Association of Paediatric Emergency Medicine

866 EPIDEMIOLOGY AND MAPPING OF ROAD TRAFFIC COLLISIONS WITH CHILD CASUALTIES IN WALES

¹Alexandra Celeste Smith, ²David Hanna, ³Sarah Jones. ¹Cardiff University Medical School: Emergency, Pre-hospital and Immediate Care iBSc; ²University Hospital of UK; ³Public Health UK

10.1136/archdischild-2021-rcpch.245

Background Road traffic collisions (RTCs) are one of the leading causes of childhood morbidity and mortality, representing a significant public health burden. Children, being smaller and less visible to traffic, are at greater risk of severe consequences of RTCs. Data from the electronic reporting system used by the police, known as STATS19, informs national road safety policies in Wales.

Objectives This project aimed to establish whether the number of children injured due to RTCs in Wales is under-represented in STATS19. We did this by comparing data from a Major Trauma Centre (MTC) in South Wales to STATS19. In addition, we characterised RTCs with child casualties and mapped the geographical distribution with the objective of identifying clusters and to ascertain if more injuries occurred in deprived areas using the Welsh Index of Multiple Deprivation.

Methods We analysed data from STATS19, the Emergency Medical Retrieval and Transfer Service (EMRTS) and a MTC from 2017–2019 for child pedestrians, cyclists and car occupants aged 0–16 years injured following RTCs. We studied age, gender, the time of RTC occurrence, the road type, speed limit and presence of crossing facilities. Population-based injury rates for each year were calculated for age group, gender and deprivation fifth. The geographical distribution of RTCs was mapped using QGIS 3.16.

Results We found that STATS19 under-reported paediatric trauma due to RTCs. From 2017–2019 STATS19 recorded 1,859 child casualties across all of Wales compared to 1,170 local child RTC attendances at one MTC. Given the distribution of the Welsh population and the availability of emergency departments throughout the country, it is unlikely that 62.9% of all paediatric trauma following RTCs came to one MTC. Males aged 11–16 years had the highest rates of injury at 92.2 per 100,000 population, compared with females aged 1–4 years which had the lowest rates of injury at 26.2 per 100,000 population. Injuries peaked at school journey times and were highest between 2pm–5pm (45.1% in STATS19, 63.5% in EMRTS and 35.2% at one MTC). Most RTCs were located on single carriageways (84.7%), in 30 mph zones (66.9%), between junctions (54.1%) and with no pedestrian crossing within 50 metres (85.0%). The rate ratio of injury was 2.03 (95% confidence interval 1.72–2.38) significantly higher for the most deprived areas compared to the least deprived areas.

Conclusions Emergency departments play an important role in recording child casualties due to RTCs. Our findings reveal the large scale of data that the Welsh Government could be missing. Without this knowledge we are failing to see the whole picture and cannot accurately characterise risks to road users. Collaboration between services and improvements in

data quality are needed to inform national public health policy in order to reduce the incidence of child casualties following RTCs. Road safety schemes should be prioritised in the most deprived areas where the burden of injury due to RTCs is highest, which will help to lessen the social inequality gap.

British Association of Perinatal Medicine and Neonatal Society

867 EMERGENCY UVC INSERTION... WHAT COULD POSSIBLY GO WRONG!

¹Simon Jackson, ¹Amy Sweeney, ¹Margaret Sinnott, ²Bharathi Rao. ¹NIMDTA; ²BHSCT

10.1136/archdischild-2021-rcpch.246

Background Within Delivery Suites, emergency Umbilical Vein Catheter (UVC) insertion is a relatively infrequent procedure. There are various stages to insertion, and underperformance at any stage can have a detrimental impact on the patient in extremis, by delaying time to insertion and subsequent administration of emergency drugs and fluids.

Objectives The aim of this study was to quantitatively and qualitatively assess knowledge amongst Midwives and Neonatal Nurses of UVC equipment and perceptions of problems with current methods.

Methods In a United Kingdom tertiary NICU, a survey of 43 Midwives and Neonatal Nurses was undertaken and assessed the parameters of; training (formally/informally); knowledge of UVC equipment required; perceptions of equipment availability and delays in receiving treatment.

Results There were a total of 43 respondents (22 Neonatal Nurses and 21 Midwives), with only 26/43 receiving UVC training. From the cohort, 69.7% reported they were confident they could collect all the UVC equipment, but of the required equipment, they could only identify 23.3%. From 41 respondents, 32 (78%) had confidence in the emergency UVC trolley, but 15 of 33 respondents expected delays in collecting equipment.

Conclusions In conclusion, this survey highlights poor knowledge of essential resuscitative equipment, and over confidence in abilities, but self-awareness of likely delays. This indicates urgent changes are required to current emergency UVC insertion processes.

Children's Cancer and Leukaemia Group

868 HAS THE LENGTH OF TIME FROM SYMPTOM ONSET TO CANCER DIAGNOSIS IN CHILDREN INCREASED DURING THE COVID-19 PANDEMIC?

Joseph Christopher, Fiona Wright, Rosalind Teh. East and North Hertfordshire NHS Trust

10.1136/archdischild-2021-rcpch.247

Background The COVID-19 pandemic has had unprecedented and far-reaching effects on global society throughout 2020, and especially so on healthcare systems. Delayed presentation