

REVIEW ON TELEPHARMACY SERVICES: AN ADVANTAGE FOR RURAL COMMUNITIES

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ABSTRACT:

Nowadays internet is used by everyone, it is common in any domain and any business. The use of the Internet in the field of pharmacy is rapidly growing. Dispensing of medicines through tele pharmacy is a great idea, this would be more beneficial for rural people and emergency purposes. The purpose of this review is to create health education regarding tele pharmacy and its importance. Tele pharmacy and telemedicine are growing popular because some people are unable to get the medication in rural areas. Tele pharmacy has become an area of research as it provides access to healthcare services to rural patients. Tele pharmacy also helpful for the maintenance of patient records, treatments, monitoring of adverse drug reactions and case reports. The main purpose of this tele pharmacy is to provide medication for the rural people and all the populations. This article includes all the information about tele pharmacy and its service types.

Keywords: Tele pharmacy, Rural area, telemedicine, telecommunication, health services.

INTRODUCTION:

Tele pharmacy is the delivery of pharmaceutical care through telecommunication to patients in locations where they cannot have direct contact with a pharmacist. In this there are so many services including therapeutic drug monitoring, patient counselling, prior authorization refill of prescription drugs, monitoring of drug usage with the help of telecommunication and video conferencing. It plays a major role in reducing adverse drug reactions, medication cost, and treatment risk. In tele pharmacy service pharmacists may not be physically present at the location of the patient, but provide the medication. Tele pharmacy service dispenses the medication to people who are in remote areas and unavailable to

access the hospitals. This has been adopted by many healthcare institutions as an alternative strategy for

expanding pharmacy for all people and this is the best method to achieve the highest standard of quality for delivering pharmacy services to rural communities, providing health education to promote safety and proper use of pharmaceuticals. Tele pharmacy is a new opportunity for pharmacists to grow and attach to technology that benefit patients to expand their role and access more people than ever. Tele pharmacy was officially first done by United States in 2001, out of the United States North Dakota became the first state to evaluate or conduct a study having 81 pharmacies, carried out at North Dakota State University later tele pharmacy services became available in China, Canada, Italy, Germany, Scotland, France, Denmark, Spain, and Egypt, out of these United states, Australia has largest exposure in reducing shortage in health services.

OBJECTIVES:

- * To make the best quality healthcare available to rural communities.
- * Reducing the time and money wasted by suppliers and patients.
- * Provide home care and case monitoring.
- * Reduce the cost of medical care.
- * survey and tracking of diseases.

TYPES OF TELEPHARMACY:

The four types of tele pharmacy are;

In-patient / remote order- entry review:

In this type, a pharmacist is at remote locations and performs remote-order services for an in- patient pharmacy at a hospital. Pharmacist at remote level reviews the medication orders before the hospital staff administers the drugs to the patient, it is beneficial to hospitals, clinics, and health systems as it enables real-time medication order

examination and monitoring. This service is provided 24/7 by pharmacists.

Remote dispensing:

It is also called a retail communication telepharmacy or outpatient. A retail communication telepharmacy is a licensed pharmacy, staffed by a certified pharmacy technician. The pharmacist supervises the technician, reviews prescriptions, and performs his or her duties from a remote location via video conferencing or telecommunication. Many rural areas that are far away are unable to access these services due to geographical location, this method is convenient and easy access to for patients.

IV admixture:

The Joint Commission on Accreditation of Health Care Organizations (JCAHO) defines IV admixture as the preparation of a product or medication to a 50 ml / greater bottle of IV fluid. Pharmacists review the IV admixture remotely and save the time needed to suit up and enter the clean room to review the solution. Implementing an image-based telepharmacy workflow in a clean room allows you to document each step of the process and reduce mistakes. It also reduces the time and can also save money.

Remote counselling:

In this type pharmacist provides counselling to the patients through secure live and interactive video conferencing or via telecommunications, by this method the patient can feel better and provide an opportunity for special counselling (HIV, AIDS, and other STDs) and various clinical interactions with pharmacists.

TYPES OF TELEPHARMACY SERVICES:

Traditional pharmacy:

These types of pharmacies consisted of both prescription and non-prescription drugs including beauty and other health-related products. In this type prescription is prepared at the same location and pharmacists provide the drug information, and utilization to the patient.

