Title: Cancer nurses can bridge the gap between the specialist cancer care and primary care settings to facilitate shared-care models

Authors: Raymond Javan Chan, RN, BN, MAppSc (Research), PhD, FACN; Tai-Rae Downer, BBMS, MHSc

Author Affiliations: Metro North Hospital and Health Service, Queensland, Australia (Dr R Chan); Institute of Health and Biomedical Innovation, Queensland University of Technology (Dr R Chan, Mr T Downer).

Corresponding Author: Raymond Javan Chan, Professor of Nursing, Level 3, School of Nursing, Queensland University of Technology, (Raymond.Chan@qut.edu.au).

Conflicts of Interest:

The authors declare that they have no conflicts of interest.

Keywords:

Primary Care, Cancer Nursing, Integrated Care, Shared-Care Model

With advances in anti-cancer treatment, overall survival rates have dramatically improved over recent years. The global overall cancer mortality rate is reducing by 1% each year¹. In 2012, the estimated number of people living who had been diagnosed of cancer within the preceding five years was 32.6 million². Cancer survivors, however, experience a wide range bio-psycho-social late effects and impaired quality of life from their cancer diagnosis and treatment, often in the context of comorbid conditions^{3, 4}. For many countries, the acute cancer care system is not the most ideal setting to meet the long-term needs of cancer survivors with multiple chronic conditions and other psychosocial problems⁵. Ensuring best outcomes and efficient use of resources by implementing patient-centred integration between the acute and primary care system is the hallmark of high-quality care, and a well-functioning and sustainable health system⁵. The 2005 Institute of Medicine seminal report *From Cancer Patient to Cancer Survivor: Lost in Translation*⁵ emphasises the importance of effective care coordination between specialists (e.g., oncologists, cancer nurses) and primary care providers (i.e., PCPs), which is likely to lead to increased patient convenience, reduced costs, reduced burden on specialists, and greater continuity of care^{6, 7}.

A number of barriers to shared-care between the acute cancer care setting and PCPs have been reported^{8, 9}. These include but not limited to insufficient or delayed communication between cancer specialists and PCPs, a lack of familiarity of PCPs with the highly specialised treatments and associated complications, and specialists' uncertainty about the potential role of the PCP in follow-up care^{8, 9}. All of these barriers could likely be overcome if a specialist cancer nurse can facilitate effective and timely care coordination, and communication by acting as the conduit between the specialist cancer multidisciplinary team (MDT) and the PCPs at key transition time points (such as completion of adjuvant and definitive primary treatment). Nurses have assumed the role of care coordination and navigation for many years¹⁰, and are therefore

the most logical solution to overcome these barriers and facilitate well-integrated, shared-care models.

One key element to facilitate well integrated survivorship care between the specialist MDT and the PCPs is the implementation of survivorship care plans. While the sharing of survivorship care plans with the PCP has been proposed¹¹⁻¹³, there is limited research identifying and evaluating the best process to facilitate the negotiation between the specialist, the PCP and the patient about the PCP's role in the context of developing a true collaborative survivorship care plan. A formal process including communication between cancer specialists and PCPs to clarify roles and expectations is essential⁷. To enable collaborative care planning between all stakeholders, the specialist cancer nurse can make use of face-to-face or video- case conferencing. A single case conference between acute care health professionals and PCPs has been shown to improve patient- and system-level outcomes in other populations receiving palliative care^{14, 15}. These opportunities should be explored and evaluated in the cancer survivorship setting.

Three recent survey studies involving cancer nurses^{16, 17} and oncology practitioners¹⁸ identified a strong level of agreement amongst nurses that coordination of care including facilitation of integrated care with PCPs falls within their responsibility. Despite this, the nurses in these studies do not frequently coordinate care or communicate with PCPs¹⁶⁻¹⁸. Nurses' perceived barriers to delivery of survivorship care were 'lack of time', 'lack of dedicated end-of-treatment consultation with the patient', and 'not a priority for the cancer centre'¹⁶⁻¹⁸. These findings suggest that dedicated cancer nursing roles are required to facilitate effective communication and coordination between the acute care and primary care settings. More research is required to propose and evaluate the role of cancer nurses in facilitating the collaborative care planning

and negotiation of care providers' responsibilities between cancer specialists and PCPs. The scope of these facilitation roles should also include interventions that aim to encourage patients to schedule post-treatment follow-up appointments with PCPs as per the survivorship care plan. While some patients may have preferences for which provider (oncologist vs PCP) they want to handle their survivorship care after primary treatment¹⁹, the specialist cancer nurse can provide education regarding the PCP's role and the potential benefits of greater involvement of the PCP¹⁹. With the ever-rising incidence of cancer and number of cancer survivors, the cancer nursing community should take the lead in ensuring a sustainable health care system and own the implementation of integrated cancer survivorship care. It is also important that we use a wide range of pragmatic trial designs to generate high-level evidence to inform practice and policy development in this area.

