FINAL RECOMMENDATION OF REVISIONS TO THE REASONABLENESS OF CHARGES (ROC) METHODOLOGY

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INTRODUCTION

Over the past year, staff, working with payer and industry representatives, has engaged in a process to review and revise the Commission's Reasonableness of Charges (ROC) methodology. [1] This draft recommendation proposes a series of changes to the ROC process that are the result of those discussions. The recommended changes to the ROC methodology will be used to calculate a ROC in early February 2009.

BACKGROUND

The Commission's ROC process is intended to allow hospitals to be compared on an equal footing to determine if a hospital's charges are reasonable relative to other peer hospitals in Maryland. A hospital with charges that are too high relative to its peers may be subject to "spend-down" provisions, where its rates are lowered to bring the hospital's charges in line with statewide averages. Conversely, a hospital where charges are low relative its peers may apply to the Commission for a "full rate review" and see rates increased consistent with Commission policies.

The ROC and the accompanying Interhospital Cost Comparison (ICC) are central elements of the Commission's mission to promote cost effective and efficient hospital services in Maryland. In addition to triggering "spenddowns" or permitting hospitals to request "full rate reviews," the ROC also provides feedback to hospitals on their performance relative to their peers. A stable ROC/ICC process is essential if it is to have its intended effect: aligning hospital rates with the resources needed to serve patients efficiently. It is also necessary to provide hospitals with feedback on their positions relative to their peers so that the hospital may take appropriate actions improve their positions.

The ROC analysis, or something similar[2], has been a consistent feature of the Commission's rate setting process. The methods used in the analysis, however, are not static. Changes in Commission policies and practices require the ROC analysis to be revised if it is to compare hospitals fairly.

The ROC process in use in 2005 began with each hospital's approved Charge Per Case (CPC) and made a series of adjustments to arrive at an adjusted CPC. The adjusted CPC was then used to compare hospitals within five defined peer groups. The adjustments were:

- *Mark-up*, the additional charges that each hospital is allowed to bill in order to account for its unique circumstances, including payer mix and the hospital's uncompensated care experience;

[1] The Commission did conduct a limited ROC using the previous (2005 and earlier) methodology in the spring of 2008. As a result three hospitals with adjusted charges well below their peers filed full rate reviews and, consequently, received an upward adjustment in rates. A number of other hospitals were identified as being considerably above the mean of their peers and could have be required to "spenddown. " The Commission chose not to take spenddown action in light of the anticipated comprehensive overhaul of the ROC.

[2] Earlier versions of the ROC process were referred to as the "screens", as each hospitals charges were screened according to a number of parameters.

- *Labor Market Adjustment,* an adjustment to account for varying labor costs that Maryland hospitals are subject to;
- *Hospital Case Mix*, an adjustment to account for the varying resource needs of treating the hospitals' patient populations;
- *Direct Strips*, specific dollar amounts removed from the calculation of the hospital adjusted CPC to adjust for a portion of the costs of resident salaries (DME) and some of the incremental costs of trauma centers;
- *Indirect Medical Education,* an adjustment to account for the differing costs associated with having a teaching mission; and,
- *Capital,* an adjustment to reflect the capital cycle when comparing hospital costs.

Transition to APR-DRGs and Impact on ROC

While all of the adjustments are important to allow hospitals to be compared on an equal footing, they are not all of equal magnitude. The most significant adjustment (in terms of difference between the lowest and largest adjustment) is for hospital case mix. This is to be expected, as the relative patient acuity across hospitals should be the most significant factor in determining the resources needed to treat those patients. Since case mix is such an important factor in the ROC analysis, changes in the methods to measure case mix inevitably lead to changes in the ROC process. Improvements to case mix measurement affects other ROC adjustments that previously captured some case mix variation, requiring that those adjustments be re-examined.

The Commission's conversion from Diagnostic Related Groups (DRGs) to All Patient Refined-Diagnostic Related Groups (APR-DRGs) in 2005 represented a substantial improvement to the Commission's ability to measure hospital case mix accurately. APR-DRGs expand upon the older DRGs by breaking each DRG into 4 severity levels, each of which is then assigned a weight to account for the relative resource use of patients in each APR-DRG cell. As a practical matter, the Commission went from breaking patient care down into roughly 300 resource similar categories to 1200 clinically relevant and resource-similar categories.

