

Limiting Pre-incision  
Instrument Uncovered Time via  
Quality Practice Intervention  
Decreases VEPTR Implantation  
Surgical Site Infections

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# No Disclosures

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# Preoperative Delay of More than 1 Hour Increases the Risk of Surgical Site Infection

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Is the duration of time in the operating room prior to the start of surgery (ART) a significant risk factor for surgical site infection?

Is there a threshold time beyond which the infection risk is increased?

- Retrospective chart review
- 7991 Adult Spine Surgeries
- ART associated with greater risk of SSIs and was statistically significant ( $P=0.001$ ) with a time more than 1 hour

Radcliff et. al., SPINE Volume 18, Number 15, 2013

# Quality Practice Intervention (QPI)

## August 1, 2013

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Jan 2007-July 31<sup>st</sup>, 2013 ( 124 pts)

- Surgical instruments and VEPTRs were uncovered when patient entered the OR

Aug 1<sup>st</sup>, 2013-Sept 15, 2015 (63 pts)

- Surgical instruments and VEPTRs were not uncovered until patient was turned prone for skin prep

# Methods

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- Retrospective chart review/ prospective CTIS Safety Registry review Jan 1<sup>st</sup>, 2007-Sept 15<sup>th</sup> 2015
- 187 consecutive VEPTR Implantation surgeries
- Anesthesia Ready Time(ART): time from entering room to incision
- Instrument Uncovered Time( IUT ): time from instruments uncovered to incision
- SSI rate ( CDC, culture proven, 90 days post surgery )

# Results

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	Pre-Quality Practice Intervention	Post-Quality Practice Intervention	
Implants	124	63	
Mean IUT	120 min	42 min	(p=0.021)
Mean ART	120 min	127 min	(p=0.422)
SSI's	14	2	
<b>SSI rate</b>	<b>11.3%</b>	<b>3.2%</b>	<b>(p=0.049)</b>

# Results

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Instrument Uncovered Time	(p=0.021)
Syndromic diagnosis	(p=0.038)
IUT exceeding 100 minutes	8.5 times the odds of developing an SSI

# Conclusions

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Decreasing instrument exposure time prior to skin incision may reduce the risk for developing a surgical site infection following VEPTR Implantation

Reducing the time surgical instruments and VEPTRs are exposed to possible contamination is

- Simple
- Safe
- Does not entail major process change