

## Quick Response Codes in Physio: A Simple Click to Long-Term Oxygen Therapy Education

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**Abstract :** QR (Quick Response) Code is a matrix barcode. It enables users to open websites, photos and other information with mobile devices by just snapping the code. In usual Long Term Oxygen Therapy arrangement, piles of LTOT related information like leaflets from different oxygen service providers are given to patients to choose an appropriate plan according to their needs. If these printed materials are transformed into electronic format (QR Code), it would be more environmentally-friendly. More importantly, electronic materials including LTOT equipment operation and dyspnoea relieving techniques also empower patients in long-term disease management. The objective to this study is to investigate the effect of QR code in patient education on new LTOT users. This study was carried out in medical wards of North District Hospital. Adult patients and relatives who followed commands, were able to use smartphones with internet services and required LTOT arrangement on hospital discharge were recruited. In LTOT arrangement, apart from the usual LTOT education booklets which included patients' personal information (e.g. oxygen titration and six-minute walk test results etc.), extra leaflets consisted of 1. QR codes of LTOT plans from different oxygen service providers, 2. Education materials of dyspnoea management and 3. Instructions on LTOT equipment operation were given. Upon completion of LTOT arrangement, a questionnaire about the use of QR code on patient education was filled in by patients or relatives. A total of 10 new LTOT users were recruited from November 2017 to January 2018. Initially, 70% of them did not know anything about the QR code, but all of them understood its operation after a simple demonstration. 70% of them agreed that it was convenient to use (20% strongly agree, 40% agree, 10% somewhat agree). 80% of them agreed that QR code could facilitate the retrieval of more LTOT related information (10% strongly agree, 70% agree) while 90% agreed that we should continue delivering QR code leaflets to new LTOT users in the future (30% strongly agree, 40% agree, 20% somewhat agree). It is proven that QR code is a convenient and environmentally-friendly tool to deliver information. It is also relatively easy to be introduced to new users. It has received welcoming feedbacks from current users.

**Keywords :** long-term oxygen therapy, physiotherapy, patient education, QR code

**Conference Title :** ICPRS 2018 : International Conference on Physiotherapy and Rehabilitation Sciences

**Conference Location :** Bangkok, Thailand

**Conference Dates :** August 30-31, 2018