The introduction of the APR-DRGs also provided hospitals with a strong incentive to improve the coding of discharge data submitted to the Commission.[3] Since the APR-DRGs more fully account for the resource use of patients based on severity, complete medical record documentation and accurate coding are vital to assuring that a hospital's rates are commensurate with the needs of its patient population. It was common to see hospitals substantially increase depth of coding in the course of a single year. That change however, did not occur in the same pace or at the same time for all hospitals. Finally, the change to APR-DRGs also led to large increases in measured case mix that were not associated with changes in underlying resource use, leading to the imposition of limits in case mix growth (governors).[4]

[3] All Maryland hospitals report discharge data on all patients to the HSCRC on a quarterly basis.

[4] The Maryland experience was analyzed by CMS in advance of the introduction of CMS-DRGs and has led to federal provisions to limit case mix growth during the transition to CMS-DRGs.

These changes in the completeness of medical record coding in the years immediately after the introduction of APR-DRGs caused the Commission to place a moratorium on the ROC process (and its attendant spenddowns and full rate reviews). The Commission decided that conducting the ROC analysis was inappropriate, as the measurement of the relative case mix across hospitals (a central adjustment in the ROC process) was not reliable until coding improvement reached a steady state.

Analysis of more recent submissions of hospital discharge data show that the transition in coding practices initiated by the use of APR-DRGs is now complete. In 2005 the percentage of discharges that reported 15 diagnoses was 6 percent, as of the first 6 months of FY2008 discharges that reported 15 or more diagnoses exceeded 20 percent. Furthermore, the depth of coding across hospitals is consistent.

Introduction of Charge Per Visit Methodology

A second major change to the rate setting system since the last ROC process in 2005 is the implementation of the Cost Per Visit (CPV) methodology for outpatient services. As with the Charge Per Case target system that has been in use since 2002, the CPV reflects the hospital's expected charge per outpatient case on a risk adjusted basis, although in this case, the risk adjustment relies on Enhanced Ambulatory Patient Groups (EAPGs). The CPV methodology for outpatient services was approved by the Commission on June 4, 2008.

The CPV methodology uses the FY2008 outpatient data as the baseline to establish CPVs for all Maryland hospitals. Prior to the introduction of the CPV, the Commission set rates for individual units of outpatient services (lab, emergency room, etc.) but did not set an overall, risk adjusted target for the visit that those outpatient services comprised. Without such a target, a ROC process for outpatient services was not possible. Instead, once a hospital's position relative to its peers was determined by using the inpatient based ROC, an assessment of the hospital outpatient charges relative to the statewide median was done prior to imposing spenddowns or considering a hospital for a full rate review.

The introduction of the CPV has provided the Commission with two comprehensive measures: one of inpatient cases; and, one of outpatient visits. It has always been the Commission's intent that outpatient charges should be assessed for their reasonableness as inpatient charges are; with the introduction of the CPV such an assessment is possible.

REVISIONS TO THE ROC METHODOLOGY

The completion of the APR-DRG transition and the implementation of the CPV methodology demanded a thorough review and revision of the ROC process. Toward that end Commission staff, along with payer and industry representatives have engaged in a year-long process to revise and update the ROC methodology. In discussing the recommended changes to the ROC, the workgroup addressed a number of disparate and complex issues. It is useful to group the issues into several broad categories:

- *Baseline Issues* These issues relate to the baseline hospital charges upon which later adjustments are made. The baseline issues addressed were the Commission's trim

point methodology and the blending of the inpatient charge per case and outpatient charge per visit;

- *ROC Adjustments* These are the adjustments are made to a hospital's baseline charge to allow a "like-to-like" comparison of peer hospitals. These can be further broken down into:

  Major Adjustments Adjustments that have a significant impact on a hospitals baseline charges. Major adjustments are: Case Mix, Indirect Medical Education, and Disproportionate Share; and,

