Successful perioperative utilization of a text and translation application for communication with a foreign deaf family

Tailoune M MD, Brockel M MD, Lipscomb L CRNA, Ing R MD, Fernandez P MD
Department of Anesthesiology, Children’s Hospital Colorado

Background
• A 6-year-old deaf Russian boy, for whom communication was limited to Russian Sign Language (RSL), underwent left radical plantar medial release, calcaneal slide osteotomy, and medial cuneiform plantar opening wedge osteotomy.
• Deaf patients are a subset of non-English-speaking patients who may be at increased risk of harm and dissatisfaction because of poor physician-patient communication.
• Under the Americans with Disabilities Act, hospitals must provide effective means of communication for patients who are deaf or hard of hearing.

Methods: Overcoming a unique language barrier

<table>
<thead>
<tr>
<th>Perioperatively</th>
<th>For follow-up after discharge with PNBs in place</th>
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| We utilized a hospital-based American Sign Language (ASL) interpreter and a deaf close family friend who could sign in both RSL and ASL, to help us facilitate perioperative communication between the patient and his mother who was also deaf. | The “text & translation method”
  • The acute pain service (APS) staff would text the mother daily, in English, a list of questions.
  • This text message was then translated into Russian by the mother
  • The mother would reply via text message in Russian
  • The message is then translated back into English by the APS staff. |

A language translation app (Google Translator) found at https://translate.google.com/ was successfully used to facilitate English to Russian communication with a deaf family. This technology allowed us to provide our institutional standard of care in the setting of a challenging language barrier.

Results and Discussion
• Following successful surgery the patient was discharged home on postoperative day (POD) 1 with both popliteal and saphenous peripheral nerve catheters in place for pain control.
• Communication was continued using the “text & translation” method until POD 4, at which stage the nerve catheters were removed by the patient’s mother.
• The patient had excellent post-operative pain control with no complications.
• Mobile devices offer many programs that can be utilized to facilitate communication in medical care. Key aspects of helpful apps include low cost, user-friendly interface and simplicity
• The development of HIPAA-compliant applications for communication with patients are fast developing and will likely become the standard means of communication with families and patients with double language barrier challenges in the future

Implications
• Vendors have created enterprise mobile apps that safeguard patient ePHI while also offering care team members the convenience of texting each other.
• Examples of these apps: Tiger Text, Spok, qliqCONNECT, Zipit Confirm, Imprivata Cortext

Disclosures
• None

<table>
<thead>
<tr>
<th>App</th>
<th>Key Features</th>
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<tbody>
<tr>
<td>Tiger Text</td>
<td>Message self-destruct option</td>
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<td>Spok</td>
<td>Ability to route texts Simultaneously update EMR</td>
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<tr>
<td>qliqCONNECT</td>
<td>No data stored Acts as a conduit for texts</td>
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<td>Zipit Confirm</td>
<td>No server infrastructure need</td>
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<tr>
<td>Imprivata Cortext</td>
<td>Across multiple locations</td>
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