

can be adapted by different departments and different hospitals keeping the patient at the centre of care.

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INTRODUCING A BRIEF INTERVENTION TO IDENTIFY AND PROVIDE GUIDANCE TO OVERWEIGHT AND OBESE CHILDREN ATTENDING THE EMERGENCY DEPARTMENT

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Aims/Objectives/Background The aim of this project was to identify and provide guidance to overweight and obese children attending the paediatric emergency department.

Paediatric obesity is a rising problem in the United Kingdom where around two thirds of children entering secondary school are either overweight or obese. This leads to significant health impacts in both the short and long term as more children are diagnosed with hypertension and obesity.

The Emergency Department provides a unique opportunity to introduce a brief intervention to identify these children, have a brief conversation and offer guidance on healthy lifestyle with referral back to primary care services.

Methods/Design We performed a Quality Improvement Project to measure height, weight and BMI centile in all children attending the Emergency Department to identify those who are overweight or obese. We created a toolkit that consists of training sessions and written resources for staff to sensitively communicate to parents about their child's weight and empower them towards their journey for a healthier lifestyle.

We collected data from 10 children a week who met the inclusion criteria and established whether they had weight, height and BMI centile measured. We analysed the notes of those who had BMI centile measured to see if they had been discharged with a diagnosis of obesity and whether they were provided with information regarding healthy diet and lifestyle.

Results/Conclusions In a sample taken over 15 weeks, we have seen improvement in auxology measurement, and evaluation of notes shows that 4 children were appropriately identified as overweight or obese. Additionally, we increased awareness throughout the department by teaching, posters and word of mouth.

We are encouraged by these initial numbers and anticipate further improvements as we have developed a toolkit to provide ongoing teaching to staff in the department.

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WHAT CAN YOU TEACH IN 15 MINUTES? A PILOT STUDY OF 'JUST-IN-TIME' TEACHING IN A PAEDIATRIC EMERGENCY DEPARTMENT

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Aims/Objectives/Background The Emergency Department (ED) is a busy environment due to shift patterns and high acuity, which can make arranging formal teaching sessions difficult. We proposed daily '15-minute Hot Topic Teaching' sessions with feedback questionnaires used to evaluate these. The aim of this study was to assess the effectiveness of daily '15-minute Hot Topic Teaching' sessions in a Paediatric Emergency Department.

Methods/Design A daily teaching programme was designed and implemented in a busy tertiary Paediatric Emergency Department. The teaching sessions were performed for 15 minutes at 1 pm on Monday to Friday for all clinical ED staff members. Following each teaching session, participants completed a feedback questionnaire to evaluate the teaching session. This assessed the 'overall rating of the teaching session', 'change in confidence in application of knowledge', and 'the rating of how appropriate the length of the teaching session was'.

Results/Conclusions Overall, 200 questionnaire feedbacks were completed. The average rating for the teaching sessions was 9.07/10 (0 being 'very poor' and 10 being 'excellent'). The participants' confidence in application of knowledge improved on average from 5.44/10 before the session to 8.04/10 following it (0 being 'no confidence' and 10 being 'very confident'). The teaching session length was reported as 'about right' by 92%, with 8% stating they were either 'too long' or 'too short'. ED clinical staff attending included doctors (47.5%), Advanced Nurse Practitioners (19.5%), nursing staff (12%), Physician Associates (9.5%), Health Case Assistants (3%), and 'other' members including medical students, nursing students and paramedic students (8.5%).

This study shows that daily 15-minute teaching sessions are an effective way of delivering teaching in a busy Paediatric Emergency Department to a wide variety of clinical staff. The sessions have improved confidence and knowledge in a variety of topics and are an appropriate length of time, making them ideal for use in Emergency Departments.

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A COMPARISON OF THE AEROGEN VIBRATING MESH NEBULISER VERSUS A STANDARD JET NEBULISER TO DELIVER BRONCHODILATORS IN MODERATE TO SEVERE ASTHMA IN THE EMERGENCY DEPARTMENT

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Aims/Objectives/Background Nebulised bronchodilators provide effective therapy for patients with Asthma. We sought to investigate the effectiveness of vibrating mesh nebuliser (VMN) when compared to a standard jet nebuliser (JN) in patients with moderate-to-severe asthma presenting to the Emergency Department (ED). We compared time to discharge from ED, drug delivery, and rate admission when using VMN technology compared to the JN.

Methods/Design A prospective, single-centre, non-blinded study comparing the efficacy of the VMN (Aerogen Solo) against the current standard jet nebuliser (JN) (Cirrus2 Nebuliser) to deliver nebulised Salbutamol (2.5 mg) in moderate to severe adult asthma within the ED. Patients requiring bronchodilator therapy were allocated for each arm to receive medications via the VMN, or by standard JN. Patients were managed by emergency physicians according to the joint BTS guidance. The primary endpoint was time to discharge from ED (mins) after initial physician assessment, while among the secondary endpoints examined were Salbutamol dose (mg), and rate of

discharge from ED (binary). Time to discharge & salbutamol dose were summarized via the Median (IQR), and a nonparametric Mann-Whitney U test was applied to derive a p-value for the comparison. The mean (SD) was also tabulated. The rate of admission for each arm was calculated, and compared using a chi-squared test.

