

travascular ultrasonography trials. *Ann Intern Med* 2007;147:10-8.

4. Franklin SS, Pio JR, Wong ND, et al. Predictors of new-onset diastolic and systolic hypertension: the Framingham Heart Study. *Circulation* 2005;111:1121-7.

THE AUTHORS REPLY: We reported the prespecified major outcomes from the UKPDS according to the two primary randomization categories (intensive glucose therapy or conventional glucose control), and we agree with Lund et al. and Petrie that it would be useful to present extended comparisons between individual glucose therapies and the follow-up data from the UKPDS sub-study in which patients were randomly assigned to receive sulfonylurea plus metformin or sulfonylurea alone.¹

The continued large-scale use of UKPDS findings to inform the recommendations of committees developing evidence-based guidelines worldwide² is at variance with Mühlhauser's concerns about the limitations of the UKPDS. We agree, however, that more high-quality clinical trials are needed to evaluate the long-term benefits and

potential risks of existing and new therapies for diabetes.

In response to Cruickshank's comment: the UKPDS showed that ACE inhibitors and beta-blockers as first-line therapy to lower blood pressure were equally efficacious with respect to macrovascular and microvascular outcomes.² The nominally significant post-trial emergence of a reduced risk of death from any cause with previous assignment to beta-blocker therapy is encouraging but not definitive.

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1. UK Prospective Diabetes Study (UKPDS) Group. Effect of intensive blood-glucose control with metformin on complications in overweight patients with type 2 diabetes (UKPDS 34). *Lancet* 1998;352:854-65. [Erratum, *Lancet* 1998;352:1558.]
2. Home PD. Impact of the UKPDS — an overview. *Diabet Med* 2008;25:Suppl 2:2-8.

Breast Reconstruction after Breast-Cancer Surgery

TO THE EDITOR: Cordeiro (Oct. 9 issue)¹ describes a patient who may undergo postoperative radiation therapy after mastectomy. He states that the best therapeutic option would be prosthesis-based breast reconstruction. Because of the patient's limited abdominal tissue, the possible use of the superior gluteal artery perforator (SGAP) flap is mentioned but rejected in favor of an expander-implant approach. However, this operative approach is at odds with the results of several studies confirming the significantly increased risk of capsular contracture and other secondary complications in patients who received radiation as compared with patients with implants who did not receive radiation^{2,3} and as compared with patients undergoing autogenous breast reconstruction who received radiation.⁴ Hence, we would strongly recommend autogenous-tissue transfer in this patient, so as to avoid the radiotherapy-related risk of formation of a capsular contracture.

Free microvascular transplantation of the SGAP flap would provide an excellent long-lasting cosmetic result in this patient. This procedure may be performed with insufficient abdominal tissue, as in the patient described by Cordeiro, or even after previous transfer of a deep inferior epigastric perforator flap for autogenous reconstruction of the contralateral breast (Fig. 1).

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1. Cordeiro PG. Breast reconstruction after surgery for breast cancer. *N Engl J Med* 2008;359:1590-601.
2. Cordeiro PG, McCarthy CM. A single surgeon's 12-year experience with tissue expander/implant breast reconstruction. II. An analysis of long-term complications, aesthetic outcomes, and patient satisfaction. *Plast Reconstr Surg* 2006;118:832-9.
3. Behranwala KA, Dua RS, Ross GM, Ward A, A'Hern R, Gui GP. The influence of radiotherapy on capsule formation and aes-



Figure 1. A 57-Year-Old Patient after Reconstruction of Her Breasts.