  Minor Adjustments While important to assuring a fair comparison across hospitals these adjustments are relatively small. Minor adjustments are; Direct Strips (Direct Medical Education, Trauma Hospitals, Nursing Education), Labor Market, and Capital Adjustments.
- *Comparing Hospitals* This pertains to the peer groups that hospitals are broken into once charges have been adjusted it is a hospitals performance relative to its peer group that determines how the ROC effects that hospital; and,
- *Implementation Issues* These are issues that pertain to how the ROC is applied in the setting of hospital rates. Implementation issues include: the setting of spenddown thresholds and/or scaling; whether to conduct of an annual or semi-annual ROC.

Baseline Issues

The ROC process started with each hospital's allowed CPC. A series of adjustments were then made to the CPC to arrive at an adjusted CPC, which is used as the "like-to-like" comparison. The starting point at which later adjustments are made influences the outcome of the ROC.

Trim Points. Trim points are dollar thresholds[5] at which charges for a specific case are not included in the calculation of a hospital's CPC. The current HSCRC policy sets statistically defined individual trim points for each hospital and for each APR-DRG cell. An alternative trim point policy (which was considered in 2005 when the current trim point methodology was established) would have established a statewide set of trim points for each APR-DRG cell. Staff believes that the current trim point methodology is not the most desirable; it is overly complex - establishing over 100,000 trim point compared with roughly 2,400 for the alternative methodology- and its complexity to does not provide any additional policy benefit.

In addition to its complexity, the trim point methodology also influences the other adjustments that are used in the ROC. At the July 8, 2008 meeting of the ICC/ROC workgroup, the representatives of the teaching hospitals presented analyses that showed that the current trim policy of hospital specific trims had the effect of increasing the ROC adjustment for IME, compared with the alternative of individual APR-DRG trims. This was because the current trims tend to increase the charges included for the calculation of CPCs for teaching hospitals (in particular the Academic Medical Centers). The representatives of the G-9 (non-teaching hospitals) agreed that this would be the effect of such a change to the trim policy. The trim point methodology is therefore, intertwined

[5] Charges above the trim points are essentially 'pass throughs' that payers reimburse as charged; they are not subject to the constraints of the CPC system.

with the IME methodology and influences the results that are obtained from such analysis.

The current methodology however, is in place, and the hardest technical and administrative tasks are complete. Furthermore, changing the trim point policy will also create timing problems. A change in the trim policy will not take effect until the FY10 rate year, meaning that CPCs with the new trims will not be available until FY11.

STAFF RECOMMENDATION: CONTINUE TO USE THE CURRENT TRIM POINTS The current trim point methodology should remain in place. Staff does not feel that the current trim policy is optimal. The administrative burdens of the current trim methodology however, have already been absorbed by the Commission and the hospitals and a change to the trim policy will add administrative costs – without sufficient offsetting benefit. Staff may wish to revisit the trim policy at a future date, after the recommended revisions to the ROC methodology are implemented. At such a time revision of the trim policy can be considered in isolation, and not as a factor that has confounding effects on other ROC adjustments.

Blending Charge Per Case and Charge Per Visit Calculations. The Commission has an established policy for its CPV. It is also the stated intent of the Commission to analyze hospitals for their efficiency on the CPV (i.e. a CPV ROC). Measuring hospital efficiency separately on an inpatient (CPC) and outpatient (CPV) basis presents several problems:

- *Combining a positive position on inpatient with a negative position on outpatient.* While such a separate comparison is possible, and in fact has been done by the Commission over time, it is less appropriate when combining case targets such as the CPC and the CPV. The Commission and the hospitals will be engaged in two parallel activities combining them at the end.
- *Peer group comparisons.* Peer groups were based on the appropriateness of grouping similar hospitals to allow reasonable comparison. One of the key elements of a peer groups is hospital size. For outpatient departments, size (i.e., volume) of outpatient departments varies widely across hospitals and does not follow current (or proposed) peer groups. Thus a stand-alone CPV ROC would need to consider alternative peer groups, further disconnecting the analyses.
- *IME adjustment.* An IME adjustment for outpatient would also be necessary; however, determining the appropriate variables to use for the measurement of IME would be quite complex. For example, the use of a resident to bed ratio to measure the intensity of the medical teaching component for outpatient services is questionable.

