UC San Diego Health

Improving Regional Anesthesia Education in Pre-Op and PACU: Development of a Standardized Regional Anesthesia Patient Education Protocol and Staff Education Plan



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Background/Aim

- Background Information: Patient feedback from post-op calls indicated that patients are not only dissatisfied with the manner in which they are given regional anesthesia instructions, but are also unsure when to call the regional providers following discharge. A survey of the Pre-op/PACU nursing staff indicated a lack of consistency with patient education and a gap in knowledge regarding regional anesthesia. Current practice involved no patient education preoperatively and inconsistent discharge education from the PACU.
- Objectives of Project: The objectives of this project involved standardizing patient education before and after surgery, and standardizing how nurses are trained regarding these patients.

Plan/Do

Setting:

- Peri-anesthesia department, Pre-op and PACU at UC San Diego Health.
- UC San Diego Health is a level I Trauma Center in Southern California.
- UC San Diego Health Mission:

To deliver outstanding patient care through commitment to the community, groundbreaking research and inspired teaching.

Performance Improvement Model:

- Plan/Do/Study/Act (Shewart, Deming)
- UC San Diego Health Professional Practice Model

"STARFISH" Mnemonic of Key UCSD Nurs

- Shared Governance
- Teaching & Professional Development
- Accountability
- Research
- Feeling Cared For
- Innovation
- Stellar Outcomes
- Healing Environmen

velopment Seling Caring Relationships Research Research

Plan:

- Standardize pre-op and pacu education
- Staff education poster and reference sheet

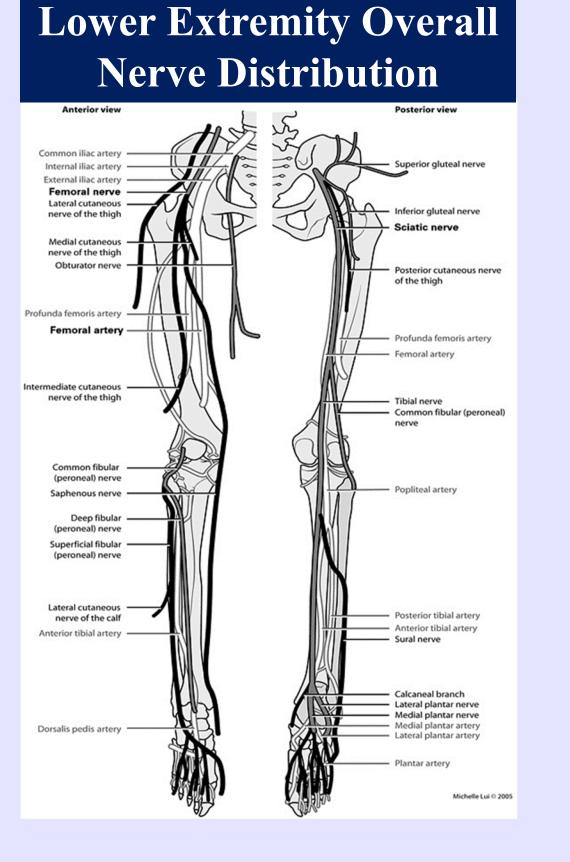
Study

The success of this project was measured by assessing:

- Measuring compliance with staff education
- Assessing the number of times the regional teams are called regarding pain or education related complaints following discharge.

A regional nerve block is primarily for pain control, it can be used for surgical anesthesia or for post operative pain control, or both. A nerve block can also be used for it's venous dilation properties to improve circulation to a severely injured extremity.

Anterior view Cervical plexus Intercostobrachial and medial brachial cutaneous nerves Axillary nerve Radial nerve Median antebrachial cutaneous nerve Musculocutaneous nerve Musculocutaneous nerve Ulnar nerve (palmar br.)

