ICT COMMUNICATION BETWEEN ONCOLOGISTS AND ONCOLOGY PHARMACISTS IN INDIA: A PILOT STUDY

M. S. Bexci¹* and R. Subramani²

¹*Research Scholar, ²Assistant Professor, Department of Journalism and Mass Communication, Periyar University, Salem, Tamil Nadu, India – 636 011.

ABSTRACT
Doctors and pharmacists communication is more vital for managing a better therapeutic patient outcome, especially in the speciality of Oncology. In India, oncologists have limited opportunity to have direct contact with oncology pharmacists, if even had, are very brief. Information and Communication Technologies (ICTs) based communication can improve efficient communication thereby reducing the limitations in direct or face-to-face communication. The objective of this pilot study is to understand how ICT capabilities influenced oncologists to communicate with oncology pharmacists for better understanding of drug profile administered in cancer care. This study is quantitatively analysed and found that Emails are most preferred tool for oncologist and oncology pharmacist communication due to its multichotomous technological capabilities.

KEYWORDS: ICT based Communication, Email Communication, WhatsApp, Mobile HealthApps, Oncology-Pharmacists Communication.

INTRODUCTION
Communication needs between Oncologists and Oncology Pharmacists
Cancer care is rapidly evolving, and as the needs for drug therapy for patient to improve, so does the communication between oncologists and oncology pharmacist. During a cancer care, patients are customarily advised to avoid altering the dosage form without consulting an oncology pharmacist. In India, pharmacists do not communicate directly to patients nor the patient attenders, rather still people do not know who is a pharmacist and what his role is.
Oncologists and their care team typically act as catalyst to communicate to patients. For any queries on drug description and its adherence to cancer patients, oncologists rely the oncology pharmacist, though their direct contact is always inadequate. Regrettably, any doctor-pharmacists communication about drug therapy in every other speciality has always been very limited as observed in both developed and developing countries ever since its barriers have been identified.

Oncology pharmacists have expert knowledge of anti-cancer medications and are front-line caregivers in patient care for the side effects caused by chemotherapy and biological agents, besides, optimizing the benefits of drug therapy to minimize toxicities. Among various other responsibilities of an oncology pharmacists, clearing drug queries by physicians are considered very crucial as cancer is a life threatening malady. An oncology pharmacist work directly with oncologists to ensure that the medications prescribed for cancer patients contribute to the best possible health outcomes by checking in with patients periodically during treatment, oncology pharmacists may be able to identify a problem before it becomes severe and communicate this to the patient’s oncology care team. When physicians consult an oncology pharmacists, in selecting the medication therapy that best meets the patient’s needs and contributes effectively to the overall therapy goals, it ultimately supports prescription services like drug’s active substance, dosage form, standard dosage schedule, standard duration of a new drug or drug efficacy, safety, suitability and cost or it could be an email for oncology chemotherapy orders customised for specific nature of cancer. Consultations may also extend to any queries or information sought on adverse drug reactions, chemotherapy and warnings about its side effects, drug profile, pharmacokinetic information and toxicology. Supplementary information on each drug brand names, generic names or formulas for various diagnostic stains, diagnostic aids, etc. forms the thrust areas of communication between an oncologists and oncology pharmacists.

When contacted by a physician, the oncology pharmacists directly sends the information or the query is passed on to the Drug Information Center. The Drug Information Centre is a service offered through Pharmacy Department which provides advice and act as a referral service by directing the best available resource to respond to query or concern. When an insufficient communication or communication gap occurs between oncologists and pharmacists, it results in poor patient management. Research states that communication gap occurs even in spite of understanding the fatality of the disease and sensing a strong
communication need by oncologists and oncology pharmacists.\(^7\) To eliminate any barriers that deter prompt communication between the two specialized health players, Information and Communication Technologies (ICTs) are making their way into achieving effective communication and its use shows a peripheral entry in the field of drug therapy.\(^8\)-\(^10\) Inopportune, a literature search revealed insufficient published studies of using ICT in oncologists-pharmacists communication.

**MATERIALS AND METHODS**

The researchers used structured questionnaire survey with convenience sample of oncologists practising in Chennai and Coimbatore, two significant cities promoting medical tourism in southern Tamil Nadu, India to know how ICT capabilities are used for effective communication in drug therapy for cancer care.

