

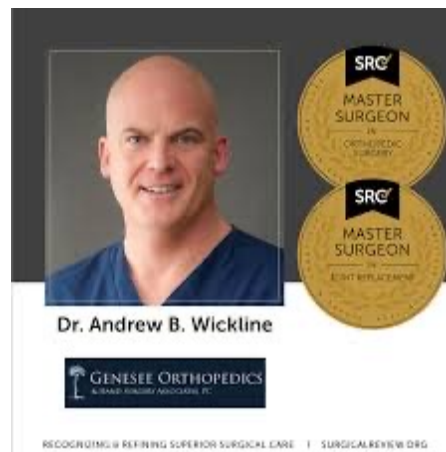
Opioid Free Arthroplasty

A novel opioid free protocol to help
prevent opioid addiction

I have no conflicts of interest,
financial or otherwise,
regarding the medications and
procedures described in this
presentation.

My Practice

- * Genesee Orthopedics and Plastic Surgery Associates, New Hartford, NY
- * Andrew B. Wickline, MD FAAOS
 - * Albany College of Medicine, Albany, NY
 - * Cleveland Clinic Fellowship, Adult Reconstruction





Dennis J. Golis, MSPAS-PAC

- * DeSales University, Allentown PA
- * 21 years Orthopedic Experience



Opioid Crisis in America

- * In 2019, 70,630 overdose deaths total (72.9% of all overdose deaths are opioids) according to the CDC
- * 6% chance to become addicted to opioids with a single 24-hour prescription of narcotics
- * Opioid naïve patients have an 8-14% risk to become addicted to opioids after TKA
 - 80,000 to 140,000 could become newly addicted every year

Our clinic Outcomes

- * 86% of patients undergoing TKA required 10 pills or less and 18.9% required no opioid pills at all.
-- Most joint institutes prescribe 30-100 pills



Our Clinical Outcomes

- * ROM to 109 degrees of flexion at 3 weeks
 - 2018 AAOS Rehabilitation textbook is 10-12 weeks
 - 7 weeks earlier and we decreased the risk of readmission, DVT and scar formation (MUA)



Our Clinical Outcomes

- * 85.4% of our patients required no formal PT through 12 weeks and saved approximately \$700 in copays



Our Clinical Outcomes

- * 63.2% of patients were discharged the same day of surgery, while 91.2% were discharged on POD #1. We saw a 1.2% readmission rate.


