



ORIGINAL RESEARCH PAPER

Pharmaceutical

A STUDY ON THE GENESIS, STRUCTURE AND PROSPECTS OF LEGAL E- PHARMACIES IN INDIA.

KEY WORDS: E-pharmacies in India, internet pharmacies, digital dispensing, e- prescription, e-commerce, electronic dispensing, online pharmacy, web pharmacy,

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ABSTRACT

By the end of 2018, legitimate E-pharmacies facilitating the buying and selling of medicines and other pharmaceutical items with the support of e-commerce activities using computers and smart phones will be established in India. In April 2018, the Health Ministry of Government of India came out with the draft proposal to amend the Drugs and Cosmetics Rules 1945 by inserting Part VIB to it after Rule 67H and before Part VII under the heading "Sale of drugs by e-pharmacy" which will legalise the e-pharmacies in the country. The new Rule defines e-pharmacy as a 'business of distribution or sell, stock, exhibit or offer for sale of drugs through web portal or any other electronic media' and prescription as 'instruction from a registered medical practitioner to a pharmacist, written by hand or in electronic mode duly signed to dispense a drug and the quantity to a patient. E-pharmacies are not permitted to dispense narcotic and psychotropic substances, tranquilizers and Schedule X drugs. E-pharmacies have to comply with the provisions of the Information Technology Act 2000 and the Rules there under. E-pharmacies are expected to open newer avenues for qualified pharmacists with insights for innovations in India. Pharmacists with Pharm.D, M.Pharm and other qualifications can take up e-pharmacies as a professional challenge in India.

INTRODUCTION AND BACKGROUND

India is one of the fastest growing Internet markets in the world. The number of Internet users in India rose from approximately 300 million in December 2014 to around 402 million in December 2015, 462 million in 2016, 481 in 2017 and 500 million by 2018 (Fig No 1). India stands at second position after China in the case of internet users in the world. There is an enormous surge in the number of mobile Internet users in India due to increasing adoption of smart phones. The country is estimated to have around 530 million smart phone users in 2018. China with 1.3 billion is the only country having more smart phone users than India

15.17%, cardiac drugs 12.47%, gastrointestinal drugs 11.75%, vitamins / minerals / nutrients 8.78%, and anti-diabetic preparations constitute 8.13% of Indian domestic medicine market 1 (Fig.No. 3).

Fig No1. Increase in internet users in India 2013-18

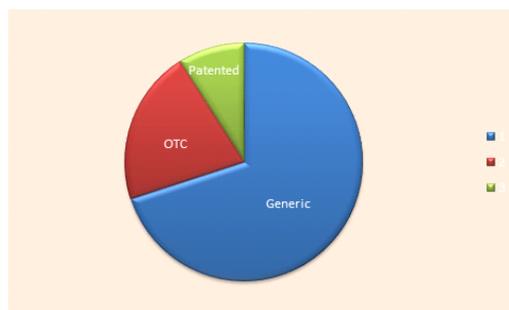
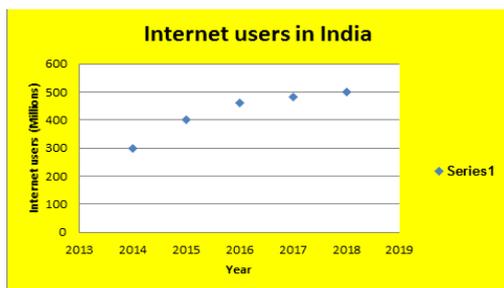


Figure No 2: Indian Pharmaceutical market segments.

There are about eighty e-pharmacies in India doing good business. Some of the major existing e-pharmacies in India include 1MG, Netmeds, Bookmeds, mChemist, Medidart, Medlife, Medstar, Medikoe, Bigchemist, Pluss, Zigy, Pharmeasy, Savemymeds, and SaveOnMedicals. Traditional pharmacies like Apollo, Medplus, Guardian lifecare etc also started on-line business in India^{2,4}.