The patient underwent delayed autogenous reconstruction of her right breast after radiotherapy and the formation of a capsular contracture. Six months later, delayed reconstruction of the right breast was performed with the transfer of a free microvascular deep inferior epigastric perforator flap. Her left breast was reconstructed with the transfer of a free microvascular superior gluteal artery perforator flap after complete mastectomy and radiotherapy. Nipple–areola complexes were reconstructed with skin grafts obtained from the groin (for the areolae) and local skin flaps (for the nipples). Good symmetry and a satisfactory and long-lasting cosmetic result 1 year after the second reconstruction are shown.

thetic outcome after immediate breast reconstruction using bidimensional anatomical expander implants. *J Plast Reconstr Aesthet Surg* 2006;59:1043-51.

4. Pomahac B, Recht A, May JW, Hergueter CA, Slavin SA. New trends in breast cancer management: is the era of immediate breast reconstruction changing? *Ann Surg* 2006;244:282-8. [Erratum, *Ann Surg* 2007;245(3):table of contents.]

TO THE EDITOR: In his review of reconstruction after surgery for breast cancer, Cordeiro draws attention to the lack of guidelines on breast reconstruction. The Association of Breast Surgery at BASO (the British Association of Surgical Oncology), the British Association of Plastic, Reconstructive and Aesthetic Surgeons, and the Training Interface Group in Breast Surgery recently have produced a guide to good practice¹ in which we have defined the processes and standards for surgical teams to ensure that the appropriate equipment, facilities, training, and time are available for the safe performance of oncologic reconstructive breast surgery.

Although we agree that controlled trials are difficult to conduct in this group of women, the proposed multicenter, randomized Quality of Life after Mastectomy and Breast Reconstruction trial² in the United Kingdom will assess the impact of the type and timing of breast reconstruction on quality of life after mastectomy.

We hope our guidance will help patients, providers, and payers to understand that there are standards for the safest possible performance of breast reconstruction after breast cancer.

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1. Oncoplastic breast surgery: a guide to good practice. *Eur J Surg Oncol* 2007;33:Suppl 1:S1-S23. [Erratum, *Eur J Surg Oncol* 2008;34(6):II.] (Also available at http://www.baso.org.uk/Downloads/Oncoplastic_Guidelines.pdf.)

2. Potter S, Winters ZE. The QUEST study: a multicentre randomised trial to assess the impact of the type and timing of breast reconstruction on quality of life following mastectomy. *Breast Cancer Res* 2008;10:Suppl 2:P87. abstract. (Also available at <http://breast-cancer-research.com/content/10/S2/P87>.)

TO THE EDITOR: In his review of breast reconstruction with silicone implants, Cordeiro states “it is now clear that silicone and breast implants are not linked to cancer, immunologic or neurologic disorders, or any other systemic disease.” However, four references cited by the author as showing silicone was safe all showed that silicone was not entirely safe.

Sanchez-Guerrero et al.¹ found significant morning stiffness as a sign of immune activation, Karlson et al.² described significant antibodies to single-stranded DNA, and Gaubitz et al.³ found significant antinuclear-antibody positivity and neuropathy. Arthralgias, tingling, myalgias, and fatigue occurred in 50 to 75% of these patients. The magnetic resonance imaging study reported on by Brown et al.⁴ showed fibromyalgia in 25% of patients with extracapsular rupture and in 13% of the other patients (expected rate, 3%). These findings point to a new undefined syndrome.

Our experience confirms the findings of Rohrich et al.⁵ that implant removal stabilizes and ultimately improves these symptoms. Plastic surgeons and rheumatologists need to get together to de-

fine the syndrome, study the influence of implant removal, and establish a health assessment-like questionnaire that plastic surgeons could use to counsel patients.

