

Orthopedics • This Week

WEEK IN REVIEW

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TABLE 2. Joint Replacement Surgery Rates in the Post Period by Group After Matching

	Control group (n = 739)	Digital member (n = 739)	Difference	P
Knee, year 1 use				
Knee arthroplasty	14.21%	3.79%	-10.42%	<.0001
Inpatient knee arthroplasty	4.33%	1.35%	-2.98%	.0006
Outpatient knee arthroplasty	9.88%	2.44%	-7.44%	<.0001
Hip, year 1 use				
Hip arthroplasty	32.62%	16.31%	-16.31%	.0014
Inpatient hip arthroplasty	9.93%	3.55%	-6.38%	.0326
Outpatient hip arthroplasty	22.70%	12.77%	-9.93%	.0291



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For all news that is ortho, read on.

CLICK HERE TO DOWNLOAD A PDF VERSION OF THIS WEEK'S NEWSLETTER

Orthopedic Power Rankings

Robin Young's Entirely Subjective Ordering of Public Orthopedic Companies

THIS WEEK: This was the fourth consecutive week of stock market gains. Investors increasingly believe that the Federal Reserve has finished hiking interest rates. Meantime, the world's 2nd largest economy, China, is still trying to find its footing after COVID. The new common wisdom is that China will also start easing monetary policy. Finally, looks like Black Friday and Cyber Monday shoppers purchased a record \$12 billion in goods. For ortho and spine equities, the last 30 days have been the best in years.

RANK	LAST WEEK	COMPANY	TTM OP MARGIN	30-DAY PRICE CHANGE	COMMENT
1	1	Bioventus	(5.33%)	23.90%	Really strong November—the stock is up 24%—and Tony Bihl has the company beating sales expectations. Even with this move, still cheapest equity in ortho.
2	6	ZimVie	(5.96)	27.63	Nice jump in ZIMV's equity price in the last 30 days—and in the Power Rankings as well. Buyers see something they like in this company.
3	3	ConMed	7.42	18.70	CNMD's management will be pitching its story at two major investor conferences in November. CNMD sales are growing at 11% which is about 2x industry growth rates.
4	7	Smith & Nephew	10.06	17.80	SNN buys CartiHeal for \$180 million at closing and another \$150 million in financial milestones. CatriHeal is an off-the-shelf, one-step treatment for OA of the knee.
5	2	Anika Therapeutics	(20.94)	13.17	2024 should be a landmark year for ANIK with 3 major, transformative products coming to market. ANIK's total addressable market rising from \$1 billion to \$8 billion.
6	5	Integra LifeSciences	17.32	11.90	Yes, IART's stock is among the lowest priced equities in orthopedics. But, to a large extent, it's because investors aren't expecting much top line growth for 2024 and beyond.
7	8	Zimmer Biomet	19.31	9.45	Like most of the major ortho companies, ZBH will be making the major investment bank conferences before the year ends—and feature new CEO Tornos.
8	4	Pacira Biosciences	23.50	(1.21)	In a torrid ortho equity market, PCRX is not finding much investor interest. Noteworthy was the FDA expanding Exparel's label to include sciatic nerve block in the popliteal fossa.
9	10	Axogen	(9.75)	59.52	Massive jump in Axogen's stock price. One cause is the concentration of Axogen's stock in the hands of institutional investors. The tight float means stock price volatility—up and down.
10	NR	Johnson & Johnson	30.07	0.61	Back on the Power Rankings after a short absence. Relative pricing is why. All the other ortho stocks have soared, leaving JNJ looking cheaper on a comparative basis.

Robin Young's Orthopedic Universe

TOP PERFORMERS LAST 30 DAYS

	COMPANY	SYMBOL	PRICE	MKT CAP	30-DAY CHG
1	AxoGen	AXGN	\$5.95	\$256	59.52%
2	OrthoPediatrics Corp	KIDS	\$31.48	\$735	32.66%
3	ZimVie	ZIMV	\$9.33	\$248	27.63%
4	Bioventus	BVS	\$3.94	\$310	23.90%
5	MicroPort Scientific	0853	\$1.64	\$3,013	18.74%
6	ConMed	CNMD	\$108.82	\$3,346	18.70%
7	Smith & Nephew	SNN	\$25.81	\$11,271	17.80%
8	Alphatec Holdings	ATEC	\$11.87	\$1,618	17.52%
9	Medacta	MOVE	\$133.64	\$2,673	15.17%
10	Xtant Medical Hldgs	XTNT	\$1.28	\$167	14.80%

WORST PERFORMERS LAST 30 DAYS

	COMPANY	SYMBOL	PRICE	MKT CAP	30-DAY CHG
1	SINTX Technologies	SINT	\$0.41	\$2	-5.03%
2	Dynatronics Corp	DYNT	\$0.56	\$3	-3.51%
3	Pacira Biosciences	PCRX	\$26.91	\$1,250	-1.21%
4	Globus Medical	GMED	\$46.32	\$6,513	-0.73%
5	Johnson & Johnson	JNJ	\$152.50	\$367,110	0.61%
6	Orthofix	OFIX	\$11.45	\$421	4.95%
7	Nevro Corp	NVRO	\$16.30	\$590	5.57%
8	Aurora Spine	ASG.V	\$0.30	\$22	7.01%
9	SI-BONE, Inc	SIBN	\$17.93	\$726	8.27%
10	Zimmer Biomet	ZBH	\$113.43	\$23,705	9.45%

LOWEST PRICE / EARNINGS RATIO (TTM)

