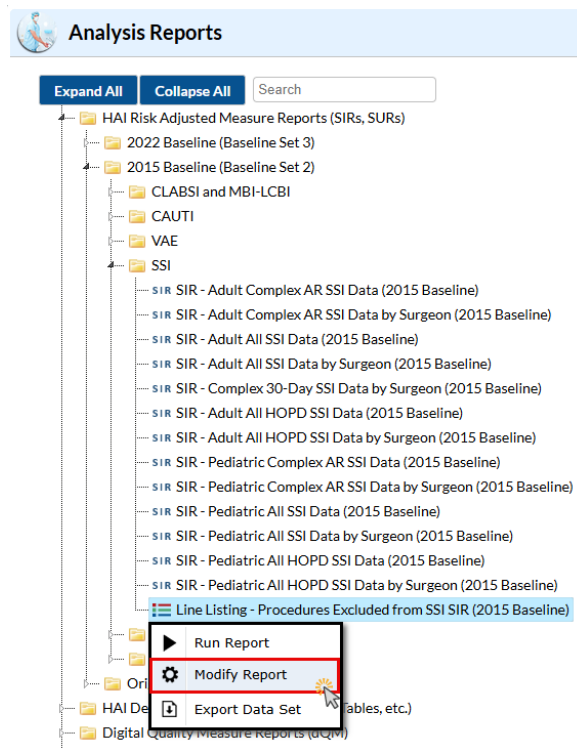
The purpose of this quick reference guide (QRG) is to describe how to determine procedures excluded from the SIRs calculated with the 2015 baseline. The line list will allow for a record-level review of each procedure excluded from one or more SIRs and the reason(s) for the exclusion. If a procedure is excluded from one or more SIRs, any SSI associated with that procedure will also be excluded.

In this example, we are interested in reviewing procedures that were performed in our facility in September 2024.

Step 1: Select the Line Listing – Procedures Excluded from SIR report

Once selected, click "Modify Report" on the pop-up menu.

Step 2: Modify the report by defining the appropriate criteria

- The title and format of the report can be modified, as needed for your analysis. *This step is optional.*
- Define the time period. For this example, the time period is set to September 2024 using the procedure date (i.e., procDateYM).

- Filters can be included to this report to limit the amount of data to display in the report output. We recommend the use of these filters when interested in analyzing data for a specific procedure category, SIR model, and/or reason for exclusion. For example, the September 2024 list of excluded procedures can be limited by defining a specific procedure code, such as "proccode equal to COLO".
- On the Display Variable tab, you will find the list of exclusion variables included in the Selected Variable list by default as shown in the screen shot below. The list of exclusion is explained by the table below.

Modify "Line Listing - Procedures Excluded from SSI SIR (2015 Baseline)"

☐ Show descriptive variable names (Print List)   Analysis Data Set: Procedures   Type: Line Listing   Last Generated (UTC) : January 31, 2025 7:00 PM

| Title/Format | Time Period | Filters | **Display Variables** | Sort Variables | Display Options |

Display Variables:

Available Variables:

ageAtProc
all_incomplete
anesthesia
approach
asa
bedsize
birthWt
birthWtCode
birthWtCodeDesc
bldLoss
BMI_val
bs2_modelRiskAdultAll
bs2_modelRiskAdultCmpx
bs2_modelRiskComplex30d
bs2_modelRiskPedAll

Buttons:
All »
Selected ›
Selected ‹
« All

Selected Variables:

procDate
dob
sex
procDurationHr
procDurationMin
exclMissingVarInd
exclMissingVarList
exclDurThresholdInd
exclAgeGT109Ind
exclOutpatientInd
exclPedIndcmpx30d
exclSexInd
exclInvalidJointRepHemi
exclBMIThresholdInd
excluded

Up
Down
Undo

Included on the "Selected Variables" list by default

Run   Save...   Export...   Close

- Once you are satisfied with the selected modifications, click run (or export) to obtain the results

Step 3: Report Output and Interpretation

Below is the report output from the Line Listing – Procedures Excluded from SIR report. In the highlighted title of the report, you will notice the applicable baseline year in parenthesis. The list of universal exclusion criteria variables are preceded by ==excl==. As mentioned above, these variables, highlighted in yellow shown by the screen shot below, will appear in the Selected Variable and therefore the report output by default. Our report shows that 1 COLO procedure is excluded from the SIR. When we review the exclusion variables (i.e., those beginning with **excl**), we can see that this procedure is excluded from the SIRs because it is an outpatient procedure (i.e., exclOutpatientInd = Y).

