

PsiCall collect the data of the users, in agreement with RGPD, for descriptive and efficacy studies of the psychological intervention. Teaching: operators receive specific training in telematic psychological intervention to carry out a better assistance.

Results PsiCall has attended more than 800 students who present psychological and social emergencies since 2017.

Conclusion PsiCall is a pioneering telematic psychological assistance service in Spanish universities that contributes to improve student's wellness at the Complutense University of Madrid.

Conflict of interest None.

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26 PATIENT OUTCOME IN THE DANISH QUALITY DATABASE FOR PREHOSPITAL EMERGENCY MEDICAL SERVICES

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Background A national Prehospital Quality Database¹ has been established in Denmark, and most quality indicators reported are reflecting the administration of the service. In the effort to change the perspective of the register toward patient-centered care and outcomes, cardiac arrest data has been sought from the national digital patient chart used by all medical personal in the EMS. The gold standard for comparison was The Danish Cardiac Arrest Register based on paper reports.

Method The study population consists of all emergency patients, where the entrance to health care is a 1-1-2 call forwarded to one of the five regional emergency medical coordination centers in Denmark (300,000-3 50 000 annually). The use of medical data on patients treated with cardiac arrest was collected directly from the medical charts to compare level of registration and quality of treatment. These data were available for 2016 and 2017.

Results From the medical charts we extracted 2576 patients in 2017 with witness cardiac arrest with 28.0% (n=?) had ROSC. Among patients receiving CPR 48.6% (n=) achieved ROSC. Correspondingly in 25.1% and 47.5% in 2016. In 2016 DHR reported an incidence of 66 per 1 00 000 inhabitants, where the new data yields 85 per 1 00 000. This suggests an underreporting to the register during the time of paper reports.

Conclusion National monitoring of health quality should reflect patient outcome. Extracting data directly from the medical charts is not without challenges but is feasible and will help to raise the standard of care.

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Conflict of interest None.

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27 PREHOSPITAL STROKE CODE. EXPERIENCE IN AN ARGENTINEAN EMERGENCY MEDICAL SERVICE

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Background Stroke is a time dependent medical emergency¹ that requires the coordinated action of the pre and in-hospital teams to improve the results.² We present the epidemiological characteristics of the population requesting medical attention to a private EMS identified by the telephone operator with activation of a Prehospital Stroke Code (PSC).

Method Observational, retrospective, cross-sectional and descriptive study based on records made through the App Stroke Code v1.0 (internal development) from 01/09/2018 to 31/1/2019. n=97 cases. The data was transferred to a Microsoft Excel spreadsheet and to Epi Info v7.2.2.1 for analysis.

Results PSC was activated in 97 cases. 58 has a suspected Stroke and in 39, the code was canceled by on-scene-EMS team due alternative prehospital diagnosis. The mean age was 78 y/o. 44patients (76%) consulted within three hours of the onset of symptoms. CINCINATTI-prehospital scale average on arrival was 2 points. 100% of patients with CINCINATTI 0-1 consulted after 3 hs (15) (p0.03). On patients with CINCINATTI-score of 3, 97% (p.0038) were hypertensive at the time of the consultation. No hypoglycaemia was found. Of the 58 suspected stroke cases, 16 received some form of reperfusion treatment (rTPA IV, thrombectomy-intraarterial rTPA or combination). The remainder 43 patients who did not receive reperfusion treatment were mainly due to: Alternative in-hospital diagnosis, out of therapeutic window and Intracranial bleeding. The average door to needle time was 37 minutes.

Conclusion Patients more symptomatic consulted earlier 27% of the patients received reperfusion therapy, dramatically surpassing the average of our country (1% according to the RENACER registry3).

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Conflict of interest None.

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28 PAIN MANAGEMENT OF PEDIATRIC TRAUMA PATIENT IN A PREHOSPITAL MEDICAL SERVICE

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Background Pain produced by trauma events is one of the most common problems of prehospital settings. However, pain control in children continues being a challenge for health

professionals due to different barriers. This study aims at reviewing if the use of pharmacological methods for pain provided during the emergency care of pediatric trauma patients is proper.

Method Retrospective study of 560 consecutive clinical records of trauma patients, aged from 0 to 18, assisted from March to December 2017 by Advanced Life Support Units. Minor injuries excluded.