Remote consultation sites:

These types of pharmacy services are beneficial to rural communities and in this type, there is no prescription drug inventory at the site, it doesn't require a registered pharmacist. Here the prescriptions are taken and sent to central

pharmacies, the medicines are supplied from central pharmacies to rural communities, patient education is through the audio and video counselling.

Hospital telepharmacy:

In these prescriptions that are issued in rural hospitals are electronically sent to the urban medical centre pharmacy, then the urban hospital pharmacist has access to review the patient's electronic records and check the prescription proper dosing etc. Then the medication is sent via an automatic dispensing device (ADD). A nurse in a rural hospital with access to ADD reviews the medication and labels and hands over medicine to the patient, the pharmacist at an urban hospital monitors electronically the verification process to check the restocking of ADD through video conferencing.

Automated dispensing machines:

pharmacist at the centre location upon receiving the drug order electronically or by fax, then the licensed pharmacist confirms the patient profile, proper drug utilization review, and finally instructs the Automated dispensing machine to release the medication. These automated dispensing machines have limited drug inventory and these are mainly used for urgent or first doses to the patient.

BENEFIT FOR RURAL COMMUNITY:

Telepharmacy services have played a beneficial role in rural communities because due to geographical areas and the places where pharmacist, pharmacy services are limited. It also saves time, cost for the patient, in this telepharmacy medication error rates are equal to or lower than in traditional pharmacy settings and patients who are living in remote areas are satisfied with telepharmacy services. It was reported that most rural area people travelled more than 40 to 50 miles to get their prescriptions. So, introducing this system makes patients easy and more satisfied.

ADVANTAGES:

1. Reduced operations.
2. Economic benefits.
3. Patient satisfaction.
4. Effective patient counselling.
5. Overcome distance barriers.

6. Enhanced clinical role for pharmacists.

DISADVANTAGES:

1. Practical challenges.
2. Pharmacy regulation laws.
3. Security.
4. Operational difficulties.
5. In the ability to use technology.

WORKING OF TELEPHARMACY:

Prescriptions arrive at rural centres.

The prescription is verified and arrives at rural centres.



Rural centres are connected with urban centres.

Central pharmacists review the prescription and



release appropriate items with label.

The barcode is scanned at rural centres to ensure that



it matches the drug label.

After verifying barcode medicine is supplied to the



patient along with the label.

The central pharmacist provides detailed drug



information through a videoconference or telecommunication.



TELEPHARMACY DURING COVID

COVID patients avoid hospital care due to stay-at-home orders or fear of the virus. So, the use of telepharmacy has been promoted during the COVID-19 pandemic. Telepharmacy services during the pandemic have lot of benefits for the healthcare system and improved public health. Access to these services increases social distance and reduces the effect of infectious exposure.

TELEPHARMACY IN INDIA

In India health care was developed properly and there is a shortage of doctors, equipment, and staff. In India, 68% of people live in rural areas and 92% of people in secondary care and tertiary care facilities are situated in urban areas. So the doctors can provide the prescription and consultations through telepharmacy and telemedicine.

e-sanjeevani:

e-sanjeevani is a national telemedicine service a great initiative for all the people in India by the Union Ministry of Health and Family Welfare, Government of India in November 2019. Through this scheme free telemedicine service is provided. It is an alternative to the conventional physical consultations via digital platform.

It has crossed 8 crore consultations were received and 1 crore consultations are done within 5 weeks for better health care. In this doctor gives the electronic prescription to the patients.

Consultation process of Assisted telemedicine of e-sanjeevani:

- ✓ Visit the nearest Health and well-being centre
- ✓ Meet CHO
- ✓ CHO will create a case in e-sanjeevani
- ✓ Consult doctor/specialist virtually
- ✓ Gets e-prescription

CONCLUSION:

To reduce patient's time, money telepharmacy is a great method that to deliver healthcare facilities and medication to people who are unable to access healthcare services in rural areas. Telepharmacy plays a major role in reducing adverse drug reactions, medication costs, and treatment risks. This article includes all the information regarding telepharmacy, types of telepharmacy, models in telepharmacy, advantages, and disadvantages, working of telepharmacy, telepharmacy during COVID, and telepharmacy condition in India.

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