**Cancer, Genetics, and Genomics**

Confidentiality is imperative in ensuring trust between physicians and their patients and breaching a patient’s confidentiality could be legally binding. Therefore, to protect Kirsten from the risk of developing breast cancer, as in the case of Rachel, I would seek advice from my colleagues who are senior in the field or a medical defense union with an inclusion of clearlydocumented reasons. As Coates et al. (2015) state, familial breast cancer, which have an association with either BRCA1 or BRCA2 mutations have variations not only in morphological but also in immunohistochemical features. Malignancies associated with BRCA1 are normally infiltrating ductal carcinomas, which are poorly differentiated besides having a higher mitotic counts as well as pleomophism with less formation of tubules as compared to sporadic tumors (McCance & Huether, 2014). Moreover, cases of either atypical or typical morphologic features of medullary carcinoma are an observation in patients with BRCA1 cancer. However, breast cancers from carriers of BRCA2 mutations are normally of a higher grade as compared to sporadic controls. Carriers of BCRA1 have a greater likelihood to conduct self-examination of breast cancer, as clinical breast examinations result in an increase in control sense in breast cancer management and patient care (Kuchenbaecker et al., 2015).

As Burstein, Lacchetti, and Griggs (2016) illustrate, the risk factors from breast cancer are many and include age (risk increasing with advancing age), genetic mutations, early menstrual periods, later or no pregnancy, late menopause, being overweight or obese, and dense breast tissue. However, these risks are important in preventive healthcare management of breast cancer. Preventive management of breast cancer includes identification of at risk individuals coupled with an integrative approach involving effective methods of screening in addition to pharmacologic, surgical, and nutritional management (Kuchenbaecker et al., 2015).

**References**

Burstein, H. J., Lacchetti, C., & Griggs, J. J. (2016). Adjuvant Endocrine Therapy for Women With Hormone Receptor–Positive Breast Cancer: American Society of Clinical Oncology Clinical Practice Guideline Update on Ovarian Suppression Summary. *Journal of*  *oncology practice*, *12*(4), 390-393.

Coates, A. S., Winer, E. P., Goldhirsch, A., Gelber, R. D., Gnant, M., Piccart-Gebhart, M., ...& Baselga, J. (2015). Tailoring therapies—improving the management of early breast cancer: St Gallen International Expert Consensus on the Primary Therapy of Early Breast Cancer 2015. *Annals of oncology*, *26*(8), 1533-1546.

Kuchenbaecker, K. B., Ramus, S. J., Tyrer, J., Lee, A., Shen, H. C., Beesley, J., ... &Spindler, T. J. (2015).Identification of six new susceptibility loci for invasive epithelial ovarian cancer.*Nature genetics*, *47*(2), 164.

McCance K., L., &Huether, S., E. (2014). *Pathophysiology: The Biologic Basis for Disease in Adults and Children (7th ed.)* St Louis, MO: Mosby Inc; ISBN-13: 978-0323088541