

## **Development and Evaluation of a Medical Communication Scale**

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### **ABSTRACT**

**Objective:** To evaluate the degree of communication with patients and their relatives based on a predesigned medical communication scale.

**Design:** A Prospective random sample assessment study.

**Setting:** Intensive Care Unit, King Hamad University Hospital.

**Method:** We studied the scale randomly in 50 adult patients admitted to ICU. The degree of communication with the patient's next of kin was assessed by a native English speaking intensivists according to a scale designed for the purpose.

**Result:** Twenty-three (46%) relatives required the help of an interpreter for communication (class 4). Full communication was possible with 15 (30%) relatives (class 2). Twelve (24%) relatives did not have a full grasp of the working language or were informed to a below average level or were unwilling or uninterested in obtaining further knowledge. There was no relative with whom communication was impossible (class 5) nor was there any well-informed relative with whom communication was fully fluent (class 1).

**Conclusion:** The medical communication scale can help the physician to objectively quantify the ease or difficulty in communication with the patient's relatives. In the ethnically mixed workforce of our hospital, while the physician could fully communicate with many relatives, a significant percentage of the relatives were not proficient in the working language of the hospital and required the help of an interpreter to communicate with the physician.

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### **INTRODUCTION**

Intensive Care practice has become more complex in recent years, not only because of differences in the way patient care is carried out, but also because of the greater variety of patients presenting for treatment – patients of different nationalities, patients with different degrees of education, patients with different degrees of learning disability and patients presenting with a greater variety of drug influence or dependence. In addition, the number of patients who present with long-recognized conditions such as autism or dementia has increased in recent years<sup>1,2</sup>.

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The doctors and nurses in our hospital come from various countries (Bahrain, Gulf Cooperation Council, Egypt, Philippines, India, Pakistan, U.K., Ireland, etc.). The working language of the hospital is English. The patients are mostly Bahraini, with Arabic as their primary language. A significant number of patients were from the Philippines and the Indian sub-continent. Therefore, the language barrier can also affect communication between the patients and their caregivers in a variable manner<sup>3</sup>.

One of the greatest challenges in our Intensive Care practice, and in the practice of all specialties, is developing the best possible communication with patients within the time and circumstances available. The level of communication should ensure that a realistic description is given to the patient of what treatment they will receive, what benefits are expected from this treatment, what risks are involved in administering this treatment and an acceptance of the treatment plan by the patient. In summary, compliance with the principle of informed consent should be observed.

Every experienced doctor has been in a situation where, in spite of their best efforts, the optimal level of communication with the patient or relatives has not been attained. This is not always the doctor's or the patient's fault; it may be an issue of ambient circumstances not allowing full communication, distractions from other staff, or an ultra-emergency such as severe hemorrhage or a prolapsed umbilical cord not allowing time for full explanation or for obtaining informed consent.

A scale that can subjectively assess the counseling physician's opinion of the level of communication with a patient or his relatives would be useful. It can be used to assess the patient's or the relative's ability to understand details of his disease and the plan of management. It can also assess the patient's or his relative's ability to give consent.

To our knowledge, the physician's assessment of the level of communication with the patient's family has not been studied so far.

We have designed a five point scale, ranging from total communication (Class 1) to zero communication (Class 5). The scale expresses a simple assessment by the physician of his/her ability to communicate with a patient or his/her family at any given point in time. We expect that it would resonate well with anesthesiologists and surgeons due to its similarity to the ASA (American Society of Anesthesiologist's) classification scale<sup>4</sup>.

The aim of this study is to evaluate the degree of communication with patients and their relatives based on predesigned medical communication scale.

## METHOD

We evaluated the scale randomly in 50 adult patients admitted to ICU. The degree of communication with the patient's next of kin was assessed by a native English speaking intensivist according to the scale (below). The study did not require any patient involvement. The routine doctor-patient conversation was graded according to the scale. No extra questions were asked for the purpose of the study.