Results Median age was 12 years (IQR 8–15). 71.8% (402) males. The most common diagnoses were upper limbs fractures and dislocations 38.4% (215), 6.3% (35) major traumas. Pain assessment scales were used in 16.6% (93). Children received analgesia in 44.1% (247), >6 years were 50.5% (221) and ≤6 210.3% (26), $p < 0.001$. Fentanyl was used in 78.5% (194) followed by Acetaminophen 20.6% (51), Ketorolac 17% (42) and Ketamine 8.9 (22). Midazolam was associated in 35.2% (84). Analgesia in major trauma was 74.3% with respect to serious wounds and brain injuries 10.8% $p < 0.001$. Intravenous route was favourite 74% (183), followed by intranasal, 20.2% (50).

Conclusion The study demonstrates that, according to international guidelines, major trauma analgesia is greater than another groups, but not generalized. Intravenous infusion opioids are the main pharmacological method. However, pain scales are insufficiently applied and there is often a pain undertreatment, particularly in the youngest. Promoting suitable pain scales and alternatives to intravenous route like intranasal could increase treatment.

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29 FEASIBILITY OF USING A DEFIBRILLATOR TO PROVIDE REAL-TIME AND POST-EVENT FEEDBACK TO PARAMEDICS ON THE QUALITY OF THEIR CPR

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Background Ambulance Victoria aimed to improve paramedic CPR performance by introducing audio-visual CPR feedback via a defibrillator with accelerometer-based technology and detailed debriefs post event.

Method We conducted an evaluation assessing the feasibility of using a defibrillator to provide real-time and post-event feedback to paramedics on the quality of their CPR. The pilot was conducted over a 6 month period between the 17th June 2017 and 17th December 2017.

Results Ambulances participating in the trial arrived first at 234 out-of-hospital cardiac arrests (OHCA). Of these cases,

teams voluntarily used the CPR Feedback Pads for 85 (36%) OHCA, however case data was only available for 70 cases. The majority (77%) of paramedics who used the CPR Feedback device found it easy to apply with the defibrillator pads, with little to no disruption to standard CPR performance. The recommended chest compression depth (>5 cm) and rate (100–120 compressions per minute) were achieved for half of cases (51% for both). The median chest compression fraction (84%) was above the recommended standard of >80%. Overall, only 26% of paramedics who received real-time feedback were able to achieve all three CPR Quality Standards. When compared to perceived performance, this statistic differed significantly, as the majority (70%) of paramedics believed their CPR was already of good quality. Most paramedics reported that they found the post-event feedback helpful (74%).

Conclusion Although utilization rates were low for the CPR Feedback device, the mismatch between perceived and actual performance highlights the need for such feedback.

Conflict of interest None.

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30 AMBULANCES ATTENDING DIABETES-RELATED EMERGENCIES IN CARE HOMES – CROSS SECTIONAL DATABASE STUDY

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Background Diabetes, affecting 1 in 5 care home residents, may lead to ambulance call-outs and hospitalisation. We aimed to investigate the epidemiology of diabetes-related emergencies involving ambulance attendances to care home residents.

Method Cross-sectional design investigating ambulance attendance to people presenting with diabetes-related emergencies in the East Midlands, UK, between 2012 and 2017. We analysed dispatch and ambulance clinical data with care home data, including call category, timing, location, care home type, clinical or physiological measures, treatments, conveyance (transport to hospital) and costs.

Results Overall 2 19 722 (6.7% of 3.3 million) ambulances attended care homes over 6 years, with 12 080 (5.5%) to diabetes-related emergencies. Of 3152 care home patients categorised as having a ‘diabetic problem’, 1957 (62.1%) were conveyed to hospital, similar to that for community residents taking into account other factors. Factors associated with conveyance included reduced consciousness (OR 0.91, 95% CI 0.87–0.95), elevated heart (1.01, 1.01–1.02) or respiratory rate (1.08, 1.06–1.10), no treatment for hypoglycaemia (0.54, 0.34–0.86) or additional medical (but not psychiatric) problems. Ambulance costs were significantly lower when a patient was conveyed, by some £18 (95% CI £11.94–£24.12), but this would be outweighed by downstream hospital care costs. For a simulation in which all trusts’ mean NHS Reference Costs were used, conveyance was no longer significant in the cost model.

Conclusion Conveyance following diabetes-related emergencies was as common for care home as for other community residents despite access to trained staff, and more likely with impaired consciousness, abnormal physiological measures or lack of treatment for hypoglycaemia.