

5. Garcia-Manero G, Shan J, Faderl S, et al: A prognostic score for patients with lower risk myelodysplastic syndrome. *Leukemia* 22:538-543, 2008
6. Sanz GF, Sanz MA, Vallespi T, et al: Two regression models and a scoring system for predicting survival and planning treatment in myelodysplastic syndromes: A multivariate analysis of prognostic factors in 370 patients. *Blood* 74:395-408, 1989
7. Greenberg P, Cox C, LeBeau MM, et al: International scoring system for evaluating prognosis in myelodysplastic syndromes. *Blood* 89:2079-2088, 1997

8. Hannum G, Guinney J, Zhao L, et al: Genome-wide methylation profiles reveal quantitative views of human aging rates. *Mol Cell* 49:359-367, 2013
9. Barrett EL, Richardson DS: Sex differences in telomeres and lifespan. *Aging Cell* 10:913-921, 2011
10. Mahfouz RZ, Koh LS, Teo M, et al: Gender, cytidine deaminase, and 5-aza/decitabine-response. *Clin Cancer Res* 19:3106-3107, 2013

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Reply to T. Radivoyevitch et al

Radivoyevitch and Sauntharajah¹ propose that female sex is associated with better survival in myelodysplastic syndromes. They also point out that our randomized study of lower-dose decitabine² had an imbalance in sex distribution between both arms. It should be noted that this trial followed an adaptive design that resulted in early termination of the study and fewer patients in arm B (this was because of an early determination of increased response rate in arm A). Therefore, it is not unexpected that imbalances in clinical characteristics could result from such a design. Despite this and with longer follow-up (reported in the article), both arms were associated with similar outcomes, and it is therefore obvious that sex imbalance did not have an effect on the results and the conclusion of the article. The data discussed by Radivoyevitch and Sauntharajah are of interest, but at this point, circumstantial and not

based on significant prospective analysis, and do not seem to be supported by our study.

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AUTHOR'S DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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REFERENCES

1. Radivoyevitch T, Sauntharajah Y: Sex difference in myelodysplastic syndrome survival and balance in randomized clinical trials. *J Clin Oncol* 32:60-61, 2014
2. Garcia-Manero G, Jabbour E, Borthakur G, et al: Randomized open-label phase II study of decitabine in patients with low- or intermediate-risk myelodysplastic syndromes. *J Clin Oncol* 31:2548-2553, 2013

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Easy Navigating Through the Forest of Survivorship Care

TO THE EDITOR: The report of the Institute of Medicine Committee on Survivorship Care¹ and, more recently, the American Society of Clinical Oncology Survivorship Care statement² strongly recommended providing patients with cancer a treatment summary and follow-up plan to guide their necessary aftercare. In a recent *Journal of Clinical Oncology* article, Parry et al³ clearly state that experiences with survivorship care plans (SCPs) up to now have had limited success.^{4,5} Survivors of adult-onset cancers often lack a high-quality health care plan. Moreover, SCPs are not well integrated into processes of care coordination. By focusing too much on the care plan as a document summarizing the treatment, we tend to forget the primary goal of a plan in general: guiding follow-up care to ensure that survivors receive appropriate care after cancer treatment.

Parry et al³ propose an elucidating conceptual framework on the basis of years of survivorship care research and organization (Fig 1 of the Parry et al article). They advocate the embedding of SCPs within the context of models of care, processes of care, and technology platforms. Contemporary technology platforms should be used to generate and share SCPs and support patient-centered care planning and patient-provider communication.

We embrace this idea of integrating electronically available information in the process of compiling SCPs. Many of the theoretical concepts that comprise the framework by Parry et al are put into practice in Survivor Care, a mobile application we recently developed (Appendix Fig A1). This Survivor Care app serves as a carrier for a

digital personal SCP. Patients become increasingly accustomed to handling digital data by using Web sites and smartphones. With this personal SCP at their fingertips, survivors not only know what care needs to be provided, but also when, where, and by whom (eg, oncologist, nurse practitioner, or primary care physician).

