

# A RETROSPECTIVE COHORT STUDY TO EXAMINE THE DYING TRAJECTORIES OF ADULTS REVIEWED BY THE CRITICAL CARE RAPID RESPONSE TEAM

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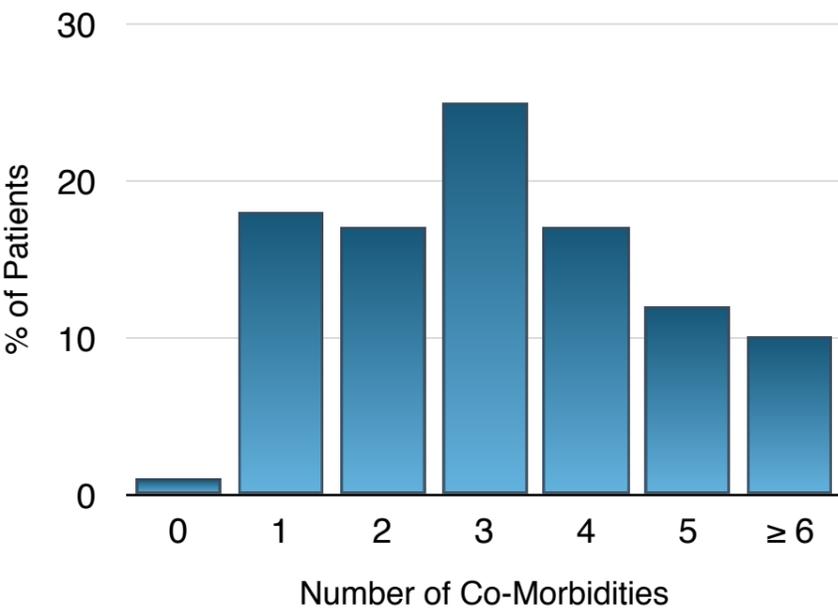
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**INTRODUCTION:** Rapid response teams (RRTs), by nature of their attendance at the bedside of the deteriorating patient, are increasingly becoming first responders in the management of 'acute death'<sup>1</sup>. Recent focus has shifted from their role in active intervention to that of treatment limitation at end of life<sup>2,3</sup>. Yet for such patients identified during RRT visits, little is known about how and where they die. We aimed to explore the role of the RRT in providing end-of-life care & identify patient factors that may enable more proactive rather than emergent palliative decision making.

**METHODS:** We performed a retrospective case note review of 100 adult patients seen by the RRT in a single acute care tertiary hospital who had subsequently died. We developed a data extraction tool to collect variables including patient demographics, admission details, co-morbidities, reasons for involvement of & interaction with the RRT, use of end-of-life pathways, palliative care involvement, cause of death, and chronology of the dying trajectory. De-identified data was analysed using SPSS with inferential statistics for categorical & continuous data variables.

Fig.1 Distribution of Co-Morbidities



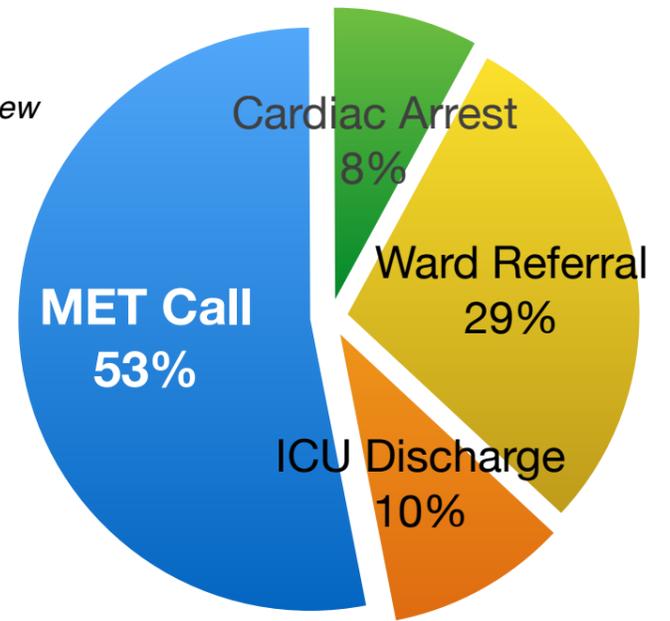
## RESULTS: DEMOGRAPHICS & PRE-RRT REVIEW

Of the 100 patients, most were male (58%), older in age (mean 73.8 years) and of NZ European ethnicity (68%). All patients were emergency admissions with most admitted under a medical, rather than surgical specialty (71%).