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1. Sanchez-Guerrero J, Colditz GA, Karlson EW, Hunter DJ, Speizer FE, Liang MH. Silicone breast implants and the risk of connective-tissue diseases and symptoms. *N Engl J Med* 1995; 332:1666-70.
2. Karlson EW, Hankinson SE, Liang MH, et al. Association of silicone breast implants with immunologic abnormalities: a prospective study. *Am J Med* 1999;106:11-9.
3. Gaubitz M, Jackisch C, Domschke W, Heindel W, Pfeleiderer B. Silicone breast implants: correlation between implant ruptures, magnetic resonance spectroscopically estimated silicone presence in the liver, antibody status and clinical symptoms. *Rheumatology (Oxford)* 2002;41:129-35.
4. Brown SL, Pennello G, Berg WA, Soo MS, Middleton MS. Silicone gel breast implant rupture, extracapsular silicone, and health status in a population of women. *J Rheumatol* 2001;28: 996-1003.
5. Rohrich RJ, Kenkel JM, Adams WP, Beran S, Conner WC. A prospective analysis of patients undergoing silicone breast implant explantation. *Plast Reconstr Surg* 2000;105:2529-37.

TO THE EDITOR: Cordeiro judiciously addresses the issue of reconstructive breast surgery in patients undergoing mastectomy, with a special focus on the aesthetic outcome. As radiation oncologists, we agree that breast reconstruction is problematic in previously irradiated tissues, significantly increasing the risk of subsequent complications. Immediate reconstructive surgery also interacts unfavorably with postmastectomy radiation therapy. The initiation of radiotherapy is delayed, and anatomical changes induced by implant-based procedures create technical difficulties.¹ Radiation treatment planning is technically altered, with major compromises in terms of optimal chest-wall coverage, avoidance of the heart, minimization of the radiation dose to the lung, and treatment of the ipsilateral internal mammary lymph nodes, leading to potential uncertainties in the efficacy of postmastectomy radiation therapy.² The recent availability of intensity-modulated radiation treatment techniques may improve the quality of dose distribution after reconstructive surgery.³ Multidisciplinary preoperative discussion remains necessary in order to optimize the timing of breast reconstruction in patients with high-risk breast cancer.

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1. Chawla AK, Kachnic LA, Taghian AG, Niemierko A, Zapton DT, Powell SN. Radiotherapy and breast reconstruction: complications and cosmesis with TRAM versus tissue expander/implant. *Int J Radiat Oncol Biol Phys* 2002;54:520-6.
2. Motwani SB, Strom EA, Schechter NR, et al. The impact of immediate breast reconstruction on the technical delivery of post-mastectomy radiotherapy. *Int J Radiat Oncol Biol Phys* 2006;66: 76-82.
3. Koutcher L, Ballangrud A, Cordeiro P, McCormick B, Hunt M, Beal K. Postmastectomy intensity modulated radiation therapy (IMRT) in women who undergo immediate breast reconstruction. *Int J Radiat Oncol Biol Phys* 2007;69:Suppl:S222. abstract.

THE AUTHOR REPLIES: Patients with stage III breast cancer who undergo postmastectomy radiation therapy often have limited options for reconstruction. Radiation therapy to the chest wall can injure normal tissues and adversely affect the aesthetic outcomes in both implant-based and autologous tissue-based reconstruction. However, a significant percentage of patients with immediate implant reconstructions can attain acceptable results despite postoperative radiation therapy and — most importantly — patient satisfaction remains high.¹ Patients who are not satisfied can undergo implant removal and subsequent reconstruction with autologous tissue such as a gluteus flap, as described by Beier et al. Irradiated flaps have been shown to have a greater than 85% rate of late complications and require a high rate (28%) of secondary flaps for salvage.² If the patient were to proceed with an immediate gluteus reconstruction, the postoperative radiation would potentially ruin the result; therefore, the recommendation for immediate implant reconstruction makes sense.

The silicone controversy has largely been resolved, since most large studies provide support for the concept that the use of silicone is safe. A court-appointed National Science Panel performed a systematic review of all studies providing scientific evidence of any association between silicone breast implants and all types of systemic and connective diseases and concluded that there was no association.³ The current position of the Food and Drug Administration (FDA) is that “in the past decade, a number of independent studies have examined whether silicone gel-filled breast implants are associated with connective tissue disease or cancer.

