



**Service Priorities and Programmes**  
**Electronic Presentations**

**Convention ID:** 702

**Submitting author:** Ms Sylvia NG

**Post title:** Senior Nursing Officer, GH, HKWC

**Evaluation and Reinforcement of a New System for Detection and Management of Deteriorating Patients.**

*NG SYS(1), KO YK(2), LAU MH(1), TSEH E(1), WONG YT(2), LUK WC(2), LUI PH(3), LI SM(4), LAW WK(5)*

*(1)Central Nursing Division, (2)Cardiac Medical Unit, (3)Geriatric Medical Unit, (4)Palliative Medical Unit, (5) Tuberculosis and Chest Unit, Grantham Hospital*

**Keywords:**

Clinical Safety

**Introduction**

In 2016, Grantham Hospital developed and implemented a new MEWS (Modified Early Warning System) for early detection and management of deteriorating patients. A color-code trigger system was adopted and a guideline was developed to guide the response towards triggers of different levels. Moreover, charting method on the observation chart was also standardized during the project. This exercise aimed to evaluate the implementation of the new MEWS system and to take improvement measures where necessary.

**Objectives**

To evaluate the implementation of MEWS system in the hospital and to reinforce appropriate responses for different triggers for early detection and management of deteriorating patients.

**Methodology**

1. The first evaluation was conducted in April 2017 by reviewing 61 patient records. Some short-falls were noted, including (i) Suboptimal response action to “Yellow” triggers; compliance rate ranged 75 -100% on different action items. (ii) Action taken in response to “Yellow” triggers was not properly documented; (iii) Improper charting methods; (iv) Varied practice on vital signs measurements 2. A series of improvement measures was then conducted:- (i) Enhanced clinical supervision in ward (ii) Disseminated clear instruction on the requirement of vital signs measurement (iii) Developed a new Training Kit for use in wards and Nursing School (iv)On-site education by CND staff 3. A follow-up audit was conducted in October 2017.

**Result**

1. The new MEWS system was well adopted in all general wards 2. Improved response to “Yellow” triggers (100% for all four action items) 3. Compliance with response to “Red” triggers maintained (100%) 4. Action taken on “Yellow” & “Red” triggers were well documented on progress note (100%) 5. Incorrect charting method was still found in 7 records (13.7%) The new MEWS system had been successfully

rolled out to all wards in 2016. With enhanced supervision and education, the proper implementation of MEWS & documentation had been reinforced. However, further enhancement on proper charting method was required. Moreover, more in-depth case review was needed to evaluate clinical effectiveness of the system.