電子化院內感染監視及偵測系統:限制資源組合模型

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摘要

有效的院內感染監測系統是所有健康照護機構感染控制計畫重點工作之一，然而---查閱所有住院病歷、判定院內感染,耗費人力、物力與時間甚巨。所有住院病患普查，動輒千筆資料，不僅緩不濟急，更如同大海撈針，毫無效率可言。本篇基於台灣醫療環境現況，參照國內衛生署疾病管制局院內感染定義，尋求現有電子病歷系統資料檔中，可成為增加院內感染病歷檢出率之項目，期待在明顯減少查閱病歷數前提下，仍可檢出院內感染病歷。同時檢討現有之不足，建議增加電子病歷之內容，以期未來資訊監測之參考。本研究結果顯示在現有電子病歷中，查閱目前尿道感染相關因子，包括抗生素、微生物培養、尿液檢查（常規、沈澱物）、尿道置入管路（尿管、膀胱鏡）所檢出病歷數：需查閱病歷數明顯低於 50%，檢出院內感染個案數達 95%以上。若在未來前瞻性研究加上發燒(＞38℃)醫令，勢必更精確而完美，需查閱病歷數更精簡。

關鍵字：院內感染、監測系統、資訊系統、電子病歷、尿道感染

Abstract

Background: *Effective surveillance activities have been considered of paramount importance for effective infection control programs in health care organizations. As consider that totally review about all admission chart, we must pay so much time and so many member's effort.* ***Objectives:*** *As the effort and result of our study showed, use electronic surveillance and data analysis of hospital-acquired infections (HAI) in acute hospitals with few resources devoted to infection control.,* ***Method:*** *In a medical center(733beds), we carried out a retrospective analysis of collective data over a period of 3 monthes(2007/05/01- 2007/07/31). All admission patient, excluded admission less than 2 days case, use electronic code survey about the order number as urine routine, urine sedimen, blood culture, aerobic culture, antibiotics use(injection form and oral form), device(foly and cystoscopy). We focaus on urinary tract infection control as the fisrt step.* ***Result:*** *Total admission number 6490. Exclude admission again case 5539. Antibiotic drugs order 3607 cases(total 28290 times). Add another time control limit about (orderday-admission day> 2 days) number decreese to 2059 cases. Blood culture order 2056 cases. Aerobic culture order 2228 cases. Device total order 681 cases as foly order 630 casesand cysostoscopy order 51 cases. Urine routine order as 2601 cases. Add another time control limit about (orderday-admission day> 2 days) number decreese to 777 cases. Urine sedimen order 4 cases.****Conclution and discultion:*** *Risk factors survey as settings with resource constrants, we got observation reduce number for chart review when working for hospital-acquired infections (HAI) in acute hospitals, absolutely decrease more than 50% . If add another day line limit, the number decrease to more than 60 %. As the retrospective case review, we got the high capture percentage as more than 97% HAI cases during these order codes survey cases. A capture system based on 3 monthes retrospective studies that select patients for the presence of blood cultureand aerobic culture, urine routine and sedimen, antibiotics, and medical devices ensures the detection of more than 97% HAI in a resource-limited environment. We may design a further prospective research involve fever record system, daily , weekly, monthly table alarm as the risk factor positive cases to onduty infection control doctor and nurses. We hope more family and on time capture system as suggest given more patient safty and perfect control working for HAI.*

Keywords *： Nosocomial Infection , Electronic Surveillance, HAIs(Hospital-Acquired Infections), Urinary tract infection*