Currently, the generation of SCPs is the limiting step in the organization of patient-centered survivorship care. Patients receive complex cancer treatments with known late effects, but resources are often simply insufficient to summarize this information in patient-friendly documents. Collecting relevant diagnosis and treatment data and reporting this in a paper document is a time-consuming process. In addition, even if these documents can be provided, they often lack time-specific follow-up plans, which impairs care coordination between patients and multiple care providers.

In the Survivor Care app, a selection of relevant data is derived by the treating oncologist from the patient's health records. The data are entered into a Web-based plan generator. Algorithms based on existing guidelines are used to personalize care plans depending on the individual diagnosis, comorbidity, and treatment characteristics. The data are subsequently encoded in a QR code that can be scanned with the Survivor Care app by the patient, directly from the computer screen of the oncologist. This technology not only ensures convenient data transfer from physician to patient but also limits security risks. The technology can be made available to oncology centers in the Netherlands and other countries. The SCP can be printed on paper for patients without a smartphone.

During follow-up, Survivor Care allows patients to keep track of different appointments. This enables patients to be optimally in control and co-manage their own follow-up, offering the possibilities of

individualized education and healthy lifestyle support. The information describes the goal of follow-up assessments and redirects to online resources and communities.

Parry et al³ underscore the importance of evaluation of survivorship care. This app is being evaluated as part of a trial of a shared-care survivorship care program for patients with testicular cancer who are subjected to an intense follow-up schedule after treatment with chemotherapy for metastatic disease (ClinicalTrials.gov identifier: NCT01783145). Both the patient's primary care physician and oncologist receive a copy of the SCP, extended with additional information on patterns of disease recurrence, late effects, and cardiovascular risk management. As a result of the long-standing curability of testicular cancer, the research on late effects of treatment in these survivors is extensive and well-organized.^{6,7} Patients with testicular cancer still function as a model for curative treatment of advanced cancer.

The steadily growing population of cancer survivors should have the best available survivorship care. Simple and smart instruments like the Survivor Care app can help survivors easily navigate their follow-up based on a personal plan, which is executed in conjunction with other caregivers. As such, Survivor Care fits perfectly into the Parry framework. Survivorship care should combine the expertise of several disciplines. This app will accommodate easy navigation through the forest of survivorship care with the patient in control.

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REFERENCES

- Hewitt M, Greenfield S, Stovall E (eds): From Cancer Patient to Cancer Survivor: Lost in Transition. Washington, DC, National Academies Press, 2006 (pp 151-153)
- McCabe MS, Bhatia S, Oeffinger KC, et al: American Society of Clinical Oncology statement: Achieving high-quality cancer survivorship care. *J Clin Oncol* 31:631-640, 2013
- Parry C, Kent EE, Forsythe LP, et al: Can't see the forest for the care plan: A call to revisit the context of care planning. *J Clin Oncol* 31:2651-2653, 2013
- Grunfeld E, Julian JA, Pond G, et al: Evaluating survivorship care plans: Results of a randomized, clinical trial of patients with breast cancer. *J Clin Oncol* 29:4755-4762, 2011
- Stricker CT, Jacobs LA, Risendal B, et al: Survivorship care planning after the Institute of Medicine recommendations: How are we faring? *J Cancer Surviv* 5:358-370, 2011
- Travis LB, Beard C, Allan JM, et al: Testicular cancer survivorship: Research strategies and recommendations. *J Natl Cancer Inst* 102:1114-1130, 2010
- Haugnes HS, Bosl GJ, Boer H, et al: Long-term and late effects of germ cell testicular cancer treatment and implications for follow-up. *J Clin Oncol* 30:3752-3763, 2012

