



## Introduction

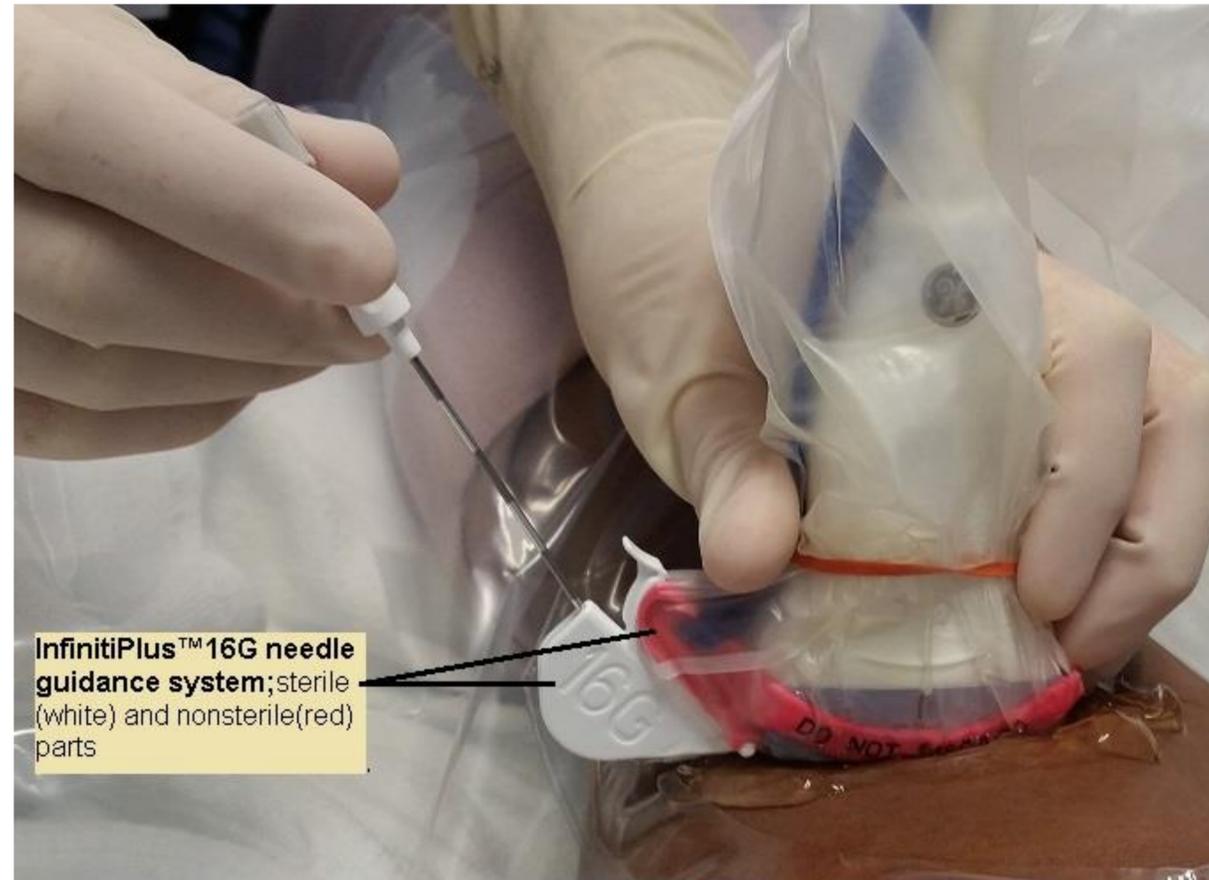
- Ultrasound guided nerve blocks have become the standard when performing regional nerve blocks in anesthesia due to improved safety and efficacy of the procedure (1).
- InfinitiPlus™ is recently developed and has yet not been evaluated
- **Hypothesis;** *femoral nerve blocks performed under ultrasound guidance with InfinitiPlus™ needle guidance system will be shorter than blocks performed with ultrasound guidance only.*

## Methods

- Following IRB approval, 134 eligible patients were enrolled and randomized into two groups;

1. **InfinitiPlus™ needle guidance system** (Picture)
2. **Conventional;** u/s guided block without needle guidance

- **Block time;** will be considered to be the time elapsed from beginning the block (after prepping and draping) until catheter is successfully placed.
- All blocks performed by experienced anesthesiologist
- **Statistical analysis;** estimated the effect of InfinitiPlus™ on time spent performing an ultrasound guided femoral nerve block using a multivariable linear regression model adjusting for any unbalanced baseline and demographic characteristics



**Table 1.** Comparisons of Infiniti Plus vs. Conventional patients outcome

	Infiniti Plus (N = 67) Median [Q1, Q3]	Conventional (N = 67) Median [Q1, Q3]	Ratio of Geometric Means* (95% CI) <sup>+</sup> InfinitiPlus/Conventional	P value
<b>Primary Analysis</b>				
Block time (seconds)	118 [100,150]	177[130,236]	0.67 (0.60, 0.75)	<b>&lt;0.001<sup>‡</sup></b>

## Results

- 134 patients enrolled in this trial; 67 in each group
- According to our a priori definition of imbalance;
  - InfinitiPlus™ group was more likely to be male
  - less likely to be white,
  - less likely to have a primary TKA,
  - More likely to have general anesthesia
- Result; listed in Table 1
- InfinitiPlus™ significantly reduced time spent performing ultrasound guided femoral nerve blocks

## Conclusion

- Average block time in the InfinitiPlus™ group decreased by 33%.
- This difference maybe more apparent in clinicians doing this block less often or by residents since our team was very experienced and working in a large volume hospital.

## Reference

1. Marhofer, P. et al. (2010) British Journal of Anaesthesia.104: 538-546