	COMPANY	SYMBOL	PRICE	MKT CAP	P/E
1	Integra LifeSciences	IART	\$39.55	\$3,092	17.12
2	Johnson & Johnson	JNJ	\$152.50	\$367,110	18.40
3	Medtronic	MDT	\$78.97	\$105,044	18.74
4	Globus Medical	GMED	\$46.32	\$6,513	23.79
5	Zimmer Biomet	ZBH	\$113.43	\$23,705	26.21

HIGHEST PRICE / EARNINGS RATIO (TTM)

	COMPANY	SYMBOL	PRICE	MKT CAP	P/E
1	Medacta	MOVE	\$133.64	\$2,673	51.10
2	Smith & Nephew	SNN	\$25.81	\$11,271	50.54
3	ConMed	CNMD	\$108.82	\$3,346	40.39
4	Pacira Biosciences	PCRX	\$26.91	\$1,250	34.37
5	Stryker	SYK	\$293.64	\$111,552	33.26

LOWEST P/E TO GROWTH RATIO (EARNINGS ESTIMATES)

	COMPANY	SYMBOL	PRICE	MKT CAP	PEG
1	Smith & Nephew	SNN	\$25.81	\$11,271	-6.32
2	ConMed	CNMD	\$108.82	\$3,346	1.41
3	Globus Medical	GMED	\$46.32	\$6,513	1.46
4	Medacta	MOVE	\$133.64	\$2,673	1.83
5	Pacira Biosciences	PCRX	\$26.91	\$1,250	2.99

HIGHEST P/E TO GROWTH RATIO (EARNINGS ESTIMATES)

	COMPANY	SYMBOL	PRICE	MKT CAP	PEG
1	Medtronic	MDT	\$78.97	\$105,044	5.56
2	Integra LifeSciences	IART	\$39.55	\$3,092	4.76
3	Johnson & Johnson	JNJ	\$152.50	\$367,110	3.87
4	Zimmer Biomet	ZBH	\$113.43	\$23,705	3.78
5	Stryker	SYK	\$293.64	\$111,552	3.14

LOWEST PRICE TO SALES RATIO (TTM)

	COMPANY	SYMBOL	PRICE	MKT CAP	PSR
1	Dynatronics Corp	DYNT	\$0.56	\$3	0.06
2	ZimVie	ZIMV	\$9.33	\$248	0.27
3	Bioventus	BVS	\$3.94	\$310	0.61
4	Orthofix	OFIX	\$11.45	\$421	0.91
5	Aurora Spine	ASG.V	\$0.30	\$22	1.11

HIGHEST PRICE TO SALES RATIO (TTM)

	COMPANY	SYMBOL	PRICE	MKT CAP	PSR
1	SI-BONE, Inc	SIBN	\$17.93	\$726	6.82
2	Globus Medical	GMED	\$46.32	\$6,513	6.37
3	Medacta	MOVE	\$133.64	\$2,673	6.11
4	Stryker	SYK	\$293.64	\$111,552	6.05
5	OrthoPediatrics Corp	KIDS	\$31.48	\$735	6.01

PSR: Aggregate current market capitalization divided by aggregate sales and the calculation excluded the companies for which sales figures are not available.

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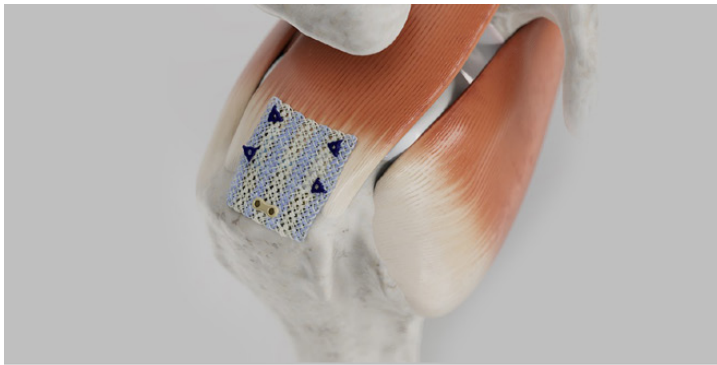
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HA Powerhouse Anika Upending Orthopedics?

BY ROBIN YOUNG



From top left clockwise: Integrity® Rotator Cuff Scaffold; Cingal® HA + Triamcinolone Hexacetonide knee injection; RevoMotion™ and Anika CEO Cheryl R. Blanchard, Ph.D. / Courtesy of Anika Therapeutics, Inc.

Disruptive technologies tend to upend tradition-bound companies and industries.

Anika Therapeutics, Inc., the largest supplier of hyaluronic acid (one of the most slippery substances known to man) to treat knee pain and arthritis—a technology first brought to market in the 1950s—is launching, not one, not two, but three breakthrough orthopedic technologies.

With these three launches, Anika's addressable markets leap from \$1 billion to \$8 billion.

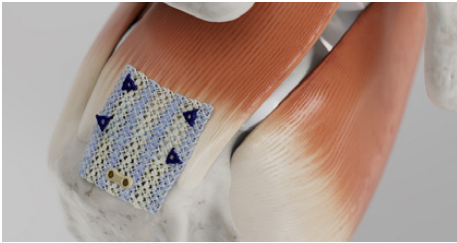
The Three Breakthrough Technologies are...

1. **Next Generation Rotator Cuff Scaffold**
 - a. **Brand Name:** Integrity®
 - b. **Technology:** 80% esterified hyaluronic acid fiber matrix combined with 20% non-resorbable polyethylene terephthalate (PET) fibers which forms a composite scaffold for cellular infiltration and new tissue growth.
 - c. **Features:** Superior strength (holds sutures when hydrated), promotes tissue remodeling & regeneration, resorption, fixation, implantation, and instrumentation. Sup-

ported with a significant body of published literature.

