

Anesthesia Lost in Translation: Perspective and Comprehension

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Original Article

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Abstract

Background: Care of non-English speaking patients poses a unique challenge to the anesthesiologist in the perioperative setting. Communication limitations can be frustrating to both the patient and provider, and at times can compromise the quality of care, resulting in health care disparities. An often overlooked, but critical component is the interaction between the anesthesia provider and the interpreter. The goal of our study was to identify misconceptions regarding anesthesia and determine common knowledge gaps amongst medical interpreters.

Methods: A survey inquiring about past perioperative experiences, level of training, and barriers to effective communication was sent to the Department of Interpreter Services (IS). Concurrently, a survey was sent to the Department of Anesthesia, about their experiences with interpreters in the perioperative setting.

Results: Our survey had 29 respondents from IS and 42 respondents from Anesthesia. 85% of interpreters had >5 years experience, but 96% denied having anesthesia specific training. Additionally, 42.5% of our interpreters felt that less than half of their patients were sufficiently literate to read and consent in their native language. Anesthesia providers were primarily concerned about the fidelity of the interpretation.

Conclusions: Misunderstanding one another's field appears to play a significant role in the communication issues surrounding interpretation for anesthesia. Educating both departments may prove beneficial to resolving misconceptions, improving perioperative interactions and ultimately improving patient care. Based on the gathered information, a continuing education lecture was created by the Anesthesia Department in order to improve our interpreters' understanding of anesthesia, associated procedures and vocabulary.

Key Words: Anesthesia; Preoperative Period; Informed Consent; Interpretation; Education; Healthcare Disparities

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Introduction

The care of non-English speaking patients poses a unique challenge to the anesthesia care provider in the perioperative setting. Non-English speaking patients face significant barriers to obtaining the same high quality care, with communication limitations between them and their providers frequently playing a central role. Many studies have shown that preoperative patient education and improved informed consent can play a meaningful role in improving patient satisfaction and knowledge ^{[1][2]}, both of which can be significantly limited by language barriers. An often overlooked, but absolutely critical, component in preparing a patient preoperatively for anesthesia is the interaction between the anesthesia care provider and the foreign language interpreter. The inability of an anesthesia provider to effectively communicate with a patient intraoperatively may limit the provider's ability to deliver effective Monitored Anesthesia Care (MAC), which often entails a combination of local anesthesia and sedation and may necessitate some degree of patient cooperation. Certainly communication limitations may increase the degree of difficulty when performing invasive procedures while awake, such as epidurals, central lines and arterial lines. Effective preoperative informed consent can lay the groundwork for a less anxious, more knowledgeable, cooperative and satisfied patient. The goals of our study were to identify common misunderstandings of anesthesia concepts, procedures and vocabulary, and to determine the knowledge gaps amongst medical interpreters.

Methods

A 28 question survey was sent via e-mail to the Department of Interpreter Services (IS). The survey was split into four sections with questions grouped by type. In the first section, a set of questions explored the languages interpreted and relative experience of the interpreters. The second section focused on the interpreters level of training and understanding of anesthesia-specific procedures, concepts and consent process. The third section focused on written instructions and patient literacy. The fourth and final section offered a number of open ended questions with free text areas where interpreters could voice specific concerns, or problematic situations which were not otherwise covered by the survey.

Concurrently, a 14 question survey was sent out to the clinical providers within the department of Anesthesia. The survey initially asked the respondents role within the department (Nurse Practitioner, Certified Registered Nurse Anesthetist, Resident, Attending). Providers were then asked about their past experiences with interpreters and situations that have commonly led to ineffective interpretation or communication. Finally, providers were asked via free text format, about perceived areas for improvement which were otherwise not covered by the survey.

After compiling this information and speaking with IS leadership, we created a continuing medical education (CME) lecture entitled "Anesthesia for Interpreters: procedures and vocabulary" and presented it to the IS department. The lecture described in detail the differences between modes of anesthesia, risks of anesthesia, invasive monitors, and provided an open forum for interpreters to ask questions about past experiences and seek clarification. During the lecture, endotracheal tubes, laryngeal mask airways, laryngoscopes, face masks and other anesthesia

tools were used as visual aids to improve learner understanding. The open forum provided a number of interesting discussion points, many of which suggested a significant knowledge deficiency with regards to interpretation on the part of the anesthesia care providers.