References:

1. Hashim D, Boffetta P, La Vecchia C, et al. The global decrease in cancer mortality: trends and disparities. **Ann Oncol**. May 2016;27(5):926-933.
2. American Cancer Society. **The Cancer Atlas**. 2nd ed: American Cancer Society; 2014.
3. Ng HS, Roder D, Koczwara B, Vitry A. Comorbidity, physical and mental health among cancer patients and survivors: An Australian population-based study. **Asia Pac J Clin Oncol**. Mar 29 2017.
4. Molassiotis A, Yates P, Li Q, et al. Mapping unmet supportive care needs, quality-of-life perceptions and current symptoms in cancer survivors across the Asia-Pacific region: results from the International STEP Study. **Ann Oncol**. Oct 01 2017;28(10):2552-2558.
5. Hewitt M, Greenfield, S., & Stovall, E. Committee on Cancer Survivorship: Improving Care and Quality of Life, Institute of Medicine and National Research Council. From cancer patient to cancer survivor: Lost in transition: National Academic Press; 2005.
6. Brennan M, Butow P, Spillane AJ, Marven M, Boyle FM. Follow up after breast cancer -- views of Australian women. **Aust Fam Physician**. May 2011;40(5):311-316.
7. Hall SJ, Samuel LM, Murchie P. Toward shared care for people with cancer: developing the model with patients and GPs. **Fam Pract**. Oct 2011;28(5):554-564.
8. Hudson SV, Miller SM, Hemler J, et al. Adult cancer survivors discuss follow-up in primary care: 'not what i want, but maybe what i need'. **Ann Fam Med**. Sep-Oct 2012;10(5):418-427.
9. Neuman HB, Jacobs EA, Steffens NM, et al. Oncologists' perceived barriers to an expanded role for primary care in breast cancer survivorship care. **Cancer Med**. Sep 2016;5(9):2198-2204.
10. Conway A, O'Donnell C, Yates P. The Effectiveness of the Nurse Care Coordinator Role on Patient-Reported and Health Service Outcomes: A Systematic Review. **Eval Health Prof**. Jan 01 2017;163278717734610.
11. Jefford M, Gough K, Drosowsky A, et al. A Randomized Controlled Trial of a Nurse-Led Supportive Care Package (SurvivorCare) for Survivors of Colorectal Cancer. **Oncologist**. Aug 2016;21(8):1014-1023.
12. Nolte L, Kinnane N, Lai-Kwon J, Gates P, Shilkin P, Jefford M. The Impact of Survivorship Care Planning on Patients, General Practitioners, and Hospital-Based Staff. **Cancer Nurs**. Nov/Dec 2016;39(6):E26-E35.
13. Turner J, Yates P, Kenny L, et al. The ENHANCES study--Enhancing Head and Neck Cancer patients' Experiences of Survivorship: study protocol for a randomized controlled trial. **Trials**. May 28 2014;15:191.
14. Hollingworth S, Zhang J, Vaikuntam BP, Jackson C, Mitchell G. Case conference primary-secondary care planning at end of life can reduce the cost of hospitalisations. **BMC Palliat Care**. Sep 23 2016;15(1):84.
15. Mitchell G, Zhang J, BurrIDGE L, et al. Case conferences between general practitioners and specialist teams to plan end of life care of people with end stage heart failure and lung disease: an exploratory pilot study. **BMC Palliat Care**. 2014;13:24.
16. Chan RJ, Button E, Thomas A, Gates P, Yates P. Nurses attitudes and practices towards provision of survivorship care for people with a haematological cancer on completion of treatment. **Support Care Cancer**. Nov 14 2017.

17. Wallace A, Downs E, Gates P, Thomas A, Yates P, Chan RJ. Provision of survivorship care for patients with haematological malignancy at completion of treatment: A cancer nursing practice survey study. **Eur J Oncol Nurs.** Oct 2015;19(5):516-522.
18. Chan RJ, Yates P, Li Q, et al. Oncology practitioners' perspectives and practice patterns of post-treatment cancer survivorship care in the Asia-Pacific region: results from the STEP study. **BMC Cancer.** Nov 06 2017;17(1):715.
19. Wallner L, Li Y, Furgal A, et al. Patient Preferences for Primary Care Provider Roles in Breast Cancer Survivorship Care. **Journal of Clinical Oncology.** 2017;35(25).