Check the Status of Telemedicine in Iran

Shahnaz Ismail Zadeh* and Kamran Zargah**
*Department of Computing, Mahabad Branch, Islamic Azad University, Mahabad, IRAN.
**Department of Nursing, Mahabad Branch, Islamic Azad University, Mahabad, IRAN.

ABSTRACT: Telemedicine (Tele Medicine) or telemedicine means using electronic signals for transmission of medical information via video, email, telephone and satellite. These services such as other medical services had good accuracy and confidentiality of patient information is included. Generally, the use of telemedicine in medical technology, communication, to exchange any information, including data, voice, video communication between doctor and patient or physician and health care professionals in geographically separate locations to allow for exchange purposes. Medical, health care, education and applied research. The benefits of telemedicine to increase access to health services, increasing the continuity of care, Patient education and treatment and increased access to medical records and information and the development of continuing education in medicine. Given the myriad benefits, telemedicine applications are becoming increasingly developed.

Keywords: Telemedicine, Information Sharing, Remote Surveillance

INTRODUCTION

Telemedicine medical dictionary was first compiled in 1920. NASA was the first to provide medical advice to Astronauts and treat them remotely using satellites to establish. The relationship between doctors, astronauts on the Earth's surface and in this way the technology into the medical field were. Generally, the uses of remote communication technology to create, enhance or accelerate health care telemedicine say. The general sense of the term, the use of information and communication technology in medicine, with the aim to telemedicine services without the need for a common connection (Clashes doctors and patients) presented.

A. General applications of telemedicine

The patient via the internet and communicate with accompany offering this service all the way to carry your medical services. Telemedicine is the use of multimedia tools and using a large number of modern technologies (such as live video, live audio, data and medical images, communications systems, text, photos and vital parameters), an independent time and place of medical service secretes.

B. History of Telemedicine

In 1996, the Department of Defense, United States of America, a medical network in Bosnia that doctors in the medical arena five Army Medical Center in the United States of America (Washington, Texas, California, Columbia and Hawaii) was associated. The telemedicine project, the communications satellites used by the military physicians to the actual picture and sound, consult with each other.

In 1920 the resident physician at the beach with the ship's radio messages. In 1968, the United States of America of video communication between the hospital and the airport was used to evaluate patients at the airport.

In the 1970s through the satellite network health services to remote areas of Alaska and Canada were allowed.

Doctors at the forefront, using existing technology, motion pictures and video were taken away to the hospital for diagnostic support. Doctors also the same system for accessing records and computerized medical records and follow-up the patient was discharged.

Their results, radiology, laboratory and prescription drugs received and digitized medical services, dental remote clinical information online, mail, procedural and control technologies and services used. The advent of electronic medical and hospital, as one of the most essential components of human societies has led to many changes in the virtual world.

Virtual Hospital, using virtual memory and advanced communications networks to treat and cure patients and provide services beneficial to all users.

C. Goals telemedicine

The main goal of telemedicine consultation, transmission of information by electronic signals, electronic computerize clinical services and medical facilities:

-Improved patient care
-Improve access to health care for rural and underserved areas
-Better access to doctors for advice
-The availability of resources for practitioners to conduct automated tests
-Reduce the cost of medical care, patient transport and accommodation in Hospital
-Medical care services (in the geographical area and the population at large)
-Reducing the transfer of patients to health centers
-Managed care in hospitals and health centers in space.

D. Benefits of using telemedicine

The overall benefits of telemedicine are:

1. Reduce the time and cost of living and learning spaces

2. The use of the experiences of doctors and specialists in other parts of the world and take advantage of their expertise.

3. Quick access to physicians for consultation.

4. The remote operation

5. Using robotic surgery, which reduces surgery time, quick and precise cutting, eliminating shake surgeon fatigue, greater accuracy and less error in operation, resulting in faster patient recovery.

E. Reasons for implementing telemedicine

With the advent of technology in science, especially in medicine, treatment, education and medical research, as well as how to manage health centers has been greatly changed. For example, emergency medical team without the use of Internet technology can act quickly. Telemedicine Project in Great Britain at a time of hospital stay was reduced by half. In this project, the doctors were able to remotely monitor the status of their patients. Doctors were able to use the system to manage chronic respiratory diseases in patients' length of stay of 5.5 days from 10 days to do so.

The project is a device with which it can be used in patients with body temperature, heart rate, breathing rate, and blood pressure and your heart rate will also be recorded. This information will be sent via a telephone line to a secure server where they are stored in electronic patient records, doctors and nurses can have access to. This system can cause diseases such as Chronic Obstructive Pulmonary Disease annual cost of about 44/1 billion for the National Health Service in Great Britain in the control. Patients having this equipment is less concerned about their situation will be, If the status of a state-level experts have determined that deviate Housing Association and a warning message will inform them of the status of the patient.

Using this technology it is very easy for patients 35 to 82 years and more people are using it, 94% of patients have embraced this technology.

One example is useful telemedicine technologies to physicians' offices, medical professionals refer to as virtual reality. The development of physicians, researchers and medical students allows remote control or via the Internet are all medical procedures.