E-Commerce offers many advantages to consumers and the most important is the convenience or ease with which goods can be procured. Growth of e-Commerce and retail business are complimentary and reinforce each other. Studies have shown that a significant proportion of the Indian population is willing to purchase medicine, pharmaceuticals and other related products over the internet due to its inherent advantages. Quality assurance, economic prices, incentives, schemes, discounts, convenience in ordering, home delivery with preferred time and address are some of the important advantages that will motivate consumers/patients to shift towards e-pharmacy.

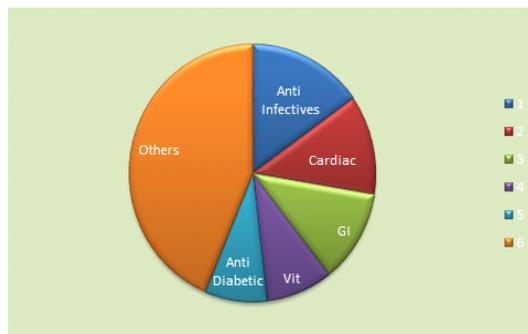


Figure No 3:Market share of categories of medicines in India.

The Indian pharmaceuticals market by 2017 has become the third largest in terms of volume and 13th largest in terms of value, globally. The retail pharmaceutical market in India is about INR 1,35000 crores (about 20 billion US \$) by 2018 and is at a promising stage with its three broad sectors of generic drugs, OTC drugs, and patented products. Generic drugs form the largest segment of the Indian pharmaceutical sector, with around 70% market share in terms of revenue. OTC medicines and patented drugs constitute 21% and 9%, respectively (Fig No.2). It is expected that the e-pharmacy can have 15% of the total domestic market in India. Anti-infective medicines have a share of

E-commerce

E-commerce stands for electronic commerce and can be defined as the business activity of buying and selling of products on line with the services of internet and computer connectivity. These days smart phones are widely used to make the e-commerce more comfortable and popular. E-commerce typically uses the ' world

wide web' (www) in large though email and other communication like Whatsapp, Face book, short message services (SMS) etc. are also often used. Application of technologies like electronic fund transfer, mobile commerce, online transaction method, electronic data interchange etc. helped a lot to popularise e-commerce activities.

E-pharmacy

E-pharmacy denotes the buying and selling of medicines and other pharmaceutical items with the support of e-commerce activities. In many countries, legitimate online pharmacies are given specific operating licenses. During 2010-15 period, there were some controversies with regards to e-pharmacies in India. The issues like whether e-pharmacies are legal in India or not, selling of prescription medicines without a doctor's prescription and the presence of 'cyber physicians' on some sites were seriously debated and discussed.

E-prescribing,

E-prescribing or electronic prescribing is a technology framework that allows physicians and other medical practitioners to write and send prescriptions to a participating pharmacy electronically instead of using handwritten or faxed messages. There were doubts about the legal status of e-pharmacies in India among experts and regulators.

Growth Drivers

As note above the Indian pharmaceutical market is expected to grow in the coming years. The major growth driver factor is the popularisation of non-life insurance including health insurance. Gross direct premium from healthcare Insurance reached RS. 378.97 Billion. (USD 5.88 Billion) in 2018 and contributed 25.2 percent to the gross direct premiums of Non- Life Insurance companies in India. Another boost to the sector will be the National Health protection scheme under Ayushman Bharat, Announced in Union Budget 2018-19.

REGULATORY BODIES AND E-PHARMACIES.

There were discussions and deliberations during 2010- 15, on topics like whether e-pharmacies are legal in India, selling a prescription without a doctor's prescription is right and on the presence of internet/cyber physicians on some sites. Some e-pharmacies were selling quality medicines at reduced prices to patients while some others were doing certain questionable dealings and practices.

