

## Factors associated with clinical aggression in emergency department patients

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**Background** To minimise the risks associated with violent and aggressive behaviours, many hospitals have implemented 'Code Grey'; a hospital-wide internal security response to aggressive behaviour. Violent or aggressive behaviours may be the result of unrecognised or undertreated physical deterioration in patients with or without a mental illness however there are no published studies that have considered physical deterioration as a predictor of violent or aggressive behaviours.

**Aims/Rationale** The aim of this study is to examine and describe the relationship between physical status (vital signs) and violent and aggressive behaviours in Emergency Department patients.

**Methods** A prospective case control study was conducted at two major Victorian health services containing four EDs. Cases are those patients aged 18 years and over for whom a Code Grey is called. Controls are two randomly selected patients (>18years) within the ED at the time of the Code Grey.

**Results** Preliminary data is available on 63 cases and 129 controls (n=192). Cases were younger (median age 38 vs 56 years, p=0.002). A higher proportion of cases were males (66.7% vs 50.9% p=0.039). Cases were more likely to arrive by police (41.3 % vs 1.6%, p<0.001) Cases were more likely to be triaged to ATS 2 (44.4% vs 13.2%, p=<0.001) and less likely to be triaged to ATS 4 (4.8% vs 29.5.0%, p=<0.001). Cases were more likely to be alcohol (49.2% vs 6.2%, p<0.001) or drug (31.7% vs 0.8%, p<0.001) affected on presentation to the ED. There was significant differences in the median number of respiratory rate (p=0.41), oxygen saturation (p=0.41), heart rate (p=0.31), systolic blood pressure measures (p=0.006) during ED care between the two groups. Cases had less measures of conscious state (p=0.016) and temperature (p=0.027). At the time of code grey, restraint was used in 52.4% (n=33) of cases however seclusion was only used in 1 patient. There were in-hospital deaths. Unplanned ICU admission occurred in 1 control patient and no cases, 2 cases and 12 controls required a MET activation during their hospital stay (p=0.293). The majority of cases (63.5%) had only one code grey call, 19% of cases had two code grey calls, 9.5% of cases had three code grey calls and 7.9% of cases had four code grey calls during their ED presentation.

**Conclusion** Patients with aggressive behaviours in EDs are receiving high triage categories. There is room for improvement in the assessment of vital signs, GCS and pain in patients who become aggressive in the ED.