Abstract

SG-iSRRS1026

Modifications to pre-defined Rapid Response Team calling criteria: prevalence, characteristics and associated outcomes

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Objectives:
Standardised RRT calling criteria may not be useful or applicable to all patients. Therefore, making modifications to these may be appropriate to prevent inappropriate or unnecessary calls. To date, only scant data is available regarding the efficacy or safety of modifying RRT calling criteria. Therefore, this study was conducted.

Methods:
Within a convenience sample of RRT attended patients, description and analysis of repeat RRT calling and in-hospital mortality rates between patients with and without modifications to standard calling criteria. Secondary analyses examined the effect of four different classifications of modification on these outcomes. All analyses were by multivariable regression.

Results:
The majority of all patients (72.5%) had modifications documented. Patients with modifications were more likely to have repeat RRT calls and experience in-hospital mortality versus those without modifications (adjusted odds ratios: 2.86 [95% confidence interval 1.69 – 4.85] and 2.09 [95%CI 1.26 – 3.47], respectively). In the secondary analyses, although all classes of modification had higher rates of repeat calling but none reached statistical significance, whereas mortality was associated with having modifications that were within the standard calling criteria (adjusted OR 2.81 [95%CI 1.31 – 6.08]).

Conclusions:
Modifications to standard calling criteria were frequently made, did not seem to prevent further RRT calls, and were associated with mortality. Modifications should be used judiciously, in liaison with ward staff, to ensure that patients do not miss out on beneficial calls, while also aiming to reduce the organisational overhead of potentially preventable calls.