急重症病患轉院資訊流程對安全轉院治療之衝擊的探討及評估

Evaluating the Impact on Referral Safety through the Workflow of Interhospital Critical Patient Record Transferring

中文摘要

研究背景：

急重症病患，病況急需加護病房照顧或須立即實施緊急手術的病患，屬於緊急救治中最迫切需要醫療照顧的病患群。當初級救護醫療工作完成，病患之病況需安排到加護病房照顧或是須進一步手術治療時，若救護醫院無法提供時，病患必須進行轉院治療。病患轉院時，若病情資訊交代給接受轉院醫師不清楚，則無法作好準備工作，甚至影響有效的後續臨床處置而延誤病情，衍生醫療上的缺失。

研究方法：

本論文研究針對解決上述病患轉院臨床病歷資訊傳遞問題，提出安全轉院治療的觀念，所謂安全轉院治療：原轉出醫師必須於事先將病患轉院前詳細的臨床病歷提供給接受轉院治療醫師，包括初步臨床病史及第一線急救救援、及目前病況之完整的臨床資訊:包括所有病歷資訊、圖形或影像醫療資訊，兩院之間醫師經過會診溝通後，確定進行轉院治療，及即時準備到院後的繼續治療的臨床處置，以使轉院治療的風險降到最低。

本論文探討建立急重症病患即時醫療資訊交換傳送及遠距醫遼會診流程；擬將已建立之轉診病歷交換系統，整合馬偕急診電子病歷和醫學影像傳輸貯存系統，以利急重症病患達成安全轉院治療，完成後續治療的意義。

本論文以馬偕醫院台北院區及淡水院區之間轉院情況爲研究環境，以轉診病歷交換系統爲基礎，整合馬偕急診電子病歷和醫學影像傳輸貯存系統，建立急重症病患轉院資訊流程，應用於急重症病患於馬偕醫院兩院區間轉院治療，即時傳送醫療資訊交換及遠距會診，並評估此流程對安全轉院的助益。

評估急重症病患轉院資訊流程效益則以醫師意見爲主。急診部有執行轉院治療業務共 28 位外傷科主治醫師，皆參與問卷調查。對於符合研究條件之急重症病患個案要轉院前，先將臨床資訊以急重症病患轉院資訊流程傳給與接受轉院醫師，進行即時病情了解及溝通會診；而使接受轉院醫師針對安全轉院最常需要考慮的臨床情況，與其過去經驗比較，填寫答覆作回答問卷調查；一週後排除參與此次轉院的醫師後，隨機邀請一位獨立未參與此次轉診之醫師，並使之完全明白轉診所有的經過及回顧所有臨床資訊，及病人的預後之後，加以判斷，再填寫答覆作回答同樣的題目；然後統計每一問題項的兩組醫師意見的百分比再進行差異度檢驗統計比對。

研究結論：

問卷調查結果顯示，參與醫師認爲，使用急重症病患轉院資訊流程，對病人處置，會有全面性良性影響的醫師百分比，分別爲 86%及 93%。對兩組所回答的問題

百分比結果，進行差異度檢驗。結果兩組醫師無明顯差異。大多數醫師確實認同這樣導入急重症病患轉院流程對安全轉院會有助益。

英文摘要

Background:

In the field of emergency medicine that interhospital transferring of acutely traumatized patients always the most dangerous situations for the patient care and if the receiving physician can get more information about the patient condition, the appropriate clinical management will be prepared before patient's arrival. In the study, proposing the idea of safety transfer and implantation of the workflow of critical patient record and CT image referral system is one form of telemedicine that would allow the transmission of clinical data and radiographs images (CTs) before the transfer of acutely traumatized patients between referring and receiving hospitals to perform telediscussion . The purpose of this study was to evaluate the potential impacts of the workflow of critical patient record and CT image referral system on trauma patient management and safety transfer.

Methods:

28 emergency staffs and 28 selected injured patients who was triaged into level 1 or 2 emergency condition that referred between main hospital emergency department in Taipei metropolitan area and branch hospital in Tamsui area of Mackay Memorial Hospital, for the purpose of being under the service of traumatic care (operation or admitting to SICU) after first line resuscitation and who was needed to be arranged transferring to the other geographical hospital, were included. The first line resuscitation history, chief complains, physical examination, and radiographic images CTs, recorded in the computer-based patient record referral system by the referring physician to the receiving physician were documented. The clinical data and radiographic images (brain CT, or chest CT or abdominal pelvic CT) taken at the referring hospital were immediately through the workflow of critical patient record and CT image referral system sending to receiving physicians on that time immediately before patient transfer and perform telediscussion. For each case, two physician involved the receiving care plan was informed immediately to know all the clinical information of the critical patient by the workflow of critical patient record and CT image referral system; and at a later date (1 week) the randomized selected independently trauma fellow among the other 26 emergency staff who get all clinical information and transfer detail about the same case including outcome was individually evaluating the clinical data and radiographic images through the workflow of critical patient record and CT image referral system. The immediate receiving physicians (I) and later independently trauma fellow(L) were surveyed by

designed questionnaires as to the implications of reviewing the whole clinical information and radiographic CT images transmitted by the workflow of critical patient record and CT image referral system taken at the referring hospital before patient transfer.
Results:
Overall, the physicians to the workflow of critical patient record and CT image referral system felt that viewing the radiographs and get as much information of all clinical data through the workflow before transfer and performing telediscussion would have influence on the trauma care and safety transfer, and 86%(I) and 93%(L) of cases as judged by immediate receiving physicians(I) and later independently trauma fellow(L), respectively. The physicians to the workflow of critical patient record and CT image referral system commonly noted the following five improvements than before as a result of safety transfer: enough clinical information, suitable condition for transfer, more reasonable suggested further pretransfer interventions and further pretransfer special consultation, and emphasized precautions about the method of transfer.
Conclusion: This study suggests that understanding the clinical information and radiographic images through the workflow of critical patient record and CT image referral system for traumatic critical patient’s transfer would have the potential influence on many aspects of the safety transfer management of interhospital transferring.