Total Joint replacement

What we have learned about setting patients up for success.

Why

- TJA has one of the highest patient satisfaction of any surgery.
- Complications of DVT/PE, stiffness, weakness, long term pain, Falls, immobility, infection, cardiac events, are present and can have devastating consequences.
- These risks can be mitigated

TJR Success

- Using these mitigating strategies what can you expect?
  - Infection rates 0.41% vs 2.3% avg
  - Overall major complication rate 1.6%
  - Off meds between 7-10 days post op. 13% ask for meds after 1 week vs 19% still on narcotics at 3 mo
  - 91% same day discharges vs 2.4-3.8 avg

TJR Success

- We use 1/3rd of the post op budget compared to the state average.
- SNF after surg 0% vs 34%
- Redmission rates 1% vs 34%
- Transfusions 0.14% vs 7-12%
- While we invest more office time pre op, post op we spend less time with issues.

Pre op Program Overview

- Pre op HEP/PT
- Pain medication trial
- Wt loss.
- Maximize other conservative care
- CBC, CMP, CXR, EKG, nasal swabs MRSA MSSA
- PCP clearance, specialists as needed
- A1c <7,
- Stop smoking and test cotinine to verify compliance
- Find a joint coach.

Pre op exercise

- Pts must walk 6 hrs a week pre op
- Water walking, elliptical, natural surfaces
- 15 min with a walker 4 x a day counts! No pace and distance requirements. Must be dedicated exercise not daily tasks.
- Work on restoration of ROM
- PT teaches pre and post op exercises 3-6 visits

2 day Pain Med Trial

- Post op discharge and early rehab is often limited by pain. By trialing meds pre op we can nearly eliminate these issues.
- Oxycodone, dilaudid, MS04.... With...
- Zofran, Phenergan- because nausea happens
- Breakfast lunch dinner bedtime snack. Take Nausia meds, eat, then pain meds. Goal is 60% reduction in pre op pain.
- Start low and increase dose as needed, change meds if not tolerated.
- Constipation program is a part of this.

Wt loss, BMI <36

- With increased BMI, markedly increased rates of DVT and infection.
- BMI of 40 has a 20% chance of not being satisfied with surgery and a 17x risk of infection DVT PE and Death
- Much higher rates of component failure
- If they can take care of themselves in this way then TJR is a safe option.
- Lifestyle change, not bounce diets, we provide coaching, plans

Maximize conservative care

- Acetaminophen OTC- works with NSAIDS
- Nsaids as tolerated, trial Mobic or Celebrex for post op. Add a PPI as needed. Short term use recommended.
- Vit C, decreases nerve pain post op, mild NSAID like effects
- viscosuplementation, CBD, tumeric are also options of care.
- No injected steroids within 3 mo pre op, doubles infection risk.
- Assistive devices, Good shoes, Activity modification

Manage medical issues

- Constipation- actively manage this every time narcotics are used.
- BPH- flowmax 2 weeks prior and after surg prevents a foley
- Depression- SSRI use reduces post op infection and increases satisfaction
- Continue DMARDs stop Biologic agents
- Try to limit pre op narcotics use- increased dissatisfaction and post op pain with even 2 weeks use.
- HTN diastolic >140 causes increased bleeding, and wound issues
- Optimize lymphedema management pre op

Manage medical issues

- MI or CVA within 1 year has markedly increased risk. Specialist clearance.
- Diabetes with A1c <7.0
- ETOH managed
- Prior DVT/PE
- Must permanently stop smoking everything, 250% increased component failure
- Infections: bladder, dental , open wounds, sinuses
- Infections, Anemia, albumin, renal and hepatic screening within 6 mo
- CXR EKG within 1 year
- Nasal swab MSSA MRSA determines pre and post op ABO - decolonization

Communication and Compliance

- 80 page pre op detailed instructions
- Joint coach program, taught, quizzed, controls meds, keeps em on schedule.
- Must have a roof over their head, we teach home safety
- Meet with PA, surg scheduler, surgeon, H&P. At all visits they are taught and assessed for knowledge and compliance. Work with them to get them where they need to be.

Intraopreative Considerations

- Send patients to a specialty Joint replacement practice with a good track record of safety and rapid recovery.
- Minimally invasive TKA
- Anterior THA, COP,
- layered water tight closure
- glued incision dermabond/prineo,
- Aquacel dressing stays sealed x 2 weeks.

Anesthesia

- Spinal with propofol: less nausea, sedation, infection, DVT, confusion, blood loss.
- Injected Experil around the wound 2-3 day "honeymoon"
- Patients are not that deep, they may remember some parts of surgery. Its ok.

Same day discharge

- 50% reduction in mortality
- Lower rates of wound infections, DVT, UTI, and pneumonia
- Better sleep and comfort
- Pts and coach control their own meds, better pain control
- Must walk 350ft, use stairs, go to the bathroom independently and safely per PT or you don't D/C.

Post op plans

- Swelling and pain- ice elevate 10 hrs a day days 1-3, 15 min QID days 4-14 medicate to allow rehab to happen.
- DVT prevention- ankle pumps, heel slides, SLR, quads, glutes 3 reps Q 30 min when awake. Daily ASA
- Walking- 15 min QID advance as tolerated
- Strengthening program whole leg and pelvis and back, 4-6 visits PT
- Knee pt- extension and flexion QID or more. No force, less wt and more time 0-120
- Customized medication calendar
- Each day is outlined of what to do and what to expect on that day.
- RTD- light work 2-8 weeks, full duty 4-12 weeks depending on the job.

Questions?

- Thoughts?
- Concerns?
- Better ideas?