## Response to "Personalized Medicine, Genomics, and Pharmacogenomics"

I would like to thank Andrew Blix (2014) for the much needed primer on genomics. All nurses need to have an appreciation for and an understanding of how genetics is revolutionizing cancer care.

Blix (2014) correctly noted that patients who are undergoing genetic testing for hereditary susceptibility should have genetic counseling and that there are master's-prepared certified genetic counselors (CGCs) who are important members of the multidisciplinary team. Other credentialed genetics professionals, including advanced practice nurses who are credentialed in genetics, provide this service. This certification was available through the Genetic Nurse Credentialing Commission since 2002, but recently transferred to the American Nurses Credentialing Center. Historically, these nurses have had the credential of Advanced Practice Nurse in Genetics (APNG), but, under the new credentialing system, their credential will be transitioned to Advanced Genetics Nursing-Board Certified (AGN-BC). This credentialing denotes a nurse who has had additional education and training in managing people with genetic susceptibility. Some of these nurses are also members of the National Society of Genetic Counselors (NSGC). Some insurance companies require genetic counseling prior

to reimbursement for the costs of the genetic test. Cigna, for example, requires a signature from a CGC or APNG showing that the patient received risk assessment and counseling.

When patients do not receive counseling and services from a credentialed genetics provider, the risk of error increases (Brierley et al., 2010). These errors include ordering wrong, unnecessary, or incomplete testing; incorrectly interpreting genetic testing results; and lacking adequate counseling to understand the implications of such testing for patients and family members. Having a comprehensive evaluation by a credentialed genetics provider has been shown to decrease these errors (Brierley et al., 2012). NSGC also emphasizes the importance of coordinating care by identifying at-risk family members, providing the patient with tools to inform and educate family members, and offering referrals to genetic professionals to ensure that all at-risk family members are informed of the risk and given the option of genetic testing (Bensend, Veach, & Niendorf, 2014; Riley et al., 2012). Coordinating care for other family members is a substantial component of care provided by credentialed genetics professionals.

I would like to thank Blix (2014) for calling attention to the need for a credentialed genetics counselor who can provide counseling prior to testing, facilitate post-test counseling, interpret results,

Key words: genetic counseling; personalized medicine; genomics; pharmacogenomics

Digital Object Identifier: 10.1188/14.CJON.618

make recommendations for care, and coordinate care for the rest of the family.

Suzanne M. Mabon, RN, DNSc, AOCN®, APNG Professor Division of Hematology/Oncology Department of Internal Medicine Adult Nursing School of Nursing Saint Louis University St. Louis, MO

## References

- Bensend, T., Veach, P., & Niendorf, K.B. (2014). What's the harm? Genetic counselor perceptions of adverse effects of genetics service provision by non-genetics professionals. *Journal of Genetic Counseling*, 23, 48–63. doi:10.1007/s10897-013 -9605-3
- Blix, A. (2014). Personalized medicine, genomics, and pharmacogenomics. *Clini*cal Journal of Oncology Nursing, 18, 437-441. doi:10.1188/14.CJON.437-441
- Brierley, K.L., Blouch, E., Cogswell, W., Homer, J.P., Pencarinha, D., Stanisław, C.L., & Matloff, E.T. (2012). Adverse events in cancer genetic testing: Medical, ethical, legal, and financial implications. *Cancer Journal*, *18*, 303–309. doi:10.1097/ PPO.0b013e3182609490
- Brierley, K.L., Campfield, D., Ducaine, W., Dohany, L., Donenberg, T., Shannon, K., . . . Matloff, E.T. (2010). Errors in delivery of cancer genetics services: Implications for practice. *Connecticut Medicine*, 74, 413-423.
- Riley, B.D., Culver, J.O., Skrzynia, C., Senter, L.A., Peters, J.A., Costalas, J.W., . . . Trepanier, A.M. (2012). Essential elements of genetic cancer risk assessment, counseling, and testing: Updated recommendations of the National Society of Genetic Counselors. *Journal of Genetic Counseling, 21*, 151–161. doi:10.1007/s10897-011-9462-x

## Credits

p. 615: © iStockphoto.com/piccerella; p. 619: © iStockphoto.com/artvea; p. 626: © iStockphoto.com/oliycka; p. 634: © iStockphoto.com/idimair; p. 637: © iStockphoto.com/Mark Stay; p. 650: © iStockphoto.com/Paul Bartlett; p. 714: © iStockphoto.com/Dragan Grkic; p. 717: © iStockphoto .com/sonicken; p. 719: © iStockphoto.com/Nicholas Monu; p. 722: © iStockphoto.com/Shannon Keegan

Selection of letters to be published is the decision of the editor. For acceptance, letters must be signed. A letter can appear anonymously if requested by the author. All letters are subject to editing. A letter that questions, criticizes, or responds to a previously published *Clinical Journal of Oncology Nursing* article automatically will be sent to the author of that article for a reply. This type of collegial exchange is encouraged. Send letters to CJONEditor@ons.org.