STAFF RECOMMENDATION: BLEND THE CPC AND CPV INTO A SINGLE COMPREHENSIVE CHARGE TARGET (CCT) Staff believe that the best way to address these problems is not to conduct the ROC in a bifurcated manner. The purpose of the ROC is to measure the overall reasonableness of hospital charges. The introduction of the CPV, along with the current Commission practice of aligning inpatient and outpatient charges each year makes a comprehensive approach possible.

Staff recommends that each hospital's CPC and CPV be blended into a single Comprehensive Charge Target (CCT). An analogous blending of case mix (discussed below) will also be done. The CCT will be the starting point for the ROC analyses. The ROC adjustments will then be applied to the CCT to arrive at a final, adjusted CCT. The method for blending CPC and CPV is presented in Attachment 1.

The blended CCT addresses the key challenges highlighted above:

- *Conflicting inpatient and outpatient ROC results*. If a hospital is differentially efficient on an inpatient versus an outpatient basis that will be reflected in the blended CCT.
- *Peer groups*. Since inpatient revenues included in the CPC dwarf outpatient revenues included in the CPV the blended CCT does not substantially change the utility of peer groups as they are currently defined for inpatient.
- *IME adjustment*. The IME adjustment will be made on the overall CCT so there will be no need to develop separate CPC and CPV adjustments.

ROC Adjustments

Using the CCT as the starting point, the ROC analysis makes a series to adjustments. The adjustments yield a final, adjusted CCT that is used to compare hospitals to their peers. For presentation purposes, these adjustments can be classified as major adjustments – those that can substantially change a hospital's CCT, or minor adjustments – those that have a modest effect on the CCT.

Major Adjustments

Case Mix. The Commission accounts for case mix differences across hospitals on the inpatient side using the APR-DRG grouper, this system has been in use since 2005. As was discussed above, the changes in medical record documentation and coding that were induced by the introduction of APR-DRGs are complete. Outpatient case mix is determined using the EAPG grouper according to the policy approved by the Commission in June 2008. Unlike the inpatient grouper, outpatient case mix as determined by the EAPG grouper is not materially changed by changes in hospital medical record coding practices.[6] While the EAPG grouper has been in use for less time, staff believes that it accurately measures outpatient case mix across hospitals.

STAFF RECOMMENDATION: COMBINE INPATIENT AND OUTPATIENT CASE MIX INDEXES INTO A SINGLE ADJUSTMENT.

This recommendation logically follows from the blending of inpatient CPC and outpatient CPV. During the development of the outpatient Charge per Visit (CPV) system, case weights for significant procedure visits were calculated using two different methods: 1) case weights were assigned based on the principal APG (the highest weight) in the record; or 2) case weights were assigned based on 100 percent of the principal APG weight and partial weight for subsequent APGs in the record. Given the minimal increase in the explanatory power by use of multiple APGs (method 2), and the ease of monitoring when using a single APG for the case mix adjustment (method 1), HSCRC

[6] Unlike APR-DRGs, EAPGs make much greater use of procedure codes in assigning patient visits. The presence of additional diagnostic detail has very little effect on EAPG assignments.

staff recommended that the principal APG be used for the assignment of case weights in the CPV system.

During the ICC/ROC workgroup meetings, industry representatives expressed satisfaction with the case mix methodology used in the outpatient CPV system because each hospital's rate year performance is compared to its own base year performance. However, workgroup members stated the current CPV case mix methodology may be unfair when comparing the reasonableness of outpatient charges between hospitals considering that some hospitals may provide more multiple significant procedures within a visit compared to other hospitals. Commission staff agreed that this was a valid concern are proposing a revised outpatient case mix methodology to be used for the ROC. This methodology will provide partial weight for subsequent significant procedure APGs as follows:

The case weight will be based on 100 percent of the singleton weight for the highest weight APG, 65 percent of the singleton weight for the second highest weight APG, and 65 percent of the singleton weight for the third highest weight APG[7]. The resulting case mix index would be used in the February, 2009 ROC.

