Mandatory early warning scoring: Implementation evaluated with a mixed-methods approach

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We evaluated adherence to an intervention comprising systematic, mandatory early warning scoring (MEWS) of vital parameters and the process of implementing the intervention. Systematic early warning scoring is reported to reduce unexpected in-hospital mortality. However, reports of adherence to the intervention are often lacking but necessary to interpret intervention outcome correctly. Adherence to the intervention, known as implementation outcome, and the implementation process was evaluated using mixed-methods. Adherence was assessed by comparison of time intervals between bedside measuring of vital parameters before (2009) and after (2010 and 2011) the intervention was implemented and by calculations of time to the next MEWS scoring. Evaluating the implementation process using semi-structured interviews of nurse ward managers complemented quantitative results. There were significant reductions in time intervals between measuring heart rate and body temperature (corresponding to MEWS 0-3), and blood pressure (corresponding to MEWS 0-2), between 2009 and 2010, and between 2009 and 2011. Scoring was repeated within eight hours in 71% of all patients with MEWS 0. In 2010 and 2011, scoring was repeated within eight hours in 69% and 72%, respectively, of patients with MEWS 2, and in 71% and 77%, respectively, of patients with MEWS 4. Interviews illuminated that nurses were motivated to adhere to the intervention because of the clinical relevance and meaningfulness of the intervention. We found high short- and long-time adherence to systematic, mandatory early warning scoring resulting in 69-77% of patients being re-scored every eighth hour. The clinical relevance of the intervention motivated the implementation process.

Biography
Gitte Bunkenborg completed her PhD in April 2014 from Lund University, Sweden, and she is currently working on Post-doctoral studies at Holbaek University Hospital, Denmark, a 350-bed university hospital, where she is Head of Nursing Research. Her research interest concerns patient safety, early warning score, nurses’ monitoring, documentation- and communication practice.

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