The studies, including a report by the Institute of Medicine, have concluded there is no convincing evidence that breast implants are associated with either of these diseases.”⁴ The FDA approved the use of silicone implants “based on a thorough review of each company’s clinical (core) and pre-clinical studies, a review of studies by independent scientific bodies and deliberations of advisory panels of outside experts that heard public comment from hundreds of stakeholders.”⁴

Finally, Chargari et al. summarize some of the problems associated with reconstruction in patients who have undergone or potentially will undergo radiation therapy. However, it is possible to deliver adequate postoperative radiation with reconstruction when the patient is cared for by a multidisciplinary team that addresses all the different issues surrounding both oncologic treatment and reconstructive options.^{1,5}

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1. Cordeiro PG, Pusic AL, Disa JJ, McCormick B, VanZee K. Irradiation after immediate tissue expander/implant breast reconstruction: outcomes, complications, aesthetic results, and satisfaction among 156 patients. *Plast Reconstr Surg* 2004;113:877-81.
2. Tran NV, Chang DW, Gupta A, Kroll SS, Robb GL. Comparison of immediate and delayed free TRAM flap breast reconstruction in patients receiving postmastectomy radiation therapy. *Plast Reconstr Surg* 2001;108:78-82.
3. Tugwell P, Wells G, Peterson J, et al. Do silicone breast implants cause rheumatologic disorders? A systematic review for a court-appointed National Science Panel. *Arthritis Rheum* 2001;44:2477-84.
4. FDA approves silicone gel-filled breast implants after in-depth evaluation. Rockville, MD: Food and Drug Administration, 2006. (Accessed January 5, 2009, at <http://www.fda.gov/bbs/topics/NEWS/2006/NEW01512.html>.)
5. McCormick B, Wright J, Cordeiro PG. Breast reconstruction combined with radiation therapy: long-term risks and factors related to decision making. *Cancer J* 2008;14:264-8.

Executive Physicals

TO THE EDITOR: The Mayo Clinic’s Executive Health Program was one of two programs specifically mentioned in the Perspective article by Rank (Oct. 2 issue¹) that characterized executive physicals as expensive, ineffective, and inequitable. We disagree.

An executive health evaluation is essentially a periodic health evaluation in a defined population. A recent systematic review concluded that the periodic health evaluation improves delivery of some preventive services.²

Costs vary, but executive health programs can be cost-effective.³ There is little evidence they divert resources and deprive others of appropriate medical care. Everyone in the United States should have basic preventive services covered, yet more than 45 million people do not because they are uninsured. In some cases, executive health programs may help support care for those with no insurance coverage.

Considerable disparity exists among programs in terms of testing and other clinical services. Some executive health programs provide comprehensive, efficient, effective, and individualized patient-based care at a reasonable cost. When practiced in this way, these programs emulate a model

of medical care that American health care should embrace and provide to a larger proportion of the population.

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Dr. Hensrud reports serving as the chairman of the Division of Preventive, Occupational, and Aerospace Medicine, in which the Executive Health Program is located, and having served as director of this program. Dr. Rhodes reports serving as the current director of the Executive Health Program. No other potential conflict of interest relevant to this letter was reported.

1. Rank B. Executive physicals — bad medicine on three counts. *N Engl J Med* 2008;359:1424-5.
2. Boulware LE, Marinopoulos S, Phillips KA, et al. Systematic review: the value of the periodic health evaluation. *Ann Intern Med* 2007;146:289-300.
3. Burton WN, Chen CY, Conti DJ, Schultz AB, Edington DW. The value of the periodic executive health examination: experience at Bank One and summary of the literature. *J Occup Environ Med* 2002;44:737-44.

TO THE EDITOR: Rank opines that executive health physicals are “bad medicine.” His discussion fails to investigate the impetus for their growth: patients’ desire for more time with a physician. Currently, patients spend about 15 minutes with their