

Cost effective use of free to use apps (FAN) in neurosurgery in developing countries: from clinical decision making to educational courses, strengthening the health care delivery

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ABSTRACT

Introduction and Objective: Financial limitations and scarcity of technological knowledge is a major hurdle to good communication platform, data storage and dissemination of medical knowledge in developing countries. Out of necessity we used free to use apps in our practice. We studied the applicability and cost effective aspect of a systematic use of these apps in neurosurgery.

Materials and Methods: We designed Free to use apps in neurosurgery (FAN) module in 4 phases at KMCTH over the last 3 years. We used free apps like viber, dropbox, skype and vlc media player on 3G and wifi. Users were trained in ethics and measures to ensure confidentiality and privacy of patient related data. Endpoints studied were feasibility, reliability, cost effectiveness and overall satisfaction of the users.

Results: In the FAN module, viber app was used to send pictures of digital imagings (DI) using smartphones within 30 minutes enabling quickdecision by the consultants. Dropbox not only helped store images but also helped quick verification of discharge summaries as early as 15 minutes increasing overall efficiency. With Skype, consultants could be contacted even when they were abroad and using FAN they remain updated of their patients. Using skype and vlc, 2 operative live workshops from abroad was transmitted live with good visual and audio reception allowing question answer sessions with the faculties. Users' satisfaction was more than 90%.

Conclusion: FAN module helped in quick reliable decision making, allowing for instantaneous communication and storing data and exchange of knowledge across countries.

Key words: communication, neurosurgery, free to use apps, smartphone