In emergency situations, the suffix E was added to indicate urgency or reduced time for communication:

Class 1 / 1E	Full communication with a well informed patient/relative. This group would include other health professionals or educated laypersons.
Class 2 / 2E	Full communication with an averagely informed patient/relative who is willing to listen and become better informed and not afraid to ask questions.
Class 3 / 3E	This class describes communication with a patient/relative who is <i>compos mentis</i> and there is no physical obstacle to communication: <ul style="list-style-type: none"> <li>i. Doesn't have a full grasp of the working language and/or</li> <li>ii. Is informed to a below average level and/or</li> <li>iii. Appears unwilling or uninterested in obtaining further knowledge.</li> </ul>
Class 4 / 4E	Communication with a patient/relative is possible but is impaired by: <ul style="list-style-type: none"> <li>i. The patient/relative being unwell and as a result is unable to comprehend full issues of the risk, benefit and consent. Examples include factors such as stress, panic, severe pain, hypotension, sepsis etc.</li> <li>ii. A minor learning disorder</li> <li>iii. A minor or intermediate language barrier, including dependence on an interpreter</li> <li>iv. Physical obstacles - deafness, dysphasia, dysarthria, presence of a hard cervical collar, inability to speak due to facial trauma, difficult circumstances for treatment (the treatment room crowded with other care-givers, interruptions, ambient noise etc.)</li> <li>v. Time obstacles - considerations in ultra-emergency do not allow full communication.</li> </ul>
Class 5 / 5E	No realistic communication with the patient/relative is possible: <ul style="list-style-type: none"> <li>i. Patient/relative is under the influence of alcohol or other drugs, including psychoactive prescribed drugs</li> <li>ii. There is a language barrier with no available interpreter</li> <li>iii. Patient/relative has a major learning disorder</li> <li>iv. Patient/relative has confusion/dementia</li> <li>v. Patient/relative is in coma.</li> </ul>

## RESULT

Fifty counseling sessions were graded on the predesigned communication scale. Twenty-three (46%) relatives required the help of an interpreter for communication (class 4). Full communication was possible with 15 (30%) relatives (class 2). These were averagely informed persons who were willing to listen and to be better informed and not afraid to ask questions. Twelve (24%) relatives did not have a full grasp of the working language or were informed to a below average level or were unwilling or uninterested in obtaining further knowledge. There was no relative with whom communication was impossible (class 5), nor any well-informed relative with whom communication was fully fluent (class 1), see table 1.

**Table 1: Results of the Communication Scale**

Grading	Number	Percentage
1/1E	0	0
2/2E	15	30%
3/3E	12	24%
4/4E	23	46%
5	0	0
Total	50	

## **DISCUSSION**

The studies that have looked at communication in hospital intensive care units have only studied either the patients' feedback about communication with the caregivers or have consisted of an independent observer assessment of the degree of communication.

Stricker et al and Schwarzkopf et al used the Family Satisfaction in the ICU (FSICU) questionnaire in intensive care units to assess the family satisfaction and found that though the families are highly satisfied, there is a room for improvement particularly staff communication with families and emotional support<sup>5,6</sup>.

Rothen evaluated the views of 1,398 adult patients and relatives from 70 intensive care units and found that the intensivist's skills of communication with patients and relatives are highly rated<sup>7</sup>.

Heyland et al conducted multicentric study to assess the family satisfaction with 6 intensive care units across Canada and found that the majority of the families are satisfied with overall care, nursing skill and competence, the compassion and respect given to the patient and pain management<sup>8</sup>. They are least satisfied with the waiting room atmosphere and frequency of physician communication.

Curtis et al audiotaped and analyzed 51 ICU end-of-life care family conferences in four hospitals and identified that 15 family conferences had missed opportunities to provide support or information to the family<sup>9</sup>. In a similar study, White et al also audiotaped 51 physician-family conferences at four hospitals in which there were deliberations about major end-of-life treatment decisions and concluded that discussion about whether to forego life support occurred frequently in these deliberations, but patient's prognosis for survival was not discussed in more than one-third of conferences<sup>10</sup>. Therefore, less educated families received less information about the patient's prognosis.

The nurses' experiences of communication with family members in intensive care units have also been studied. Soderstrom et al interviewed 10 experienced nurses regarding their experience of interactions with family members in intensive care units<sup>11</sup>. Most of the nurses considered nursing care of family members as a necessary part of their work, but felt that the creation of an open and trustful relationship with family members was one of the most essential and demanding parts of nursing care.

Beckstrand et al analyzed the response of 864 nurses in a questionnaire (National Survey of Critical-Care Nurses Regarding End-of-Life Care)<sup>12</sup>. The nurses identified the following barriers in delivering end-of-life care to patients in intensive care unit: family members repeatedly enquiring about the patient by phone, family members not comprehending the

term life-saving measures and doctors not agreeing on the direction in which the patient care should proceed. They also identified the following facilitators: allowing family members to be alone with the patient after the patient had died, educating family members about how to behave at the bedside of the patient and family members displaying dignified behavior and maintaining peace after the patient's death.