Results

Interpreter Services -- Twenty-nine interpreters, of 105 on staff, completed the IS survey, though only 28 responded to all questions. Among these 29 interpreters, a total of 35 languages were spoken; 31.4%(11) Spanish, 17.1%(6) Russian, 11%(4) Portuguese and 40.5%(15) other languages including Mandarin, Cantonese, Haitian Creole, Farsi, Arabic, Cape Verdean, American Sign Language, Albanian, Khmer and Italian. Most interpreters had significant experience as a clinical interpreter with 86%(24/28) having over 5 years experience, yet 97%(28/29) denied having training specific to anesthesia, or to the care of surgical patients. Despite this, 54% (15/28) of our respondents felt “completely comfortable” with consenting for general anesthesia, 61%(17/28) for regional anesthesia, 57% (16/28) for neuraxial anesthesia and 68%(19/28) for monitored anesthesia care (Figure 1). On the contrary, only 54%(15/28) of responders felt that they had been given adequate training regarding anesthesia consent, and only 25%(7/28) endorsed complete understanding and comfort with consent for common invasive monitoring, specifically central lines and arterial lines. Of note, we found that 43% (12/28) felt that less than half of their patient population was sufficiently literate to read and consent in their native language.

In text questions commonly raised concerns by IS included: 1) Providers using “high register language” with significant medical terminology burden, which requires additional time to translate or cannot be directly translated 2) Lack of patient education leading to fundamental difficulties with understanding 3) Elderly patients requiring more time for the consent process 4) Patient difficulty understanding the differences between General Anesthesia (GA) and MAC. Given the option, more than 82%(23/28) of those surveyed were interested in additional anesthesia-related education in the form of lectures, classroom settings, visual aids and videos.

Department of Anesthesia -- Forty-two total respondents of 192 clinical department members, of whom 38 completed all questions. Of respondents, 38%(16/42) were resident physicians, 36%(15/42) attending physicians, 15%(6/42) CRNA and 11%(5/42) NP. Fifty-eight percent (22/38) felt unsure regarding whether interpreters had sufficient training regarding anesthesia consent, but 71% (27/38) were confident in their ability to interpret for a history and physical examination. The majority of anesthesia providers were comfortable with the interpretation of neuraxial anesthesia or regional anesthesia, but there were multiple comments regarding difficulty explaining MAC vs. GA. The most common concerns raised by anesthesia providers were the fidelity of translation, potential delay in operating room time and availability of IS personnel.

Discussion

Our surveys, when taken in combination with the lecture and open forum clearly demonstrated a knowledge gap amongst interpreters regarding the details on anesthesia. Additionally, it became clear that significant misconceptions exist within anesthesia and IS regarding one another.

The role of the medical interpreter is to translate, verbatim, or as near to that as possible, the words of the medical provider. Multiple certifications exist for medical interpreters, including Certification for Medical Interpreters (CMI) and Certification Commission for Healthcare Interpreters (CCHI), but there is no universal certification, and it is up to each healthcare institution to determine individual interpreter proficiency. Additionally, it is important to consider that even if an interpreter has a good understanding of a particular procedure, it is not within the interpreter's scope of practice to further describe, or elaborate on topics raised by the practitioner. Consequently, the interpreter should not be expected to fill information gaps with their own knowledge, and should not be expected to answer questions without the provider's involvement.

Anesthesia providers were frequently concerned about fidelity of translation, often citing dramatic differences in length between phrases spoken by themselves and the interpreter. During the continuing education open forum, the interpreters explained that in many circumstances, specifically in the medical setting, a word, instrument, or phrase does not exist in the patient's native language and as a result interpreters will often employ a "word picture" whereby they attempt to describe the word or phrase in other terms. Unsurprisingly, this results in a longer speaking time on the interpreter's part which may be misinterpreted as lack of fidelity by the anesthesia provider. It then stands to reason that anesthesia providers should strive to minimize medical jargon, as this type of terminology likely requires additional time to interpret. Otherwise, the anesthesia providers were largely concerned with availability of IS staff preoperatively; a concern which is outside the scope of this paper.

