to 12.3 ± 1.56), but reduced the surface density to 5.25 ± 0.47 ($p < 0.01$) i.e. reduced to 43%.

Conclusion Thus even a brief exposure to oxygen stress will result in the diminution of KCa3.1 on endothelial surface, and this may have implications for the ability of arterioles to dilate.

REFERENCE

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UPTICK/DOWNTICK – THE FUTURE OF MORBIDITY AND MORTALITY MEETINGS

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Introduction Morbidity and mortality (M and M) meetings are a national requirement for all departments in hospital. While they should confer improvement in education and patient care, they often ‘lack defined structure, resource support and...heterogeneity in case evaluation’.¹ UK critical care has an embedded routine audit data collection on outcomes which is exported to a central body, Intensive Care National Audit and Research Centre (ICNARC), for cleaning and analysis. This data is submitted monthly but is returned on a quarterly basis preventing the timely identification of deaths or survivals that are unexpected (based on case-mix). In critical care, where the expected mortality is high, attention is fatigued if all mortality is reviewed and a more specific approach is required.

A fundamental prerequisite for a good M and M meeting is appropriate, targeted case selection. Currently, time is wasted reviewing cases that are selected without systematic focus on ‘important variation’, so contemporaneous feedback on care is lost and learning and engagement are diminished. To combat this, we have developed a timely, targeted and transformative M and M meeting based on data-driven case selection.

Methods

- Using code in R to generate an automated variable life-adjusted display (VLAD) chart using near real-time routine data from our electronic health record. This reveals the high yield outlying ‘uptick/downtick’ patients (patients who survived and should have died and vice-versa) (figure 1).
- Identifying crucial learning points from the clinical documentation of those selected ‘uptick/downtick’ patients using a specially developed Intensive Care Unit Structured Case Note Judgement Review format.
- Presentation of these targeted cases in a structured multi-disciplinary setting with key personnel highlighting the impact of timely narrative feedback, promoting staff engagement and morale and encouraging the growth of a proactive culture of safety and quality.

Results The VLAD cumulatively charts the effect of each individual admission using the ICNARC generated probability of death. Each death represents a ‘downtick’ in the plot and each survivor represents an ‘uptick’. When a patient predicted to survive dies, then the downtick will be prominent (conversely a patient who survives despite a high predicted mortality will make a prominent uptick).

Abstract 11 Figure 1 A VLAD to show haematology and non-haematology mortality on ICU

Conclusion Our M and M model is an original in-depth and specific data mine of critical care patient morbidity and mortality. This unique process seeks to provide an enabled and focussed method of case selection and emphasise the potential marginal gains that can be made in patient care. Over time, it will improve future clinical decision making and therefore patient outcomes.

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POTENTIAL COST-EFFECTIVENESS OF SPECTRAL PHOTON-COUNTING COMPUTED TOMOGRAPHY (SPCCT) VERSUS CT COMBINED WITH CT ANGIOGRAPHY (CTA) IN THE IDENTIFICATION AND TREATMENT OF ISCHAEMIC STROKE PATIENTS IN THE UK

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Introduction In current care, eligibility for thrombolysis or mechanical thrombectomy as acute stroke treatments is based on imaging (CT and CTA), time since onset and patient history. Thrombectomy will be routinely commissioned by NHS England provided it can be achieved within 6 hours of the onset of stroke. In case advanced imaging indicates salvageable brain tissue beyond the 6 hour window, thrombectomy will be commissioned up to 12 hours after stroke onset. SPCCT is an emerging technology expected to have an increased resolution. Besides identifying ischaemic stroke patients, SPCCT is expected to provide information about the presence of salvageable brain tissue and, in turn, identify those who are likely to benefit from thrombectomy beyond 6 hours. The aim of this study was to investigate the potential cost-effectiveness of SPCCT (versus CT +CTA) in identifying and treating ischaemic stroke patients in the UK.

Methods A decision-analytic model built on a decision tree and a Markov trace was developed. A hypothetical cohort of suspected stroke patients aged 74 was modeled (first stroke ever). Costs, outcomes and probabilities were obtained from the literature. Outcomes of the model included costs, life-