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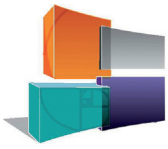

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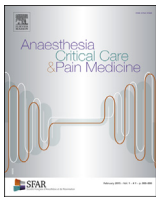

Original Article

Impact of a visual aid on discordance between physicians and family members about prognosis of critically ill patients

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ABSTRACT

Objective: This study aimed to evaluate the impact of a visual aid on the discordance about prognosis between physicians and family members.
Methods: The study was performed in a general intensive care department with two 6-bed units. In the unit A, family members could consult a visual aid depicting day by day the evolution of global, hemodynamic, respiratory, renal and neurological conditions of the patient on a 10-point scale. In the unit B, they only received oral medical information. On day 7 of the ICU stay, the physician and family members estimated the prognosis of the patient among four proposals (life threatened; steady state but may worsen; steady state, should heal; will heal). Then we compared the rate of discordance about prognosis between physicians and family members in the two units.
Results: Seventy-nine consecutive patients admitted in the intensive care department and still present at day 7, their family members and physicians, were enrolled. Patients in the two units were comparable in age, sex ratio, reason for admission, SAPS II at admission and SOFA score at day 7. In the unit A, physician-family members discordance about prognosis occurred for 12 out of 39 patients (31%) vs. 22 out of 40 patients (55%) in the unit B ($P = 0.04$).
Conclusion: In our study, adding a visual aid depicting the evolution of the condition of critically ill patients day by day to classic oral information allowed the family to have an estimate of the prognosis less discordant with the estimate of the physician.

Intensive care unit (ICU) is a stressful environment. Family members experience deep mental, physical, and economic suffering during their loved ones' ICU stay [1–3]. This may alter the understanding of medical information. Family information is now recognised as a crucial part of a quality of care assessment. Although most patients' next of kin reported good understanding [4], about 50% failed to understand basic elements of their family member's care [4] or to comprehend their diagnosis, treatment and prognosis [5]. Family members commonly have inaccurate expectations about their loved one's prognosis [6,7]. This is problematic because family members may be asked to serve as surrogate decision makers, and this requires a clear understanding of the likely outcome [8]. Misperceptions about prognosis may also leave family members unprepared for their loved one's death [9]. To promote patient-focused, shared decision making, the task for physicians is not simply to relay information but to optimise the ability of family members to hear, integrate, and use information including clinician's expectations with regard to important outcomes [10,11]. For some people, visual memory or comprehension is more effective than oral communication. Furthermore, in case of bad news or very scientific explanations, family members don't hear and thus don't understand medical information. A previous study showed that comprehension was markedly improved by delivering standardised written information for families [12].

In this study we aimed to evaluate the impact of a visual aid on the comprehension by family members of the medical information

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about prognosis. We hypothesised that this intervention would decrease the rate of discordance between physicians and family members about prognosis.

1. Methods

We conducted a controlled prospective study in a French 12-bed Intensive Care Department, composed with two units (A and B) of 6 beds. We enrolled consecutive patients and family members at the day of critically ill patient's admission, from April 2, 2015, to November 5, 2015. Patients were eligible if they were aged 18 years or older; they were excluded if they were able to understand the study and refused that the physicians communicate medical information to their family.

At the day of admission, the physician in charge of the patient met family members for a private interview to explain the reason of admission. Patients were excluded if this interview did not occur in the first 24 hours. The ethics committee of the Centre Hospitalier Roanne approved the study.

Every day in the morning, the physician in charge of the 6 patients in Unit A assessed global, haemodynamic, respiratory, renal and neurological conditions of each patient and put a point on the 5 related curves of the visual aid (Fig. 1). For each curve the physician rated his assessment on a 10-point scale from 0 being "very bad condition" to 10 being "as well as possible". The visual aid remained in the patient's room, available to family members. They could therefore take note of the patient's evaluation when they came to visit. In addition to the visual media, physicians and nurses delivered classic oral medical information. In Unit B, families received only classic oral information. On day 7 of their ICU stay, in addition to the seventh and last point on the curves, the physician estimated the prognosis, among four proposals (item 1: life threatened; item 2: steady state but may worsen; item 3: steady state, should heal; item 4: will heal). Afterward, in the afternoon when family members came to visit the patient, they independently answered the same survey, if they agreed, blinded to the physician's response: "Today, what do you think about your loved one's prognosis? (Choose among items 1, 2, 3 or 4)". In the case of a visit from more than one family member, we questioned the one who visited the most along the past week. Family members were also asked about their global satisfaction concerning the quality of information "How satisfied are you with the quality of the information you received during these seven days?" They rated their satisfaction on a 10-point Likert scale from 0 being "unsatisfied" to 10 being "very satisfied".

