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To: National Quality Forum

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Re: Response to Concerns of NQF Neurology Steering Committee

We are sharing our perspective on the concerns raised by the Neurology Steering Committee regarding the PQA-developed measure of Antipsychotic Use in Persons with Dementia (#2111). This measure had been developed through PQA's multi-stakeholder, consensus-based, process and was tested within two Medicare Advantage organizations (encompassing a total of 33 Medicare Advantage contracts with CMS) and one employer-sponsored retiree drug benefit plan. The measure was also endorsed by PQA membership in June 2012.

The measure is intended to be used for assessment across Medicare plans and is specified for the data that are available at the plan-level (e.g., medical and drug claims data). We recognize that clinical details on each patient are not available through claims data; however, the diagnosis codes and drug codes are available across all plans and are sufficiently accurate for population-level, or plan-level, assessment. The purpose of measuring safety at the plan-level is to identify plans that may be outliers in that the utilization rate of antipsychotics in the outlier plan is far above the average rate across all plans.

When constructing the measure specifications, the goal was to identify the population of patients that are at high-risk of adverse events from use of antipsychotic medications (i.e., persons with dementia) and to further focus on the sub-population of dementia patients who do NOT have a documented diagnosis that an antipsychotic is clearly indicated (i.e., we exclude persons who have a diagnosis that identifies them as having psychoses or behavioral disturbances). Thus, the measure identifies the proportion of patients at high risk of antipsychotic-associated adverse event but without a diagnosis code to indicate that an antipsychotic drug is necessary.

The steering committee expressed concerns with the measure under consideration. Several of the broad concerns are noted below along with our response.

1. The committee asked why the PQA list of ICD-9 codes for dementia was narrower than the list provided for other measures related to dementia. We have attached an Appendix that compares the list of diagnosis codes used by PQA, AMDA and PCPI for dementia-related measures. It is important to note that the purpose of each measure is different and thus the corresponding list of ICD-9 codes differs according to the purpose of the measure. The PQA list of diagnosis codes is narrowest because our measure is intended to focus on the subset of dementia patients who do not

have a clear indication for an antipsychotic drug. Therefore, we did not include ICD-9 codes for dementia-related diagnoses that indicate a behavioral disturbance or psychoses. For example, we did not include ICD-9 = 294.11 "Dementia in conditions classified elsewhere with behavioral disturbance" since patients with this diagnosis have a behavioral disturbance for which an antipsychotic may be warranted.

2. The committee was concerned that there was no clear indication of what "score" on this measure would constitute optimal performance (i.e. it is not expected that plans should have a rate of 0%). As noted earlier, the purpose of this measure is for comparison of Medicare plans to identify those who have a score that is significantly different than the average score. This is based on the premise that there may always be a small percentage of patients who are appropriately receiving an antipsychotic drug but who did not have a diagnosis code listed in the claims data to indicate the purpose of the antipsychotic.

We asked our testing partners to provide us with additional breakdown of the performance rates for each Medicare contract that was included in the original analyses. Previously, we had only reported the rates across the Medicare Advantage organization rather than for each specific contract. By re-analyzing the data at the contract level (which is how CMS performs its analyses), we are better able to assess the variability in performance across Medicare contracts. Since some of the contracts had extremely small sample sizes, we compared only those contracts with enrollment of at least 1,000 beneficiaries. **Across the individual contracts, the performance rate varied from 10.2% to 20.3% with an average of 13.9% and standard deviation of 3.7%. Thus, there is variation in performance across the Medicare contracts with some of the contracts having a rate that is nearly 2 standard deviations above the average.**

3. The committee asked whether the drug markers for dementia were truly specific to dementia. Conversely, could the drug markers be used for conditions other than dementia? The drug markers are medications from the following classes: cholinesterase inhibitors and NMDA receptor antagonists. These medications are only indicated for dementia and are unlikely to be used for non-dementia conditions within our older adult population. However, it is possible that older adults could receive these medications for the late effects of traumatic brain injury. Therefore, we asked one of our testing partners to identify the percentage of patients within our analyses who had a claim with the ICD-9 code for the late effects of traumatic brain injury (907.0). Out of 48,341 patients identified as having dementia, only 46 patients had a claim with ICD-9 of 907.0 (less than 0.1%). Some of these patients also had a diagnosis code for dementia so the likelihood of the patient receiving the dementia medication for traumatic brain injury without dementia is nil.

Given that the medication markers for dementia are highly-specific to dementia, it is appropriate to use these markers to supplement the diagnosis codes for dementia for identification of the denominator population. When using the combination of medication marker and dementia diagnosis code, we found a fairly consistent rate dementia patients across the numerous Medicare contracts (average of 4.6% ; range of 3.4% to 5.9%). As noted earlier, the percentage of the population included in our dementia measure is not intended to replicate the overall rate of dementia in the general population since we are focused on a subset of dementia patients who do <u>not</u> have a diagnosis indicating psychoses or behavioral disturbance.