- d. **Comments:** Anika CEO Cheryl R. Blanchard, Ph.D., explained the significance of Integrity to OTW: “We developed Integrity to address several unmet needs in rotator cuff pathologies and other soft tissue fixation markets. Strength, ease of implantation, regenerative profile, fixation, and instrumentation.”

“Current collagen-based rotator cuff patches are similar and different in various aspects, but they all have one thing in common—inadequate strength, especially when hydrated, which is what



Integrity® Rotator Cuff Scaffold

happens immediately upon implantation. Who cares how strong they are when they're in the box? It doesn't matter clinically. They also can't hold a suture."

"Integrity does all that and more. I walked around with an Integrity Implant patch in my pocket showing it to surgeons for two weeks. You know what the surgeons wanted to do? They want to try to rip it. I had one surgeon say, 'Can I try to destroy it?' I said, be my guest. After two weeks,

that patch was still in the same shape as it was when I took it out of the box. It also behaves that way when hydrated and maybe more importantly with sutures."

"We did a head-to-head animal study against the current #1 selling rotator cuff patch and Integrity showed about three times the regenerative capacity. It resulted in organized and much thicker repair tissue. The fibers in Integrity are aligned and organized, but they are also interdigitating with the original tendon and forming a new repair tendon."

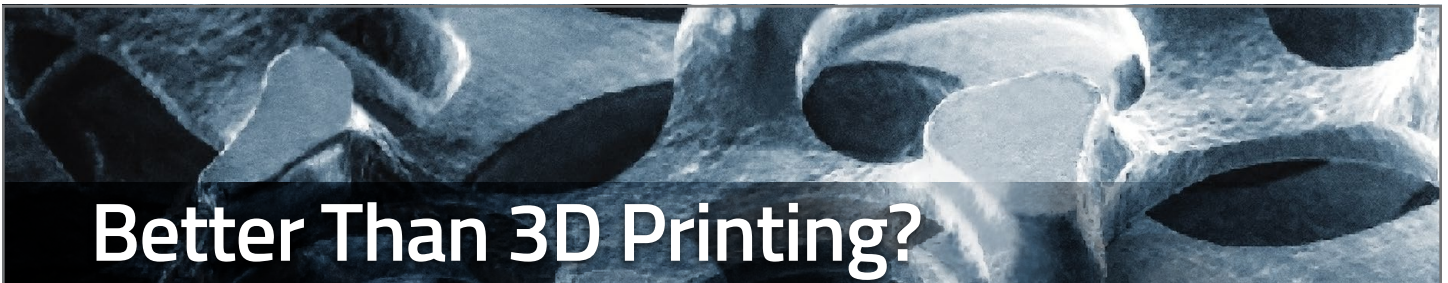
"The histology is beautiful. Integrity can immediately be used in the shoulder, foot and ankle, hip, and knee. It's on label for augmenting tendon repair."

2. Next Generation Injection to Treat Knee Pain and Arthritis

a. **Brand Name:** Cingal

b. **Technology:** 88mg of high molecular weight, cross-linked, viscous HA combined with triamcinolone hexacetonide (TH) steroid.

c. **Features:** Extended residence time in the knee, rapid action pain relief and longer lasting pain relief, binds well with water forming highly viscous polymers that increase the ability of native synovial fluid to cushion the knee joint and absorb shocks. Product has been available in 35 countries—not the USA—for years. A



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Cingal® HA + triamcinolone hexacetonide knee injection

significant body of literature is available.

A 2013 study tested Cingal against HA alone and saline. The study was a multicenter, double-blind, saline-controlled clinical trial where patients were randomized to

one of three arms—saline, HA, or Cingal.

Three hundred sixty-eight patients were enrolled. After injection, patients' pain levels were measured using the WOMAC (Western Ontario and McMaster Universities

Arthritis Index) Pain Score through 12 weeks. In addition, the research teams conducted Patient and Evaluator Global Assessments, OMERACT-OARSI Responder index, and WOMAC Total, Stiffness, and Physical Function scores through 26 weeks.

How did the patients respond to Cingal, HA and saline?

The 149 patients receiving Cingal reported 70% pain reduction at 12 weeks, 72% at 26 weeks with 92% OMERACT-OARSI responders. That was significantly better than the 69 patients who were treated with saline AND the 150 patients treated with HA alone.

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According to the research team: “Cingal provides immediate and long-term relief of osteoarthritis-related pain, stiffness, and function, significant through 26 weeks compared to saline. Cingal showed significant early pain relief compared to HA alone, while maintaining long-term pain relief comparable to HA through 26 weeks.

A 2017 study tested Cingal against TH steroid alone and saline placebo. The study was a multicenter, double-blind, saline-controlled clinical trial where patients were randomized to one of three arms—saline, TH, or Cingal. Two hundred thirty-four patients were enrolled, and the same measures were used as in the 2013 study. This study demonstrated superiority of Cingal over TH at 26 weeks with the same strong performance for pain and responder rate as in the 2013 study.

d. Comments: When *OTW* mentioned Cingal to Anika CEO Cheryl Blanchard, her eyes lit up and said, “That’s my favorite product and the data is unparalleled.”

Dr. Blanchard continued, “Anika has been selling Cingal in over 35 countries for many years. It is a double-digit growth driver for our company and it’s a product that continues to gain adoption alongside MONOVISC. It is complimentary in that it doesn’t cannibalize MONOVISC, which is a common

question that I hear. What it does replace is corticosteroid injections.”

“Typically, steroids are prescribed first, before an HA injection. In the countries where we are marketing Cingal, it has been growing alongside our flagship HA product MONOVISC and replaces the traditional corticosteroid injections.”

“I speak with the clinicians that use it often. Cingal has the best data out there in terms of pain relief and responder rates. It is the only product in large randomized clinical trials that has now shown superiority to two active ingredients. Nobody and no product have done this before.”