The language barrier has also been recognized as a hindrance to effective communication. In a literature review, Ferguson et al found consistent evidence that race, ethnicity and language have a significant influence on the quality of the doctor-patient relationship<sup>3</sup>. Those patients who are not proficient in English are less likely to receive an empathic response from physicians, establish rapport with physicians, receive sufficient information and be encouraged to participate in medical decision making.

In a 'before-and-after' intervention study done in an outpatient setting and designed to improve communication between physicians and patients who speak a foreign language, Bischoff et al showed that communication can be significantly improved by utilizing the services of an interpreter<sup>13</sup>.

In our study, a large percentage of relatives (46%) were not proficient in English, the working language of our hospital, and they required the service of an interpreter. There was no relative with whom communication was impossible, nor any well-informed relative with whom communication was fully fluent.

We feel that educated relatives are better at English but we would need to do another study to quantify this factor objectively. For example, Indian professionals are all prolific in English whereas there are big communication difficulties when dealing with Indian laborers.

We have so far not readmitted a patient from our study to give us prior knowledge of previous communication difficulty but we feel that if done routinely it will be useful.

This scale can serve as an objective assessment tool, similar to Glasgow coma scale or American Society of Anesthesiologist's classification. The scale can also serve as a useful tool for physicians to follow in appreciating the problems of their predecessors in managing a particular patient at a particular time, and might be useful in subsequent scrutiny of the case notes by lawyers or other professionals.

## CONCLUSION

**The medical communication scale can help the physician to objectively quantify the ease or difficulty in communication with the patient's relatives. In the ethnically mixed workforce of our hospital, while the physician could fully communicate with many relatives, a significant percentage of the relatives were not proficient in the working language of the hospital and required the help of an interpreter.**

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## REFERENCES

1. Wingate M, Mulvihill B, Kirby RS, et al. Prevalence of Autism Spectrum Disorders--Autism and Developmental Disabilities Monitoring Network, 14 Sites, United States, 2008. *MMWR Surveill Summ* 2012; 61(3):1-19.
2. Prince M, Bryce R, Albanese E, et al. The Global Prevalence of Dementia: A Systematic Review and Meta-Analysis. *Alzheimer's & Dementia* 2013; 9(1): 63–75.
3. Ferguson WJ, Candib LM. Culture, Language and the Doctor-Patient Relationship. *Fam Med* 2002; 34(5):353-61.
4. American Society of Anesthesiologists Physical Status Calculation Classification. New Classification of Physical Status. *Anesthesiol* 1963; 24:111.  
[http://www.neurosurgic.com/index.php?option=com\\_content&view=article&id=859:asa-classification&catid=152:usefulinfo&Itemid=603](http://www.neurosurgic.com/index.php?option=com_content&view=article&id=859:asa-classification&catid=152:usefulinfo&Itemid=603). Accessed July 2013
5. Stricker KH, Kimberger O, Schmidlin K, et al. Family Satisfaction in the Intensive Care Unit: What Makes the Difference? *Int Care Med* 2009; 35(12):2051–9.
6. Schwarzkopf D, Behrend S, Skupin H, et al. Family Satisfaction in the Intensive Care Unit: A Quantitative and Qualitative Analysis. *Intensive Care Med* 2013; 39(6):1071–9.
7. CoBaTrICE Collaboration. The Views of Patients and Relatives of What Makes a Good Intensivist: A European Survey. *Int Care Med* 2007; 33(11):1913–20.
8. Heyland DK, Rocker GM, Dodek PM, et al. Family Satisfaction with Care in the Intensive Care Unit: Results of a Multiple Center Study. *Crit Care Med* 2002; 30(7):1413–8.
9. Curtis JR, Engelberg RA, Wenrich MD, et al. Missed Opportunities During Family Conferences About End-Of-Life Care in the Intensive Care Unit. *Am J Res Crit Care Med* 2005; 171(8): 844–9.
10. White DB, Engelberg RA, Wenrich MD, et al. Prognostication During Physician-Family Discussions About Limiting Life Support in Intensive Care Units. *Crit Care Med* 2007; 35(2):442-8.
11. Soderstrom IM, Benzein E, Saveman BI. Nurses' Experiences of Interactions with Family Members in Intensive Care Units. *Scand J Caring Sci* 2003; 17(2): 185–92.
12. Beckstrand RL, Kirchhoff KT. Providing End of Life Care to Patients: Critical Care Nurses' Perceived Obstacles and Supportive Behaviors. *Am J of Crit Care* 2005; 14(5):395-403.
13. Bischoff A, Perneger TV, Bovier PA, et al. Improving Communication Between Physicians and Patients who Speak a Foreign Language. *Br J Gen Pract* 2003; 53(492): 541-6.