Though, doctors could prescribe medicines to their patients through an electronic prescription, the question was whether the prescriptions can be dispensed from both physical (bricks and mortar or B&M pharmacies) and online pharmacies or from a physical pharmacy only ? The Drugs and Cosmetics Act 1940 and its Rules 1945, did not differentiate online and offline pharmacies. Indian laws were totally silent on functioning of e-pharmacies till 2018. The drug laws framed during the pre-independence period were not up dated to incorporate the achievements of electronic and information technology (IT) and developments and changes occurred in the are of pharmacy practice and dispensing.

The food and drugs administrations (FDAs) of some states like Maharashtra, Gujarat, Telangana and Karnataka filed legal complaints against online pharmacies. The Maharashtra FDA in May 2015 filed an FIR (First Information Report) against the online seller 'Snapdeal' for selling prescription drugs on the internet along with over-the-counter (OTC) drugs. It was based on a raid conducted by them at the Mumbai office premises of Snapdeal in April 2015. Similar raids and FIRs were filed against Delhi based Mchemist, Mumbai based Pharmeasy and MeraMedicare in Gujarat^{2,3}. There was no issue regarding online sale of non-prescription drugs. Complaints and issues were with respect to the sale of prescription drugs only.

The Maharashtra FDA took the stand that online pharmacies can sell only OTC and not prescription drugs until the policy on e-pharmacies are framed. The basic argument about the legality and viability of the online pharmacies has been regarding the sale

of prescription drugs. Many e-pharmacies have adopted a method where the consumers are required to upload a copy of their prescriptions or an e-prescription, which is then verified by the online pharmacy and accordingly the medicines are provided to the customers. As the law regarding e-pharmacies were ambiguous, it was interpreted in both positive and negative ways^{4,5}. In November 2016, the major online pharmacies formally united and formed an association – Indian Internet Pharmacy Association (IIPA) and published 'self regulation code of conduct for e-pharmacy sector. Mr Prasahant Tandon, founder of 1mg became the president of IIPA6.

COMMITTEE TO STUDY E-PHARMACY ISSUE.

Understanding the situation in its real perspective in July 2015, the Government of India (Health & Family Welfare) ordered the constitution of a seven member Subcommittee to study and make recommendation on the issue of online pharmacies after studying the Indian situation and the working of on-line pharmacies in other countries. Dr. Harshadeep Kamble, Commissioner, FDA Maharashtra was the Chairman, Dr S.Eswara Reddy, Joint Drugs Controller at CDSCO was the Convenor of the Committee and Drugs Controllers of Odisha, Karnataka, Goa, Madhya Pradesh and Delhi were members of the Committee. The Sub Committee submitted its report in September 2016.

The Bombay High Court in October 2015, in a public interest litigation (PIL) declared that the online sales of medicines included in Schedule H of the Drug Rules without prescription and proper cash memo are illegal and directed the state Government to take appropriate steps to prevent such practices. In July 2016, the Government of India gave its support to online pharmacies and Central Drugs Standard Control Organisation (CDSCO) issued directions to all State regulators stating that there are no objections to online pharmacies as long as there is no violation of existing laws including the Drugs and Cosmetics Act 1940 and its Rules and Information Technology (IT) Act.2000.

The IT Act prescribes that when a document is required to be signed under law, such document would be deemed to be in compliance with the law only when such information is authenticated through an electronic signature. An electronic signature is a means to authenticate an electronic record by a subscriber using a method laid down by the IT Act.

GOVERNMENT OF INDIA INITIATIVES FOR E-PHARMACY.

In 2016 itself the Government of India initiated the home work to use information technology in medicine use and distribution in India and for that purpose started steps to launch a centralised online e-plat form for medicines. An e-platform will act as a tracking system for medicine from manufacturer to end use by patients, which was totally lacking in the country. The Health Ministry started utilising the 'Sugam' software for the purpose. According to the plan, the pharmaceutical manufacturing firms will be required to register themselves with the portal and enter data related to sale and distribution of drugs to different distributors (stockists/wholesalers or otherwise) along with batch number, quantity supplied and expiry date of the batch.