“We have a product that is superior to its two active ingredients—triamcinolone hexacetonide and HA. It’s a special product and one that has been studied now in three phase three clinical trials.”

“We announced that we have met with the FDA and are waiting for their feedback on a proposal they asked us to submit. We have met the clinical endpoints that FDA requested—namely superiority to the two active ingredients.”

“We would be more bullish than ever with Cingal approved in the United States.”

3. Smallest Diameter Glenoid Base Plate for Reverse Shoulder Arthroplasty

a. Brand Name: RevoMotion™

b. Technology: At 23mm, this is the industry’s smallest diameter threaded glenoid baseplate for reverse shoulder arthroplasty. Its design also includes a curved-back with 4mm of lateralization from the glenoid face, a 6.5mm center screw and a glenosphere insertion slot with a unique coupling between baseplate and center screw. All of these details lead to restoration of the Gothic Arch.

c. Features: Smallest profile, designed to reduce scapular notching and more impingement-free range of motion for the patient. Ten times the compressive force of a center post baseplate. And because of the design of the insertion slot and baseplate coupling with the center screw, assembly and insertion is easier.

d. Comments: The market for reverse shoulder arthroplasty is crowded with much larger players like Stryker, Zimmer or DePuy. Anika’s key differentiation is the smaller profile—which is highly significant since it directly affects the patient’s eventual shoulder range of motion. Anika then incorporated other design aspects to also increase post-op patient range of motion and ease of use for the surgeon.

Anika CEO Cheryl Blanchard told *OTW*, “RevoMotion is an amazing product for reverse total shoulder arthroplasty.

The shoulder arthroplasty market has shifted more and more to the reverse approach.”

“Surgeons don't like to do an anatomic shoulder arthroplasty unless there's a reverse backup in the OR and they don't like to call two reps into the operating room from competing organizations. Our Arthrosurface joint line based on its bone preserving attributes and the RevoMotion, it has the smallest threaded glenoid baseplate, which, by the way surgeons are really excited about—it gives them options about where to place it in the glenoid—very anatomic and they love the two-instrument tray system optimized for the ASC.”

“It's popular in the ASC and provides Anika the ability to infiltrate the other 80% of the market with a true continuum of care for glenohumeral osteoarthritis and rotator cuff solutions alongside RevoMotion.”

“We're actively training surgeons and I'm receiving amazing feedback from them. Beautiful X-rays which visually show how our designs translate into form and function. Our early patients are almost a year out now, they're doing great, and some have even come back saying please put it on the other side.”

“We know RevoMotion is a spectacular product that will positively impact surgeons and patients alike. Our happiest patients with our Arthrosurface

shoulder line including our OvoMotion anatomic shoulder thus far are weightlifters—a most demanding patient population who do not want to be limited in activity, but it's even more appropriate and exciting for those patients who are less active, older, and who just want to live their daily lives without pain.

Anika Therapeutics Circa 2024

To paraphrase an old business maxim: if you don't kill your own favorite products, your competitors will.

Under CEO Blanchard, a former senior Zimmer executive, Anika has indeed attempted to disrupt itself—although, notably with Cingal, not affected by its flagship Monovise®, instead, taking share from traditional corticosteroids.

For details of this remarkable journey, see OTW's article: [“The Improbable Transformation of Anika Therapeutics.”](#)

With three significant new technologies launching in 2023-2024 and more in 2025, Anika's sales are likely to accelerate significantly—perhaps attracting strategic interest in the process. As we noted at the start of this article, these new technologies expand Anika's addressable market to \$8 billion.

Wall Street is valuing Anika at about \$300

million and expects that sales in 2024 will increase 9% to \$175 million. To put that in perspective, Anika's sales growth was 5% in 2022 and 6% for the nine months ended September 2023.

At \$300 million in market value, Anika is trading at 1.7x expected 2024 sales while the average orthopedic company is trading at 4.33x sales. Anika is reporting losses (about \$20 million as of the nine-months ending in September), which probably explains why Wall Street is keeping Anika's valuation at modest levels. Anika, however, has no long-term debt and about \$70 million in cash.

In orthopedics today, there is probably not a more fascinating company than Anika Therapeutics. This management team, led by Cheryl R. Blanchard, Ph.D., is thinking big and creatively while staying laser focused on clinically documented patient improvement and surgeon empowerment.

Stay tuned, for sure. ♦



RevoMotion™

How Effective Are TKA or THA Digital Therapy Programs?

BY KIM DELMONICO

A new study from Hinge Health, Inc., a supplier of online, digital patient therapies collected medical claims data and compared it to patients who had been treated with their products and found, no surprise, that their digital therapy services reduced the rate of surgical intervention for knee or hip osteoarthritis (OA).

We're publishing the details of this study despite its obvious bias, because the study methodology, as designed by the five member research team (two of whom are Hinge Health employees, three of which own equity in Hinge Health) with strong pedigrees from Department of Radiology, University of Washington (LSG), Seattle, WA; Department of Surgery and Perioperative Care, Dell Medical School, The University of Texas at Austin (KMK), Austin, TX; Weitzman Institute (GW), Middletown, CT., because, we think, the study did develop interesting new clinical insights for large joint osteoarthritic care.

The five study authors (Louie Lu, Ph.D., Laura S. Gold, Ph.D., Karl M. Koenig, M.D., M.S., Jonathan H. Lee, M.D., M.B.A. and Grace Wang, Ph.D., M.P.H.) published the results of their study, titled "[Digital Musculoskeletal Program Is Associated With Decreased Joint Replacement Rates](#)" in *The American Journal of Managed Care* October 2023.

