SMART BENCH FOR AMBULANCES

PATENTED TECHNOLOGY

CONTACT DETAILS:

Research Results Transfer Office-OTRI
University of Alicante
Tel.: +34 96 590 99 59
Email: areaempresas@ua.es
http://innoua.ua.es

ABSTRACT

The Department of Nursing of the University of Alicante has designed a new ambulances platform, which in addition to the current functions of the platforms allocating the stretchers in vehicles, provides the exact value of the weight of the patient, in real time, facilitating the calculation of precise doses of drugs, fluids, mechanical ventilation, etc.

This platform has digitals sensors placed parallel along its lower side bars, connected to a digital transmitter and a screen via bluetooth or Wi-Fi. The design of the electronic device can be configured in a basic mode, just showing the weight of the patient allowing to health professionals to better calculate the correct doses of drugs, etc., by themselves; or its advanced mode, also detailing the exact dose of drugs, fluids, parameters of invasive mechanical ventilation, amount of energy, etc., automatically calculated with an integrated software.

Companies interested in the commercial exploitation of the invention through a patent license agreement are sought.

ADVANTAGES AND INNOVATIVE ASPECTS

Basically, the great advantage of this new design of platform for ambulances is the exact and automated calculation of doses and parameters according to the real weight of the patient, such us:

- Dose of drugs and dilutions (for example: calculation of fibrinolytics, calculation of antidotes, dose of inotropic drugs, doses of drugs in rapid sequence of intubation, analgesics, corticosteroids, etc.).
- Dose of fluids (for example, the Parkland formula in burned patients, hypertonic saline fluid, Mannitol fluid, etc.).
- Parameters for invasive mechanical ventilation.
- The energy in joules to be administered to children, in cardiac arrest.

In addition, the device could be easily implemented into an existing element within the ambulance, letting the sanitary staff to obtain an objective knowledge of the patient's weight.

The main innovative aspect of this invention is the incorporation of a new functionality in the form of an electronic scale for ambulance benches that would allow the exact calculation of the doses of drugs, fluids and other parameters to be administered to critical patients according to their weight.

MARKET APPLICATIONS

The present invention relates to a platform, in land or air medical vehicles, in the field of **prehospital emergencies**, which functions as digital balance providing the weight of the patient calculated in real time.

COLLABORATION SOUGHT

Companies (specially, **manufacturers of benches**) interested in acquiring this technology for **commercial exploitation** through patent licensing agreements are sought. The company should be responsible for the development of the prototype, the validation of the technology, its manufacture and introduction into the market.