All distributors will, also be required to register themselves on the portal and enter details of stocks received and supplied by them to other distributors or retailers. The data can be entered online and by using mobile phones. Pharmacies located in rural and remote areas also can do it through mobile phones. No retailer, chemist or e-pharmacist outlet shall be permitted to sell any medicine or drug unless such pharmacy is registered on the e-portal. The GST system introduced on 1st July, 2017 acted as a catalyst for the scheme as all the pharmacies in the country managed to be computerised and started issue of computer bills.

The e-platform can also be used for the quality assurance of medicines in different ways like uploading the test reports, billing and moving details etc. There were repeated efforts from the business and trade organisations to sabotage the proposal of computerization and e-filing of medicine movements and other documents. The All India Organisation of Chemists and Druggists

Association (AIOCD) conducted a nation wide agitation on 30th May 2017 against the decision of making e-platform for medicine registry in the country.

Making e-pharmacies legal.

In April 2018, the Union Health Ministry has come out with a draft proposal to amend Drugs and Cosmetics Rules 1945 by inserting Part VI B to it after Rule 67H and before Part VII under the heading "SALE OF DRUGS BY E-PHARMACY" which will legalise the e-pharmacies in the country. Now the Rule defines an e-pharmacy as a "business of distribution or sell, stock, exhibit or offer for sale of drugs through web portal or any other electronic media". This definition will make it clear that e-pharmacy need not be 'bricks and mortar' (B&M) type of physical pharmacies that deal with patients/ customers face-to-face. Virtual or on-line pharmacies can now function as e-pharmacies in India. No person can distribute or sale drugs and medicines unless registered under Rule 67N of the Drugs and Cosmetics Act Rules. According to the new Rule, a prescription is defined as an "instruction from a Registered Medical Practitioner to a Pharmacist, written by hand or in electronic mode duly signed to dispense a drug and the quantity of the drug to a patient". Now the doctors can write legally valid electronic prescriptions in all electronic modes, specifying the name and quantity of the drug and the details of the patient. A doctor from any part of the country can write a prescription for any patient of India. The e-pharmacies may have to collect the phone number of the patient and the prescriber for the effective functioning of the e-pharmacies, though the same is not specifically mentioned in the Rules.

Registration and License

E-pharmacies are required to apply for the grant of registration to the Central Licensing Authority (CDSCO) in Form 18AA through online portal along with the required fee. (it is originally fixed as Rs 50,000). The registration issued to the e-pharmacy in Form 21AA shall remain valid for three years and the premises of the e-pharmacy centre will be inspected by a team of officers authorised by the Central Licensing Authority every two years. The e-pharmacies can sell medicines only with the support of cash bill or credit memo generated through e-pharmacy portal. These bills or memos shall be maintained by the e-pharmacy registration holder as record and shall contain

1. Name, address and sale licence number of the licensee as uploaded in the e-pharmacy portal.
2. Number and date of the bill or memo.
3. Name of the drug, quantity, batch number (not mentioned in the draft Rule), expiry and manufacturer of medicines dispensed.
4. Name and address of the e-pharmacy registration holder.

Restrictions for e-pharmacies.

E-pharmacy shall not distribute or dispense medicines covered under the categories of narcotic and psychotropic as referred in the Narcotic and Psychotropic Substances (NDPS) Act 1985, tranquilizers and Schedule X drugs. All e-pharmacies have to comply with the provisions of the Information Technology Act 2000 and the Rules made there under. E-pharmacy registration holder is responsible for all the violations of the Rules and provisions of the law.

E-pharmacy details on web portals.

All the details regarding the e-pharmacy including its registration and licence, its constitution and structure like ownership (proprietorship, partnership, company) and names of persons having membership in management, details of logistic services, return policy of dispensed medicines, name of registered pharmacist who validates the prescription, procedure for lodging grievances, complaint redressal mechanism, contact details of e-pharmacy with phone and mobile numbers etc have to displayed on the e-portal of the pharmacy.

The information regarding the medicines available, supply channel, vendors list details of registered medical practitioner (if any) in the e-pharmacy should also be notified in the portal.

