

Sepsis Sample Size Requirements

Hospitals that choose to sample have the **option of sampling quarterly or sampling monthly**. A hospital may choose to use a larger sample size than is required. Hospitals whose Initial Patient Population size is less than the minimum number of cases per quarter/month cannot sample. Hospitals that have five or fewer sepsis discharges for the entire measure set (both Medicare and non-Medicare combined) in a quarter are not required, but are encouraged to submit sepsis patient level data to the CMS Clinical Data Warehouse.

Regardless of the option used, hospital samples must be monitored to ensure that sampling procedures consistently produce statistically valid and useful data. Due to exclusions, hospitals selecting sample cases **MUST** submit **AT LEAST** the minimum required sample size.

The following sample size tables for each option automatically build in the number of cases needed to obtain the required sample sizes. For information concerning how to perform sampling, refer to the Population and Sampling Specifications section in this manual.

Quarterly Sampling

Hospitals selecting sample cases for the sepsis measure must ensure that the population and quarterly sample size meets the following conditions:

**Quarterly Sample Size
Based on Hospital's Initial Patient Population Size for the Sepsis Measure**

Average Quarterly Initial Patient Population Size "N"	Minimum Required Sample Size "n"
≥ 301	60
151 - 300	20% of Initial Patient Population size
30 - 150	30
6 - 29	No sampling; 100% Initial Patient Population required
0 - 5	Submission of patient level data is encouraged but not required. If submission occurs, 1 – 5 cases of the Initial Patient Population may be submitted

Monthly Sampling

Hospitals selecting sample cases for the sepsis measure must ensure that the population and monthly sample size meets the following conditions:

Monthly Sample Size Based on Hospital's Initial Patient Population Size for the Sepsis Measure

Average Monthly Initial Patient Population Size "N"	Minimum Required Sample Size "n"
≥ 101	20
51 - 100	20% of Initial Patient Population size
10 - 50	10
< 10	No sampling; 100% Initial Patient Population required

Sample Size Examples

Note:

All of the sepsis measure's specific exclusion criteria are used to filter out cases that do not belong in the measure denominator.

- *Quarterly Sampling:*

When applicable, larger hospitals must also abide by the required quarterly sample sizes with a minimum of 30 required sample cases when the Initial Patient Population size is 30 or greater.

 - The sepsis Initial Patient Population size for a hospital is 405 patients for the quarter. Since the total Initial Patient Population is greater than **five**, the hospital must submit patient level data. The required quarterly sample size would be 60 cases.
 - The sepsis Initial Patient Population size for a hospital is five patients for the quarter. Since the total Initial Patient Population is **five**, the hospital may choose to not submit patient level data. If the hospital chooses to submit patient level data, the quarterly sample size for each would be – **one to five** cases.
- *Monthly Sampling:*

When applicable, larger hospitals must also abide by the required monthly sample sizes with a minimum of 10 required sample cases when the Initial Patient Population size is 10 or greater.

 - The sepsis Initial Patient Population sizes for a hospital are **six**, 49, and 75 patients respectively for July, August, and September. The required monthly sample sizes would be **six**, 10, and 15 respectively for July, August, and September.