Welcome Home

— WHERE YOU BELONG —

Opioid Free Protocol

* Pre Operative Screening

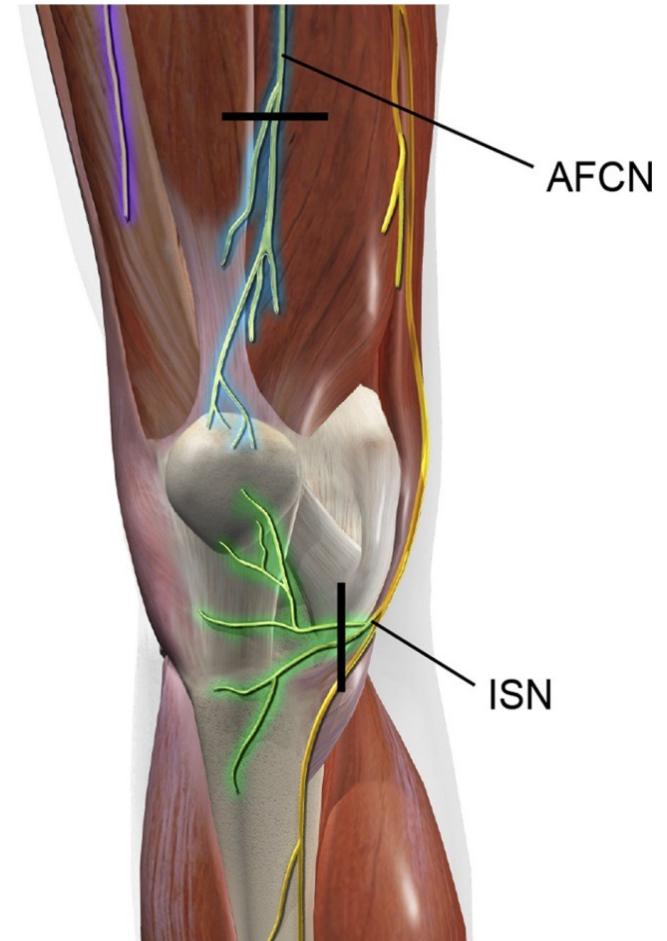
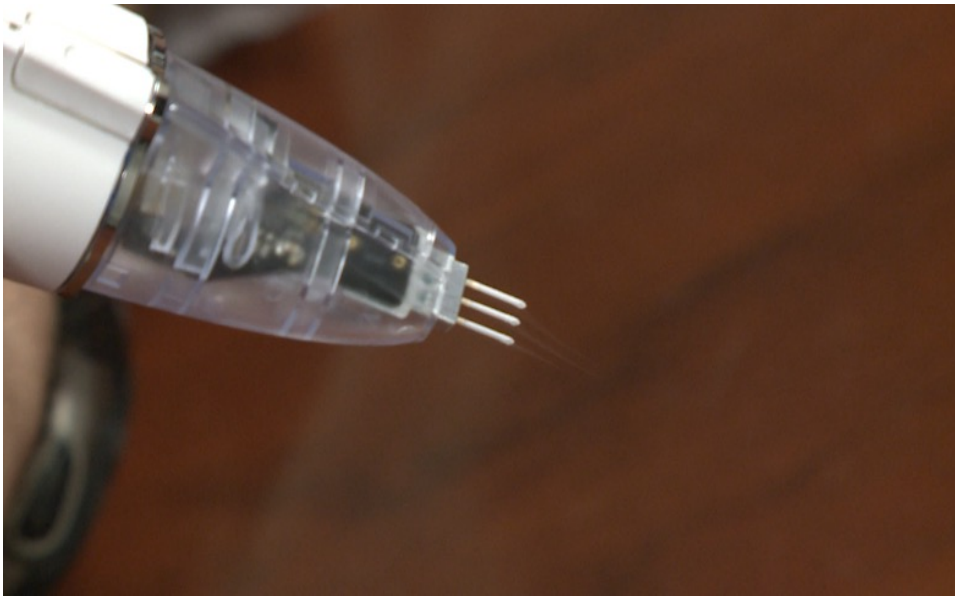
- HgBA1C < 7.3
- HgB < 13 g/dl in males, < 12 g/dl in females
- BMI less than 40
- Smoking assessment
- Opioid usage assessment
- Albumin < 4.0
- eGFR, Platelet Count, DVT Risk Assessment

Opioid Free Protocol

- * Pre Operative Visit
 - IOVERA Cryoablation Procedure
 - Swiftpath Method
 - > Joint Replacement Class
 - > Pre-Hab visit with our Physical Therapist
 - Protein Supplementation
 - > MEND
 - > ISOPure
 - Post Operative Medication Review

Cryoablation

iovera^o



AFCN – Anterior Femoral
Cutaneous Nerve

ISN – Inferior Branch of the
Saphenous Nerve

Swiftpath Method

by Craig McAllister, MD

* Joint Replacement Class

- Education
- Information
- Confidence
- Emergency Phone
- Reduces office calls
- Better Patient Satisfaction

* Pre Rehabilitation

- Helps patient avoid outpatient PT
 - > Decrease Pain
 - > Decrease Cost



Protein Supplementation

* **MEND + UpGraid**

-- Clinically proven AA Supplementation that mitigates muscle atrophy after TKA (Dreyer et al, JB JS open access)

-- Enhanced hip functional retrieval after THA with AA Supplementation (Baldisero et al, 2016)

* **ISOPURE**

-- Whey protein and AA supplementation.