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Appendix

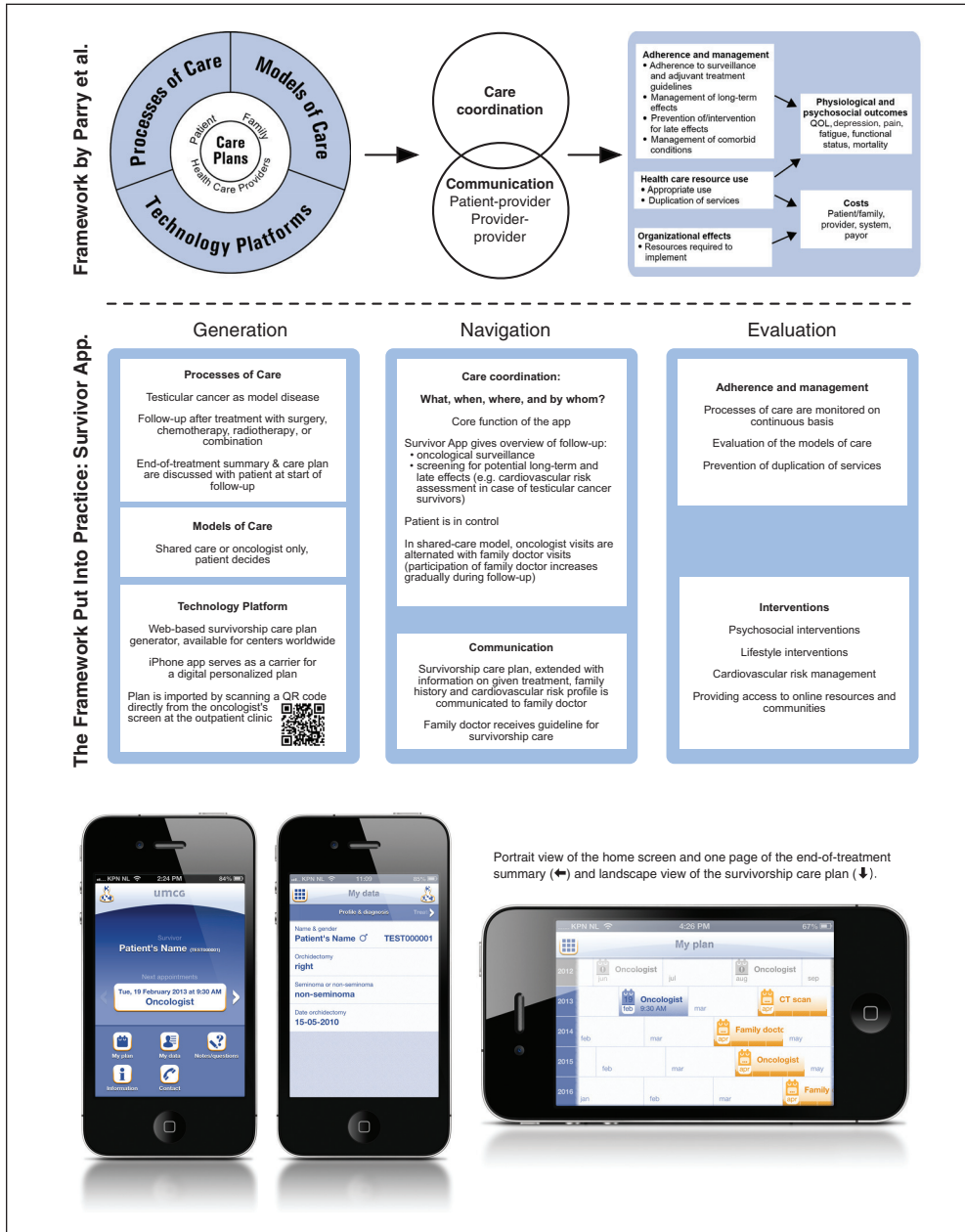


Fig A1. Survivor Care mobile application, available from the Apple app store (<https://itunes.apple.com/us/app/survivor-care/id519370277?mt=8>). QOL, quality of life.