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Outpatient hip arthroplasty	22.70%	12.77%	-9.93%	.0291

Joint Replacement Surgery Rates in the Post Period by Group After Matching / Courtesy of The American Journal of Managed Care

What Is 'Digital Health'?

"Digital health" refers to a smart phone or computer-based software program which motivates and guides patients through a personalized program of exercise therapy, education and coaching.

Many employers (approximately 66 in the U.S.) provide this as a health benefit for employees and dependents in order to, they hope, improve their employee's ability to manage chronic knee or hip pain non-interventionally. The software presents patients with 3 to 8 different stretching, strengthening, balance, and mobility exercises via animations and videos. It also

provides wearable motion sensors (InvenSense MPU-6050; TDK Corporation) that gives feedback through the app about range of movement and repetitions. Finally, after exercises, patients using the app receive educational resources and support from certified health coaches.

Study Methodology

Using, presumably, Hinge Health's list of subscribers to its software program, the study authors identified study participants who had begun using the software app between January 2020 and October 2020. Then, using privacy-preserving linkage tokens provided by Datavant, the researchers located

the medical claims records for these subscribers to the Hinge Health software app.

The researchers then assigned appropriate knee or hip ICD-10-CM codes to each subscriber (aka: digital member).

Finally, the two researchers accessed medical claims data from January 2016 and September 2021 for patients coded for knee or hip osteoarthritis.

In total, the researchers were able to access 56,634 knee OA medical claims patients and 20,819 hip OA medical claims patients. From those two large datasets, the researchers culled out 739 knee OA patients and 141 hip OA patients who matched the 77,453 digital patients for age (18-64 years), continuous enrollment in a health plan for at least 12

months and having an index event (enrolling into the software app program or beginning a different treatment program). Patients with cancer, pregnancy, childbirth or an outlier medical costs, were excluded.

The study match was 1:1—digital patients for medical claims data patients.

Study Results and Conclusions

The study authors reported that “adults with osteoarthritis who took part in a digital musculoskeletal program had lower rates of knee and hip arthroplasty at 12 months vs those using traditional care.”

Quoting from the study, “digital members were matched to control group patients with similar demographics,

comorbidities, and baseline MSK-related medical care use.” At 12 months after treatment, total knee arthroplasty (TKA) and total hip arthroplasty (THA) rates were then compared.

For the knee osteoarthritis group, the study matched 739 of 56,634 control group patients to 739 digital members. At 12 months, the study found “3.79% of digital members and 14.21% of control group patients had total knee arthroplasty (difference, 10.42%; $P < .001$).”

For the hip osteoarthritis group, the study matched 141 of 20,819 control group patients to 141 digital members. At 12 months, the study found “16.31% of digital members and 32.62% of control group patients had total hip arthroplasty (difference, 16.31%; $P = .001$).”

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Professor and Chair, Department of Orthopaedic Surgery
Gray-Gossling Endowed Chair of Orthopaedic Surgery
Co-Director, UConn Musculoskeletal Institute
Co-Director, Comprehensive Spine Center
Program Director, UConn Spine Surgery Fellowship



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Bottom line, the study authors reported lower rates of both total knee arthroplasty and total hip arthroplasty among digital members when compared to the control group patients who received traditional care. Notably, “73% fewer digital members underwent total knee arthroplasty, and 50% fewer digital members underwent total hip arthroplasty than control group patients at 12 months.”

Inpatient or Outpatient – any Difference?

The study also looked at surgery settings to determine whether the total knee arthroplasty or total hip arthroplasty occurred at an inpatient or outpatient setting.

The authors did this because “projections show that joint replacement surgeries are on the rise and that the surgeries are shifting from inpatient to outpatient settings.”

And the authors found “fewer surgeries in both settings” and that the “decrease was similar for both settings.” This included the observation that “69% fewer inpatient total knee arthroplasty surgeries and 75% fewer outpatient TKA surgeries among digital members vs control group patients.”

The study also discussed the potential impact on cost that digital MSK programs may have. Based on surgery cost estimates, and data from the study, the researchers

found that a digital MSK program may be associated with savings of avoided patient costs related to the surgeries.

The study had a number of limitations including the time period of the study. The study period was from 2019 to 2021 which coincided with pandemic shutdowns. The researchers acknowledged that it is “it is plausible that COVID-19 had an effect on the findings” for this reason.

The study’s authors are employed by and own equity in Hinge Health, Inc., which provided the digital musculoskeletal program to participants and funded the research study. ♦



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Medicare Physician Pay-Cuts Threaten Patient Care

BY ROBIN YOUNG

“First, do no harm”—then Medicare cuts physician pay year after year, harming the very practices that treat Medicare’s 65,748,297 patients.

What would happen to those 66 million patients if, by steadily cutting doctor pay, the Medicare system cratered?

The cost of delivering healthcare rose 4.6% in 2022? When adjusted for inflation, Medicare physician payment has effectively [declined](#) (PDF) 26% from 2001 to 2023.

Doctors serving the elderly are not happy campers by any stretch.

At the recently concluded Interim Meeting of the American Medical Association (AMA) attending physicians, including a sizeable contingent of orthopedic and spine surgeons said that the current system and proposed cuts are creating financial havoc.

“Physicians heed the idea of ‘First do no harm.’ Yet, the payment system year after year inflicts harm on the ability of physician practices to stay afloat,” said AMA President Jesse M. Ehrenfeld, M.D., M.P.H. “We also are aware of the First Law of Holes. When you find yourself in one, stop digging. We are in a veritable crater. Cutting payments again is only taking us deeper.”

Time for an Overhaul

By an overwhelming majority vote, delegates at the Interim Meeting called for an overhaul of Medicare’s payment system.



Source: Shutterstock

Specifically, and we at OTW agree, physician payments should be tied to the Medicare Economic Index (MEI), which is the government measure of inflation in medical practice costs.