Indirect Medical Education (IME) The Commission has long recognized that a hospital's teaching mission adds some costs that need to be accounted for, if a fair comparison across hospitals is to be conducted. Some of these costs, such as the salaries of residents, can be readily quantified, and these direct costs are discussed below. In addition, the Commission recognizes that other costs associated with a teaching mission are not so easily measured. These indirect costs[8] need to be accounted for in the ROC. In the previous ROC the Commission used a regression analysis to arrive at an estimate of the impact of IME on teaching hospitals.

As in the past, the IME adjustment for the ROC was a source of considerable discussion. Part of this is due to the use of regression analysis as a tool to measure the IME effect. It is the nature of a regression that when there are a limited number of observations (such as 47 Maryland hospitals) only a limited number of variables can be tested, and those variables may end up capturing other, unrelated, effects.

Several participants in the workgroup argued that the methodology used to estimate IME for the previous ROC would result in an adjustment that would be too large, i.e., it would attribute more cost to a hospital's teaching mission than was appropriate. One source of this problem is the fact that many teaching hospitals are in urban settings and tend to serve more disadvantaged patients. A portion of the IME estimate was therefore, likely to be a measurement of services to this disadvantaged population.

[7] It is also staff's plan to revise the CPV methodology for the upcoming rate year to reflect this more refined approach to outpatient case mix. Assuming this change, future ROC analyses will not require that this additional case mix modification be made.

[8] The Commission is not alone in its recognition of the added costs associated with a hospital's teaching mission. The Medicare Prospective PaymentSsystem (PPS) has included an adjustment for teaching since its inception in 1982.

Disproportionate Share (DSH) adjustment. The Commission has a history of making what it calls a disproportionate share adjustment to account for the additional resource needs associated with treating large shares poor, high need patients. [9]The purpose of this adjustment is to account for additional costs (additional discharge planning, social work staff, etc) that hospitals treating a poorer population may incur. At different times in the past, the Commission has used a regression analysis a variable for the share of hospital charges to Medicaid patients to measure this burden. In ROC analyses prior to 2005 however, this adjustment had ceased to have any statistical validity, or worse, produced results that were illogical. For these reasons, the DSH adjustment was dropped from the calculation of the ROC.[10]

During the course of this year's ROC review analysis by staff, the teaching hospital group and the G-9 (non-teaching hospitals) have shown that regression analyses that adjust for teaching status and include a measure of the level of poor served by the hospital are statistically significant and logically consistent.[11] Staff strongly believes that a DSH adjustment should be reintroduced to the ROC with the IME adjustment. This adjustment is especially important, as staff hold that without a DSH adjustment the allowance for IME calculated by a regression will overstate the IME effect and distort the ROC comparisons.

STAFF RECOMMENDATION: INCLUDE REGRESSION BASED ADJUSTMENTS FOR IME AND DSH IN THE ROC ANALYSES The ROC should include adjustments for IME and DSH. These adjustments should be calculated via a regression analysis that introduces teaching intensity and high need share as separate independent variables. The measures used for teaching intensity and high need share have a substantial impact on the ROC. Staff recommends that these variables be calculated as follows:

- *Teaching intensity***.** Teaching intensity will be measured by the number of trainees (residents and fellows) per risk adjusted discharge. For the ROC, a resident or fellow is defined as someone who is actively enrolled in an Accreditation Council for Graduate Medical Education (ACGME) accredited training program (the number not to exceed the limit set by ACGME), and who is actively engaged in patient care at the hospital (either inpatient or in a hospital based clinic) on the first Tuesday after Labor Day. This measure of teaching intensity differs significantly from the one used in earlier ROC analyses. Those analyses used a resident per bed ratio, where residents were limited to those who had not yet finished a residency (e.g. physicians in sub-specialty programs were not counted). Staff believes that this earlier approach was

[9] Disproportionate Share Hospitals (DSH) is a term used by the federal Medicaid program to allow for specific payment arrangements by state Medicaid programs. The Commission's rate setting process largely eliminates such payment arrangements in Maryland, and the Commission's use of the term DSH should not be confused with the federal Medicaid policy.