The e-pharmacy has to verify the prescription received with respect to the details of patient and prescriber and confirm that the prescription was not earlier dispensed. The prescription shall also be uploaded in the portal and kept as record.

MAKING E-PHARMACIES PROFESSIONAL

If the Aadhaar number of the patient, doctor and the pharmacist are linked with the e-pharmacy platform, the functioning of e-pharmacies can be made more perfect. In some Indian States the community pharmacy drug licenses are being linked with the Aadhaar of the pharmacist and the licensee based on Court directions. In some other states the professional registration of doctors, pharmacists and the nurses are also being connected with their Aadhaar. If all professional Councils like Pharmacy Council initiate process of linking Aadhaar with the registration, certain unethical practices can be stopped to a certain extent.

The new Rules stipulate that e-pharmacies shall have the facilities for customer support and grievance redress of all stake holders which shall work at least 12 hours every day including holidays. This customer support will include drug information, patient counselling and other pharmaceutical care facilities. Such facilities, in fact, have to be provided from the e-pharmacies on round the clock basis. Qualified pharmacists with M.Pharm/ Pharm.D/ PhD can initiate innovative service to the society through e-pharmacies. It may be noted that the Pharmacy Practice Regulations 2015 also stipulates certain provisions like prescription verification and checking for errors and drug safety and also to provide patient counselling by the pharmacists.

According Rule 67K and 67 M, the e-pharmacies need to maintain the records of patients and the services provided. The data base regarding the patients/ customers have to be kept confidential by the e-pharmacies. It should not be disclosed to any other person other than the CDSCO or the Government of India and should not be transmitted or stored outside India by any means. It may be noted that this type of data will help for research studies, framing of policies and future plans and projects.

POTENTIAL FOR E-PHARMACY IN INDIA.

At the global level e-Pharmacy was having a market of 29.3 billion US dollars in 2014. Both North America and Europe shared the market. It is estimated that by 2023, the global market of e-pharmacy will be 128 billion US dollars. According to one Boston Group report in 2016, China was having an e-pharmacy market share of 1.1 billion US dollars. The potential area for the global e-pharmacy market lies in the Asia Pacific market. Though e-pharmacy is a newly born baby in India, it has the potential to become a very large industry segment in the very near future. Rapidly changing consumer behaviour, increasing penetration of internet to the rural areas and the availability of smart phones are some of the major driving forces for the popularisation of e-commerce and e-pharmacies in India.

ADVANTAGES OF E-PHARMACY

Compared to the existing physical community pharmacies, e-pharmacies will have many good aspects including professional services. Some of them are noted below-

1) Medicine Authenticity and Quality.

The IT based tracking systems of e-pharmacies will help in back-tracing the manufacturer/ channel/ supplier of the sub-standard or low quality medicines and counterfeit medicines. This will help to make the medicine market transparent and authentic. The display of the quality control test report of the manufacturer and the bar-coding in the labels of medicines will help to ensure the quality of medicines supplied. Since e-pharmacies are supposed to get most of their items from the manufacturers directly and are supposed to dispense medicines of selected few manufacturers, e-pharmacies can play an important role in ensuring quality medicines to the society. As the Government of India is working on the introduction of bar codes for all medicines and has already introduced the system of generic dispensing in the country, e-pharmacies can act as a catalyst in cost reduction,

quality assurance and availability of medicines at economic costs.

ii) Improved Accessibility.

With the use of information technology and access to inventory of multiple stores at a time, e-pharmacies can aggregate supplies, making otherwise difficult-to-find medicines available to consumers across the country. Community pharmacies can generally keep only a limited inventory forcing the consumer to visit multiple pharmacies to procure the medicines. E-Pharmacies also enable access to rural areas where there is shortage of community pharmacies.

E-pharmacies will be much helpful and useful for regular users of medicines and also for senior citizens and disabled who find it difficult to travel to the community pharmacies. Medicines will reach their door steps, quite often at less costs. Consumers can order medicines in a convenient manner from their mobile phones or computers. This will significantly help the old and sick who are not in a condition to go out to find a pharmacy. Working couples will also benefit out of e-pharmacies.

iii) Tracking of Data.

