

Report writing

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Introduction 1.1

I searched my topic by using the keyword online (google scholar, online library) then I picked up a couple journals.

I have read and understood it, realized that I can find more information about the topic, so from there I choose my topic.

The topic that I have chosen to talk about is the use of robots in the medical system(hospital).

Particularly I will be talking about robot–assisted surgery. Robot-assisted surgery is a use of technology where the doctors or surgeons is in control of a surgery by using a remote instrument on human body while he /she is standing nearby and enable them to perform with more details this is due to with help of a 3D camera

According to a journal called “American journal of surgery” that was published in 2014, the surgeons or doctors used first the robot-assisted surgery 20 years back from then, which mean in 1994. However, to update it I will personally say the first robot–assisted were used in the operating room it been 28 years now. (1994-2022) and it was performed in urology, especially in prostate surgery.

Robot-assisted surgery is used for several types of surgical such as cardiac, neurosurgery, orthopedic, neck, gynecology, and general surgery and more, however, the most popular performance surgery using robot assisted surgery is neck, prostate, gynecology, joint, heart and gastrointestinal Surgery.

The first operation that the surgeons used the robot assisted surgery in the united of kingdom was done in city called Lincolnshire.

Robotic surgery can be used to all types of human beings such as old age, adults, and children, however, all data recording online the first surgery performing on children was in 2001 and in adult was in 1994.

As we all know, the use of technologies is making more impact and increasing in the world, so the use of robot-assisted surgery in the hospital will be more usen compared to traditional surgery.

According to an article in the journal called “Current status of robot-assisted surgery” the authors said that the application of robotics surgery has already started developing gradually and the number of procedures is increasing, mostly in bariatric, fundoplication, and hepatobiliary surgery.

The use of robot-assisted surgery in the hospitals is important because it is less risky and helps to reduce complications such as surgical infection and blood loss than traditional surgery for the patients this is according to an article in a journal called by the “American journal of surgery” using the robot-assisted surgery is less blood and pain to the human body during a surgery. It is also important because the surgeons can be able to archive a complex surgery that can be difficult to archive while using traditional methods. However, in cancer while

operating on a patient the result is the same with other methods but with less chance of infection.

Without the use of robot-assisted surgery in the hospital surgeons will be more limited during the operation as robotics enable the surgeons to see with precision details.

I have chosen this topic because I found it benefiting for me as I will be working at the hospital in the future, so having more knowledge about robot-assisted surgery will help me as a surgery nurse to have more knowledge on how to prepare for the surgical field for every robot procedure.

Main body 1.2

I am going to describe my topic by using secondary data.

The use of robot-assisted surgery has a high advantage in the health care setting. This is not only for patients but for the surgeons and the healthcare setting too.

I have the strong feeling that the use of robot assisted surgery will improve the healthcare setting, especially the hospital, which it already started. Let us just have a close look at how the use of robotics surgery played a big positive impact on pandemic time; surgeons were still able to do surgery to a patient who were tested positive with covid 19.

In other hand I can say the robotic surgery will improve the healthcare setting because it enables surgeons to take diligent

care of patients, as mentioned in my introduction it is less pain, less chance of infection and less discharge blood.

This is an exceptionally good thing as it will help patients to get well very quick and it will help the hospital to save beds for new patients and surgeons to have more time to attend to other patients. It also helps surgeons to develop their knowledge by taking training all the time when technology upgrades.

With robot assisted surgery while performing an operation the robot has better precision compared to a surgeon while in traditional method.

In terms of safety, with all the research I have done, I say it with certitude that the use of robot-assisted surgery is safe to be used in the human body.

The use of robot assisted surgery has been preferred by surgeons and patients then traditional surgery.

In same country such as: China, the US, Europ, Japan, the use of the robot assisted surgery was very quick specially on robot-assisted radical.

According to Davie Benjamin in an article his said the use of robot- assisted surgery in united states of America was less used in 2003 by only under 1% then by 2014 the percentage of usage of the robotic surgery was use up to 90% when it comes to treat prostate and cancer. We can already understand how the use of robotic surgery is impacting the worldwide and health setting, especially the hospital.