[10] No DSH adjustment was made in the Spring 2008 ROC.

[11] There are several possible reasons why estimates of a DSH effect are statistically valid using current data, including: the blended CCT is a better basis for comparing hospital charges than inpatient alone; or, the variable to measure teaching intensity is different from previous ROC analyses.

incorrect as it artificially limited the number of individuals involved in medical training (especially at the Academic Medical Centers) and had the effect of overweighting the IME effect of each resident.

- *High need share***.** The high need share will be calculated as the percentage of a hospitals included charges accounted for by the following groups: inpatient and outpatient charges for individuals where Medicaid is the primary payer; inpatient and outpatient charges for individuals where self pay or charity care is the primary payer; and, inpatient charges where Medicare is the primary payer and Medicaid is the secondary payer.[12]

Minor Adjustments

Adjustment for Direct Medical Expenses: The current methodology uses a calculation to determine the cost of residents and then removes 75 percent of these costs from hospital revenue when calculating the ROC. There has been discussion as to whether the amount of revenue adjusted for should be increased to 100 percent and the calculation revisited. This issue directly bears on the IME discussion. Direct medical costs that are stripped will not be accounted for in an IME methodology and, conversely, direct medical costs that are not stripped will be picked up by an IME methodology.

Adjustment for Property and Sales Taxes. All but one Maryland hospital is a not-for-profit and therefore not subject to property and sales taxes. Southern Maryland Hospital Center is a for profit institution and therefore is subject to two unavoidable costs that the remainder of Maryland hospitals are not. Staff recommends that these specific costs be removed from Southern Maryland's revenue base as a direct strip.

STAFF RECOMMENDATION: THE DIRECT COST PER RESIDENT SHOULD CALCULATED AND 100 PERCENT THOSE COSTS REMOVED FROM A HOSPITAL'S CHARGES WHEN CALCULATING THE ROC.

Labor Market Adjustment. Each year the Commission gathers data from hospitals on the cost of various personnel categories in the hospital and the zip codes in which staff live. This data is then analyzed to create a labor market index that accounts for differing personnel costs the hospital faces.

STAFF RECOMMENDATION. THERE SHOULD BE NO CHANGE TO THE CALCULATION OR USE OF THE LABOR MARKET INDEX.

Adjustment for Capital In the 2005 ROC, a capital adjustment was the final step in the ROC, performed after hospital charges had been adjusted for Indirect Medical Expenses. The adjustment takes hospital capital costs (interest, depreciation, and certain leases) as reported on the hospital's ACS schedule of the annual report as a percentage of reported total costs. The hospital ROC charges are then adjusted by taking the sum of one half the

[12] Including Medicaid as secondary payer this measure captures poor elderly individuals who have Medicare as the primary payer.

hospitals capital costs plus one half of the hospital's peer group average capital costs. The effect of this adjustment is to improve a hospital's relative position on the ROC at the beginning of its capital cycle when capital costs are high, and, conversely, a hospital with low capital costs would see its ROC position deteriorate.

During the ROC review staff raised questions as to whether any capital adjustment was needed to compare hospitals under the ROC. Staff argued that hospitals should manage their capital cycle as they manage other costs. Under this reasoning, capital costs are but one, relatively small element of a hospital's costs within the control of the hospital.

Others in the workgroup held that a capital adjustment was necessary to maintain consistency between the ROC methodology, which compares hospital relative efficiency, and the ICC, which is used to determine rate adjustments for specific hospitals. Since the Commission has a process to adjust rates specifically for changes in capital costs (Partial Rate Reviews for Capital) it is possible that were it not for the capital adjustment, a hospital that was given an upward rate adjustment under the ICC process could subsequently see its rates reduced due to poor performance on the ROC.