All the details regarding the e-pharmacy transactions will be properly documented on e-platforms. All transactions could be efficiently tracked with details of the medicines, batch number, date of manufacture and expiry, e-pharmacy name and address, prescribing doctor, dispensing pharmacist, name and address of the patient, etc., thereby reducing many unethical issues and practices. E-Pharmacies can store and analyze data on consumers across the state or nation, which would be useful for planning public health policies.

iv) Generic Dispensing by professional Pharmacists

India has already introduced the system of generic prescriptions and dispensing. Doctors who were not taught about brand names or trade names during the education period, are prescribing costly brands to poor people in the name of quality. Quality is not related to brand or generic names, but to the manufacturers and their process. If consumer movements become strong nobody will dare to prescribe costly medicines, if low cost alternative generics are available. However it is essential that pharmacies and pharmacists maintain professional ethics in pricing and dispensing activities.

E-pharmacies allow the consumer to choose from a wide range of generic equivalents for a particular branded drug. This is currently not possible in the Indian community pharmacies. OTC medicines can be sold through the e-pharmacies without prescriptions as in the case of other pharmacies, but have to maintain the records as in the case of prescription medicines.

v) Cost Benefit

E-Pharmacies will help pharmacy entrepreneurs to broaden their customer base while reducing financial investment, working capital and overhead costs. They will also get an increased margins. Patients and consumers will get quality medicines at lower costs. Qualified pharmacist can practice the principles of pharmacoeconomics in pharmacies which will help to translates into cost advantage to end consumers.

vi) Drug Information and Patient Counselling .

Through e-pharmacies society will get value-added services like drug information, patient counselling and education and pharmaceutical care. Pharmacists can provide advice regarding drug interactions, side effects, quality of medicines, medicine regimens, and information on storage and proper use of medicines. This power of knowledge will enable the consumer to promote prudent and rational use of medicines.

vii) Issue of Medicine safety.

Questions about medications could be answered by e-pharmacists using e-mail, Whatsapp or other real-time chat options. As pharmacists at the e-pharmacy will be the final decision maker for dispensing a drug, e-Pharmacy shall have a team of qualified pharmacists for validation of a prescription and for handling any drug related queries from the patients. People with M.Pharm/ Pharm.D qualification would be necessary in e-pharmacies to

provide value added professional services. Name, phone number and other contact information of the pharmacists may be necessitated to provide while answering drug related query from the customer. Medication errors can be more effectively addressed through e-pharmacies than the existing Indian community pharmacies.

viii) Promotion of national development and digital India.

Digital India is a flagship program of the Government of India. It aims to transform India into a digitally empowered nation with the support of creating digital infrastructure, digital literacy and digital delivery of services. It aims to empower the society to avail Government services, transparently, conveniently and easily. Digital India is expected to boost the economic growth of the nation and improve the lives of people. There is dramatic growth in the number of online transactions involving citizens and the Government (e-governance) after 2013. If it was 840 million in 2013, it became 2580 millions in 2015 and increased many folds during 2017-18^{1,3}. E-pharmacy can very well aligns with the national development objectives and has clear and tangible benefits to the consumers as well as the industry.

ix) Promotion of e-prescriptions.

E-pharmacies would also enable the doctors to adopt e-prescriptions in a big way, which in turn can address issues of errors due to misreading of doctors' bad handwriting and also help to recording of data for public health planning programs.

WILL E-PHARMACIES PROMOTE SELF MEDICATION?

In India there are about eight lakh community pharmacies and two lakh hospital pharmacies working with licenses from the regulators. It is estimated that another two lakhs stores are working without proper licences from the regulators. Most of the bricks and mortar type pharmacies are yet to have a proper prescription filing system in India, though the Pharmacy Practice Regulations 2015 and the Drugs and Cosmetic Rule insists for the same.