The research that I did makes me believe that the use of robotics in surgery is growing every year.

However, according to an article called “Is robotic-assisted sacrocolpo(hysteron)pexy safe and effective in women over 65 years of age?” The authors said the use of robot assisted surgery in hysteron was lower rate of success in operation with more complication, and it took the surgeons more time of operation compared to the traditional method in elderly patients age from 65 years old with hysterero. This evaluation was made in 2015-2019. However, in children's cases, all general robotic surgery performed within 4 years from 2009 to 2014, data recorded 136 children were performed with 10 diverse types of using the robotic surgery system, all the intervention were done without uncomplication.

However, with all the research that I did, I can conclude that the only disadvantage with robot-assisted surgery is the increasing cost.in terms of Maintenace, installation and production.

According to scholarly journals “robot assisted surgery and health care “the authors said the robot-assisted surgery are increasing the cost by 3,500\$ per procedure and around \$2.5billion (about \$8 per person in the US) (about \$8 per person in the US) nationally year.

For example, the first robotic surgical that was performed in the united of kingdom (in Lincolnshire) cost the Lincolnshire hospital (N.H.S) up to £3.2billion to escort the robot in United Kingdom.

Due to how expensive the use of robotic surgery is, I think that the use of robotic assisted surgery will be extremely limited. This means robotic surgery can only be used in the hospital that can meet the expense of it.

We should also consider that for surgeons to be using robotics surgery system, they need to be trained, when we talk about training, we see money. This makes me believe that not all surgeons will be using robotic surgery as the training is an ongoing life training

In terms of complication as we cannot always rely on technology as anything can happen at any time, the surgeons must stop the use of robotics and perfume in transduction method. Due to the research that I did, there is less chance that this will happen but if it happens there is always a chance of damage to the nerve.

Let also consider that without good internet (network services) and electricity technology cannot work properly, so the surgeons may face a network problem and must shift with traditional method.

I will personally say as a good robotic surgeon you must be ready at any time for unplanned performance and not rely on robots.

This makes me believe that with the economic crisis that the world is facing since the pandemic, the use of robotic surgery may also be affected in terms of maintenance and fitting.

The production of robot-assisted surgery in general is much less than expected. This is due to rare factories and money.

Conclusion 1.3

As we all know, the use of technology is increasing in the world. However, this makes me believe that the use of robotic surgery will also increase in the future.

So far it is not guaranteed, or we do not have evidence that traditional surgery will completely stop in the future. However, in many cases using robot- assisted surgery has a high positive rate of success compare to Failure rate.

The use of robotic surgery is currently especially expensive, this is due to high fitting and maintenance costs. However, we are still unsure if the cost of using robotics surgery in the hospital will raise patient's bill in terms of country where treatment is not covered by the government.

With modern technology, I strongly believe that there will be more jobs worldwide, not just in the hospital but university and training center too, this means that there will be new teachers who will teach modern technology in surgery, new school, or training center, as we all know they will require different type of staff in the center, such as cleaners, receptionist, maintenance, securities, and the specialist teacher.

In the hospital there will be more surgeons specializing in robotic surgery.

I can conclude by saying that the use of robot-assisted surgery is expensive but worthy. Based on my research, the United States of America has the highest percentage of using the robot-assisted surgery comparing to other country and Africa in general have the less percentage of performing robotic in surgery. And we found more specialists in robotic surgery compared to other countries, this comes with the conclusion that the United States of America has best treatment when it comes to surgical on robotic.

I can conclude that the use of modern technology in surgery in healthcare plays a vital role in the healthcare setting not just in the united of kingdom but in the entire world, the research makes me believe that traditional surgery will be less use comparing to robotic surgery.

For surgeons, there should be more training centers so that it can enable all surgeons to have knowledge on how to use robot

assisted surgery, this will avoid the lack of specialists in robotic surgery at the hospital.

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