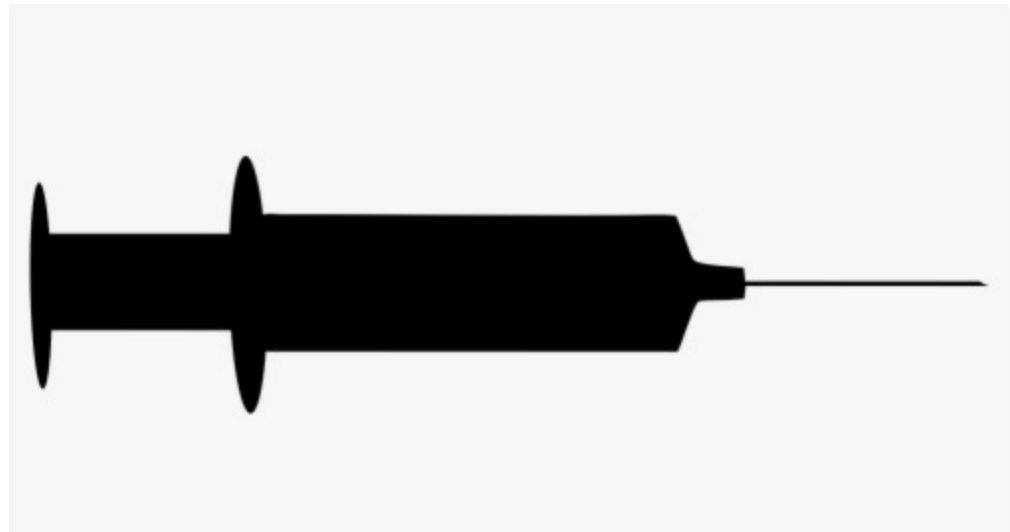


Post Operative Pain Medication Review

- * ECASA 81mg BID for 30 days
- * Gabapentin 300mg TID for 30 days
- * Prednisone 5mg QD for 3 weeks
- * Acetaminophen 1000mg TID for 30 days
- * Celecoxib 100mg BID for 30 days
- * Tramadol 50mg q4 hours PRN, #10

Perioperative Techniques

- * Pre operative medications
 - Celebrex
 - Tranexamic Acid
- * Tourniquet-less Total Knee Replacement
- * Periarticular Injection
 - Ropivacaine
 - Clonidine
 - Toradol



Perioperative Techniques

- * Blood Pressure Control
- * Peripheral Blocks
 - Ipack
 - > Interspace between the popliteal artery and posterior knee capsule
 - Saphenous Nerve
 - > On-Q Pain Ball System, Ropivacaine
 - > Exparel, Bupivacaine Liposomal



Perioperative Techniques

- * Post Operative Edema Control
 - Wedge Pillow Elevation
 - GEKO – OnPulse Technology



Follow up study of 386 patients

- * 20.5% [72/356] chance to have received an opioid prescription 90 days after TKA for any reason.
- * One person named the TKA as the reason for more opioid prescriptions after 90 days. 0.28% [1/356]
- * 10 opioid naïve patients were identified as chronic opioid users after TKA. 3.56% [10/356]

In Conclusion:

- * Following our protocol did decrease the risk of chronic opioid use in opioid naïve patients as directly related to TKA (0.28% [1/356] to 3.56% [10/356] vs 8.2% - Bedard, et al. 2017).
- * More studies are needed to identify the actual frequency of chronic opioid use after TKA.
- * Database query isn't usually sufficient to determine the specific reason for post TKA opioid prescriptions.

Journal Articles

Maryann Stevensen, RPh, Andrew Wickline, MD. 2020. “23-hour TKA in 10 opioid pills or less through 90 days: A non-selected prospective consecutive one year cohort.” *Journal of Orthopedic Experience and Innovation*, July.

Kimberly Strong, Jeffrey Murphy, Andrew Wickline, MD. 2020. “23-hour Total Hip Replacement requiring only 3.5 opioid pills through 6 weeks: A non-selected prospective consecutive one year cohort.” *Journal of Orthopedic Experience and Innovation*, August.

Andrew Wickline, MD, Kayleigh Corrado. 2021. “Can a novel opioid-free protocol following total knee arthroplasty prevent chronic opioid addiction? A follow-up study of 386 patients. *Journal of Orthopedic Experience and Innovation*, March.

THANK YOU

Contact information:



Cell: 518-461-5765

Office: 315-735-4496

Email: djgo1919@gmail.com

Sub: Opioid Presentation



Andrew Wickline, MD

www.AndrewWicklineMD.com

Web References

- * MEND + Upgraid: mend.me
- * Iovera: www.iovera.com
- * On-Q Pain Relief System: myon-q.com
- * Isopure: www.theisopurecompany.com
- * Swiftpath: www.swiftpath.com
- * Geco - OnPulse Technology: gekodevices.com
- * Exparel: www.exparel.com