In April, a bipartisan group of House members introduced a [bill](#) that would provide annual inflation updates to the Medicare payment schedule based on the MEI. MEI will be 4.6 percent in 2024, the highest this century, and only compounds upon last year’s 3.8 percent.

Unbelievably, in October, Centers for Medicare and Medicaid Services (CMS) called for 2024 downward adjustment of 3.4 percent.

“For 2024, there will be an 8 percent decline between the 3.4 percent adjustment to the payment schedule and 4.6 percent increase in MEI. How many business models anticipate that for the coming year? The answer is few if they hope to survive. Yet, unless Congress acts in the next two months, that’s what awaits physicians. Coming out of

COVID-19, physicians did not expect and surely do not deserve this,” Ehrenfeld said.

Seniors and people with disabilities are concerned by the prospect of disappearing access, a threat that has moved from the theoretical to reality.

These declining revenues disproportionately affect small, independent, and rural physician practices, as well as those treating low-income or other historically minoritized or marginalized patient communities.

More Reading on This Issue From AMA

The AMA’s [set of principles](#) (PDF) to guide efforts on Medicare physician payment reform. This is part of the [AMA’s Recovery Plan for America’s Physicians](#) and represents a rational Medicare physician payment system that provides financial stability through positive annual payment updates, improves the financial viability of physician practices, and eases administrative burdens. ♦

COMPANY

Keith Byers Is JRF's New President

Centennial, Colorado-based supplier of innovative allograft joint repair solutions has a new president and executive director—and it is Keith Byers, who had previously served as JRF Ortho's director of marketing and distribution.

Before joining JRF Ortho 13 years ago, Byers worked for nearby AlloSource and Donor Alliance—one of the largest and most respected allograft processors in the United States.

Mr. Byers earned a B.B.A. in Business and Marketing from Southern Adventist University in Chattanooga, Tennessee. He is grateful for the opportunity to



Keith Byers / Courtesy of JRF Ortho

lead JRF Ortho through continued positive momentum, finding new ways to innovate and grow.

"My passion is helping people and JRF Ortho is well-known and respected within the tissue banking and sports medicine

communities for doing just that," said Byers, "Even before joining JRF Ortho, I admired the positive impact of the work they do to help surgeons get their patients moving again, so it is an honor to be selected to lead this outstanding team. I'm really excited about this next step and look forward to guiding the organization in reaching its goals."

Diane Wilson, JRF Ortho chairman, says she and the rest of the Board of Directors are delighted to have Keith as its next president and executive director. "Keith brings with him a wealth of knowledge and experience. He was chosen because of his industry experience, surgical knowledge, and leadership reputation."

"The search committee felt he was the right person to continue the forward momentum JRF Ortho has experienced over the past several years and strate-

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gically move the organization into the future. We are confident Keith will ensure JRF Ortho enjoys continued success as the leader in fresh allografts and that it continues to honor its mission to help people improve their quality of life.”

JRF Ortho provides orthopedic surgeons with high viability allograft available cartilage solutions. JRF’s goal is to provide innovative solutions for allograft joint repair to orthopedic surgeons. JRF’s unique member relationship with AlloSource® and Solvita™ enables it to offer the largest selection of specialized high-viability fresh osteochondral grafts, tendons, and menisci in the industry. Through innovation and a commitment to clinical results and positive outcomes, JRF Ortho is redefining the standard for allograft joint repair. For more information, please visit jrfortho.org. — RRY

Brooks McAdam – New CEO of Camber Spine

On November 16, 2023, King of Prussia, Pennsylvania-based Camber Spine announced that Brooks McAdam, Camber’s chief operating officer would be adding the duties of chief executive officer and board member to his already prodigious plate.

Immediate past CEO Dan Pontecorvo announced the transition in a letter to shareholders, employees, and friends of the company saying, in part, “I am incredibly pleased, and extremely excited to announce the promotion of Brooks McAdam to Chief Executive Officer of Camber Spine.” Pontecorvo will become the Executive Chairman of Camber Spine’s Board of Directors.

Founded in 2011, Camber Spine’s mission was, wrote Pontecorvo, to deliver



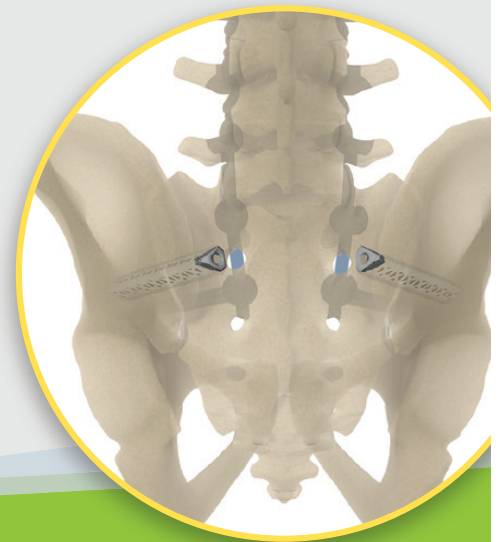
Brooks McAdam – New CEO
Courtesy of Camber Spine

innovation to spine surgeons “through collaboration with partners at Institute for Musculoskeletal Science and Education (IMSE) and our incredible surgeon faculty.”

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* de Andrada Pereria B, et al. *J Neurosurg Spine*. 2021 Jun 18;1-10. doi:10.3171/2020.11.SPINE201540.

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From Interpore Cross to Medtronic Sofamor Danek, Globus, Then Camber Spine

Brooks entered the spine industry 22 years ago with Anaheim, California-based Interpore Cross International, Inc., where he grew a newly established territory in Hampton Roads, Virginia, to \$2.2 million business in just 18 months. Interpore Cross was sold to Biomet in 2004 for about \$300 million.

