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LETTER TO THE EDITOR

Respiratory rate remains the forgotten vital sign

La frecuencia respiratoria sigue siendo el signo vital olvidado

Dear Editor:

Determining vital signs at least once a day is a standard procedure in any hospital ward. However, these measurements are sometimes not adequately recorded.¹ Despite the fact that it has been shown to be crucial in determining the risk of deterioration and is the most important predictor of cardiac arrest in hospital wards,^{2,3} respiratory rate (RR) is the most frequently unrecorded vital sign. Therefore, correctly measuring RR is practically essential in hospital wards.

In our center we have developed an automatic alert system within our intranet where RR is one of the parameters (along with other clinical and laboratory test data) that contribute to the detection of a hospitalized patient (at least three altered parameters are required) for evaluation by the Department of Intensive Care Medicine through the Extended Service of Intensive Care Medicine (SEMI). We have established respiratory rate cutoff points of ≥ 30 breaths per minute (bpm) or < 9 bpm.

In the first two years of the SEMI, a total of 6581 patients generated an alert. Of these patients, RR had been recorded in only 1895 (28.80%). Of those patients, only two had $RR < 9$ bpm, while 1197 had $RR \geq 30$ bpm. If the cutoff point is set at > 50 bpm (a value that does not accurately reflect the patient's respiratory rate and is the heart rate detected as RR by means of the "vital sign monitors" used by the nursing personnel that enter the information directly into the hospital intranet), then 741 patients would be included (39% of all patients with alarm criteria for whom respiratory rate was determined).

Therefore, our data support the idea that RR is still the forgotten vital sign,³ and is not optimally determined in hospital wards. The reasons for this situation have been studied

and found to be varied (educational, the measurement systems employed, etc.).⁴

We believe that efforts should be made to improve this situation. Likewise, we believe that training of the ward personnel (especially nurses) is a crucial first step. This training should emphasize the importance of taking RR in a generalized manner, and of doing so correctly.

CRedit authorship contribution statement

All authors have contributed to the present study. Enrique Chicote-Álvarez drafted the manuscript. Adolfo Calvo-Martínez and María Macías-Pascual reviewed the manuscript.

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