Implementation of Clinical Information System (CIS) in Intensive Care Unit, the North District Hospital

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Introduction
The Intensive Care Unit (ICU) is an informative intense environment where it appears obvious that computing technology would be beneficial in managing the large amount of data generated by each patient. The automated data captured and multidisciplinary documentation from Clinical Information System (CIS) could truly improve workflow, efficiency as well as accuracy through reduction in transcription and arithmetic errors. Besides, it also enhances continuity of care by provision of comprehensive clinical database and queried for a wide range of reports for clinical or research purpose. To ensure the success of implementation, 5 phased approach was adopted in NDH ICU systematically, so that “CHANGE” of practice and application of new technology could be achieved.

Objectives
Objectives: 1. To enhance staff engagement during the implementation 2. To ensure safe and smooth implementation of CIS

Methodology
The project progresses through 5 phases: 1.First Phase: CIS workgroup was established for its careful implementation planning, including doctors, nurses, vendor engineers and product specialists in the fourth quarter of 2013. 2.Second Phase: The installation of hardware, software and network was scheduled completion at the end of March 2014. 3.Third Phase: Concerning the different stakeholders’ needs (ICU staff, CIS team members, CIS ambassadors, non-ICU staff and allied health departments), the education and training programs had tailor-made and designed, consisting lectures and different scenario sessions since March 2014. The workflow of interface with general wards and operating theatre was established and introduced. 4.Fourth Phase: The implementation of CIS and e-medication was launched on 22nd May and 14th October 2014 respectively after trial run. 5.Fifth Phase: The evaluation and
clinical audit was planned in coming year.

**Result**
CIS has been implemented smoothly by collaboration of various stakeholders and active engagement of ICU staff. But in the way forward, we still have rooms for modification and enhancement of the system, in order to accomplish safe and high quality working environment. More tailor-made tools such as care bundles, quality indicator statistics will be developed to improve patient care management and facilitate healthcare research. Besides, users’ evaluation and satisfaction will be obtained in second quarter of 2015.