Differences in Effects of Hormonal Therapies in Pre and Post Menopausal Women

Breast cancer's growth in certain types of cancer where cancerous cells contain specific protein can be attributed to the attachment of estrogen and progesterone to these receptors which cultivates tumor growth. These forms of cancer are known as hormone receptor positive. However, this link between female hormones and the breast cancer's growth can provide a viable solution to combat both initial cancer stages and after surgery, through a method known as hormone therapy. Despite hormone therapy's many benefits, there are many negative side effects which can occur as a result of different hormone therapies which are almost always overlooked in favor of the necessity of hormone therapy in combating hormone receptor positive cancers.<sup>1</sup> Hormone therapy has the potential to shrink tumors, halt cancer growth, and decrease the risk of the cancer returning. Different methods of hormone therapy are utilized depending on many factors, two key ones being whether the cancer reacts to estrogen or progesterone, if previous hormone therapies have stopped working, or if the patient is pre or post menopausal.<sup>2</sup> Depending on whether or not a patient is pre or post menopausal there can be more serious side effects caused by hormone therapy as well as a varying range of options for treatment available to women diagnosed with breast cancer. The consequent sections will explore the range of potential side effects from hormone therapy and how being pre or post menopausal can affect the effectiveness of the treatment.

Although premenopausal women typically develop breast cancer less often as the mean age women are diagnosed with breast cancer is 62, there are key differences in hormone treatment for these women.

<sup>&</sup>lt;sup>1</sup> https://www.mayoclinic.org/tests-procedures/hormone-therapy-for-breast-cancer/about/pac-20384943

<sup>&</sup>lt;sup>2</sup> https://www.cancer.org/cancer/breast-cancer/treatment/hormone-therapy-for-breast-cancer.html