IMPACT OF SMOKE-FREE VEHICLE LEGISLATION ON CHILDHOOD HOSPITALISATIONS FOR ASTHMA: SCOTLAND-WIDE STUDY OF 32,342 HOSPITALISATIONS OVER 19 YEARS

Background In Scotland, childhood asthma hospitalisations fell in March 2006 following legislation to prohibit smoking in public places, and again in March 2014 following a mass-media campaign (Take It Right Outside TIRO). In December 2016, new Scottish legislation banned smoking in vehicles. It is unknown if this produced additional benefit.

Objectives To use interrupted time series analysis to determine the presence of a change in trend for asthma admissions to hospital in Scotland after the ‘car ban’ smoking legislation was introduced.

Methods Data were obtained on all asthma emergency hospitalisations in Scotland between 2000 and 2018 for individuals aged <16 years. Interrupted time series analyses studied changes in monthly incidence following the introduction of smoke-free vehicle legislation in Scotland between 2000 and 2018 for individuals aged <5 years old. After the smoke-free vehicle legislation was introduced.

Results Of the 32,342 hospitalisations, 13,954 related to children <5 years old. The smoke-free vehicle legislation was associated with reductions in severe asthma attacks requiring hospitalisations among pre-school children, over and above those already achieved through previous interventions. The legislation may have benefitted children in more affluent communities.

Clinical Features of Children Presenting with Prolonged Seizures – A Data Linkage Study From a Scottish Population Cohort

Background Prolonged seizures (PS) are a common paediatric medical emergency. According to the International League Against Epilepsy (ILAE) PS are now defined as any seizure activity lasting over 5 minutes or where there is incomplete recovery in-between seizures with the recommendation to administer emergency medication at this time point.

Results There were 665 children with 1,234 presentations with PS. 57.30% of children were male. The median age was 3.65 years (IQR 6.33). 60.45% of admissions had a diagnosis of epilepsy, 24.40% were diagnosed before the PS and 75.60% after. Of these 61.88% were generalised seizures and 38.12% focal seizures. 55.67% had an EEG of which 30.28% were normal, 40.47% were abnormal and specific to epilepsy diagnosis and 29.26% abnormal but non-specific. 61.35% had an MRI scan of which 49.80% were normal, 41.08% were abnormal and associated with epilepsy, 7.40% were abnormal and possibly related to epilepsy and 1.72% were unrelated abnormal. 35.35% were on polytherapy; the commonest AED prescribed was levetiracetam.

Conclusions This large cohort allows a detailed analysis of the clinical features and aetiology of PS through data-linkage. Epilepsy diagnoses (previously known or subsequently diagnosed) are the commonest group with PS. Hence it is important to investigate children presenting with PS. In those investigated further, EEG and MRI abnormalities were specific to epilepsy. Of those prescribed AED, a large proportion were on polytherapy suggesting worse seizure control and PS. Overall, this serves as a valuable prognostic factor and aid in planning a clear emergency care plan for managing PS. We will be continuing to follow this cohort to study the clinical and educational outcomes.

Sweet Talk-out of Hours Diabetes Related Phone Advice Service for Children and Young Persons - An Educational and a Service Improvement Initiative

Background Over 19 years, childhood diabetes has increased 5 fold. A distressing and life threatening condition for children. The Royal Hospital for Children and Young People, Edinburgh, UK, and the Scottish Centre for Evidence in Health Care, University of Strathclyde, were funded to investigate the feasibility of delivering diabetes advice by telephone outside of opening hours.

Results The childhood diabetes advice telephone service was set up at the end of September 2012, replacing an existing junior doctor service. The service is open for 365 days a year with a minimum of 1 clinician on call at any time. The service is staffed by specialist nurses and a diabetes specialist nurse consultant. A total of 309 calls were received over the first year of operation.

Conclusions A feasibility study of the diabetes advice telephone service was conducted. The provision of a telephone service for the delivery of diabetes advice outside of normal opening hours is a feasible approach for a rapid pilot programme.