

Children's Hospital Association Comments

Pediatric Lower Respiratory Infection Readmission Measure (2414)

Pediatric All Condition Readmission Measure (2393)

The Children's Hospital Association (the Association) appreciates the opportunity to comment on the pediatric measures that are being considered as part of the National Quality Forum (NQF) All-Cause Admissions and Readmissions Measure Endorsement Project. To our knowledge, the Pediatric All-Condition Readmission Measure (2393) and Pediatric Lower Respiratory Infection Readmission Measure (2414) are the first measures developed through the Pediatric Quality Measures Program (PQMP) that was established as a result of the Children's Health Insurance Program Reauthorization Act to be submitted for NQF endorsement. As the first significant national investment in pediatric quality measurement, the PQMP is critically important in beginning to close the gap in the availability of measures to assess and support improvement of the quality of care provided to all sub-populations of children – from those who are generally healthy to those with special health care needs and multiple and complex medical conditions. Currently available and endorsed pediatric measures are heavily clustered in the “staying healthy” domain and do not adequately address children with significant health care needs.

We applaud the work that went into the development of the readmissions measures. The Association supports measuring readmissions as “an essential first step to gauge the magnitude of the problem and to motivate investigations to understand the causes of readmissions, including those that health systems can remedy” as stated in the measure developer's rationale for the measure (p. 4 of Measure Information Form). We further appreciate the fact that the models used for the two measures were developed specifically for pediatric patients, involved pediatric expert clinicians in identifying planned procedures, and that full specifications as well as SAS programs will be provided for use by stakeholders.

Because of the inherent limitations of administrative data, the current unavailability of a sound national claims data base in pediatrics and the lack of additional measures to help establish the validity of the measures, however, the Association believes that caution is needed prior to using the measures for the purposes of accountability, especially at the hospital (vs. systems) level. In particular, we believe that: 1) consideration should be given to revising the models to include risk adjustment for socioeconomic status (SES) and/or other sociodemographic variables if the NQF adopts the recent recommendations of the Expert Panel on Risk Adjustment for SES or other Sociodemographic Factors and if the measures are used for accountability purposes, and 2) additional experience with the measures is needed to assess their validity and the potential for unintended consequences that might result from their use in accountability initiatives. As discussed below, the incidence of readmissions is lower in children as compared to adults, and experience is needed to as-

sess the degree to which the measures identify readmissions that could not have been prevented.

In addition, the Association believes that the considerable work to develop and test these measures using the Medicaid Analytic eXtract (MAX) and Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID) with revisit information highlights the critical need for a national data infrastructure for pediatrics similar to the Medicare claims database. These points are further discussed below.

Finally, we would like to highlight some of the important discussion during the in-person Steering Committee meeting on May 6 with regard to the larger context in which measures might be used. The environments in which hospitals operate, such as access to primary care, quality of outpatient care and community factors, affect readmissions. We urge the Steering Committee to include language in its report to reflect the Steering Committee discussion and to provide further guidance to the Measures Application Partnership as well as other measure users as they consider measures to recommend or use for various programs.

Risk Adjustment for Socioeconomic Status and/or Other Sociodemographic Variables

On March 18, the National Quality Forum (NQF) released a draft technical report “Risk Adjustment for Socioeconomic Status or Other Sociodemographic Factors,” which included eight recommendations related to the inclusion of socioeconomic status (SES) or other sociodemographic factors in adjusting for risk in certain quality outcomes and process measures. These recommendations reflect a change in current NQF policy. It is our understanding that NQF intends to consider the comments received on the draft report in developing a final report, with a decision by the Board of Directors on whether or not to adopt the recommendations anticipated in early July. In the meantime, the NQF instructed the All Cause Admissions and Readmissions Steering Committee to review candidate measures using current NQF criteria, which do not allow for including SES or other sociodemographic variables in risk adjustment.

The Children's Hospital Association was among the many organizations that commented favorably on the recommendations included in the report on risk adjustment for SES or other sociodemographic factors. We believe that hospitals, other providers and delivery systems should strive to ameliorate patient barriers to achieving optimal health, including the development of innovative programs and community partnerships. As an example, with funding from the Lucile Packard Foundation for Child Health and through partnerships with over 50 national stakeholders including home and school nurses, case managers, social workers, and parents, Boston Children's Hospital recently completed a checklist for hospitals to use to improve hospital discharge care for children. At the same time, we agree with the Expert Panel's consensus that failure to account for SES or other sociodemographic factors in comparing performance can have negative unintended consequences for patients and their families.

One of the recommendations included in the draft report is that risk adjustment of measures used for the purposes of accountability should include SES or sociodemographic factors when there is a conceptual relationship and empirical evidence that these factors affect the process or outcome reflected in the performance measure. We believe that the documentation accompanying the pediatric all-condition readmission measure and the pediatric lower respiratory infection readmission measure demonstrates that such a conceptual relationship exists and provides empirical evidence that supports consideration of including SES and/or other sociodemographic factors in risk adjustment.

The measure developer, the Center of Excellence for Pediatric Quality Measurement, provides evidence that Black patients and Hispanic patients had higher rates of readmission than did White patients after controlling for case-mix in its all-payer dataset but not in its Medicaid-only dataset and suggests that “socioeconomic status, as reflected by insurance status, might explain at least some of the apparent difference in readmission risk.” In addition, the developer found that insurance status was associated with readmission independent of case mix and index admission hospital. Specifically, Medicaid-insured patients were significantly more likely than those with private insurance, other types of insurance or self-pay status to experience readmissions. Although the developer notes that readmission rates stratified by insurance status tend to be correlated within hospitals, it would seem that payer mix would be an important consideration in comparing all-payer readmissions rates across hospitals.

Should the National Quality Forum adopt the policy recommended by the Expert Panel on Risk Adjustment for SES or other Sociodemographic Factors, the Children's Hospital Association urges that the NQF quickly work with the measure developer to evaluate the need to expand the risk adjustment methodology for measures 2393 and 2414. We believe that it is vital that this be done before using the measures for purposes of accountability. Given that the measure developers were able to analyze disparities in readmission risk by insurance status and race/ethnicity, we are confident that they would be able to add these variables to their risk-adjustment model.

The Association also supports the Expert Panel's proposed policy of stratifying results according to SES and other sociodemographic factors. We agree that it is important to clearly identify and address disparities whether measures are used for accountability purposes or solely for quality improvement. Unique pediatric variables that might be considered in risk adjustment and stratification include parental characteristics (e.g., marital status, parental age, health status and educational level, parental involvement with the criminal justice system), foster care, and home consistency. It is our understanding that another PQMP Center of Excellence (the Center of Excellence on Quality of Care Measures for Children with Complex Needs based at Seattle Children's Hospital) is exploring the development of a mechanism to identify children with social complexity using administrative data that may be of use.

Additional Experience Needed to Validate Pediatric Readmissions Measures

During its in-person meeting on May 6, the Steering Committee discussed the difficulty of establishing convergent validity of the readmissions measures given the dearth of currently available pediatric measures. The Association agrees and is aware of other work underway through the PQMP that can help to address this challenge. For example, the Seattle Center of Excellence is developing measures related to the quality of transitions between care settings that would complement and help to understand and validate readmission measures.

The Children's Hospital Association has previously commented on limitations of using all-cause approaches to measuring readmissions in the context of adult care. We applaud the work of the Center of Excellence for Pediatric Quality Measurement to develop an algorithm for identifying planned readmissions. However, although we recognize the difficulty of distinguishing between "unplanned" and "preventable" readmissions using administrative data, we believe it will be important to gain experience with the pediatric readmissions measures to assess the degree to which they capture readmissions that are clearly unrelated to the index admission or could not have been prevented. From the perspective of face-validity, it is difficult to understand how an admission for a broken limb following an index admission for a lower respiratory infection should be considered as a measure of hospital quality of care. In a study of 15-day readmissions in one children's hospital, Gay et al. found that 18 percent of readmissions for patients with an initial admission for an acute condition were unrelated to the initial admission (e.g., for a new illness, trauma or accident).

During the May 6 meeting, one of the Steering Committee members observed that it might be important to look at rates of admissions in addition to readmissions to evaluate system and hospital performance in order to avoid penalizing hospitals that are part of systems that are working to avoid unnecessary hospitalizations. We agree with this recommendation and note that the system in which the hospital operates is an important factor in evaluating performance. As such, we suggest that these measures might be first used to assess performance at the broader system level (plan, state, etc.). This is not to say that hospitals do not have a role in preventing readmission. However other factors, such as access to primary care, quality of outpatient care, and community factors also play an important role. Indeed, the description of the All Cause Admissions and Readmissions Project, as well as the measure submissions, reflect that sentiment.

Measure Reliability

The Association appreciates the detailed information provided on the measure testing. We note that the readmission rate reliability was < 0.5 for more than 70% of the 2,111 hospitals included in the MAX dataset for the all-condition readmission measure and for more than 85% of the 1,743 hospitals included in the data set for the pediatric lower respiratory infection readmission measure. The rates were higher among hospitals with 100 or more index hospitalizations. For example, the readmission rate reliability was 0.7 or greater for 45% percent of hospitals with 100 or more index hospitalizations for the all-condition readmission measures and for 13% of hospitals with 100 or more index hospitalizations and at least 25 annual index hospitalizations for lower respiratory tract

infections for the lower respiratory infection readmission measure. Although the developers note that the readmission rates are “reliable for hospitals accounting for a large proportion of index hospitalizations,” we believe that the reliability statistics are worrisome, especially if the measures are used for accountability purposes without additional guidance. We understand that the hierarchical modelling used to standardize the readmission rates is likely to drive results for smaller hospitals closer to the mean. It will be important to understand the best ways in which to assess performance for larger hospitals and hospitals that treat patients with higher acuity and medical complexity. Stratifying comparisons by hospital type may be the fairest and most useful approach.

Again, we believe it will be very important to test the measures extensively and provide ample guidance for their suitability for pay for performance and public reporting initiatives. For example, although data from all hospitals are useful in adjusting readmission rates based on relationships between case-mix adjustment variables and readmission risk, it will be important to think through the implications of whether and how readmission rates are reported for low volume hospitals given the lower reliability of the measures in these hospitals. The dry run process described for the hospital-wide all-cause unplanned readmission measure during the Steering Committee meeting on May 6 provides a useful example, although we would hope to see a greater role for the Steering Committee with regard the ability to make recommendations related to suitability for endorsement for various purposes once presented with dry run data rather than simply a review function.

Need for National Data Infrastructure for Pediatrics

The Center of Excellence for Pediatric Quality Measurement developed the case-mix adjustment and standardization approach using Medicaid data and notes that “there are several options for calculating rates that could be compared nationally.” These include combining Medicaid or all-payer databases from multiple states. Testing was conducted with New York State in both of these types of data. Experience with additional datasets would help to identify the degree to which missing data and/or data quality issues exist.

Potential variability in quality and limited timeliness of state Medicaid databases combined with a lower volume of hospitalizations in pediatrics as compared to adults highlight the need for a national database for pediatric care. While both the Medicaid Analytic eXtract and HCUP State Inpatient Databases (SID) can be used to measure pediatric hospital readmissions across states, the necessary data are only available for a select number of states, the data are typically at least one to two years delayed, and a significant amount of data cleaning needs to be done before using the information despite the attempts to standardize a number of the data elements included in the database. The Association believes that the pediatric readmissions measures provide an excellent example of the need for a national data infrastructure for pediatrics similar to the Medicare Claims Database along with the QIO Clinical Data Warehouse that allows for hospitals to submit all-payer data for use in Hospital Compare.

Thank you again for the opportunity to comment on these measures. We look forward to seeing the Steering Committee's draft report.