

of these groups with the average attendance in the previous 4 years (2016–2019), looking at the same month (April) to control for seasonal fluctuation in medical and trauma PED presentations.

**Results** 624 patients were seen in our PED in April 2020, compared to between 1620–1710 patients in previous years. All clinical groups showed reduced numbers, with medical, surgical, trauma, mental health and ‘other’ presentations reduced by respectively 67%, 46%, 66%, 20% and 43% compared with the average in preceding years. There was a significant decrease in children presenting with respiratory tract infections (63%), febrile seizures (41%), afebrile seizures (27%), urinary tract infections (67%), fractures (65%), and head injuries (44%). There was a decrease in head injuries (56%) and fractures in children less than 18 months (44%), the group most at risk for non-accidental injury. The number of children presenting with appendicitis, testicular torsion, overdoses, and children aged less than 3 months with presumed sepsis, were within the expected range. In April 2020 there were three cases of severe diabetic ketoacidosis (compared to only two in 2016 and none in 2017, 2018 and 2019).

**Conclusions** The lockdown significantly decreased PED attendance, and our data highlights several potential reasons, including a reduced burden of respiratory disease, changes in parental health seeking behaviour and possible barriers to attendance. The reduction in attendance was mainly in medical and trauma presentations. This could be explained by a decreased burden of infectious respiratory disease, and a reduction in injuries due to less road traffic and sport. Interestingly, non-communicable medical conditions (urinary tract infection/pyelonephritis) and afebrile seizures also demonstrated a decreased rate, pointing to potential changes in parental health seeking behaviour. The increase in severe DKA presentations could indicate barriers (logistical or psychological) to attending primary/secondary health care. Overall, though the surgical attendances were decreased, presentations for surgical emergencies remained the same. Intriguingly, there was no increased attendance for mental health reasons. We found no evidence of increased domestic violence involving children in our population. Our data highlights that the lockdown was effective in decreasing the burden of both respiratory infections, and trauma patients presenting to ED. Our study will support workforce planning and resource allocation in paediatric ED, especially during staff redeployment.

## British Academy of Childhood Disability

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### HOW EFFECTIVE IS MAKATON IN ENCOURAGING COMMUNICATION, THE FORMATION OF SPEECH, AND ENHANCING POSITIVE SOCIAL INTERACTION IN CHILDREN AND YOUNG PEOPLE?

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**Background** Augmentative and alternative communication (AAC) forms are used by people of all ages with special educational needs as a way of facilitating communication. One of the most popular AACs is Makaton, a system that incorporates sign language, graphic symbols, and speech. Makaton has been used for a number of years in various settings, however its efficacy is unknown and not backed by empirical evidence.

**Objectives** To perform a literature review of published articles assessing the effectiveness of Makaton in aiding communication and social interactions with children and young people. Evidence will be analysed in order to suggest the validity of its use, with a view to expand its integration in clinical environments.

**Methods** Fourteen databases were methodically searched from inception to 20th January 2020. Inclusion criteria included studies assessing the efficacy of Makaton with children and young people, in comparison to speech or another AACs, that were published in the English language.

**Results** Six studies met inclusion criteria and were critically appraised. Five studies showed Makaton increased basic communication, four found it initiated spoken language, and all six observed an increase in positive social interaction and behaviour. There were a total of 73 combined participants, ranging from the ages 2–16 years old. Most studies analysed participants with a certain disorder (Autism Spectrum Disorder, Down Syndrome, Cerebral Palsy, severe learning difficulties), with one evaluating Makaton use when teaching English as an additional language. It was also found that the majority of professionals support its application and find it subjectively effective, however it is seldom utilised beyond parents and teachers, and there is little homogeneity in frequency of use between participants. Each study was of a small sample size limited to population and disorder demographic, and may not be generalisable to external populations.

**Conclusions** Despite current literature lacking high quality methodologies and the need for caution when interpreting or extrapolating results, there is a clear general consensus that Makaton is effective in facilitating communication and social interaction in children and young people. It allows children flexibility in communicating in ways that suit them, increasing feelings of inclusivity, and leading to a better quality of life. Regardless of a lack of empirical data, many people and schools around the country and world are adopting the use of Makaton and there is an attitude shift towards one of inclusion and acceptance for children who sign. Makaton gives a voice, be it literal or not, to children who may otherwise not have been able to express themselves. More effort should be made to integrate signs and symbols into mainstream society, and in particular to educate medical students and health care professionals, to allow for more autonomy and patient-centred care for these individuals.

## British Association of Perinatal Medicine and Neonatal Society

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### GENETIC VARIATIONS CAUSING NEONATAL DIABETES MELLITUS

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**Background** Neonatal Diabetes Mellitus (NDM) is rare with an approximate incidence of 1:100,000. More than 80% of cases have a genetic origin. We present 4 patients with NDM occurring within one health board.

**Objectives** Our aims were to compare and contrast the characteristics of our cases and to discuss the genetic variations