## Interim PET-CT Scan in Advanced Hodgkin's Lymphoma

TO THE EDITOR: Johnson et al. (June 23 issue)<sup>1</sup> report that their trial included 172 patients with advanced-stage Hodgkin's lymphoma who switched from doxorubicin, bleomycin, vinblastine, and dacarbazine (ABVD) to bleomycin, etoposide, doxorubicin, cyclophosphamide, vincristine, procarbazine, and prednisone (BEACOPP) because of positive results on interim positron-emission tomography (PET) with <sup>18</sup>F-fluorodeoxyglucose (FDG). Among these patients, the 3-year progression-free survival rate was 67.5% and the overall survival rate was 87.8%. These patients had more therapy-related adverse events than did patients who had negative results on interim FDG-PET and continued to receive ABVD chemotherapy. Unfortunately, the benefit of early intensification with BEACOPP in patients who had positive results on interim FDG-PET cannot be assessed because, as in other recent nonrandomized studies of chemotherapy intensification, the trial design did not include a randomized comparison between continuation of standard ABVD chemotherapy and intensified BEACOPP chemotherapy and because of futile comparisons with historical cohorts in trials in which the methods and results were not homogeneous.2

Remarkably, the German Hodgkin Study Group HD15 trial<sup>3</sup> showed that 191 patients who continued to have positive findings on FDG-PET after six to eight cycles of BEACOPP had a good 4-year progression-free survival rate of 86.2% after they received additional treatment with radiation therapy. Comparable results were observed in studies that included patients who had early-stage or advanced-stage Hodgkin's lymphoma and received ABVD.<sup>4,5</sup> These findings show that radiation therapy can successfully eradicate persistent FDG-avid lesions after first-line therapy and that early intensification of chemotherapy may not be warranted in these patients.

Hugo J.A. Adams, M.D., Ph.D. Thomas C. Kwee, M.D., Ph.D.

University Medical Center Utrecht Utrecht, the Netherlands h.j.a.adams@gmail.com

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THE AUTHORS REPLY: Adams and Kwee point out that the patients with positive findings on an interim PET-computed tomographic (PET-CT) scan in our trial were not randomly assigned to continue ABVD. Instead, all these patients switched to BEACOPP regimens. A proposal for this group to undergo randomization was strongly rejected by patient representatives and investigators during the trial design on the grounds that historical series showed unacceptably low rates of progression-free survival ranging from 13 to 28%. By comparison, three separate prospective studies showed that escalation to BEACOPP resulted in progression-free survival rates of 65 to 70%. 1,2 Further supportive evidence was provided in the Intergroup European Organization for Research and Treatment of Cancer-Lymphoma Study Association-Fondazione Italiana Linfomi H10 (EORTC/FIL H10) trial<sup>3</sup> in which patients with early-stage disease who continued to have positive findings on an interim PET scan underwent randomization. Although all the patients received consolidation radiotherapy, the rate of progression-free survival at 5 years was higher among patients who received BEACOPP than among patients who continued to receive ABVD (91% vs. 77%).

Radiotherapy instead of intensified chemotherapy might be appropriate for patients with early-stage disease, but in our trial most patients who had positive PET findings had disease that was too extensive for a limited radiotherapy field. The long-term toxicity of extended-field radiotherapy is well documented<sup>4</sup> and is a strong reason to use interim PET scanning as a means to tailor therapy to individual patient responses and thereby minimize exposure to radiotherapy.

Peter Johnson, M.D.

University of Southampton Southampton, United Kingdom johnsonp@soton.ac.uk

Judith Trotman, M.D.

Concord Repatriation General Hospital Sydney, NSW, Australia

Massimo Federico, M.D.

University of Modena and Reggio Emilia Modena, Italy

Since publication of their article, the authors report no further potential conflict of interest.

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## **Caregivers and Families of Critically III Patients**

TO THE EDITOR: The study by Cameron and colleagues (May 12 issue)1 takes an expanded view of outcomes after critical illness. The authors found that many caregivers have persistent depressive symptoms, which reveal the reverberations of illness beyond the index patient. This article and others<sup>2</sup> highlight the need to revise the view of the patient from a solitary figure to a person embedded in a social network. A personal network method offers the means to do this. Also called egocentric networks, this approach identifies the various persons around a focal person and elaborates the structure and characteristics of the relationships.3 The personal network method explicates how a patient is situated in a complex "social connectome" that is made of strong and weak relationships, kin and non-kin, and persons with varied health habits. It shows the ripples in the network that occur from health shocks such as sudden critical illness, stroke, and myocardial infarction; conversely, network characteristics probably affect outcomes. We look forward to future studies that take a network approach to better understand outcomes and suggest targets for sustainable network recovery.

Amar Dhand, M.D., D.Phil. Steven K. Feske, M.D.

Brigham and Women's Hospital Boston, MA adhand@partners.org

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TO THE EDITOR: The attention to the Perspective article by Wittenberg and Prosser (May 12 issue)1 and the study by Cameron et al., which emphasize that a patient's health both affects and is affected by the well-being of family members, is timely. Both articles concern high-income countries with well-developed health systems. We want to stress that challenges for caregivers are even greater in low-income settings.2 With the increasing prevalence of chronic noncommunicable diseases, families carry heavy burdens in countries in which health care systems are oriented toward acute care populations. Our research on households in Uganda that include a member with type 2 diabetes has shown the difficulties of providing care. Apart from the high treatment cost and loss of income, household members also experienced stress related to the chronic illness.3 Although Wittenberg and Prosser underscore the negative effects on caregivers' health, having a household member with type 2 diabetes may also benefit the cardiometabolic health of other members.3,4 We suggested that diabetes education for patients should be family-based and agree that health is a family affair, not least in low-income coun-