IS also expressed concerns about the integrity of interpretation, citing that anesthesia providers would often speak very quickly and not allow adequate time for appropriate interpretations to be rendered. Considering that 42.5% of surveyed interpreters felt that less than half of their patients were sufficiently literate to read and consent in their native language, it would likely be appropriate for providers to inquire as to the perceived level of patient literacy in order to better tailor the consent process and the complexity of the language which is used. Furthermore, it may be reasonable for the interpreter to alert the provider when a patient appears to have difficulty with understanding or with literacy. In a similar vein, it was noted in our survey that the literacy of deaf patients is often significantly overestimated by providers, and that these patients often read English at 4th grade level ^[3]. As such, the standard English consent form is likely far too complex to actually read and comprehend for the average deaf patient.

While definitive foreign-language anesthesia consent guidelines do not exist, the American Society of Anesthesia Committee on Ethics cites three key elements to a valid informed consent: disclosure, capacity and voluntariness^[4]. Disclosure describes the amount and accuracy of information provided. Voluntariness requires that the patient is making an autonomous decision and is free of coercion. Capacity, which encompasses both competence and comprehension, is at the heart of our foreign-language consent problem. A significant language barrier, can make it very difficult to assess the adequacy of the patient's comprehension, and as a result can often leave us in an ethical gray area. One solution may be to ask the patient a question about what was previously discussed in order to assess comprehension. Even if a patient is illiterate, or the consent form is not in their native language, an adequate informed consent can still be obtained,

as long as it contains aforementioned elements of disclosure, capacity and voluntariness. Ultimately the key to informed consent is not the form, but the dialogue between patient and provider^[5].

Many members of IS were concerned about the variability of the consent process among anesthesia providers. Multiple interpreters described personal ethical dilemmas when asked to interpret for and sign anesthesia consent when the provider did not cover in detail all of the elements in the consent form. During the continuing education lecture, we described the lack of one standard for consent to which all providers are held, and explained that the most commonly applied rule is the “reasonable person standard”, whereby disclosure should “be commensurate with what a hypothetical reasonable person would want in order to make a decision”^[6]. It was explained to IS that it is therefore common for consent processes to vary considerably from provider to provider, and despite this, each consent may be appropriate. Additionally, most hospitals employ a generic consent form regardless of the type of surgery, and thus an individualized approach is required for the patient to understand relevant risks of anesthesia based on their health and the planned surgical intervention.

Our survey results demonstrated that there is a significant knowledge gap between interpreters’ level of anesthesia-specific training and their perceived understanding of the subject. However, during the open forum, numerous questions were posed that revealed a lack of understanding of basic anesthesia concepts, further supporting the need for additional education. Consistent with our survey results, the difference between MAC and GA was not well understood, and required significant additional explanation. Also discussed were circumstances like Cesarean section and cataract surgery when an interpreter may be required in the operating room throughout a procedure. The interpreter’s understanding of the unique OR environment is important in order to continue effective communication with the patient while avoiding disruption of workflow.

We identified multiple areas of future work which may improve the care of the non-English speaking patient. When describing procedures which normally have a significant terminology burden, the use of visual aids may be of benefit, as they proved to be during our lecture to IS. More than 80% of surveyed interpreters felt that visual aids would improve their patient’s comprehension of procedures; something which has previously been shown in the literature ^{[6][7]}. Additionally, there is clear need for targeted education of both anesthesia providers and medical interpreters. There are a few limitations to our study that should be mentioned. Overall, a relatively small proportion of each department, 27.6% (29/105) of IS and 21.8% (42/192) on the Anesthesia Department, responded to the survey. As such, with small numbers of respondents, bias may be introduced if the respondents do not represent the department at large. Additionally, no intervention has yet been done to improve understanding of IS among members of the anesthesia department, though this is an area where future work will be focused. Finally, though knowledge gaps were identified during the open forum, a more formal assessment of anesthesia knowledge among interpreters was not performed. Despite these limitations, the survey proved very useful in an exploratory sense, and will hopefully lead to focused future endeavors based on the issues which were identified.

Conclusion

Very little literature exists regarding anesthesia consent for the non-English speaking patient, and based on our experience with this study, we believe that there are numerous unique elements to this interaction that bear consideration. Though the primary goal of this study was to identify common misunderstandings of anesthesia concepts among medical interpreters, ultimately we also discovered a number of unrelated issues with the interpreter-provider interaction which may be impacting patient care in the perioperative setting.

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Figure 1:

