TO: National Quality Forum

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RE: NQF EENT Project: 0002 Appropriate Testing for Children with Pharyngitis

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This memo describes NCQA's re-evaluation process for the *Appropriate Testing for Children with Pharyngitis* measure, and summarizes feedback from the expert workgroup that NCQA convened to help address key concerns raised by the NQF EENT Steering Committee.

Measure Description: Percentage of children 2-18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode. This is an administrative, claims-based measure, and is reported at the health plan level.

As part of our measure development process, NCQA regularly reviews all measures to ensure they continue to meet the HEDIS Desirable Attributes of relevance, scientific soundness and feasibility. This process is known as re-evaluation. Before the NQF EENT Steering Committee in June, NCQA planned to re-evaluate the Appropriate Testing for Children with Pharyngitis (CWP) measure with the intention of updating the measure's age range from 2-18 to 3-18 years of age based on updated guidelines by the Infectious Diseases Society of America (IDSA).[1]

However, during the June meeting, the Steering Committee raised questions regarding the American Academy of Family Physicians (AAFP) endorsement of the Centor Criteria[2] used to predict the likelihood of GAS pharyngitis, and raised concerns about over testing. Specifically, the committee was concerned about the Centor guidance to empirically treat children (no test) who are considered high risk (score of 4 or 5). Use of this guidance could penalize providers who see children with high scores if their health plan reports the measure as currently specified.

CWP Workgroup Feedback

To address the Steering Committee's concerns, NCQA convened an expert workgroup to guide our understanding of the current evidence on testing, diagnosis, and treatment of GAS pharyngitis and to help form our recommendations for updating the measure. The workgroup consisted of two family physicians and two pediatricians, one of whom specializes in infectious diseases. During the workgroup meeting, NCQA highlighted the AAFP and IDSA disagreement on the appropriate time to test for GAS pharyngitis, information on the Centor Criteria including validation study results, and options for updating the measure.

The major discussion items included:

- Limitations of an administrative, claims-based measure that is reported at the health plan level
  - It is not feasible to capture specific diagnostic scoring such as the Centor Calculator scoring.
- The validity of the Centor Criteria
  - How often does it accurately predict the likelihood of GAS pharyngitis?
  - Does it cause antibiotic overtreatment?
- Centers for Disease Control and Prevention (CDC) Recommendation: The 2015 CDC recommendations for pharyngitis reference the IDSA guidelines that "aim to minimize unnecessary antibiotic exposure by emphasizing appropriate use of Rapid Antigen Detection Tests (RADT) and subsequent treatment."[1] For diagnosing GAS pharyngitis, the CDC states that children with a sore throat plus two or more additional symptoms, such as absence of cough and history of fever, should be given a RADT test.[3]
- The sensitivity and specificity of RADT and culture

The workgroup agreed that limiting unnecessary antibiotic use in children is the intent of the measure and recognized the limitations of a claims-based measure. NCQA presented results from a large-scale validation study that showed only 55 percent of children 3-14 years of age who received the highest Centor score (4 or 5) actually tested positive for GAS (these are children who according to the Centor criteria would be not tested, and treated empirically).[4] Workgroup members agreed that although the prevalence of GAS is fairly high in children with a Centor score of 4 or 5, many patients may be treated unnecessarily. NCQA also presented results from a study evaluating the sensitivity and specificity of RADT (sensitivity = 70%, specificity = 98%).[5]

All workgroup members agreed with raising the age range from 2-18 to 3-18 years of age. We received mixed opinions from the workgroup on maintaining the alignment of the measure with the IDSA guidelines to test all children suspected of having GAS pharyngitis before prescribing antibiotic treatment. Given the measure intent and changing clinical guidance, some members agreed that keeping the measure as currently specified and updating the age range is the best recommendation. One member did not support NCQA basing the measure on the IDSA guidelines.

The next step in our measure re-evaluation process is to take our recommendation to NCQA's Committee on Performance Measurement, our multi-stakeholder panel that oversees the development of all HEDIS measures. Our rationale for not attempting to include the Centor Criteria is that the CWP measure is an administrative, claims-based measure and therefore it's not feasible to capture specific diagnostic scoring such as that used in the Centor Criteria score. Also, research shows that symptoms identifying patients at high risk (i.e. score of 4 or 5 for whom Centor recommends presumptive treatment) are associated with GAS pharyngitis in only half of children. This can lead to unnecessary antibiotic treatment because according to the modified Centor Criteria, testing to confirm a diagnosis of GAS pharyngitis in these scoring categories is not necessary.

NCQA Recommendation to our Committee on Performance Measurement (CPM): Update the age range from 2-18 to 3-18 years of age and continue to require a strep test when antibiotics are prescribed.

Memo References

1. Infectious Diseases Society of America. 2012. "Clinical Practice Guideline for the Diagnosis and Management of Group A Streptococcal Pharyngitis: 2012 Update."
2. Choby, B.A. "Diagnosis and Treatment of Streptococcal Pharyngitis." Am Fam Physician. March 2009; 79(5):383-390.
3. Centers for Disease Control and Prevention. 2015. Pediatric Treatment Recommendations. http://www.cdc.gov/getsmart/community/for-hcp/outpatient-hcp/pediatric-treatment-rec.pdf
4. Fine AM, Nizet V, Mandl KD. Large-Scale Validation of the Centor and McIsaac Scores to Predict Group A Streptococcal Pharyngitis. Archives of Internal Medicine. 2012; 172(11):847–852.
5. Tanz RR, Gerber MA, et al. Performance of a Rapid Antigen-Detection Test and Throat Culture in Community Pediatric Offices: Implications for Management of Pharyngitis. Pediatrics. 2009; 123(2); 437 -444.