

However, a 50% increase in the rate of out-of-hospital cardiac arrest was observed during TA. In the cohort of Asthma patients, 74.9% reported a history of asthma during TA compared with 91.1% during the comparator period ($p=0.006$). The most common paramedic intervention for patients with acute respiratory distress was administration of salbutamol (72.5%) while 8.0% of patients received adrenaline.

Conclusion The TA event in Melbourne was associated with a significant increase in EMS attendances to patients with acute respiratory illnesses and cardiac arrest.

Conflict of interest None declared.

Funding None declared.

7 DISPATCH OF FIRE-FIGHTERS AND POLICE OFFICERS IN OUT-OF-HOSPITAL CARDIAC ARREST: A NATIONWIDE PROSPECTIVE COHORT TRIAL

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Aim Dual dispatch of cardiopulmonary resuscitation (CPR) - trained fire-fighters or police officers equipped with automated external defibrillators (AEDs) in addition to emergency medical services (EMS) in out-of-hospital cardiac arrest (OHCA) has in some minor cohort studies been associated with improved survival. The aim of this study was to evaluate the association between dual dispatch and survival in OHCA at a national level.

Methods This prospective, cohort study was conducted January 1st, 2012, to December 31st, 2014. OHCA victims in nine Swedish counties covered by dual dispatch and resuscitation by first responders and EMSs were compared with a propensity-matched contemporary control group of OHCA victims in 12 counties where only EMS were dispatched. The primary outcome was survival to 30 days.

Results 8698 OHCA were included of which 2786 in each group (intervention and control) were matched. The median time from emergency call to arrival of EMSs or first responder was nine minutes in the intervention group vs. ten minutes in the controls ($p<0.001$). The proportion of patients admitted alive to hospital was 31.4% in the intervention group versus 24.9% in the controls (adjusted OR 1.40, 95% CI 1.24–1.57). Thirty-day survival was 9.5% in the intervention group versus 7.7% in the controls (adjusted OR 1.27, 95% CI 1.05–1.54).

Conclusion Dual dispatch of first responders in addition to EMSs in OHCA was associated with a moderate but significant increase in 30 day survival.

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8 GENUINE ILLNESS AND INJURY DURING EUROPE'S LARGEST EMERGENCY SERVICE MAJOR INCIDENT EXERCISE

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Aim Previous studies of patient presentation rates at mass gatherings have been limited to social events. None have assessed presentation rates in the context of a large-scale emergency service exercise where individuals (actors playing hypothetical casualties) are exposed to an environment containing many potential hazards.

Methods Exercise Unified Response was the largest multi-agency exercise ever held in Europe. It was a four-day major incident exercise in the UK, in which 2700 individuals acted as casualties. Clinical records completed by healthcare professionals providing on-site medical cover for the duration of the event were reviewed. Clinical records were included where the individual's role in the exercise was listed as 'actor'.

Results Thirty actors required medical attention, giving a patient presentation rate (PPR) of 11.1 per one thousand actors. Of these, 10% were conveyed to hospital with musculoskeletal ($n=2$) or head injuries ($n=1$); an ambulance transfer rate (ATR) of 1.11 per 1000. Just under half of all patients (40%, $n=12$) had a contributory factor to seeking medical help, where they had: not eaten on the day ($n=4$); a pre-existing condition exacerbated by the exercise, such as asthma ($n=3$); pre-existing symptoms of acute illness ($n=3$), or a pre-existing injury ($n=2$).

Conclusion Patient presentation rate was in line with previous research¹. However, we believe this is the first study to report similar data for a mass emergency service exercise. Our findings regarding the factors and pre-existing illnesses/conditions that contributed to individuals seeking medical help will be valuable in planning future large-scale exercises.

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9 AUDIT OF MORPHINE ADMINISTRATION BY EAST MIDLANDS AMBULANCE SERVICE (EMAS)

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Aim For pre-hospital administration of morphine, JRCALC guidelines recommend recorded pain scores (PS) out of ten before and after use, an anti-emetic adjunct and ENTONOX provision prior to analgesic effect. This audit aimed to gain insight into how rigorously these guidelines were being adhered to in practice