Practical Algorithms in Anemia Diagnosis

To the Editor: In the October 2003 issue of Mayo Clinic Proceedings, I authored a concise review article on a contemporary approach to the evaluation and diagnosis of anemia in adults. In that article, I classified anemia into macrocytic, normocytic, and microcytic categories based on the mean corpuscular volume (MCV)—MCV >100 fl, 80-100 fl, and <80 fl, respectively. I also provided a stepwise approach to a specific diagnosis in each of these categories. I have since received numerous requests from readers of the Proceedings to complement the concise review with practical algorithms that correspond to each of the 3 categories of anemia. I am happy to accommodate that request (Figures 1, 2, and 3). However, I remind readers that such algorithms should serve only as guidelines and that an in-depth review of the clinical and laboratory data is essential before making a specific diagnosis in an individual patient.

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FIGURE 1. Evaluation of macrocytic anemia. AZT = zidovudine; MCV = mean corpuscular volume; MMA = methylnaltrexone acid.
Figure 2: Evaluation of normocytic anemia. FOBT = fecal occult blood test; LDH = lactate dehydrogenase.

Figure 3: Evaluation of microcytic anemia.