# Medical technologies

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Medical Technologies Computed tomography scanner, the magnetic resonance imaging scanner and kidney dialysis machinesis one of the latest technologies that have dominated the health sector in the world. These innovations have led to great developments in the health sector as most chronic illnesses can be detected and treated in their earlier stages. However, these machines have various impacts on both clinicians and hospitals as discussed in the essay below.

Computed Tomography Scanner

This is a machine that uses X-rays and is similar to convectional radiology. They are of two types. The convectional computed tomography scan is normally taken slice by slice, unlike the spiral scan that is taken in the form of a continuous scan in spiral form. Also, the operator or the clinician is in a position to choose which sections to operate like the brain or even any other part of the body (Seeram 4).

This type of scanner has various impacts on both the clinicians and the hospitals. To start with, the clinician can get better and accurate details. Secondly, it is quick as compared to magnetic resonance imaging as it takes less time; hence saving on time. Further, it exposes clinicians to the risk of high dosages of radiation when treating the patients. Additionally, the hospitals have to invest heavily in human capital development due to the changing trends in technology to ensure that their staff operates these machines in the right way.

Magnetic Resonance Imaging

This is a scanning procedure that uses strong magnets and radio-frequency pulses to generate signals from the body (Partain 2). The greatest advantage of using this method is that it does not use radiation, hence, favoring both

the clinician and the patients. The method also has a long term effect provided all the safety precautions are followed in the right way. All clinicians are supposed to follow the required instructions when operating this machine.

Additionally, it makes the works of the clinicians easier as the machine provides a wide range of details concerning the body even for information about particular illnesses. Also, the machine can make the image on most body parts clearly provide the information that is required. This is because it gives accurate details about various processes and structures in the body even in the forms of data and graphs.

Kidney Dialysis Machine

These are machines that are used to conduct the dialysis in patients with kidney illnesses. Although the patient can live longer when he or she follows the dialysis procedures, there are various impacts associated with the machines. To start with, these machines are very expensive. Hence, the hospital has to budget and arrange for their purchase maybe with the help of the federal government through the ministry of health if it is a public hospital (Tracy 16). Secondly, the machines are very technical; for this reason, specially trained personnel are required to operate the machine. This can be costly for the hospital to hire this kind of labor. Finally, the cost of maintenance of these machines can be high which could possible make the process costly for the patients.

Work Cited

Partain, C L. Magnetic Resonance Imaging. Philadelphia, Pa: Saunders, 1988. Print.

Seeram, Euclid. Computed Tomography: Physical Principles, Clinical

Applications & Quality Control. Philadelphia: Saunders, 1994. Print.

Tracy, Kathleen. Willem Kolff and the Invention of the Dialysis Machine. Bear,

Del: Mitchell Lane Pub, 2003. Print.