Appendix 1: ICD-9 codes for dementias

A: ADMA Measure	B: PQA Measure	C: PCPI Measures	Rationale
290 Dementias	X	X	Harmonized
290.0 Senile dementia, uncomplicated	X	X	Harmonized
290.1 Presenile dementia	X	X	Harmonized
290.10 Presenile dementia, uncomplicated	X	X	Harmonized
290.11 Presenile dementia with delirium	X	X	Harmonized
290.12 Presenile dementia with delusional features	X	X	Harmonized
290.13 Presenile dementia with depressive features	X	X	Harmonized
290.2 Senile dementia with delusional or depressive features	X	X	Harmonized
290.20 Senile dementia with delusional features	X	X	Harmonized
290.21 Senile dementia with depressive features	X	X	Harmonized
290.3 Senile dementia with delirium	X	X	Harmonized
290.4 Vascular dementia	X	X	Harmonized
290.40 Vascular dementia, uncomplicated	X	X	Harmonized
290.41 Vascular dementia with delirium	X	X	Harmonized
290.42 Vascular dementia with delusions	X	X	Harmonized
290.43 Vascular dementia with depressed mood	X	X	Harmonized
290.8 Other specified senile *psychotic* conditions		X	This COULD be treated appropriately with antipsychotic because of psychotic condition.
290.9 Unspecified senile *psychotic* condition		X	This COULD be treated appropriately with antipsychotic because of psychotic condition, especially with a secondary code of 294.11, but should it only be included with the secondary code..
294 Dementia in conditions classified elsewhere			Non-specific and includes: Meynert's amentia (nonalcoholic) 294.0 Amnestic (confabulatory) syndrome 294.0 Amnestic post-traumatic 294.0 Korsakoff-Wernicke psychosis (294.0) Korsakoff-Wernicke (nonalcoholic) 294.0, but without mention of psychosis

294.10 Dementia in conditions classified elsewhere without behavioral disturbance	X	X	Harmonized
294.11 Dementia in conditions classified elsewhere with behavioral disturbance		X	This COULD be treated appropriately with antipsychotic because of behavioral disturbance .
	294.20 Dementia in conditions classified elsewhere withOUT behavioral disturbance	X	PCPI also includes 294.21: Dementia in conditions classified elsewhere "with behavioral disturbance" (aggressive, combative, violent).
294.8 Other persistent mental disorders due to conditions classified elsewhere		X	Amnestic syndrome) Also, Organic Brain Syndrome due to chronic brain infection is classified as 294.8. In each case, with or without 294.11 could make a huge difference.
294.9 Unspecified persistent mental disorders due to conditions classified elsewhere			Anergasia (see also Psychosis, organic) 294.9 psychosis, psychotic reaction (see also Psychosis, organic) 294.9. This category also includes Organic brain disorder, not elsewhere classified (NEC), this gives a lot of squishiness that the committee wanted to avoid, in my humble opinion. Cognitive disorders NOS.
331 Other cerebral degenerations			This code may be too non-specific.
331.0 Alzheimer's disease	X	X	Harmonized
331.1 Frontotemporal dementia			This would be better served with a secondary code for 294.11.
331.11 Pick's disease		X	Pick's disease is more often associated with behavioral disturbances and may be more challenging to effectively treat with standard dementia drugs or non-drug therapy .
331.19 Other frontotemporal dementia		X	Similar issues to Pick's disease.
331.2 Senile degeneration of brain			"correct" coding for this one states, "add modifier 294.11 for dementia with behavioral disturbances and 294.10 without. In this case, a procedure code such as PET could help differentiate. Moreover, this ICD-9 code is not included in the DSM-IV for dementia or for any other reason, include dementia with medical conditions. I can't find any diagnostic criteria for this ICD-9 code. DO use a 294 code as a secondary code for diagnoses other than Alzheimer's disease, or 331.2 can be used for Organic Brain Syndrome when a clear diagnosis has not yet been determined and the patient is still being evaluated…from dementiacoalition.org

331.3 Communicating hydrocephalus			foramen Magendie (acquired) 331.3' these are classified as "diseases of the neurological system" versus dementia. In this case, it is secondary to a medical condition. May still be a dementia, but not organic.
331.4 Obstructive hydrocephalus			
331.7 Cerebral degeneration in diseases classified elsewhere			
331.8 Other cerebral degeneration			This would be better if the fifth value was included (e.g., 331.82 includes dementia with Lewy bodies, dementia with Parkinsonism, Lewy body dementia, Lewy body disease).
331.82 Dementia with Lewy bodies	X	X	Harmonized