Multidisciplinary Approach: A High Risk Case Identification System for Early Detection of Deteriorating Patient in Cheshire Home, Shatin to Reduce Unnecessarily Transfer to Acute Hospital.
Chan SH(1), Mak YM (2), Tsang SM (3), Yeung W (4), Lam K (5), Yeung YK (6), Leung TY (7), Yui KY (8), W KM (8)
Infirmary and Disabled Unit, Cheshire Home, Shatin.

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Introduction
Cheshire Home, Shatin provides 304 beds of infirmary bed in New Territories East Area. 90% of residents living there are long stay and 70% of them are frail elderly with chronic disease and incommunicable requiring end stage comfort care. Doctors support there are only limited in office hour. If patients have any discomfort during non-office hour, they will be transferred to acute hospital accident and emergency (A&E) department for doctor consultation and receiving invasive treatment. A system of high risk case identification and early detection of deteriorating patient was set up which helps doctor to provide prompt and appropriate treatment care to patient in office hour. An advance care planning can be made earlier with relatives to determine the coming plan if patient is further deteriorated. The directions of care are clearly provided to nurses and it reduces the unnecessary transfer of patient to acute hospital during non-office hour.

Objectives
To early identify deteriorating patient and provides early treatment and care plan to patient. This can improve the quality of living to the frailly elderly by reducing their transfer to acute hospital and receiving the invasive treatment. Patients are kept comfortably in their original hospital where they are familiar with and receiving non-invasive medical treatment and care.

Methodology
For early detection of deteriorating patients, a new observation chart, with color zones divided by triggering points, was developed to facilitate early detection of deteriorating patient. Parameters falling in color zones (yellow and red) of the chart indicate the needs for escalating level of care. An additional late afternoon round by nursing supervisors help to discover the high risk case. The high risk case detection can be initiated by nurse, doctor or allied health. Case identified are immediately offered interventions and recorded in a daily renewed high risk case chart to facilitate

handover, alert staff and to improve the continuity of patient care.   With the help of triggering points and high risk case identification system, early interventions include prescription of medications, intravenous or subcutaneous fluid, increase frequency of observation or suction, early plan and discussion by doctor with family about do not attempt cardio pulmonary resuscitation (DNACPR), comfort care, and do not transfer out to acute hospital.

Result

An evaluation has been done after 1 month of implementation.   Under the system, 68% of deteriorating cases can be identified, 7 % of them were transferred to A&E and 61% of them were stayed their original place to provide comfort treatment. All high risk cases are manly identified by nurses, more involvement of doctor and allied can be explored. In compare with last year same period, 13 cases in 2015 and 10 cases in 2016 were transfer out to A&E respectively. The system is generally running well without problem and mostly welcomed by the nursing supervisors as it really help them to spot out the high risk cases in their ward round. Further evaluation are planned to be done after half year's implementation to see the effectiveness of the system.