



# **BBC HIP FRACTURE: CONTINUOUS FASCIA ILIACA BLOCKS**

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# BBC Hip Fractures, FI Block

- Scope of problem
  - >300,00 hip fractures in US/year
  - Rate is declining but incidence is increasing due to aging population
  - Approximately 30% one year mortality rates
  - 1-10% mortality during hospital stay
  - 50% lose ability to care for themselves



# BBC Hip Fractures FI Block

- **BBC Anesthesiology Initiatives**
  - 2015 tried femoral nerve blocks on arrival to OR along with multimodal analgesics post-op.
    - This improved post-op pain relief and narcotic consumption
  - 2017 changed to single shot fascia iliaca blocks upon surgery arrival
    - Better blockade of Obturator and Lateral Femoral Cutaneous Nerves with less effect on Quadriceps muscle strength
  - Jan, 2018 Began continuous fascia iliaca blocks on arrival to surgery and continued for up to three days post-op. Further reduced opioid consumption and post-op delirium (anecdotal – Have not gathered data)
  - Patients continued to receive high doses of narcotics between ED and surgery with frequent delirium on arrival to surgery. Many could not sign their own consent.



# BBC Hip Fractures FI Block

- Began Continuous FI Block on arrival to ED on April 9, 2018
  - ED physician notifies anesthesia of patient. Narcotics are avoided
  - Anesthesia obtains consent and places continuous block catheter at fascia iliaca and boluses with dilute local anesthetic (0.2% ropivacaine)
  - Anesthesia places order for multimodal analgesics and continuous nerve block infusion (0.2% Naropin at 6 mL/hour.
  - Floor nurse connects continuous infusion to block catheter



# BBC Hip Fractures: FI Blocks

- Results
  - Demographics
  - 20 patients prior to program start (12/25/17 – 4/9/18)
  - 20 patients with block placed in ED (4/9 - )

|                   | #  | Male | Female | Avg Age | Time to Surgery   |
|-------------------|----|------|--------|---------|-------------------|
| <b>W/O Block</b>  | 20 | 7    | 13     | 79.01   | <b>22.8 hours</b> |
| <b>With BLOCK</b> | 20 | 3    | 17     | 81.85   | <b>27.6 hours</b> |



# BBC Hip Fracture: FI Block

- Results

|                  | Pain score<br>First 8<br>hours | Pain score<br>Second 8<br>hours | Pain score<br>Third 8<br>hours |
|------------------|--------------------------------|---------------------------------|--------------------------------|
| Without<br>block | 7.97                           | 6.17                            | 7.03                           |
| With block       | 4.89                           | 3.7                             | 2.92                           |



# BBC Hip Fracture: FI Block

- Results:

|                  | IV MS EQ<br>First 8<br>hours | IV MS EQ<br>Second 8<br>hours | IV MS EQ<br>Third 8<br>hours | LOS | LOS<br>After<br>Surgery |
|------------------|------------------------------|-------------------------------|------------------------------|-----|-------------------------|
| Without<br>Block | 10.2                         | 5.6                           | 4.55                         | 5   | 4.05                    |
| With<br>Block    | 3.56                         | 2.1                           | 0.98                         | 4.7 | 3.55                    |



# BBC Hip Fracture : FI Blocks

- What we see (Anesthesia rounds every day on every patient)
  - Less delirium pre-op and less delirium post-op
  - More mobility – Fracture order set has been modified to have patient sit out of bed for all meals and 1 hour after, up w/assistance
  - Greater patient AND family satisfaction
  - Greater RN satisfaction





# BBC Fractured Hip: FI Blocks

- To Be Determined
  - CAM Scores
  - Effect on placement/independent living
  - Mortality Rates: In hospital and 1 year
  - LOS compared to benchmark
  - HCAHP Scores



**Thank you!**  
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