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Safety/QA/QI Projects

# Bilingual Text Message Follow up System for Pediatric Patients Receiving Nerve Blocks: An Important Effort To Enhance Inclusivity

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## Introduction

Effective communication with patients following regional anesthesia is crucial for assessing pain management, measuring patient satisfaction, and identifying potential complications related to nerve blocks. Traditionally, this involves a follow-up phone call the day after a procedure, which can be burdensome for patients and clinicians due to language differences and challenges in finding suitable times.

In 2021, Gessner et al. developed and reported a low-cost, REDCap-Twilio automated text messaging system to follow up with adult patients after nerve blocks. By replacing daily telephone calls with an integrated online research data capture tool able to administer surveys via text message, they demonstrated and achieved much higher patient response rates. However, the system specifically focused on adult patients and was limited to the use of the English language. This quality improvement project aims to evaluate the effectiveness of a similar system in pediatric patients who receive single-shot peripheral nerve blocks and whether this system improves response rates compared to our conventional follow-up via telephone call. Furthermore, our objective is to enhance the system by including bilingual capabilities to cater to the sizable Latinx community we care for at our institution.

## Materials and Methods

This project was determined by our IRB to be quality improvement. The system is built on REDCap, a secure and HIPAA-compliant online research data capture platform. The automated text messaging system queries patients who received various nerve block techniques, assesses patient-reported nerve block duration, and surveys patients for potential complications. The Spanish translation was developed by a native-speaking anesthesiologist and reviewed by a certified Spanish interpreter. We present our initial experience utilizing the automated text messaging system for follow-up and the corresponding preliminary results on follow-up rates.

## Results/Case Report

At the time of submission, we queried and analyzed eight patients. Table 1 summarizes the demographic and clinical data. One patient was lost to follow-up both via text message and phone call due to the phone being out of service;

this patient was subsequently excluded. Otherwise, the response rate to automated text messaging averaged 100% with patients aged 12 to 18.

## Discussion

Our initial findings indicate that the system functions as anticipated in the pediatric setting. The next phase involves continued system utilization to incorporate a larger cohort of patients. Subsequently, we will conduct a retrospective analysis of our historical follow-up practices before implementing this automated text messaging system. This analysis aims to compare follow-up rates.

This automated text-messaging system can potentially increase patient response rates, leading to greater satisfaction by minimizing disruptions to daily life and work. It also has the potential to enhance clinician satisfaction by reducing the time spent finding suitable call times during a busy workday. Expanding the system to include the Spanish language aims to bridge communication gaps and improve the overall quality of care for Latinx pediatric patients receiving peripheral nerve blocks. In addition, continued development of multilingual communications to improve patient care is an important component of our efforts to enhance inclusivity.

## References

Gessner D, Hunter OO, Kou A, Mariano ER. Automated text messaging follow-up for patients who receive peripheral nerve blocks. *Reg Anesth Pain Med*. 2021 Jun;46(6):524-528. doi: 10.1136/rapm-2021-102472. Epub 2021 Mar 1. PMID: 33649155.

## Disclosures

No

## Tables / Images

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