Currently the prescription filing system is implemented only in the case of some special items included in Schedule X. There is no prescription filing system for drugs included in Schedule H which are prescription only drugs. The purpose of including a drug under Schedule H itself is lost if the prescription filing system is not implemented in the pharmacies.

E-pharmacies implemented under the new Rules will not promote self medication or irrational use of medicines compared to our existing physical pharmacies. In its proposed structure, e-pharmacies can promote prudent use of medicines. In addition to proper documentation and filing systems, e-pharmacies also provide drug information, patient counselling and grievance redress services. Pharmacists can take up e-pharmacies as a professional challenge and introduce innovations in the area. E-pharmacies are expected to open newer avenues for qualified and smart pharmacists in India.

WILL E-PHARMACIES DO HARM PHYSICAL PHARMACIES?

As in the case of introduction of computerisation in the 1980s, currently there is a lot of misunderstanding about e-pharmacies in India. Some believe that it will have an adverse impact on the traditional brick and mortar pharmacies. Some others estimate that it will take away the employment potentials of pharmacists. Yet others expect that it will promote unethical practices in pharmacy practice. All are just hypothetical phobias. In reality, e-pharmacy models will help the existing traditional pharmacies to grow and expand. E-Pharmacy will help community pharmacies to cater to a broader set of customers and ensure that the inventory is consolidated by reducing the budget requirements, removing wastage from system and increasing margins, thereby making the community pharmacies more sustainable.

E-pharmacies will help to bring employment potential for qualified pharmacists who can introduce innovations in pharmacy practice. In many countries the permission to start e-pharmacies are given only to registered pharmacists. Legal e-pharmacies can

do more professional services than physical pharmacies and introduce and promote generic dispensing in a transparent and effective manner. Since all transactions including purchases, sales dispensing etc. are perfectly documented and registered, the scope for unethical practices including exorbitant pricing are not possible in e-pharmacies.

Existing physical pharmacies too can start online operations and serve a broader set of customers. Similarly a network of pharmacies also can integrate one platform and access a broader customer base. Since e-pharmacy has a stringent documentation process, the taxes paid on all transactions will largely benefit the Government. Every order dispensed through e-pharmacy will have a valid bill or cash receipt and tax to the Government has to be paid in full.

GREY AREAS IN NEW RULES

The new Rules failed to specify an outline of standard operating procedure (SOP) for the e-pharmacies, including storage, transport inventory control and the role of personnel employed including pharmacists. Storage plays a vital role in preserving the potency of medicines in general and items to be preserved in 'cool' and 'cold' places in particular. Integrity, quality and effectiveness of medicines have to be preserved while packing, transporting and delivering. The principles of generic prescription and dispensing needs to be addressed in the case Drug Rules.

Since a prescription cannot be over dispensed with respect to items and quantities, can a scanned copy of prescription as such be made valid for dispensing of prescription items through e-pharmacies? Many international e-pharmacies are operating illegally in India and the new draft Rules are silent in that issue.

India had a bitter experience of poor professionalism in the management of community pharmacies and hospital pharmacies in the past. Such things should not happen in e-pharmacies. Traders and people with business motive should be discouraged to enter into pharmacy practice areas like e-pharmacies and community pharmacies. In some countries Pharmacists alone are permitted to own e-pharmacies. Certain clauses of the Pharmacy Practice Regulations 2015 also need to be modified.

CONCLUSIONS

Breaking the barrier of information lying with the experts, such services are brought to the common man anywhere at any time^{6,7}. A unique feature of information technology is its ability to break barriers E-governance, e-health, e-pharmacy are all its beneficiaries.

In an era of globalisation, e-pharmacy is a need of the land. It is essential to develop concrete infrastructure for the e-pharmacies in the coming years.

E-Pharmacies enhances the services of pharmacists to the society. It can provide easy and affordable access of medicines to the consumer at their doorstep and is expected to create huge demand in the days to come. Easy access and convenience factors associated with e-pharmacies are very much helpful for not only old and sick, but also for rural population who have to travel for buying medicines. Indian pharmacists have a responsibility to make the e-pharmacies professional and ethical in its activities.

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