United Christian Hospital announces root cause analysis report of previous sentinel event

The following is issued on behalf of the Hospital Authority.

The spokesperson for United Christian Hospital (UCH) made the following announcement today (April 26) on the root cause analysis report regarding an incident of improper use of an electronic vital signs recording system (eVital):

United Christian Hospital announced an event involving the improper use of an electronic vital signs recording system (eVital) on March 1, and a Root Cause Analysis Panel was appointed to investigate the underlying cause of the incident and make recommendations. The panel has completed the investigation, and the report has been submitted to the Hospital Authority Head Office.

An 89-year-old male patient with diabetes and hypertension attended the Accident and Emergency Department (AED) of UCH due to vomiting and fever. The patient was admitted to the medical ward at noon on February 21. His fever had subsided, and his condition was stable. Upon the patient's admission to the medical ward, healthcare staff measured the patient's vital signs including blood pressure, heart rate, and blood oxygen saturation level, and documented the information in the eVital.

After healthcare staff conducted a detailed examination for the patient at around 12.30pm, intravenous antibiotics and insulin were prescribed and an intravenous infusion was arranged. Measurement of the patient's blood pressure, heart rate, and blood oxygen saturation level every four hours was also ordered. Nursing staff administered intravenous antibiotics and provided blood taking for the patient as well as measuring the patient's blood glucose level and administering insulin to control the blood glucose level according to doctor’s instructions. Nursing and healthcare staff also assisted the patient in taking oral medication, replacing intravenous fluid and helped him change positions in bed every four hours to prevent pressure sores. At 4.45am the next day, healthcare staff assisted the patient to change positions in bed, the patient remained conscious without apparent discomfort, and his condition was stable without abnormalities.

At around 5.30am, the patient had a cardiac arrest, with vomitus noted at the bedside. Healthcare staff immediately performed an active resuscitation on the patient, but the patient passed away at 5.58am.

As healthcare staff reviewed the patient's clinical records, it was noted that after the patient was admitted to the ward at noon yesterday, the patient's vital signs were measured once. No further measurement was conducted afterwards as the scheduling instructions into the eVital system were not performed.

After reviewing the case, the Panel noted that upon the implementation of the eVital system, the workflow in the ward has changed. Nursing staff are required to input nursing orders for new admission cases using a computer at the workstation, and at the same time, they are also required to input eVital-related orders using a tablet which is located at a distance away from the workstation. As the patient was admitted during a nursing handover, nursing staff were occupied with handover of admission orders, and upon the completion of work using the computer and clinical procedures, eVital orders were overlooked as nursing staff were not familiar with the newly introduced workflow. Moreover, the double-checking of the completeness of the doctor's orders for newly admitted patients and review of the presence and update of vital sign records of all patients were not a routine task during the nursing clinical handover. As a result, nurses were not aware that the vital signs measurement scheduling of the patient were not inputted into the eVital system.

The Panel made four recommendations as follows:

1. Redesign the workflow and set the tablet to a more convenient location in close proximity to computers at workstations to enhance work efficiency and reduce errors;
2. Explore eVital enhancements with Information Technology and Health Informatics Division;
3. Reinforce the use of Guidelines on Clinical Handover in Nursing and incorporate the review of vital signs using the eVital system into the vital sign assessment routine in nursing handover; and
4. Reinforce with staff on the use of the eVital system, including vital signs charts to monitor patients' vital signs.

The hospital has explained the report's findings to the patient's family, expressed deep condolences to the family members, and shall provide necessary assistance to them. UCH has accepted the investigation findings and recommendations and will take follow-up actions to implement the recommendations to prevent the recurrence of similar incidents in the future. The case has been referred to the Coroner for follow-up to determine the cause of death.

The hospital also expressed gratitude for the work of the Root Cause Analysis Panel. The membership of the panel is as follows:

Chairperson:

Dr Michael Wong
Director (Quality and Safety), Hospital Authority

Members:

Dr Victor Ip
Service Director (Quality and Safety), Kowloon East Cluster

Dr Jones Chan

Consultant, Department of Medicine and Therapeutics, Prince of WalesHospital

Mr Tang Siu-keung
General Manager (Nursing), United Christian Hospital

Ms Chi Chui-yee
Department Operations Manager, Department of Medicine and Geriatrics, Tuen Mun Hospital

Dr Nicole Chau
Senior Manager (Patient Safety and Risk Management), Hospital Authority