مستشفى الملك فيصل التخصصي ومركز الأبحاث
King Faisal Specialist Hospital & Research Centre

QUALITY & SAFETY COMMITTEE MEETING #24

Tuesday, 9 May 2023

(3:30 - 5:30 pm)

Patient Safety Story

Patient Safety Story - Delayed Treatment of Hyperkalemia

Mohammed is a 55-year-old patient with multiple co-morbidities, including End-Stage Renal Disease on Hemodialysis (HD). He underwent elective vascular surgery uneventfully. Post-operatively, while in his ICU stay, a High Potassium result was noted, and managed by an urgent Dialysis session. Once, the patient was stable, he was transferred to the Surgery Ward to continue his recovery. However, the patient had another episode of Critical Hyperkalemia that needed attention and proper management. Unfortunately, it was missed; the patient deteriorated and passed away.

During the patient's stay at the Surgery Ward, he developed Hypoglycemia, and Potassium was noted to be critically high. The management focused on correcting the blood sugar level to be within normal range. However, the Potassium level was missed due to improper handover between the Primary Team and the On-call Physician. The On-call Physician did not follow up on the Potassium level nor communicate with the Nephrology for urgent Dialysis to manage the patient's condition. On the other hand, the Primary Nurse communicated with the Renal Dialysis Unit regarding the patient's schedule for the routine session of Hemodialysis with a concern about the low blood sugar level without mentioning Hyperkalemia. According to the Renal Dialysis Unit's protocol, Chronic Dialysis patients are scheduled on the 4th shift. Therefore, the patient was booked for a late HD session, instead of an urgent session to correct his Hyperkalemia.

Later that day, the patient's condition started worsening, with persistently low blood sugar prompting the Primary Nurse to call for help, finally announcing a code green. After an attempt to revive the patient and then move him to the ICU, the patient went into another cardiac arrest. Eventually, he was pronounced dead.

Patient Safety Story

Patient Safety Story - Cont.

Findings:

- The Primary Team assumed the patient would have his Dialysis on a regular schedule.
- The Team did not escalate the urgency of the high Potassium because:
  - Distraction due to the need to correct the blood sugar.
  - Verbal communication with the Nephrology Team without a proper consultation order/documentation led to incomplete information documented about the patient's condition, which made the Nephrology Team unaware of the high Potassium level.
  - Incomplete handover between the Treating and the On-call Physician.

Lessons Learned:

- Standardize the process of ordering a Nephrology consultation for all inpatients with End-Stage Renal Disease (ESRD) admitted under Non-Nephrology Services.
- Reinforce providing complete and clear communication and adhere to the handover tools.
- Ensure compliance with the established policy of escalation.