All but one patient had at least one co-morbidity (Fig.1) with the most common (cardiac) present in over of 60% of patients. 31% had cancer. Over half (51%) had between 1-4 previous in-patient admissions within the last 12 months. Of note, 51% of patients had a 'Do Not Attempt Resuscitation' (DNAR) order & 4% of patients were already on the palliative 'Liverpool Care Pathway' prior to RRT review.

The mean length of stay prior to RRT review was 4.9 days during which patients were frequently reviewed by senior medical staff (mean 6.8 times, range 0-44)

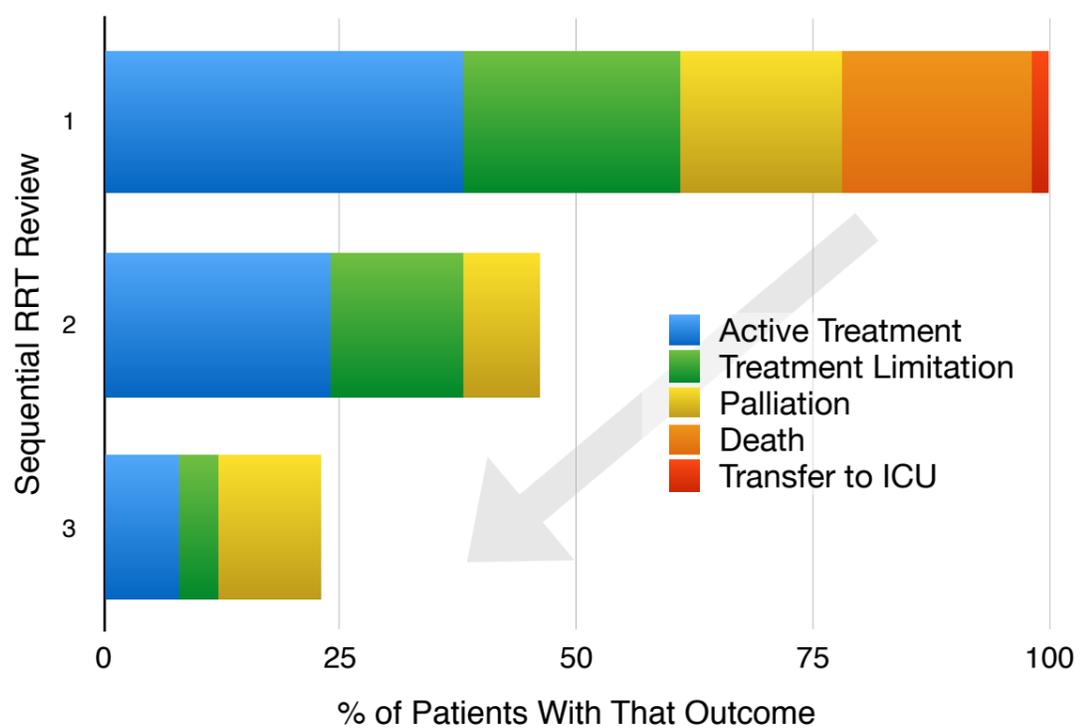
Fig.2 RRT Review Type



## RESULTS: RRT REVIEW & OUTCOMES

The majority of reviews by the RRT were due to clinical emergencies (61%) (Fig.2). 20% of patients died during the first RRT review with 38% continuing on an active treatment plan. 23% had treatment limited with 17% switched to a palliative focus. After the second RRT review, only 24% of patients continued on full active management; by the time of the third, this had diminished to 8% of the original sample. During the second & third reviews, no further patients died or were transferred to ICU. 20% of the original sample survived to discharge from the tertiary hospital with most subsequently dying in another care facility.

Fig.3 Patient Trajectory Post RRT Review



**CONCLUSION:** This study refutes some commonly held beliefs about paucity of DNAR planning on acute care wards & lack of senior medical consults prior to patient deterioration. It does however raise questions as to where in the dying trajectory RRT referrals are appropriate and what do RRTs, as opposed to ward-based or palliative care teams, offer dying patients.

References: 1. Downar J, Barua R, Rodin D et al. 2013. Changes in end of life care 5 years after the introduction of a rapid response team: A multicentre retrospective study, Resuscitation 84; 1339-1344. 2. Knott C, Psirides A, Young P et al. 2011. A retrospective cohort study of the effect of medical emergency teams on documentation of advance directives, Critical Care & Resuscitation 13; 3: 167-174; 3. Downar J, Rodin D, Barua R et al. 2013. Rapid response teams, do not resuscitate orders, and potential opportunities to improve end-of-life care: a multicentre retrospective study, Journal of Critical Care 28, 498-503