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Letters to the Editor

Disease Staging and PMCs

To the Editor:

As stated by Ms. Calore and Dr. Iezzoni in their August 1987 article entitled "Disease Staging and PMCs: Can They Improve DRGs?," one of the critical advantages of Staging and PMCs over DRGs is that both systems use combinations of ICD-9-CM diagnosis codes to make one or more category assignments. In this way, both staging and PMCs "use the detail provided by multiple, clinically related diagnostic codes to more precisely define patient groups."

The authors of this recent article further note that the data base used in their analysis (1982 Michigan Medicare claims, Part A and B merged) "provide a very rich clinical base for an analysis of casemix because the data include up to five diagnoses and three procedures." Unfortunately, the authors do not note that in this pre-PPS, 1982 data base of 300,122 merged Part A and B Medicare claims, no cases actually have more than two diagnosis codes listed. In fact, the distribution of diagnosis codes in the 1982 Medicare data base used in this study is as follows:

Number of Diagnosis Codes	Percent of Patients
0	0.10%
1	50.25%
2	49.65%
3	—
4	—
5	—

It should be noted that the limited amount of diagnosis data in this 1982 data base is not unusual. In fact, prior to the federally mandated use of UB-82, most data bases used for claims processing by public and private insurers were limited by the number of diagnosis codes collected and the types of coding systems used. With the use of UB-82 by Medicare, however, this situation changed. For example, in the 1985 Blue Cross of Western Pennsylvania claims data base, approximately 40% of the patients had three or more diagnosis codes listed.

Because of this fact, the data base that was used in this research should not have been used to address the question that is the focus of this article. With half of the patients in the data base having only one diagnosis code, it is not possible to test the strength and stated advantages of Staging and PMCs. For this reason alone, the conclusions drawn in this article are unwarranted.

This is not to say that a more complete data base combined with the authors' methodology will ensure valid results. On the contrary, there are significant methodologic deficiencies in this research that need to be corrected. It is not my intent, however, to review the article but merely to point out that a negative conclusion about whether staging and PMCs can improve DRGs is not possible given the negative bias of the data base.

If the authors were aware of the data base limitations before the analysis was undertaken, they should have sought a more complete data base or abandoned the analysis. If they didn't know the limitations of the data base, they should have. But regardless of whether or not the authors knew of the data limitations at the start of the project, it is clear that they did know of them in June 1987 when both the analysis and the data were discussed at a meeting convened by the Prospective Payment Assessment Commission. Given this fact, it is remarkable to me that the authors (even at that late date in June) did not stop these unwarranted conclusions from becoming part of the published literature.

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