By then, McAdam had been recruited to Memphis-based Medtronic Sofamor Danek where he spent the ensuing several years outpacing quota and building a multi-million-dollar territory.

In 2009, he joined Audubon, Pennsylvania-based Globus Medical, Inc. as a sales territory manager, and spent the next seven years working in the Virginia, Pennsylvania, New Jersey, and Miami markets before joining the Sales Training Department.

As group manager of sales training, Brooks drove a restructuring that elevated the company's sales training program into one of the best in the industry. In 2017, he worked closely with Globus's capital sales team to develop a comprehensive sales training program in preparation for the launch of their robotics platform.

According to co-founder Pontecorvo: "Since joining Camber Spine Technologies in 2020, Brooks has established himself as a leader serving in multiple roles and driving efficiency throughout the organization. He has played a criti-

cal role in the development and growth of Camber's OLIF portfolio, restructuring supply chain and finance, as well as leading a growing sales team. Brooks has quickly risen through the ranks as Vice President of Operations and most recently our Chief Operating Officer. Over the last 18 months his work has had a significant impact on Camber's profitability and culture."

"Brooks spent his entire career working for two of the biggest players within the orthopedic industry prior to joining Camber Spine, Globus, and Medtronic, Brooks has developed a deep understanding of the spine market."

"The board and I stand confident in the future of Camber Spine, knowing that it will be in the hands of Brooks, a tenacious, customer centric spine industry expert whose background in fierce award-winning sales development and team building makes him the right leader to take Camber to the next level." — RRY

Alphatec Raises \$150 Million in New Capital

Alphatec announced on October 27 that it had sold 14.3 million shares at \$10.50 per share, raising \$150 million.

Since 2019, the company has raised, not counting the current offering, \$356 million in four different tranches. Including the current offering, the total funds raised since 2019 from stock sales is just over \$506 million.

Alphatec's market value is currently standing at

\$1.27 billion—\$9.27 per share, 137 million shares outstanding.

As we noted in this week's newsletter Power Rankings, this is a bear market for orthopedic and spine company equities. Over the last 30 days of the 22 orthopedic and spine companies we track, only one increased in value (Bioventus)—all the rest declined.

Over the past 30 days, Alphatec's market value has declined about 28%.

As we've noted both in other articles and from the podium on several occasions, Alphatec has been the top market share gainer for three of the past four years. And yet, investors appear unimpressed.

Indeed, with cash becoming increasingly expensive, international conflicts metastasizing and Wall Street's natural inclination to over-react, this may well have been one of the worst markets in which to float a stock sale.

Alphatec Sales Growing 30+% year-over-year

For the most recent quarter ending September 30, 2023, the company provided investors with the following guidance:

- "Third quarter 2023 total revenue of \$117.7 million to \$118.5 million, implying total revenue growth of 31 to 32%.



Source: Shutterstock

- Third quarter 2023 adjusted EBIT-DA of \$1.5 million to \$2.3 million.
- Full-year 2023 total revenue of approximately \$472 million.”

Which will likely make Alphatec the #1 market share gainer yet again for both the third quarter and full year 2023.

The investment banks that managed this latest stock offering were Morgan Stanley, TD Cowen, Barclays and Stifel.

Of course, just prior to both this stock sale and the earnings announcement, CEO Pat Miles significantly beefed up his board and advisor ranks with the additions of David Demski and Keith Valentine. It’s truly a “Dream Team” which is now helping Miles maintain this industry-leading sales growth rate while also finding a way to raise cash the old fashioned way—with earnings. — RRY

LEGAL

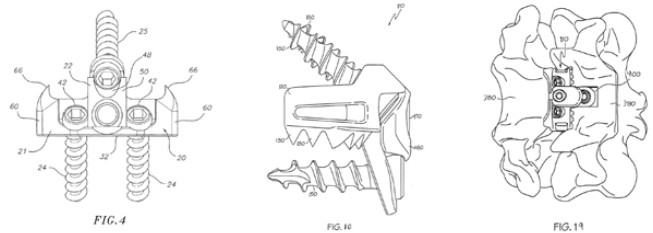
RSB Spine Sues Orthofix and SeaSpine for Patent Infringement

RSB Spine, LLC has filed a lawsuit against Orthofix Medical, Inc., SeaSpine Holdings Corporation, SeaSpine, Inc., and SeaSpine Orthopedics Corporation alleging patent infringement.

The litigation involves U.S. Patent No. 9,713,537 (the ‘537 patent). Robert S. Bray, Jr., M.D. is the sole inventor named on

the patent. Dr. Bray is one of two founders of RSB Spine.

The ‘537 patent describes a bone stabilization plate system that includes, quoting directly from the patent document, “a base plate configured to fit primarily between an anterior portion of a first bone’s lip osteophyte and an anterior portion of a second, adjacent bone’s lip osteophyte.” The system includes “a plurality of bone screws configured to



Source: U.S. Patent No. 9,713,537

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fit in respective bone screw holes in the base plate to secure the base plate.”

RSB Spine is claiming that the following products infringe the ‘537 patent: Orthofix’s LoneStar Cervical Stand Alone (CSA) System; SeaSpine’s Complete Cervical Intervertebral Body Fusion Device (IBD) System; and SeaSpine’s Shoreline® ACS.

RSB Spine claims the alleged infringing products have “no substantial non-infringing uses” notably because the alleged infringing products are purportedly “bone stabilization plate systems, containing all the structural elements claimed in the asserted patent, specifically designed for spinal fusion procedures.”

