

Topped-out Analysis of Clinical Measures Proposed for the PY 2020 ESRD QIP

March 15, 2017

The distributions of the PY 2020 clinical measures were assessed in order to determine if any measures were “topped out”. In order for a measure to be considered topped out, two conditions had to be met. First, a measure was considered topped out if the 75th percentile, or 25th for measures where lower percentiles indicate better performance, was *statistically indistinguishable* from the 90th (or 10th) percentile **and** second, the truncated coefficient of variation (TCV) was *less than or equal to 10%, or 0.10*. We note that the percentiles were considered statistically indistinguishable if the 75th/25th percentile was within two standard errors of the 90th/10th percentile. Additionally, for each measure the TCV was calculated by first removing the lower and upper 5th percentiles, then dividing the standard deviation by the mean of this truncated distribution ($SD_{\text{truncated}}/\text{Mean}_{\text{truncated}}$). The TCV was then converted to a decimal by dividing the TCV by 100.

Measures evaluated included the Kt/V Comprehensive measure, Fistula, Catheter, Hypercalcemia, NHSN Standardized Infection Ratio (SRI), Standardized Readmission Ratio (SRR), Standardized Transfusion Ratio (STrR), Standardized Hospitalization Ratio (SHR), and the six individual CAHPS clinical measures. Table 1 presents the data sources used in the analysis for each measure.

Table 2 presents the percentiles, standard error, and TCV for each measure. In this analysis, all facilities with the minimum eligible patient requirement per measure were included. Results indicate none of the PY 2020 clinical measures met both of the “topped out” conditions.

Table 1. Data used for PY 2020 Topped-Out analysis

Measure	Data Source
Kt/V delivered dose above minimum	CY 2015 CROWNWeb data and CY 2015 Medicare claims data
Fistula Use	CY 2015 CROWNWeb data and CY 2015 Medicare claims data
Catheter Use	CY 2015 CROWNWeb data and CY 2015 Medicare claims data
Serum Calcium>10.2	CY 2015 CROWNWeb data
ICH-CAHPS	CY 2015 ICH-CAHPS data from AHRQ
NHSN- SIR	CY 2015 NHSN data from CDC
SRR	CY 2015 CROWNWeb data and 2015 Medicare claims data
STrR	CY 2015 CROWNWeb data and 2015 Medicare claims data
SHR	CY 2015 CROWNWeb data and CY 2015 Medicare claims data

Table 2. PY 2020 Clinical Measure including facilities with minimum eligible patient requirement per measure

Measure	N	75th/25th percentile	90th/10th percentile	Std Error	Statistically Indistinguishable	Truncated Mean	Truncated SD	TCV	TCV ≤ 0.10
Kt/V delivered dose above minimum (%)	6101	96.0	97.7	0.084	No	92.6	3.88	0.04	Yes
Fistula Use (%)	5913	73.2	79.6	0.148	No	65.7	8.87	0.14	No
Catheter Use (%)	5925	5.47	2.95	0.093	No	90.1 ^a	5.17	<0.01	Yes
Serum Calcium >10.2	6258	0.91	0.32	0.050	No	97.8 ^a	1.49	<0.01	Yes
ICH-CAHPS: Nephrologists Communication and Caring (%)	3349	71.8	77.1	0.159	No	65.7	7.11	0.11	No
ICH-CAHPS: Quality of Dialysis Center Care and Operations (%)	3349	66.2	71.2	0.134	No	60.9	6.20	0.10	No
ICH-CAHPS: Providing Information to Patients (%)	3349	82.4	85.6	0.101	No	78.4	4.61	0.06	Yes
ICH-CAHPS: Percent, Rating of Nephrologist	3349	69.9	76.6	0.204	No	62.0	9.29	0.15	No
ICH-CAHPS: Percent, Rating of Dialysis Facility Staff	3349	70.9	77.4	0.215	No	62.0	9.92	0.16	No
ICH-CAHPS: Percent, Rating of Dialysis Center	3349	73.8	80.6	0.221	No	64.8	10.18	0.16	No
NHSN- SIR	5805	0.40	0.00	0.011	No	0.964	0.57	<0.01	Yes
SRR	6178	0.78	0.63	0.003	No	0.969	0.21	<0.01	Yes
STrR	5742	0.63	0.42	0.007	No	0.955	0.39	<0.01	Yes
SHR	6298	0.81	0.67	0.004	No	0.978	0.20	<0.01	Yes

^aTruncated mean for percentage is reversed (100% - truncated mean) for measures where lower score = better performance.