STAFF RECOMMENDATION: CREATE AND APPLY A STATEWIDE CAPITAL ADJUSTMENT IN THE ROC Staff recommends that the ROC continue to have a capital adjustment but that the method and order of the adjustment be modified. The capital adjustment should be an index that is created by the sum of one half the hospital's capital costs plus one half of the statewide average capital cost. In the ROC process, all adjustments are either hospital specific or based on statewide analysis. The peer group specific capital adjustment is inconsistent with the rest of the methodology. Furthermore, the capital adjustment should be made prior to doing the regression analysis to estimate the IME and DSH adjustments. The ROC methodology is a series of adjustments that, in the end, lead to an adjusted charge per case number for each hospital that is used to compare the relative efficiency of hospitals. In such an analysis, the order of operation influences the results. The mechanics of regression are such that any effect (such as capital) that is not measured or accounted for will, to some extent, be captured by what is measured, i.e., if the capital adjustment is done after the regression adjustment for IME and DSH, the capital effect is double counted.

Staff also feels that the how capital is handled for the ROC and for partial rate applications needs to be carefully reviewed. A high priority for staff in the coming year will be to review how capital is handled in the ROC and whether a partial rate reviews for capital are still a necessary part of the rate setting system.

Comparing Hospitals.

Peer Groups The current ROC analysis compares hospitals against one and other in one of five distinct 'peer groups.' These peer groups match hospitals according to several factors (size, location, etc) and are intended to assure the ROC goal of a like-to-like comparison. The peer groups have long been used by the Commission for it ROC and ICC processes. The original need for the peer groups was that the tools that the Commission had to compare hospital were not sufficient to capture the differing

circumstances of all hospitals. The average charge of different peer groups could be quite different.

The use of the APR-DRG system substantially improves the Commission's ability to measure the relative differences in hospital case mix.[13] Likewise, the DSH adjustment proposed earlier accounts for other difference in patient characteristics that can drive hospital costs. One result of these and other ROC adjustments is the difference in the average adjusted charge among peer groups is relatively small. During the workgroup discussions two points were made regarding peer groups. First, if the variation in peer group average is small does analysis by peer groups serve any purpose? A second point made the G-9 (a group of non-teaching hospitals) was that these small variations in peer group means were, in fact, unfair as they held some hospitals to a lower adjusted charge standard than other hospitals in a different peer groups. Some in the workgroup argued that peer groups remain necessary as they continue to account for some unmeasureable variation among hospitals that is not accounted for in the ROC analysis.

STAFF RECOMMENDATION: THE UPCOMING ROC ANALYSIS SHOULD CONTINUE TO BE DONE ON A PEER GROUP BASIS, BUT THAT THE ISSUE OF PEER GROUPS SHOULD BE REVIEW IN THE COMING YEAR AND THE OPTION OF NO LONGER USING PEER GROUPS BE SERIOUSLY CONSIDERED. Staff is very skeptical about the continued utility of peer groups for the ROC process. Staff feels that with the improvements in case mix measurement and the accounting for DSH the major reasons for the creation of peer groups has been addressed. Staff will engage in discussion and analysis with the industry and payers to assess whether the ROC should be conducted on statewide basis, or whether an alternative from the current grouping is more appropriate.

ICC and Implementation Issues

These issues relate to how the ROC is applied and the actions the Commission may take based upon the results of the ROC. These issues are not methodological, but rather pertain to the application of the ROC and its results.

Scaling and Spenddowns One likely effect of the ROC moratorium that has been in effect since 2005 is that the differences among hospitals as determined by the ROC analysis are likely to have increased. This is likely due to two factors: first, the APR-DRG system may have identified case mix differences among hospitals that the earlier less precise DRG system did not; and, second, the moratorium means that for four years the Commission took no actions (aside from the limited ROC in January 2008) to adjust the rates of hospitals that were falling less in line with their peers. An early concern of the workgroup was that a revised methodology could lead to spenddown orders of a magnitude that would be extremely difficult for hospitals to comply with. As an alternative to spenddowns the workgroup discussed the use of scaling, whereby a hospital's yearly rate update is adjusted up or down depending on the outcome of the ROC.