**RESULTS**

Completed surveys were reverted by 23 oncologists (response rate = 46%). Age ranged from 38 to 60 years (Mean ± SD = 3.17 ± .650). All Oncologists were male. Number of years of medical practice ranged between below 10 years and above 30 years. One oncologist above 30 years; six between 20 and 30 years; 15 between 10 and 20 years; and one oncologist below 10 years (Mean ± SD = 2.30 ± .635). Professional setting of the oncologists included 18 from private practice; three from government practice and two oncologists were independent consultants. (Mean ± SD = 1.30 ± .635). In terms of international exposure in education or work, eight oncologists had international exposure while the rest 15 of them had no international exposure (Mean ± SD = 1.65 ± .487). 13 Oncologists found obtaining drug information and queries from remote oncology pharmacists as ‘very simple’; while the rest 10 found it ‘simple’. None of the oncologists perceived it as a difficult or very difficult task (Mean ± SD = 4.57 ± .507). Oncologists most often used tool for communication to oncology pharmacists were Emails, 19 oncologists used only Emails; while four others used both Email and WhatsApp (Mean ± SD = 1.70 ± 1.550). None of the oncologists used either SMS, Mobile call or any other services of ICT for drug queries. On frequency of ICT tools used by oncologists to communicate to oncology pharmacists, 12 oncologists used fortnightly, seven used once a month; two used twice a week and two oncologists used very rarely (Mean ± SD = 3.39 ± .783). Oncology pharmacists contacted oncologists mostly through Emails other than occasional face-to-face meetings. All the oncologists directly contacted the oncology pharmacists and the response received was either directly from oncology pharmacists or
through the Drug Information Centre of the pharma company through Emails. 18 Oncologists received Email responses from Oncology Pharmacists directly; while 5 Oncologists received Email through the Drug Information Center. (Mean ± SD = 1.22 ± .422). In terms of suitable tool for oncologists for oncology pharmacists communication regarding drug queries, 21 oncologists preferred Email; while two preferred Mobile HealthApps (Mean ± SD = 1.35 ± 1.152).

**DISCUSSION**

Analysis of the performed pilot study indicates that Email is the most preferred tool for oncologists to communicate with oncology pharmacists for queries related to drug therapy. Though the use of many latest communication technologies have materialised in India for quick communication like Over The Top Messaging System (OTT) like WhatsApp services, an Internet based mobile and web application and customised Mobile HealthApps which are getting constantly upgraded for medical communication have not been favoured by oncologists. This inference is further substantiated to the finding that international exposure of oncologists nor their age and professional setting did not bear any significance to use newer communication tools for communication with oncology pharmacist. There are multichotomous technological capabilities attached to Email services that might be sufficient for less synchronous communication, where communicating partners need not share the same time. Attending queries related to drug therapy takes time and effort in case if the oncologist sought tailored queries about a particular patient or for any other specific details sought for similar cases.

While oncologists have perceived the task of consulting remote pharmacists to be simple, probably because of the user friendliness of the Email technology. Emails have the advantage of being quick, secure, and credible. Emails works at a low cost and provides easy exchange, storage and retrieval of drug information and retains a written record of the exhaustive communication without getting lynched of the word limit.[11-13] So oncologists rather than trying to recall answers from an in-person or telephone conversation with oncology pharmacists, Email serves to be a highly archived referring medium at any given time.

Although WhatsApp have been used by oncologists to communicate to oncology pharmacists it was only meant to give a reminder to oncology pharmacist seeking for answer or reply to queries like in clarifying minor drug details like its generic name or drug substance which does not need more description.
CONCLUSION
This pilot study directs that Email technology has a plethora of characteristics that no other latest communication tools or services could compliment. Email proved as an ideal tool for oncologists and oncology pharmacist communication given the complexity of tasks involved in cancer related drug inquiry. In a developing country like India with over a population of over a billion, modelling availability and access to newer technology for any type of medical specialities incurs phenomenal expenditure. Application of Email services have thronged India for more than a decade. If used to its full potential, barriers continuing in direct oncologists and oncology pharmacist communication can be reduced. Such effective communication benefits better patient outcome in terms of delivering right treatment decisions and an increased drug adherence for extending a healthy longevity of life of cancer survivors. The results of this study are not generalizable to all doctor-pharmacist fraternity, since the sample was very small and speciality was limited to only oncologists practicing in Chennai and Coimbatore.

REFERENCES
1. M Mazhar, A Ansari, SK Rajput, Clinical Pharmacy in India: Recent Advances and Perspective; PharmaTutor; 2015; 3(3): 31-36.


