

Good article review on technology

[Health & Medicine](#), [Cancer](#)



Technology has led to efficiency in the health care industry. This technology continues to expand due to high investment in research and development in health care. As the technology improves, so will there be more job opportunities for practitioners. New careers will materialize as people handle technology in affecting the health care (Fett, 2006). Technology has given a major boost in quickly gathering medical records since they can rely on the computer system. The computer system enables the review of patients' records and scheduling of appointments as well as administration of treatment. There have been significant innovations in the field of radiology, as well. Technology enables the elimination of X-ray films and city-sized manila envelopes (Geiser & Schuring, 2010). One can access radiology records using a computer instead of tedious medical files in the cabinets. The laboratory technicians depend on complex machinery in testing diagnosis of disease instead of relying on only a microscope. Technology leads to efficiency and high speed of delivery in the health care sector. The continual evolution of technology will lead to enhanced expertise in the future. New technology will continue to channel quality among the practitioners transforming to health among the nations. Technology can provide accuracy in testing diseases and administration of medicine to the patients, to improve the quality and reduce costs. Technology works in tandem with research, and this will improve the health care of the masses.

Technology in cancer research and treatment

This article highlights on the technological developments to address the issue of cancer that has been challenging the health care industry in the past. Most of the cancer ailments remain undetected in the primary stages

and once they are in their late stages they often resist the attempt of treatment. Cancer remains a tragic disease that kills more than 500 000 people annually in the United States (Roth et al., 2013). In this case, continued progress against cancer will enable millions of people to access and receive the diagnosis. This will reduce the death of cancer deaths and fulfill people's lives. According to Geiser & Schuring (2010), technology in cancer treatment, can yield to a remarkable improvement in the quality of life of cancer patients. The current trends in clinical research trials will bring hope to cancer patients. The laboratory experiments and treatments will indeed extend and improve the lives of patients with cancer related diseases.

Roth et al., (2013) says that sarcoma, ovarian, and neuroblastoma is some of the drug resistant types of cancer. Many patients succumb to these types of cancer after a short period of diagnosis. Patients develop tumors that are not readily accessible by the drugs. Tumors can acquire genomic changes that enable them evade the counter effects of the treatment. A potential strategy to conquer the resistant tumor is to launch multiple targets on the molecular pathway where the tumor grows and survives. Multi targeted drugs such as regorafenib benefits patients with G1 stromal tumors and metastatic colorectal cancer. A practitioner can administer two, or many, drugs targeting the same pathway. Fett (2006) reports on improvements of the breast cancer victims once they use this strategy. When one combines two anti-human epidermal growth receptors with the aromatase inhibitor, there is a delay in the progression of the sarcoma cancer, which is resistant to drugs. Roth et al. (2013) explains that, oncology is a rapid transition to the

era of precision medicine where patients receive tailored treatment to the genetic makeup and the biology of the tumor since it is unique among the patients. The genetic variations are critical to the behavior of a tumor that guides the treatment approach. According to Roth et al., (2013) there is a dramatic variation in the genomic landscape within a tumor of a patient. The Cancer Genome Project identifies potential drug targets in colorectal cancer and proposes innovative technologies to address the ailment. This technology will predict chemotherapy response in victims of ovarian cancer. Observing a good lifestyle, dietary change, and early detection using screening can reduce most of the cancer ailments considerably. Recently practitioners adopt the sigmoidoscopy technique that is flexible in the examination of the rectum. This technique is accurate and ensures the reduction of colorectal cancer cases as well as death rates. Roth et al., (2013) cite that between 2011 and 2012 clinical trials have approved new drugs that act as target agents. These drugs block the activity of proteins involved in tumor growth. For instance, vismodegib targets the hedgehog-signaling pathway that plays an important role in growth and repair of the tissues. The AML drug uses chemotherapy to combine the mantle cell and indolent lymphomas. The introduction of high dose chemotherapy improves the patients having multiple myeloma. The use of two placebo-controlled phase III trials indicates that lenalidomide can delay the relapse of multiple myeloma.

The new approval drugs after trials on the breast cancer victims have seen the drop of death rates due to the disease. Clinical trials report an improvement outcome due to the use of new target therapy. Hospitals use a

colossal sum in research and development in the cancer clinical trials. These trials will ensure high quality of care and better patient outcomes. The high spending on cancer cases can provide meaningful benefits to patients now and in the future. Clinical trials experiments in the laboratories channel new treatments that seek to improve the patients lives (Roth et al., 2013).

New Vocabulary

- Neuroblastoma - is a human malignancy that has spontaneous regression that mostly occurs among the children. This disease originates from adrenal glands and spreads to the neck and the chest.
- Lenalidomide - this is a treatment for the myeloma cancer together with other related disorders. A potent and expensive treatment inhibits tumor ailments by secreting cytokines.
- Sigmoidoscopy entails a procedure by a practitioner observing the sigmoid colon using a sigmoidoscope. This instrument is a small tube with a light source at one end.
- Regorafenib - This cancer treatment targets antiangiogenic and kinase receptors. This treatment is currently undergoing experiments to treat different types of multiple tumors in patients.
- Vismodegib - this is a treatment of cancer that targets the hedgehog pathway. This drug has been proved by FDA to treat stomach, pancreatic, lung cancer, among other related disorders.

References

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