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Guidelines for Echocardiography of Low-Risk Patients With Kawasaki Disease

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and as appropriate for a randomized, controlled trial, the analysis was based on intention to treat (ie, on randomized treatment allocation) rather than the (observed) duration or exclusivity of breastfeeding. We strongly disagree with their argument that ignoring randomization and basing our analysis on the observed duration or exclusivity of breastfeeding would be a “more logical approach.” In fact, such an approach would completely vitiate the methodologic benefits of randomization in preventing selection bias and residual confounding.

Our large sample size was required precisely because of the attenuation of the treatment effect caused by the (completely expected) overlap in breastfeeding behavior in the experimental and control groups. That such a design can detect true causal effects of the experimental intervention with an intention-to-treat analysis is clearly shown by the statistically significant effects we reported on gastrointestinal infection, atopic eczema, and growth in infancy^{1,2} and cognitive development at the age of 6.5 years.³ The absence of any observed effect of the intervention on child behavior, therefore, cannot simply be attributed to an insufficient difference in breastfeeding in the 2 randomized treatment groups.

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REFERENCES

1. Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the Republic of Belarus. *JAMA*. 2001;285(4):413–420
2. Kramer MS, Guo T, Platt RW, et al. Breastfeeding and infant growth: biology or bias? *Pediatrics*. 2002;110(2 pt 1):343–347
3. Kramer MS, Aboud F, Mironova E, et al. Breastfeeding and child cognitive development: new evidence from a large randomized trial. *Arch Gen Psychiatry*. 2008;65(5):578–584

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Guidelines for Echocardiography of Low-Risk Patients With Kawasaki Disease

To the Editor.—

A recent institutional review regarding follow-up cardiac imaging for low-risk patients with Kawasaki disease demonstrated significant variability in the timing and frequency of echocardiography. There are many factors that may account for this variability in practice and compliance with published guidelines for long-term management of these patients. One of the potential factors we have identified, which may have local and national implications, is the discrepancy between the most recent clinical guidelines for diagnosis, treatment, and long-term management of Kawasaki disease¹ and the current *Red Book*.²

The American Heart Association guidelines, first pub-

lished in 1994³ and updated in 2004,¹ recommend echocardiography of low-risk or “uncomplicated” patients with Kawasaki disease “at the time of diagnosis, at 2 weeks, and at 6 to 8 weeks after onset of the disease.”¹ Although the *Red Book* references the 2004 American Heart Association guidelines, the authors recommend that “an echocardiogram should be obtained early in the acute phase of illness and 6 to 8 weeks after onset.” This recommendation is inconsistent with current American Heart Association guidelines and may partially account for local or national variability regarding follow-up practices for children diagnosed with Kawasaki disease.

We believe that this is a significant discrepancy; thus, we would like to reiterate the 2004 recommendations of the American Heart Association’s Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease that echocardiography should be performed for all uncomplicated, low-risk patients with Kawasaki disease at diagnosis and at 2 and 6 to 8 weeks after the onset of disease.

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REFERENCES

1. Newburger JW, Takahashi M, Gerber MA, et al. Diagnosis, treatment, and long-term management of Kawasaki disease: a statement for health professionals from the Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease, Council on Cardiovascular Disease in the Young, American Heart Association [published correction appears in *Pediatrics*. 2005;115(4):1118]. *Pediatrics*. 2004;114(6):1708–1733
2. American Academy of Pediatrics. Kawasaki disease. In: Pickering LK, Baker CJ, Long SS, McMillan JA, eds. *Red Book: 2006 Report of the Committee on Infectious Diseases*. 27th ed. Elk Grove Village, IL: American Academy of Pediatrics. 2006:412–415
3. Dajani AS, Taubert KA, Takahashi M, et al. Guidelines for long-term management of patients with Kawasaki disease. Report from the Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease, Council on Cardiovascular Disease in the Young, American Heart Association. *Circulation*. 1994;89(2):916–922

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In Reply.—

We appreciate the letter by Lowry et al inquiring about the timing and frequency of echocardiography for low-risk patients with Kawasaki disease and the opportunity to clarify the American Academy of Pediatrics (AAP) policy published in the *Red Book*. Recommendations in the *Red Book* are evidence based and are generated by the Committee on Infectious Diseases (*Red Book* Committee), other AAP committees, the Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention, and other evidence-based committees of organizations such as the Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease of the

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