SEASONAL PATTERN OF FIREWORK INJURY OCCURRENCE AND DEVELOPMENT FROM 1995 TO 2008 FOR A LOCAL AREA COMPARED TO ALL OF DENMARK

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Introduction The purpose was to study injuries from fireworks in relation to: seasonal pattern of occurrence and development over the period December 1st 1995 to November 30th 2008 comparing the local area Odense to all of Denmark.

Materials and Methods Cause Injuries from fireworks all patients sampled. Patients seen at the Emergency Department at Odense University Hospital (population 250,000) were used for annual distribution. All hospitals in Denmark (population 5 mio.) contributed patients for each New Year (31 December to 1 January) during the period.

Results For the seasonal analysis 540 local patients were included and for the nationwide assessment 4,711 patients. The seasonal distribution (percent, 95% CI) of injuries was: 1 December to 30th (17, 14 to 20), 31st December to – 1 January (64, 60 to 68), 1 January to 5th (4, 2 to 5), 6 January to 30 November (16, 13 to 19). Nationwide occurrence was cut from roughly 500 to 225 for New Year. The decrease over the period showed the same pattern for the whole country as in the local region (Chi2 test p=0.9), mostly due to diminished use of illegal fireworks.

Conclusion During the study period the same decrease in firework injuries was seen locally and nationwide. Odense is therefore assumed representative for the rest of Denmark in the seasonal analysis. Roughly 2/3 of all year occurrence happens in New Year and 85% in the current legal period for consumers (1 December to 5 January). Correct usage of legal consumer fireworks should be safe, and currently this is not the case.