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## Digitalization of Hospital Visiting Regulations During the COVID-19 Pandemic

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## **Abstract**

**Purpose:** To evaluate a digital system for ensuring compliance with patient visitor regulations in hospitals during the COVID-19 pandemic. The digital system was intended to reduce the time required to collect information and vaccination status from people accompanying patients (patient companions) and hospital visitors.

**Materials and methods:** The visitor information management system was jointly established by the Nursing Department and the Information Office of the hospital and comprised (1) patient companion and visitor login, (2) inspection reminder, and (3) statistical reporting systems. System logins were collected from July 2021 to June 2022 and evaluated to determine whether the system is cost effective.

**Results:** During the data collection period, 270,836 patient companions and 72,148 visitors were registered. Compared with the previous system, nurses spent 64.6% less time logging in each patient companion (t = 7.10, p < .001) and 62.4% less time for visitors (t = 8.50, p < .001). Hence, synchronizing and linking inspection reports can reduce the time required for information collection by approximately 63.9% (t = 5.95, p < .001).

**Conclusions:** The information management system can effectively identify sources of infection and reduce the invisible chain of infection while also reducing the amount of clinical work and number of errors. It also integrates patient information and vaccination status to improve hospital management.

Keywords: visiting regulations, information system, COVID-19

## 新冠肺炎疫情下應用陪病訪客資訊系統管理 成效評估之探討

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## 摘要

目的:評估陪病訪客資訊系統應用之使用現況與管理成效。

材料與方法:疫情期間護理部與資訊室共同規劃建置此系統,分析2021年7月起一年內登錄於系統內資料筆數與登錄資料、查詢檢驗報告或疫苗施打狀態所需花費時間,分析其成本效益。

結果:應用陪病與訪客管理資訊系統,包含(1)陪病及訪客登錄平台、(2)陪病者採檢提醒平台及(3)統計管理報表平台。資料收集期間共登錄27萬0836筆陪病人次、7萬2148筆訪客人次。相較使用此系統前後護理師登錄時間每位陪病者可顯著節省64.6%時間 (t=7.10, p<.001)、訪客則節省62.4%的時間(t=8.50, t<.001),同步連動顯示檢驗報告可節省63.9%查詢快篩檢核資料時間(t=5.95, t<.001)。

結論:結合資訊管理系統有效控制感染來源,減少隱形傳染鏈,減輕臨床工作負擔,降低失誤,並能整合檢驗與疫苗資訊,增進管理及防疫效果。

關鍵詞:陪病訪客管理、資訊系統、新冠肺炎