[13] Unmeasured patient severity was consistently cited as one of the factors that required hospitals to be grouped by peer group.

STAFF RECOMMENDATION: THE COMMISSION SHOULD IMPOSE NO SPENDDOWNS BASED ON THE 2009 ROC, BUT IT SHOULD INSTEAD SCALE THE FY 2010 UPDATE FACTOR. Staff recommends that there be no spenddowns based upon for the upcoming ROC. This recommendation only applies to 2009 ROC analysis. Based on the results of that ROC, staff proposes that the Rate Year 2010 update include a scaling methodology based on the hospital's position on the ROC. The use of spenddowns and scaling in later years is still to be determined.

The MHA has proposed a scaling methodology that is a revision of staff's January 14, 2009 recommendation. Staff agrees that the MHA proposal is reasonable and achieves the same ends as the earlier proposal. There staff recommends that the scaling methodology should apply according to the following parameters:

- Upper and lower bounds of scaling. The scaling should apply to the top and bottom hospital quartiles. Hospital's whose ROC position placed them in either the highest or lowest quartile will be subject to a scaling adjustment. Hospitals in the highest and lowest deciles will be should be subject to the maximum scaling reward or penalty.
- Relationship of scaling to the rate update factor. The highest reward or penalty should be 33percent of the base update factor.
- Scaling should be continuous. MHA proposed two level of either positive or negative scaling between the upper and lower bounds. Staff feels that the differentials between those "notches" is too great - 0.9% in the MHA example. Such a large differential effect among hospitals that have almost identical results has two problems: first it is inequitable; and, second, it will inevitably lead to contentious disputes between hospitals and Commission staff. Staff recommends that continuous scaling be applied between the 75^{th} and 90^{th} percentiles.

Annual vs. semi-annual ROC/ICC Historically, the Commission has conducted the ROC twice a year. This twice a year schedule allowed for new information to be accounted for and appropriate actions to be taken. During the review process hospitals have suggested that a single annual ROC may be an appropriate schedule.

STAFF RECOMMENDATION: THERE SHOULD ONLY BE A SINGLE ROC ANALYSIS CONDUCTED IN 2009 Since the Staff is recommending that no spenddowns be imposed based on this ROC, and that a scaling methodology be applied to the update factor, there is no need to conduct a semi-annual ROC in the upcoming year. Staff further recommends that there continue to be discussions with payer and the industry in the coming year to consider the most appropriate schedule for the ROC analysis and action based on that analysis.

Integrating the ROC and the ICC The ROC analysis determines hospital position relative to one another. The ICC is the process that the Commission uses to determine the exact magnitude of any rate adjustment that may result from the ROC. It is therefore, important that these processes are integrated to give consistent results. Some of the revisions to the ROC methodology require adjustments to the current ICC methods to maintain consistency.

STAFF RECOMMENDATION: CONTINUE TO WORK WITH THE INDUSTRY AND PAYERS TO ADDRESS ISSUES RELATED TO THE INTEGRATION OF THE ROC AND THE ICC.

SUMMARY OF RECOMMENDATIONS

Establishing hospital baseline charges

- Continue to use the current trim points.

- Blend the CPC and CPV into a single comprehensive charge target (CCT).

ROC adjustments

Major adjustments

- Combine inpatient and outpatient case mix indexes into a single adjustment.

- Include regression based adjustments for IME and DSH in the ROC analyses.

Minor adjustments

- The direct cost per resident should calculated and 100 percent those costs removed from a hospital's charges when calculating the ROC.

- There should be no change to the calculation or use of the labor market index.

- Create and apply a statewide capital adjustment in the ROC.

Comparing hospitals

- The upcoming ROC analysis should continue to be done on a peer group basis, but peer groups should be reviewed in the coming year and the option of no longer using peer groups should be seriously considered.

Implementation issues

- The commission should impose no spenddowns based on the upcoming ROC, but it should instead scale the FY 2010 update factor.

- There should only be a singly ROC analysis conducted in 2009.

- Work with the industry and payers to address issues related to the integration of the ROC and the ICC.

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