Is telemedicine a realistic way of providing health care?

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Is telemedicine a realistic way of providing medical care? What are the advantages and disadvantages?

**Introduction:**

In modern day medical care telemedicine and medical informatics play an essential role in health and medical care. The terms telemedicine and medical informatics refer to the use of modern software and technology in the field of medicine with the goal of improving the standard of health care in the industry. In this report first the advantages and then the disadvantages of medical informatics in the health care industry are explored. There are a wide range of benefits that telemedicine provides which include making health records more easily accessible to medical practitioners, improved levels of correct diagnosis and follow up care and a possible reduction in costs once the initial cost has been offset. However, there are some disadvantages such as the difficulty in keeping up with the rate of change of modern technology and a danger of becoming overly dependent on certain technologies. While there are clearly some drawbacks to telemedicine overall the advantages outweigh these disadvantages.

**Electronic Health Records:**

Electronic health records are a vital part of modern day health care as they can provide health professionals with easier access to medical information about the patient than the traditional method of storing patient details on paper. Storing information on paper can lead to difficulties searching and sharing medical information for medical practitioners. By storing this patient information using electronic health records professionals are better able to search for specific data and consult with other professionals about particular information. These

increased levels of communication means that medical professionals are able to identify future health problems through looking at trends in multiple patients’ medical information. “As of December 2008, the U.S. Centres for Disease Control and Prevention began tracking health data on 75 percent of American children under age 6.” Alan R. Hinmann and David A. Ross (2010), this will allow medical professionals to identify which children have been vaccinated in an area in the case of an outbreak of a particular disease or virus. While there are great benefits with electronic health records there are some drawbacks such as the cost of implementing the software required and there is some privacy issues the patients might have. Patients will want to know who exactly will have what information about them and their medical details. On balance electronic health records are a great tool for medical practitioners to use.

**Better Diagnosis:**

Medical informatics allows practitioners to achieve a higher level of correct and accurate diagnosis of patients by using modern technology. Diagnosing certain diseases and cancers early and correctly can have a huge impact on the mortality rate of the disease. For example the introduction of “digital mammograms combined with a better understanding of who is at highest risk means doctors are able to find cancers earlier” Collette Bouchez (2006) and as a result there has been a massive drop in the mortality rate of breast cancer in the last 10 years.

**Rate of Change and Over Dependence:**

One of the disadvantages of telemedicine can be its fast changing nature. It can be difficult to keep up with the newest technologies. This can lead to large expenses due to constantly updating the technology along with levels of redundancy when newer, better, faster

technology becomes available. Along with redundancy another problem with medical informatics can be an over dependence on certain technologies. “System downtime can create chaos when there are insufficient backup systems in place”, Campbell E., Sittig D., Guappone K., Dykstra R., Ash J. (2007). When computers have technical problems clinicians are not able to work effectively, this can lead to major problems. For example if there is a patient in the A&E Department and there is an error while retrieving blood information due to a computer systems failure, the rest of the procedures following it will be delayed. This could have a huge influence on the patient’s health condition and their chances of survival. It is vital for medical professionals to be able to deal with system downtime and be able to cope with patients when there are technical problems with computers.

**Conclusion:**

Medical informatics is clearly plays a crucial role in the provision of health and patient care. Over the past ten or fifteen years telemedicine has had a massive influence on the increased survival rate of many diseases and illnesses, as well as giving medical practitioners increased access to medical information and medical records. While there are still some drawbacks to telemedicine it has helped improve the standard of health care immensely and should continue to do so into the future. Therefore telemedicine is most certainly a viable way of providing medical care.

**References:**

# Hinman A., Ross D., (2010). “Immunization Registries Can Be Building Blocks for National Health Information Systems”, Health Affairs 29(4).

# Retrieved from:

# <http://content.healthaffairs.org/content/29/4/676.full?ijkey=GH9RmlBCqfpKA&keytype=ref&siteid=healthaff>

## Bouchez C. (2006). “The Latest in Breast Cancer Detection”.

Retrieved from:

<http://www.webmd.com/breast-cancer/features/latest-in-breast-cancer-detection>

# Campbell E., Sittig D., Guappone K., Dykstra R., Ash J., (2007). “Overdependence on Technology: An Unintended Adverse Consequence of Computerized Provider Order Entry”.

# Retrieved from:

# <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2710605/#>