# Quick Respond-Based Case Note Management System: A Case Study for File Record Unit

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**ABSTRACT**

*Keywords:*
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The common and major problem with public hospitals in Malaysia is patients' case note management, which includes tracking and updating the details of the case notes daily. Currently, the hospital is still adopting the manual method of managing the case notes which is time-consuming and prone to human errors. This paper proposed a quick respond-based case note management system for a public general hospital in Malaysia. In this project, the Quick Respond code is used as an identification or tag for the case note when the staff is looking for the case note in the existing in-house management system. This is useful for reducing the steps of manual work by only scanning the QR code at the speed of a second. The proposed system contains three modules, that are QR code printing, QR code scanning, and reporting. Our findings show that the time needed to manage the case notes is reduced greatly with the deployment of the system. The system also managed to lighten the work burden faced by the nurses at the hospital.

## 1. Introduction

The first Quick Respond (QR) code was invented by the automotive industry in 1994. It was purposely used to provide a convenient way for tracking the inventory in vehicle parts manufacturing but it has now become widespread in other fields [1]. QR code is a two-dimensional barcode that allows data storage in both horizontal and vertical directions unlike the one-dimensional barcode storing data in a horizontal direction. With this design, a QR code can hold a much greater amount of data in a smaller space and it can be read at high speed [2]. Due to the ability to contain rich information, QR code is convenient to use in tracking the information labelled on commercial products, name cards, sale of goods, post mailing, and any objects that require identification and information. The reason why it has become so popular in recent years is that it is a very cost-effective,