Conclusion One in six ambulance conveyances to ED were deemed non-urgent. The younger population had the largest amount of preventable conveyance by ambulance with diagnoses which could be treated and discharged on-scene. Pathways and interventions would provide a larger patient benefit if they were designed around patient populations as opposed to disease specific.

Conflict of interest None

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Method We identified all public out-of-hospital cardiac arrests (OHCAs) registered by the Copenhagen Mobile Emergency Care Unit physicians (2008–2016), and all publicly available AEDs in Copenhagen (2007–2016) from the Danish AED Network. All recorded OHCAs and AEDs were geocoded, and the true route distances between OHCAs and AEDs were calculated. A covered OHCA was defined as an OHCA with an AED located ≤200 m and AED accessibility was assessed for every AED at the exact time of OHCA.

Results In total, 1,830 AEDs were registered in Copenhagen. Out of 643 public OHHCAs, 261 (40.6%) were covered by a registered AED ≤200 m (median distance: 107.6 m (interquartile range [IQR]: 58.6–146.7)). Of the covered OHHCAs, 156 (59.8%) occurred ≤200 m of an accessible AED, and in 105 OHHCAs (40.2%) the AED was inaccessible. Compared with OHHCAs near an inaccessible AED, OHHCAs near an accessible AED were more likely to receive bystander defibrillation (25.0% vs 13.3%, p=0.02) and achieve 30 day survival (49.7% vs 38.0%, p=0.08).

Conclusion The chances of receiving bystander defibrillation nearly doubled if the OHCA was covered by an accessible AED ≤200 m, and the proportion of cases that achieved 30 day survival tended to be higher compared to OHCA cases covered by an inaccessible AED.

REFERENCES

Conflict of interest None

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