The following data were recorded to compare the patients and family members between unit A and B: age, sex ratio, reason for admission, SAPS II at admission, SOFA score on day 7, and the relationship to the patient of the family member who estimated the prognosis at day 7. The main evaluation criterion was the discordance between the physician's prognosis estimate and the family member's prognosis estimate on day 7 of the patient's ICU stay. We compared the rate of discordance between Unit A and Unit B. Estimates were judged discordant if physician and family member didn't rate exactly the same item.

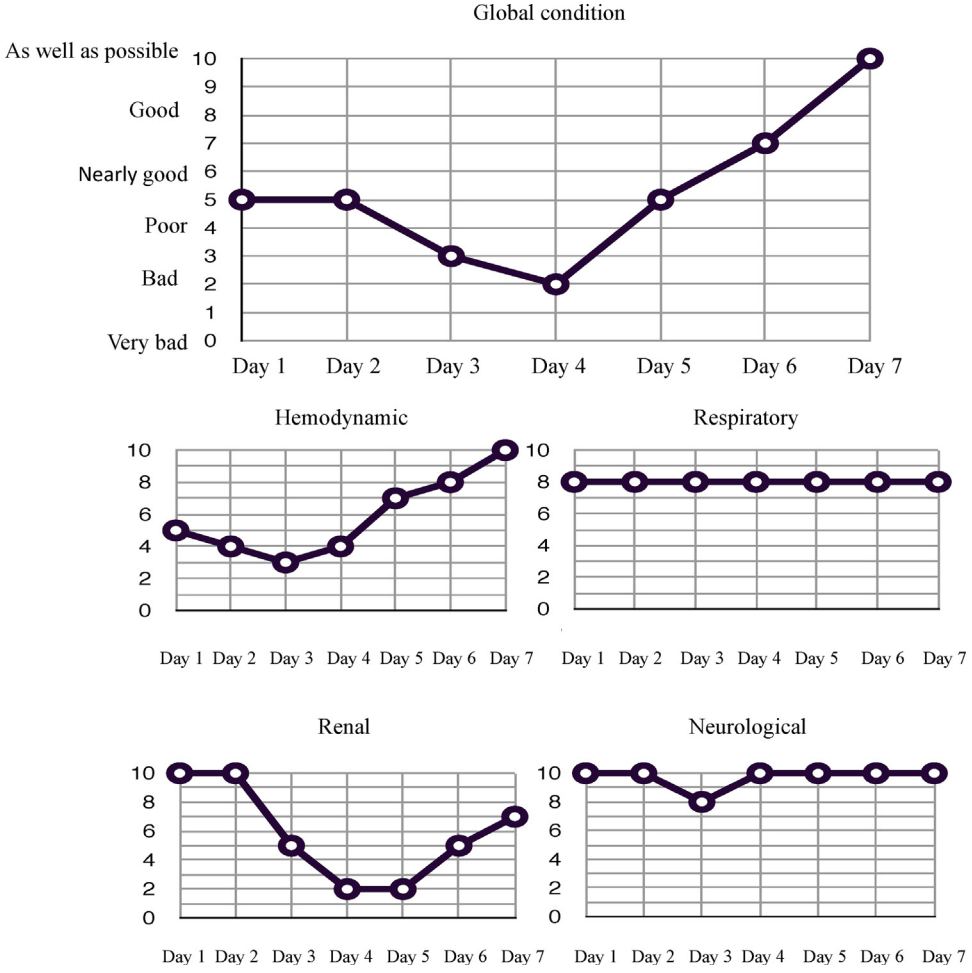

Fig. 1. One example of visual aid for family members in Unit A.

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