RSB Spine further asserts that the alleged infringing products “provide all the components and features that perform the claimed system of the ‘537 Patent.” RSB Spine asserts that the alleged infringing products contain “a base plate, plurality of bone screw holes, and plurality of bone screws, and are designed for spinal insertion wherein the base plate bears weight of the vertebral bones for fusion.”

RSB Spine is demanding a jury trial. RSB Spine is seeking a ruling of patent infringement, compensatory damages, treble damages, and attorneys’ fees.

This is not the first time that RSB Spine has filed a patent infringement lawsuit for the ‘537 patent. According to RSB Spine’s complaint, RSB Spine has filed complaints against Xtant Medical Holdings, Inc.; Precision Spine, Inc.; Medacta USA, Inc.; Life Spine, Inc.; DePuy Synthes Sales, Inc.; and DePuy Synthes Inc.

For OTW’s coverage of these other suits, see [Spine Patent Infringement Costs DePuy Synthes \\$12M.](#) — KD

PEOPLE

Zoher Ghogawala, M.D. Takes the Helm at NASS

Zoher Ghogawala, M.D., professor in the Department of Neurosurgery at Tufts University School of Medicine, and Chairman of the Department of Neurosurgery at Lahey Hospital and Medical Center in Burlington, Massachusetts, is the new president of the North American Spine Society (NASS). The announcement was made in Los Angeles, California, during the organization’s 38th annual meeting.

OTW asked Dr. Ghogawala about his plan for NASS and he explained, “I will build collaborative relationships among the major spine and neurosurgery societies to approach coding and reimbursement together with the input of all the experts within our societies. Our first effort will be to focus on cervical laminoplasty reimbursement.”

And how will he go about fostering alignment between orthopedics and neurosurgery?

“I have already begun by focusing on coding and reimbursement,” said Dr. Ghogawala to OTW. “When it comes to providing access to high quality spine care, orthopedics and neurosurgery are very much aligned. The American Association of Neurological Surgeons, Joint Spine Section, the American Academy of Orthopaedic Surgeons, and NASS must work together.”

OTW also asked if his research on comparative effectiveness come into play, Dr. Ghogawala said, “Yes, I think NASS is a spine organization that is committed to making decisions based on data.



Zoher Ghogawala, M.D. / Courtesy of Beth Israel Lahey Health

We will continue to work on examining high quality data to inform coverage recommendations and will focus on comparing the effectiveness of various spine procedures to elevate those procedures that are associated with optimal outcomes.”

“I believe that we must strive together to bring innovative spine care to our patients. But we cannot do this alone. NASS cannot act without working collaboratively with the other major spine societies.”

“We also need to understand that innovative approaches to spine care must be evaluated by multiple stakeholders and that we are obligated to examine, measure, and ultimately reduce the cost of health care in our society. One way that all spine professionals can do this is to demonstrate that our innovation can bring patients to high levels of functional capacity and ultimately improve our ability to get patients back to work. During my year as NASS President, I’d like to see spine professionals focus on getting patients back to work reliably with innovative techniques.” — EH

James D. Kang, M.D. Elected ABOS President

James D. Kang, M.D., the Thomas S. Thornhill, MD, and Karen N. Thornhill Professor of Orthopaedic Surgery at Harvard Medical School, and Chair of Orthopaedic Surgery at Brigham and Women's Hospital, has been elected as the 2023-2024 President of the American Board of Orthopaedic Surgery (ABOS).

Scott E. Porter, M.D., M.B.A., vice chair of operations in the Department of Orthopaedic Surgery at Prisma Health-Upstate, will serve as ABOS Vice President. Kevin L. Garvin, M.D., the L. Thomas Hood, M.D. Professor and Chair, Department of Orthopaedic Surgery and Rehabilitation, University of Nebraska will serve as ABOS President-Elect.



James D. Kang, M.D. / Courtesy of Brigham and Women's Hospital

OTW asked Dr Kang about the most vital experience he brings to this new role, he said, "I am entering my seventh year on the ABOS Board of Directors and have learned a lot through my fellow Directors as well as my time serving as Chair of the ABOS Maintenance

of Certification (MOC) Committee. In addition, I have been a practicing orthopaedic spine surgeon for about 30 years and an ABOS Diplomate who is Participating in MOC, so I can see first-hand how the ABOS MOC program impacts orthopaedic surgeons."

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Wayne J. Sebastianelli, M.D., the Kalenak Professor in Orthopaedics at Penn State Health Milton S. Hershey Medical Center and Medical Director, Penn State Sports Medicine, will serve as ABOS Secretary. Kyle J. Jeray, M.D., chair of the Department of Orthopaedic Surgery at Prisma Health-Update, has been re-elected as ABOS Treasurer for a one-year term.

“This Board has elected an outstanding group of Officers,” said David F. Martin, M.D., ABOS Executive Director. “While they are all busy orthopaedic surgeons, they are all leaders in our

field, serving on the boards of many organizations.”

As for how Dr. Kang will proceed in his new role, he explained to OTW, “While I am the ABOS President for the next year, it is a team effort of the 21 ABOS Directors, especially with our Vice President Dr. Scott Porter, a musculoskeletal oncologist in South Carolina. All of us want to continue making ABOS programs that are meaningful but not overly burdensome to orthopaedic surgeons while also making sure that we stay true to the ABOS’s mission of protecting the public.”

The ABOS Board of Directors consists of 12 Active Directors, six Senior Directors, two Directors-Elect, and one Public Member Director. ABOS Board Members serve one 10-year term while the Public Member Director serves a three-year renewable term. Nominations to the ABOS Board of Directors come from the American Orthopaedic Association, the American Academy of Orthopaedic Surgeons, and the American Medical Association. Officers are current Board members elected by other Board members. For a full list of ABOS Board Members, go to www.abos.org/about/board-of-directors/. — EH

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