**Lab Performance and the Value of Oncotype DX**

Behind every research conducted or an article written there is there is always a message behind it or a problem to be addressed. Research work should, therefore, clearly define its problem and the methodology used to come up with the conclusions. In this piece of work, I focus on an article titled ‘Gene expression profiling and expanded immunohistochemistry tests for guiding adjuvant chemotherapy decisions in early breast cancer management’. We shall focus on analyzing the different components of the article to help analyze it and determine its findings and conclusions.

Gene expression is aimed at determining who benefits from chemotherapy in breast cancer and consequently improving the target. The main objective of research in the article in question was to review available evidence of the lab performance and the value of Oncotype DX for the target population in the research. This research began in February 2010 when Medical advisory Secretariat began working on reviews that were based on the evidence of three tests. The Cancer operating center in Ontario asked MS to provide evidence on the basis of pharmacogenomic tests in Ontario. This research was aimed at addressing issues relating to public health.

The research was conducted in March 2010 using various sources. The literature review of the research work lists the various sources, which they use. Information found in this piece of work was gotten from sources such s OVI, cumulative index to nursing, Cochrane library an International agency for health technical assessment (INHHT). The sources used were published from the period of Jan 1st 2009 to 19th March 2010.This was one to ensure that a preliminary search was carried out and an effective conclusion was given.

This piece of work solely depends on information about health. It is concerned with analyzing the effectiveness of chemotherapy on women with breast cancer. The theoretic concepts relating to this piece of work are not given hence it would prove difficult for people without the knowledge to understand. The author would have given a list of definitions defining the words that may prove hard to understand. This makes it easier for every reader with or without the knowledge on health sciences to clearly understand what the research is   about.

This piece of work has answered very many questions concerning the effectiveness of chemotherapy on patients in the early stages of cancer. Some of the questions that it answers include; what the lab performance of Oncotype –DX is about, how reliable it is and how often it fails to give useable results. In addition, it explains what the value of Oncotype DX is and how it compares to other risk predictors. The research also helps to explain the impact of Oncotype DX influences the life of patients and the decision-making concerning illnesses. By answering these questions, the research is able to clearly explain to the reader what Oncotype DX concerns and how it affects the chemotherapy process in a patient with breast cancer.

The research bases its methodology mainly on qualitative aspects. It concentrates more on giving the theoretical understanding of Oncotype and its relation to chemotherapy tests that a patient with cancer undergoes. Several tests are carried out which help come with the conclusion on how gene expression affects the effectiveness of chemotherapy on a cancer patient. The research mainly targets women who are newly diagnosed with first stage breast cancer that is estrogen receptor positive or progesterone receptor. The research vividly explains how chemotherapy effectiveness will vary depending on the gene composition of the patient.

The research has used both the exclusive and inclusive approach. Relevant sources to the main questions in this research were a useful source of information. This helped the researchers gain more information on their topic of study (Ward, 2013). The exclusive approach that the researchers used was not taking into consideration the information that was gotten from the abstract of  sources used .Medical advisory secretariat depends on the information that is peer reviewed and gives a detailed analysis of the information given. Exclusion also involves studies that were published in linguistics other than English and studies that did not have a presentation of the original data.

The study involved a review of ethical issues and considerations of the GEP. The review included issues such as; to describe ethical and social issues that would be relevant in the formulation of OHTAC policy that was recommended. In addition, systematical review regarding social science that is relevant to conducting chemotherapy to women that have been diagnosed with the early stages of breast cancer was to be carried out (Ward, 2013). The analysis of data was done with the Makov model and presented in the form of tables that gave the values analyze from the model.

Just like every other study, this study also has its strengths and weaknesses. The major strength was that it was able to give detailed information after conducting gene profiling. These details are important to cancer patients, as they will clearly understand how their boy reacts to the cancer treatment it is subjected to. It, however, faces various limitations; the statistical analysis conducted was so limited that it gave uncertainty of the data presented. In addition, none of the trials controlled for confounding of the effects of  HER-2/*neu* (Marchionni,2013)which may have affected the strength and generalizability of the sizes that were observed.

Several conclusions were drawn from the study conducted in regards to the Oncotype survey that was conducted. The research aimed at answering the questions that were presented in the research problems. 26 studies were carried out to collect data but only five were relevant to the study. From the data in the research the conclusions made were; the study lacks external validation to support the idea to rely on Oncotype DX. Current available evidence also suggested that there was a moderate failure of the Oncotype DX, which with the current studies; it shows that there is an acceptably lower rate of the failure of the test. Data collected also revealed that there is insufficient evidence on how Oncotype compares to other measures of risk such s Adjuvant! Online. There is also insufficient evidence on how the study would affect the decision making of clinicians. The data obtained from this research can be generalizable to other populations that have a similar composition and target audience.

This is an important research in health science as it gives both the clinicians and the patients a deeper understanding of the gene profiling to carry out this study.

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