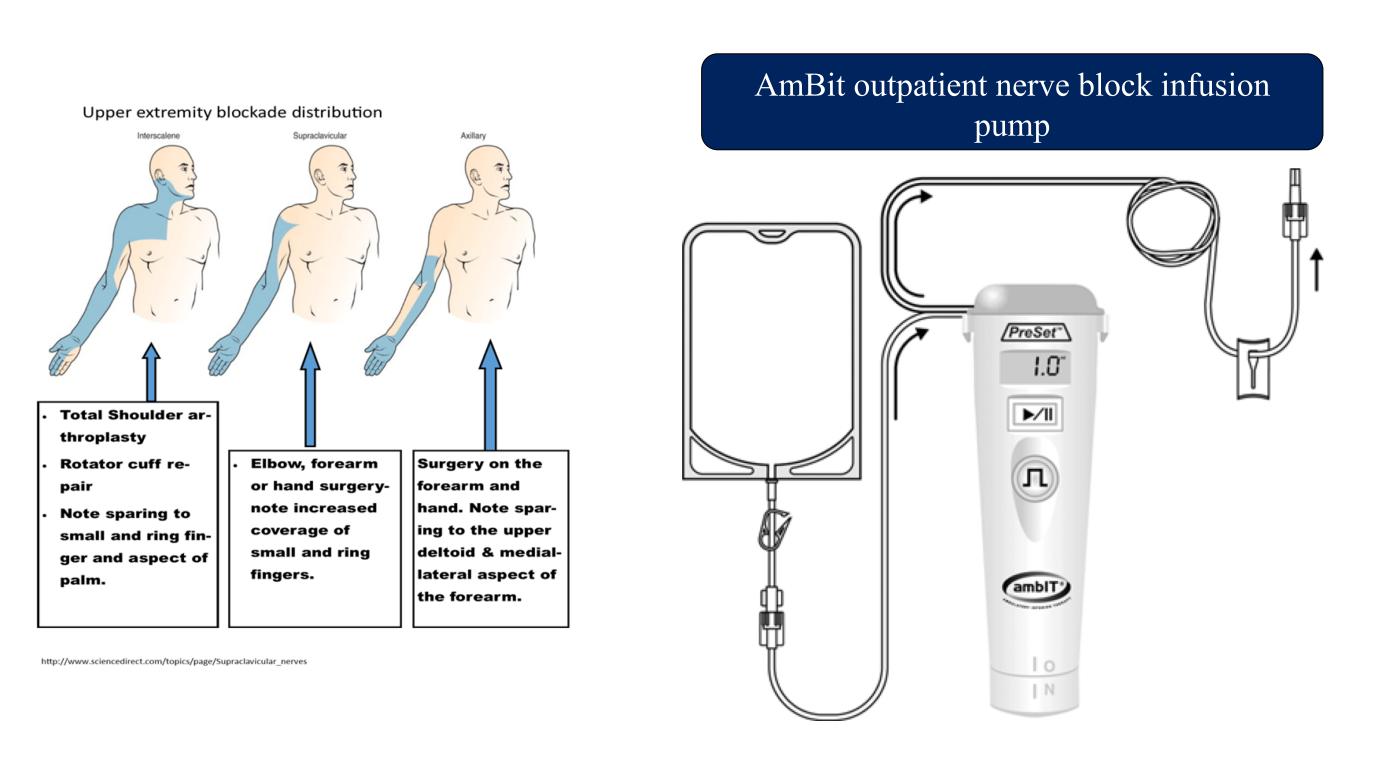


Local Anesthetic Onset and Duration Reference Table TABLE 6-1: ONSET AND DURATION OF LOCAL ANESTHETICS			
Local Anesthetic	Onset (Minutes)	Anesthesia Effect (Hours)	Analgesic Effect (Hours)
1.5% Mepivacaine	10 to 20	2 to 3	2 to 4
1.5% Mepivacaine (+ epinephrine)	5 to 15	2.5 to 4	3 to 6
2% Lidocaine	10 to 20	2.5 to 3	2 to 5
2% Lidocaine (+ epinephrine)	5 to 15	3 to 6	5 to 8
0.5% Ropivacaine	15 to 20	6 to 8	8 to 12
0.5% Bupivacaine (+ epinephrine)	20 to 30	8 to 10	16 to 18
0.5% Bupivacaine (+ epinephrine) Note. Adapted from Gadsen, J. (2013, October 14). Local com/regional-anesthesia/foundations-of-ra/3492-local-ane	anesthetics: Clinical pharmaco	logy and rational selection. Retrie	

Act

Standardized education bundle:

- Mandatory learning module for all new hire peri-anesthesia nurses
- Annual competency skills day with regional anesthesia education component



Conclusions

- 100% Compliance with education bundle
- 41.6% decrease in pages to on-call regional anesthesia physicians

References

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