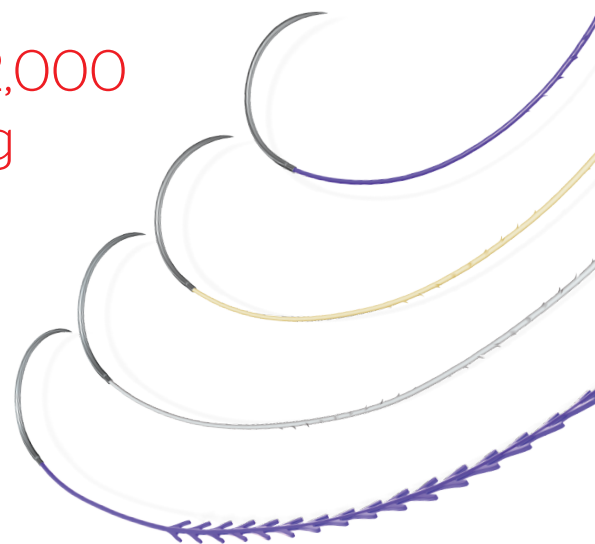


# Zero Surgical Site Infections in Over 2,000 Total Joint Arthroplasties (TJAs) Using Multi-layer, Watertight Closure from Ethicon Wound Closure Products and TriHealth's Integrated Clinical Pathways

Preliminary results of Bundled Payment for Care Improvement (BPCI) models have shown reduced costs in TJA, but mixed results in improving quality of care. **Improving outcomes such as length of stay, readmission rates, and discharges to in-patient rehab facilities relies on avoiding complications—most importantly surgical site infections (SSIs)/prosthetic joint infections (PJIs).**<sup>1-3</sup>

Within their BPCI, TriHealth Health System's Cincinnati-based Good Samaritan Hospital (GSH) and Dr. Mark Snyder utilize Integrated Clinical Pathways (ICPs) in which a multi-layer, watertight closure provided by **STRATAFIX™ Knotless Tissue Control Devices** and **DERMABOND® PRINEO® Skin Closure System** was adopted to help address the risk of SSI/PJI and improve outcomes.<sup>4-7</sup>



STRATAFIX Knotless Tissue Control Devices



DERMABOND PRINEO System (22 cm)

## ICPs are an implementable systematic approach to improving surgical outcomes by reducing complications, readmissions, and patient dissatisfaction.<sup>8</sup>

By instituting evidence-based practices before, during, and after surgery, ICPs help address 10 potential adverse event targets simultaneously—allowing for a **synergistic reduction** in all unfavorable outcomes<sup>8</sup>:

- SSI/PJI
- Readmissions from VTE\*
- All-cause 30-day readmission
- Ineffective pain management (ie, opioid overuse)
- Allogenic blood transfusions
- Excessive length of stay
- Poor discharge hand-off
- Patient dissatisfaction
- In-hospital patient falls
- Early primary total hip dislocations

## GSH ICPs UTILIZE EVIDENCE-BASED PRACTICES THROUGHOUT THE CONTINUUM OF CARE TO ADDRESS SSI/PJI RISK<sup>8</sup>

### Before Surgery (30 days)

- Pre-op patient activation to mitigate risk
- Correction of anemia to avoid transfusions
- Chlorhexidine 2% skin cleansing

120 Days

### During Surgery

- Select products that address SSI risk
- Avoid excess operative times
- Reduce or prevent wound drainage
- 0.35% 3-min Betadine rinse/0.5% 1-2 minute CHG rinse
- Avoid suture and staples for skin closure
- Lower total tourniquet time

### After Surgery (90 days)

- Improve patient satisfaction driven by multi-layer watertight closure
- Optimize pain management and physical therapy

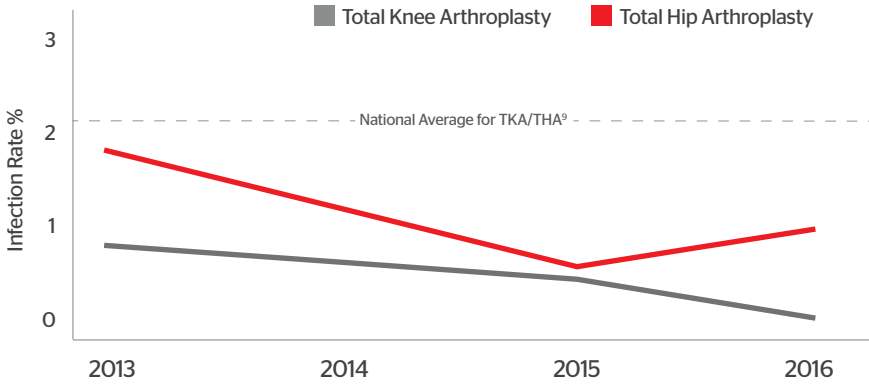
\*VTE=Venous thromboembolism



## Wound closure provides a key opportunity to address SSI/PJI risk within the ICP-enhanced episode of care

Dr. Snyder and the Orthopedic Center of Excellence's ICP practices have facilitated the radical reduction—or **zeroing-in on zero (ZIOZ)**—of many common adverse events associated with lower-extremity TJA, which earned them The Joint Commission's Gold Seal of Approval and Advanced Certification in 2017.\*

### MULTI-LAYER, WATERTIGHT CLOSURE WITHOUT SURFACE STAPLES IN THE ICPs GREATLY REDUCED WOUND INFECTION OVER TIME<sup>8</sup>



Infection rates above include hip fracture and revision procedures.

- From 2011 to 2017, with ZIOZ implementation growing annually, more than 2,000 consecutive primary hip and knee arthroplasties have been performed with zero SSIs<sup>10</sup>
- The Orthopedic Center of Excellence at GSH has reduced complications, eliminated 30- and 90-day readmissions by 90%, and lowered total episode (120 days) costs by nearly 25%<sup>11</sup>

### The cost of infection in TJA

Periprosthetic joint infection is the most common cause of orthopedic revisions—procedures that are avoidable and quite costly<sup>9</sup>

**\$25,692**

Average hospitalization cost of revision TKA



**\$31,753**

Average hospitalization cost of revision THA

With Ethicon's unique combination of wound closure products integrated into the ICPs, **Dr. Snyder and GSH have nearly eliminated SSIs/PJIs in their TJA procedures**, thus maximizing the benefits of the BPCI model and further improving clinical and economic outcomes for GSH.<sup>8,11</sup>

**These are examples only and do not guarantee or predict future results, which will vary depending on individual circumstances. For complete indications, contraindications, warnings, precautions, and adverse reactions, please reference full package insert.**

\*Distinction indicates top 1% of US hospitals.

<sup>8</sup>Surgeon opinion—excerpt taken from interview with Dr. Snyder on September 27, 2018.

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“We help address SSI risk with product selection. STRATAFIX™ provides good multi-layer closure, which is how you prevent ingress and egress of organisms. And we added DERMABOND® PRINEO® because we wanted microbial barrier protection and patient satisfaction benefits... We've nearly eliminated the risk of wound complications and maximized patient satisfaction.<sup>12+</sup>”

—Dr. Snyder

### TriHealth GSH's successful ICPs have led to more referrals

The ICPs originated by Dr. Snyder have proven hugely successful and people are taking notice. Community members are witnessing improved pain management and enhanced recovery, which has ultimately led to more referrals.<sup>12</sup>