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P140 -Making an old emergency new again - Simulation in response to the national hyperkalaemia patient safety alert.

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Introduction

Hyperkalaemia is a common medical emergency that leads to arrhythmias and cardiac arrest if left untreated. Despite there being well established treatment algorithms, NHS England have needed to distribute a National Patient Safety Alert to all NHS Trusts across the UK to address the increasing incidence of hyperkalaemic deaths in hospitals.

Methods

A simulation centre scenario was designed for junior doctors to imitate junior doctors' on-call. Hospital at night jobs in our Trust are distributed to junior doctors over a HaN phone coded with green low priority and amber medium priority jobs. Red jobs are called through. We simulated green and amber jobs where the doctor entering the scenario had to choose which job they would do first. A hyperkalaemia scenario unfolded and the management of this together with the importance of monitoring blood sugars and repeat potassium after treatment was emphasised. Junior doctors feedback was obtained following the scenario debrief as they do not know when entering the sim what scenario will greet them as would be the case on an on-call.

Results

Feedback was overwhelmingly positive with a median of 9 (8-10) for the session. Junior doctors felt appropriately stretched in this environment and subsequently requested more teaching. The teaching highlighted the lack of appreciation of: monitoring of blood sugars after treatment, the need to repeat potassium at regular intervals not just a single time to ensure the potassium does not rebound and how to identify when hyperkalaemia is resistant to treatment. In addition the importance of how they communicate their instructions to allied health care professionals was also illustrated. Junior doctors knew how to treat hyperkalaemia but all did not appreciate that calcium gluconate could be given more than a single time. All junior doctors felt they learnt something new from the scenario and unanimously requested more teaching in this format. The simulation training also illustrated the difficult task juniors have prioritising electronically allocated jobs, thus providing a further forum for them to practice these skills.

Limitations

The number of people able to enter the simulation centre in this scenario.
Time allocated to Junior doctors for this teaching.

Conclusion

Simulation training can be a resource intensive tool however this effective teaching tool allows junior doctors to be trained in emergencies whilst also exposing them to real-time pressures of the technologically advancing hospital environment. Prioritising can be reintroduced safely in this environment, human factors can be further understood whilst also providing an effective platform to respond to national patient safety initiatives in a novel and reproducible manner.