In this issue of *Onkologie*, Bornhak and colleagues [1] present a study on symptom-oriented follow-up of early breast cancer patients. This prospective, multicenter cohort study is an important study for women with breast cancer and their health care providers, both for Germany and the world. It demonstrates that overall and relapse free survival is similar for breast cancer patients whether they are followed with routine laboratory and imaging studies (chest x-rays, liver ultrasound, CEA and CA 15-3) or with testing triggered when symptoms develop. The results are consistent with other well-designed randomized studies [2, 3] that show survival for breast cancer patients is not improved with routine imaging or laboratory testing in asymptomatic women. Rojas and colleagues [4], in a Cochrane Collaboration review of 4 randomized, controlled clinical trials found no difference in survival between patients observed with intensive radiological and laboratory testing and those observed with only clinical visits and mammography. Routine history taking, physical exams and mammography are still the best ways to follow breast cancer patients, as reflected in the evidence-based guidelines from the American Society of Clinical Oncology [5] Health Canada’s Canadian Breast Cancer Initiative [6], and National Comprehensive Cancer Center Network [7].

Yet, despite the evidence that routine testing does not improve survival or quality of life, routine imaging and tumor marker assessments are still widely utilized [8] and are very costly [9]. Why are so many of us still hesitant to rely on routine clinical visits and mammography alone when it comes to breast cancer surveillance? Oncologists should listen to their patients more closely. Most patients do not want intense testing; in this study, almost two-thirds of participants chose less intensive follow-up via the symptom-oriented surveillance pathway. No studies show that follow-up every 3–6 months is more effective than less frequent follow-up schedules in terms of survival or quality of life; and less frequent follow-up is certainly acceptable to a large number of patients and may have other benefits such as cost savings [10].

Many oncologists still hold to the outdated idea that more intense follow-up leads to better medical outcomes, despite the data from the randomized and non-randomized trials. Recent data shows oncologists are ordering fewer tests, but we still tend to order more unnecessary tests, especially tumor markers, and more CAT scans [11]. There are other questions not addressed by this study that also deserve attention:

1. **Would outcomes have been different if CA27.29 was monitored rather than CA15-3?** Gion and colleagues have demonstrated that CA27.29 is as good as CA 15-3 in clinical practice, but not better. [12] Like CA 15-3, CA27.29 has been shown to detect cancer recurrences 5.3 months sooner than symptom development alone [13]. However, metastatic recurrences are incurable and the use of CA27.29 has never been shown to lead to improved survival, quality of life, cost-effectiveness or reduced toxicity. Plus, the CA 15-3 or 27.29 rarely detect curable in-breast or local-regional recurrences. Continued use of the test suggests that oncologists simply do not know or believe the information. This German study should help change German minds.

2. **Would the outcomes be the same if patients were randomized onto the follow-up arms of the study rather than choosing the follow-up strategy?** It is not likely that randomization would have influenced the outcomes in favor of intensive surveillance. A higher proportion of patients who chose more intensive follow-up vs. symptom oriented follow-up had T2 or greater tumors (54.1 vs. 40.7%, respectively) and were more likely to have N1/N2 disease (38.8 vs. 29.6%, respectively). Yet, the probability of staying recurrence free was 82% in both groups. When the groups were adjusted for variables that influence recurrence, such as node status, there was no difference in the probability of RFS.

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3. Is there a role for routine labs or imaging >5 years after diagnosis? While the risk of breast cancer recurrence is highest in the first 5 years after diagnosis, cumulative breast cancer recurrences between 5 and 15 years is equal to or greater than the number of recurrences in years 1–5 (33.2 recurrence at 15 years versus 15.1% recurrences at year 5 in ER-positive or ER-negative women treated with 5 years of tamoxifen) [14]. The 10-year survival data from the Italian National Research Council [15] of intensive versus standard breast cancer follow-up showed no difference in survival between the two groups despite the fact that recurrences were found earlier in the intensive surveillance group [3]. We do not know if oncologists or primary care physicians are more likely to detect recurrences in these long-term survivors, or if other types of long-term routine testing help in these situations.

4. Will we need to find other strategies to reduce the burden on medical oncologists to provide breast cancer surveillance? A study commissioned by the American Society of Clinical Oncology estimates that by 2020 the demand for oncology services will grow by 48%, but the services available will grow by only 14% (www.asco.org/workforce) [16]. Who will provide all the breast cancer care that will be needed? After all, we know that in certain populations of breast cancer patients, the rate of annual mammography declines within a few years after diagnosis [17, 18]. Will disparities in cancer care delivery only be exacerbated with a shortage of oncologists? We may see primary care physicians (PCPs) play an increasing role in breast cancer surveillance since follow-up by PCPs appears to lead to the same health outcomes as specialist follow-up with good patient satisfaction and lower cost [19–22].

5. What will best improve quality of supportive care and survivorship that breast cancer patients need such as treatment for hot flashes, vaginal atrophy, bone health, dietary fat reduction, exercise, and vegetable/fruit intake [23], chronic pain or neuropathy and other preventive health? Many studies demonstrate that supportive care is already poor and that provider perceptions and treatment practices are often not aligned with patients’ needs in such areas as anxiety/depression, neuropathy, hot flashes and bone health maintenance [24–27]. Database studies of women over 65 show that survivors under-use preventive health services, but those who see both their oncologist and primary health care provider receive more appropriate comprehensive preventive care [28, 29]. The checklist approach to patient care used in this study is an excellent start, and should be tested against other methods of quality improvement. We may increasingly rely on information technologies to assist providers and patients in follow-up care such as portable electronic shared decision-making tools that can empower patients to pursue better quality care.

It would be wonderful if medical technology would allow us to detect cancer recurrences early enough to make an impact on survival or quality of life with appropriate palliative or even curative treatment. Perhaps we will find recurrence risk assays that identify ‘high risk’ patients who would benefit from targeted intensive surveillance. Or perhaps we will be able to use a combination of novel tumor markers and circulating tumor cell assays to identify patients with very early breast cancer recurrences who would benefit from earlier treatment. Mammograms (and perhaps now MRIs) do that, but all other tests fall short. Until such technology has demonstrated a benefit to survival or quality of life, the most up-to-date breast cancer surveillance care is clinical exams and mammography alone. It is what most patients choose, it works as well as more intense strategies, and it conserves resources that can be used in treating the disease.

References