F. New telemedicine services

(i) Measure the distance (telemetry)

(ii) Service Information (information services)

(iii) Use of audio (audio services)

(iv) Used for imaging (teleradiology)

G. Remote diagnostic images

(i) X-ray (X-Ray)

(ii) MRI

(iii) Sound Mavvra

(iv) Nuclear Medicine

(v) Thermography

(vi) flora Skvpy

(vii) Angiography

(viii) X-Inter Continental

H. Advantages and disadvantages of telemedicine

Benefit

1. Long period of convalescence after surgery reduces the standard. As a result of post-operative pain and the need for hospitalization and related costs are also reduced.

2. The standard surgery is broken sternum and chest open, which in turn, leads to severe pain in the shoulder approach This is the only injured while in the slot 5 /. 1 to 2 mm to 1 cm and a hole in the back of the patient who heals soon.

3. Expert surgeons, who have unique capabilities, will be available in more places.

I. Disadvantages

1. The distance between doctor and patient is much less than the speed of communication equipment and monitors.

2. Modern technology and all those who do not like to take such action.

3. Robots are very expensive

4. No physician assistant

5. The absence of sensory feedback

J. Security in telemedicine

Since the Telemedicine is the use of credit cards for payment, security measures of monetary exchange, as in e-commerce is concerned, should be considered.

Medical ethics for maintaining the confidentiality of patient information Patients, especially in the case of armed groups have used information security professionals.

This is especially true in the case of wireless telemedicine. As the nature of electromagnetic waves can be eaves dropped. If you use the Internet should be secure against hackers to create databases.

K. Check the status of telemedicine in Iran

As in the private sector in the health system has been formed the public health system is that it has the existing health system is practically not possible to enter into costly projects.

Country requires the formation of a private medical group that accounts Using economic models to provide medical services to the target population using information technology.

In this regard, in recent years attempts have been made to clarify various aspects of the Society. However, progress has fallen in parts of the country and saw what happened in this area, but this happened so that we cannot make changes in the medical field; this project has been in the country since the conditions. Tools telemedicine development in the country and looks Thinking that most of the infrastructure and public understanding of the issue.

The Ministry of Health and Medical Education and Telemedicine methods tend to move in this area has And the government also intends to increase the share of people in the country We hope this can be a serious approach to private institutions in this field takes shape. Telemedicine means of telemedicine in our country has considerable experience with the development of information technology, development in this area will be provided. Now in the imaging, diagnosis and remote areas of developing comprehensive discussion of our images and remote consultation, using e-mail is used in medical diagnosis. Infrastructure necessary for the development of virtual space in hospitals, including aspects of culture and know-how. Since the establishment of electronic hospital requires participation in various specialized fields of engineering, to medical groups and allied groups. Therefore, these groups should be provided the opportunity to engage the culture. E-hospital hospital services based on the new conditions for the promotion and development of education and research at university hospitals provide.

CONCLUSION

Due to the numerous applications of telemedicine and remote medical record documentation and the need to create a platform for the provision of health care organization are using technologies to speed, accuracy and quality of care provided to patients and ensure patients.

In recent decades, much progress in the development of telemedicine technology is backed by modern digital communications media, has been done. In many countries health care system is more close to the patient. Telemedicine, especially in countries like Iran, where the transport network is underdeveloped.

REFRENCES

Huston, L. Javis. "Tele-Medical Record Documentation.", Topics in Health Information Management. Vol . **19**, No. 3, 1999.

http://ihp.ir/percian

http://booyebeheshthospital.dme.ir

UCF: The University of Central Florida Telemedicine Information Exchange (TIE), CNN.Com, 2001.

Bakardjieva. Maria, Taras. David."*How Canadians Communicate*.",Vol. **4**, 2003.

Wayne, Drash." Telemedicine, Where Virtual & Reality Meet in The Doctor's Office".October, 2002.

http://Iranhealers.com

Ramalingam, Krishnamurthy."Chief Telemedicine Technical Services in Amrita Institute of Medical sciences& Research Center.".2002.

Ghazisaeidi M., Saeidi R, Davarpanah A. Health Service Management. Shabak, 1384.

Wallace, Gordon."Information Technology & Telemedicine / Canadian Medical Association or it's Licensors.", September **18**, 2001, 165(6).

Proceeding of 2nd International Congress On Health, Medication and Crisis Management in Disaster, p: 338-9, TEHRAN, IRAN.

Rahimi, Mytra.tlh Internet and tele-nurses. *Journal of Education, Research and Information Nurse Health Administration Police*, **85**, 3(12), S20-21.

Damnabi, sh."Telemedicine And Tele medical Record Documentation". Iran medical record Association, vol **5**, No 1, Spring 2005.

Mahdikhani. Mahboobeh."Telemedicine in IRAN". *2nd International Congress on Health, Medication and Crisis Management in Disaster,, TEHRAN, IRAN.*

Smith.M, Bensink, M., Armfield. N., Stillman. J., Caffery.L. Telemedicine and Rural HealthCareApplication.Journal of Postgraduate Medicine, 2005.

First International Conference on Telemedicine and eHealth. Iran University of Medical Sciences and Health Services, November, 1385.

Marlene. M. Maheu, Pamela. Whitten, Ace.Allen.E-Health, Telehealth, and Telemedicine: A Guide to Startup and Success, 2001.