National Healthcare Safety Network
Line Listing for Procedures Excluded from SSI SIR (2015 Baseline)
As of: February 13, 2025 at 5:10 PM UTC
Date Range: PROCEDURES procDateYM 2024M01 to 2024M01
if (((excluded = "Y")

Indicates which baseline the report applies to. This example is using the 2015 baseline.

orgID	patID	procID	procDate	bs2_allAdultExcl	bs2_allPedExcl	bs2_cmpxAdultExcl	bs2_cmpxPedExcl	bs2_cmpx30dExcl	exclMissingVarInd	exclMissingVarList	exclDurThresholdInd	exclAgeGT109Ind	exclOutpatientInd	exclPedIndcmpx30d	exclSexInd	exclInvalidJointRepHemi	exclBMIThresholdInd	excluded
10018	1000001	122536	01/01/2024	1	1	1	1	1	N		N	N	Y	N	N	N	N	Y

The following footnotes apply to the 2024M01 Baseline only.
1. The excluded procedures line listing reports (by baselines) contain procedures excluded from one or more SIRs.
2. Variables preceded by excl indicate the reason for exclusion. If excl criterion is set to Y, then the procedure is excluded from the denominator of the related SIR.
3. Please review the Quick Reference Guide on Procedure Exclusion Criteria (https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/line-list-procedures-excluded-sir.pdf) for more information on how to determine which records are included in the SIRs.

Please review the footnotes for additional information

Definitions of Exclusion Variables

Below is the list of exclusion variables and their corresponding definitions. If any of the exclusion variables, preceded by excl is set to **'Y'** (Yes), as shown in the report output above, then the procedure is excluded from the SIR. And if any of the exclusion variable is set to 'Y', then the variables followed by **'Excl'** will be set to 1, as shown in the report output above. This simply means that the procedure is excluded from the SSI SIR model(s).

Exclusion Variable	Definition
bs2_allAdultExcl	Procedure excluded from All SSI SIR Model-Adult
bs2_allPedExcl	Procedure excluded from All SSI SIR Model-Pediatric
bs2_cmpxAdultExcl	Procedure excluded from Complex AR SSI SIR Model-Adult
bs2_cmpxPedExcl	Procedure excluded from Complex AR SSI SIR Model-Pediatric
bs2_cmpx30dExcl	Procedure excluded from Complex 30-day SSI SIR Model
exclMissingVarInd	Procedure excluded for missing risk factors used in risk adjustment of applicable procedure category for SSI models
exclMissingVarList	List of missing risk factors used in risk adjustment of applicable procedure category for SSI models
exclDurThresholdInd	Procedure excluded due to procedure duration being less than 5 minutes or exceeding the IQR5 value. Please see the list of procedure duration cutoff points in the new SIR Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf
exclAgeGT109Ind	Procedure excluded if the patient's age at time of procedure is 109 years or older
exclOutpatientInd	Procedure excluded because it was reported as an outpatient procedure; **NOTE:** all outpatient procedures are excluded from the SSI SIRs calculated using the 2015 baseline
exclPedIndcmpx30d	Procedures performed in pediatric patients are excluded from the Complex 30-day model
exclSexInd	Procedure excluded because patient's sex was not reported in (M, F)
exclInvalidJointRepHemi	Procedure is excluded if procedure code is KPRO or HPRO and (jntRepHemi=totrev or jntRepTot=partrev) (and procedure date is January 1, 2015-December 31, 2015.
exclBMIThresholdInd	Procedure excluded if the adult patient's BMI is less than 12 or greater than 60. In pediatric patients < 18 years if BMI is less than 10.49 or greater than 65.79**

**This BMI exclusion applies to all procedures on pediatric patients, in both applicable SSI models (All SSI and Complex A/R). CDC Growth Charts are used to assess BMI in pediatric patients, calculated using height, weight, age, and sex. More information can be found here: https://www.cdc.gov/growth-chart-training/hcp/computer-programs/sas.html

Additional Resources:

- THE NHSN STANDARDIZED INFECTION RATIO (SIR): A Guide to the SIR: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf
- Troubleshooting your surgical site infections (SSI) SIR: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/ssi-sir_tips.pdf