A NEW INTEGRATED MONITORING SYSTEM FOR HELICOPTER EMERGENCY MEDICAL SERVICE

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PURPOSE OF THE STUDY:

A new integrated monitoring system (Zulu Medical System Treviso-Italy) has been tested in a Helicopter Emergency Medical Service setting. This monitoring system can perform a digitization of patient's medical data.

MATERIALS AND METHODS:

The new integrated monitoring system was used by the Helicopter Emergency Medical Service of Pieve di Cadore (Belluno, Italy) from 10 August 2015 to 16 April 2018. The monitoring system was installed on a fully rugged F110 tablet (Getac Technology Corporation, Taiwan). Patients vital signs were collected by appropriate Bluetooth devices and a record form, previously written on paper, was filled in by the medical team directly on the tablet. Finally, reports were sent to the emergency department of the hospitals directly from the helicopter before arrival using a certified mail. The system also allows to collect data for statistical analysis.

RESULTS

Data collected during 1186 missions are reported in table 1.

CONCLUSIONS

The great advantages of this system is above all not to have sheets of paper. You can also perform free from cables monitoring into a 10 meters' distance, take photographs with geolocation and attach theme to finally report, collect data for an easy quantitative and qualitative analysis.

Start Code	Quantity
1	85
2	176
3	463
4	307

Receiving Hospital	Quantity
Belluno	451
Treviso	127
Pieve di Cadore	34
Agordo	25
Feltre	23

Intervention: immobilization devices	Quantity
Vacuum	339
Cervical collar	294
Scoop	197
Binder	134
Medication	108
Spinal	103
KED	23

Intervention: Circulation	Quantity
Peripheral venous access	588
Monitoring	587
Nacl solution	450
IperHAEs	75
CPR	50
Shock	43
Intraosseus	13

Intervention: Breathing	Quantity
Oxygen	275
Oral Intubation	85
Manual ventilation	84
Mechanical Ventilation	59
Aspiration	51
Rinotracheal intubation	21
Sovraglottic devices	19