Results/Conclusions 124 patients completed the study. Time to discharge and salbutamol dose, were significantly lower in those patients treated with VMN showing a statistical significance ($p=0.003$ and $p=0.023$ respectively). VMN time to discharge: Mean (SD) 136.44 mins (89.50). VMN salbutamol dose 7.58 mg; In comparison to those treated in the JN arm. JN time to discharge: Mean (SD) 175.31 mins (97.15) JN salbutamol: 9.69 mg. No Statistical Significance for the rate of admission.

Treatment with a VMN led to a significant reduction in both the median length of stay and the requirement for bronchodilators in the ED.

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EVALUATION OF THE EFFECTIVENESS OF A WELSH PHYSICIAN RESPONSE UNIT (PRU) AT REDUCING ED FOOTFALL; IDENTIFYING THE RATES AND REASONS FOR ED ATTENDANCE AFTER DISCHARGE AT THE SCENE BY A PRU

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Aims/Objectives/Background The Aneurin Bevan University Health Board (ABUHB) Physician Response Unit (PRU) aims to alleviate the pressure on its emergency departments (EDs) through the provision of physician-led community emergency medicine. An increasingly common prehospital model, the PRU brings the ED doctor to the patient with the aim of reducing the number of 999-callers requiring an ED visit. However, with no published ED follow-up studies amongst UK PRU services, how can physicians and commissioners ensure that PRU discharge in the community is synonymous with a prevented ED attendance?

This study aims to be the first to follow up and identify the proportion of patients attending the ED within 7 days of discharge by a PRU and to establish the factors associated with attendance.

Methods/Design Pilot retrospective observational analysis of 3 months of adult patients discharged by the ABUHB PRU in 2020. ED database searches identified patients attending the ED within 7 days of discharge. Patients were contacted for a scripted telephone satisfaction survey and responses alongside demographics were analysed for associations with ED attendance through odds ratios (OR), relative risk (RR) and Pearson's chi-squared tests.

Results/Conclusions The 7-day ED attendance rate was 11.7% (12 out of 103 patients). Two thirds presented due to continued symptoms. Nine patients were admitted. Male sex was associated with an increased likelihood of ED attendance (OR=4.067, 95% CI 1.134–14.587, $p=0.023$) alongside being in the 40–50 and 51–61 age groups (RR 3.93; 95% CI 1.153–13.327 and RR 8.25; 95% CI 3.556–19.139 respectively). The modal satisfaction rating for overall experience with the PRU was 'very satisfied' but no association between satisfaction level and ED attendance was identified ($p=0.210$) despite a 94% response rate.

This study reinforces perceptions that the PRU is effective at delivering definitive care in the community whilst paving the way for future follow-up studies amongst other PRU services.

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MOBILE PHONES FOR HOMELESS PATIENTS IN THE EMERGENCY DEPARTMENT, A LIFELINE TO CONNECT WITH VITAL SUPPORT SERVICES DURING THE COVID-19 PANDEMIC

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Aims/Objectives/Background During the COVID-19 pandemic most of London's homeless day centres and hostels had to close, essential support services and GP practices were only contactable by phone or online. This created a precarious situation for vulnerable street homeless, leaving them with limited access to food, safe places or health care. Homeless patients attending our ED within hours could access homeless team support. However, an audit in our ED in May 2020 revealed that 70–80% of our homeless patients attended out of hours. We identified this shortfall in care, so conducted a pilot project to supply mobile phones to 30 homeless patients to facilitate a follow-up with our homeless team. This is the first study of this kind in an emergency department in the UK.

Methods/Design Two grants from the GSTT charity and the Society of Catholic Medical Missionaries charity covered the purchase of 30 mobile phones. The phones were given together with contact numbers to 30 rough sleepers attending our department out of hours, who did not have access to a phone or an allocated support worker. In addition, we forwarded the patient's details and mobile number to our homeless team who contacted the patient the next working day after discharge.

Results/Conclusions All 30 phones were given out during a 3 month period. ED staff referred 21 of the 30 patients to the homeless team. The homeless team was able to contact 17 patients. 4 patients were eligible for council housing and 3 patients received alternative accommodation with charities. 6 patients were referred to other services including the first fit clinic, domestic violence service, the HIV clinic and the community mental health team. These outcomes are significant and life changing for these individuals and, considering the low cost of one phone (£26 per phone including top-up), application for further funding has been submitted.

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MULTI-CENTRE IMPLEMENTATION OF THE SNAP PROTOCOL FOR PARACETAMOL OVERDOSE – FEWER ANAPHYLACTOID REACTIONS AND SHORTENED LENGTH OF STAY

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Aims/Objectives/Background Paracetamol overdose is the most common drug overdose in the UK. The standard treatment of Paracetamol toxicity is intravenous N-acetylcysteine (NAC)