



Symposium IV：改變行醫模式的急診醫學新知 III

時間：2019 年 6 月 28 日(五) 08:30~10:00

會場：401 會議廳

主持人：李肇瑞醫師(高雄長庚醫院)、蔡居霖醫師(台大醫院)

08:30~08:50 人工智慧 vs. 真實智慧，急診醫師如何面對？

主講人：蔡居霖醫師(台大醫院)

08:50~09:10 酸了啦，補個幾支 Jusomine 吧！

主講人：哈多吉醫師(輔大附醫)

09:10~09:30 最適合做輸液反應預測的方式？

主講人：鄭凱文醫師(大林慈濟醫院)

09:30~09:50 Af + PSVT 有什麼新的治療？

主講人：吳彥鴻醫師(高醫附醫)

09:50~10:00 綜合討論

課程簡介

● 人工智慧 vs. 真實智慧，急診醫師如何面對？

The aim of this talk is to provide an introduction to various aspects of artificial intelligence (AI) in emergency medicine. The first part of this talk will review the history of AI, including how AI was developed and what sort of work has been done in the past to assist clinical practice in general. A brief introduction to AI analytics, including machine learning, artificial neural network will be included. Part two will include discussions on how AI reemerges in the era of big data with the proliferation of electronic health record. This part will also showcase the different applications of AI that has been done recently, particularly in emergency medicine, including mortality prediction in sepsis, and emergency department operations. Finally, the pros and cons of AI vs. human intelligence will be discussed.

● 酸了啦，補個幾支 Jusomine 吧！

Lactic acidosis causes a decrease in serum bicarbonate concentration. Lactate is a metabolizable organic anion. That, when oxidized, will generate bicarbonate. The role of exogenous bicarbonate therapy in patients with lactic acidosis is controversial. Most of the experts believe that it is appropriate to use bicarbonate in acutely ill patients in profound lactic acidosis and acidemia (arterial pH less than 7.1). Such severe acidemia may produce hemodynamic instability as a result of reduced left ventricular contractility, and impaired responsiveness to catecholamine. In my opinion, bicarbonate therapy should be initiated when acidosis has generated severe acidemia (ie, pH<7.2). In the BICARICU study, patients with less severe acidemia (eg, pH 7.1 to 7.2) and severe acute kidney injury, bicarbonate therapy can potentially prevent the need for dialysis and may improve survival. And, the goal is to raise the pH above 7.3. Rapid infusions of sodium bicarbonate may increase the partial pressure of carbon dioxide (PCO₂), accelerate the production of lactate, lower the ionized calcium, expand the extracellular space, and raise the serum sodium concentration. My talk will start from a case with HHS and sepsis from liver abscess. He also take Metformin for the sugar control. On the way to the CT scan with the enhancement, we will discuss more about the safety and indications for using sodium bicarbonate in ER.

● 最適合做輸液反應預測的方式？

Fluid resuscitation is a cornerstone for treatment of hemodynamically unstable patient. The rationale of fluid resuscitation are augmentation of cardiac output and improvement of tissue perfusion ultimately. However, merely 50% hemodynamically unstable patient would be fluid responsiveness, and over-resuscitation could be harmful or evening killing the patient softly.

There are several ways to predict fluid responsiveness in a hemodynamically unstable patient, and these methods would be discussed in this session. It's time to change our ways to monitoring fluid responsiveness in the critically ill, from static to dynamic methods.

● Af + PSVT 有什麼新的治療？

根據文獻介紹關於新發生的心房顫動及陣發性上心室頻脈的過往治療準則流程及是否有新的療法以及在急診室應用的討論。

