PERIOPERATIVE PAIN CONTROL & INFECTION DIAGNOSTICS

Summer of Learning
No unified system to store patient information.
Retrospective patient analysis required a database with patient information and a search algorithm.
Pain management in revision joint arthroplasty (a 5 year case study)

The distinctions:
- Classic pain management relies of general anesthesia and nausea inducing IV narcotics.
- Perioperative pain management relies on spinal epidural and timed, low dose medication by mouth.

The advantages:
- Patients walk within 24 hours of surgery
Clinical Research – Perioperative Pain Protocol

- Early ambulation reducing clotting, PE’s, and hospital stay.
- 60 revision patients studied
- Findings:
  - Average hospital stay: 3.7 days and no clots in 2 years.
  - National average: 6 days hospital stay and 1-2% clot rate.
- What are the consequences?
Clinical Research – Infection Diagnosis

- 1 million hip and knee replacements in the US
  - 2% infection rate.
- The problem:
  - There is no “gold standard” to diagnose infection, and infection surgery is stressful and expensive.
- Dr. Deirmengian developed a new technology using specific markers to diagnose infection with specificity and sensitivity of 1.
Purpose:
- Read and define “infection criteria” used by the literature for the last 10 years.
- We found that the “definitions” for bacterial contained inherent flaws, and many relied on the judgment of the lab technician.
- This information will be published in conjunction with the results of Dr. Deirmengian’s testing as an alternative.
Office hours:
- I observed patient care and the diagnostic process.

OR hours:
- I was able to watch hip and knee replacements.
Dr. Deirmengian & the entire staff of 3B’s orthopaedics.