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## Commentary

## Risk Should Not Be a “Four-Letter Word” in Healthcare. Risk and the Future of Musculoskeletal Care

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## ABSTRACT

Orthopaedics has seen a rapid transition to value-based care. As we transition away from fee-for-service models, healthcare systems, groups, and surgeons are being asked to take on an increasing amount of risk. While on the surface risk may have a negative connotation, managing risk allows surgeons to maintain autonomy while taking on value-based care to the next level. The purpose of this paper, the first in a series of 2, is to walk through the impact that value-based care has had on musculoskeletal surgeons, to understand the continued movement healthcare is making into risk sharing models, and to introduce the concept of surgeon specialist-led care.

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One could make the case that value-based care has been a key driver towards the continued decline of clinical decision-making autonomy and reimbursement for physician specialists, and especially musculoskeletal surgeons. In the last decade, surgeons have focused on managing patient care with an ever-increasing comorbid population, seen a continuous decline in professional fees, and navigated increasing preauthorization and care justification hurdles [1,2].

Meanwhile, some health systems and primary care organizations have invested in the infrastructure and technology to move into risk-sharing models [3–5]. This has enabled them to increase their clinical decision-making control, and monetarily benefit from the value that surgeons have created through optimized perioperative protocols and shifting high-acuity procedures to a lower cost of care setting.

The purpose of this paper is to walk through the impact that value-based care has had on musculoskeletal surgeons, to understand the continued movement healthcare is making into risk

sharing models, and to introduce the concept of surgeon specialist-led care. The question we pose is, if specialists do not start managing risk, what will their future role be in a value-based care environment, and how will this impact patient care?

**What Is Risk and the Risk Corridor?**

Risk, in its standard definition, is exposure to danger, harm, or loss. While our innate feeling towards risk is negative, it is inherent in all aspects of our lives. Investments in the stock market, car insurance, and homeowners' insurance are all based on risk. In the financial world, buying risk is one way to improve value and create savings. When properly utilized in healthcare, “buying risk” can help the convener gain autonomy and can be a considerable source of financial gain [6,7]. The risk corridor refers to the progression from a fee-for-service reimbursement model (devoid of risk) to a global (full) risk model. [Figure 1](#) demonstrates the progression through the risk corridor.

**What Are the Healthcare Implications of a Continued Fee-For-Service Model?**

Fee-for-service (FFS) has represented the principal healthcare delivery system in the United States over the last 80 years, for both direct medical care and physician reimbursement [8]. How has this model impacted the overall healthcare environment? Currently,

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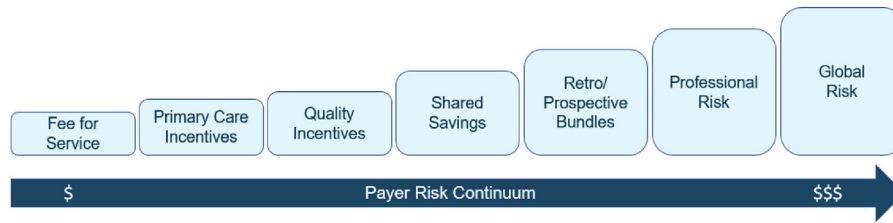


Fig. 1. The Risk Corridor. From fee-for-service to total global risk, the amount of risk increases in the various healthcare models from left to right.

the United States spends approximately 20% of its gross domestic product (GDP) on healthcare and yet does not rank in the top 20 in healthcare quality among industrialized nations with regards to mortality, premature death, and disease burden [9]. While healthcare spending has continued to increase without a reflection in quality, one could make the argument that the FFS model has helped create a high-cost and poor-quality healthcare system.

What is the correlation between care delivery and provider incentive in this model? One only needs to look at reimbursement. In this model, providers are incentivized to deliver more services for more financial gain. In essence, patient care is tied to quantity and devoid of any risk. Does this lack of risk have an impact on the quality of patient care? Numerous studies demonstrate that more often than not, increased healthcare utilization results in rising costs with no correlation to improved quality [10]. Data like these, along with the continued increase in healthcare spending have led to governing entities such as the Department of Health & Human Services (HHS) and the Center for Medicare and Medicaid Services (CMS) to push towards a risk-sharing model [11].

### How Has Value-Based Care Introduced Risk

In an effort to reign in cost and improve quality, value-based care models were introduced over a decade ago [11]. The most common model was an episodic payment or bundled payment [11]. Under a bundled payment model, the convener of the bundle becomes responsible for an episode of care and for the total cost of that episode. This includes every aspect associated with patient care for that episode or procedure. The episode duration for total joint arthroplasty, as an example, is typically the day before surgery and extends until 90 days postsurgery. Reimbursement is bundled into 1 payment to cover the expected cost (target price) of the episode. The target price is determined by historical cost and is agreed upon in advance. Regional referencing influences the models in some programs [12]. Reimbursement is tied to a quality score, and over a period the target price and quality are reviewed. As the cost of care is lowered, and if the quality of care remains high, the target price is decreased. This process is called rebasing, and surgeons refer to it more aptly as a “race to the bottom” [2].

Value-based care has affected hip and knee surgeons more than any other specialists [13]. This group, starting with the Medicare Acute Care Episode (ACE) Demonstration Project, followed by the Comprehensive Care for Joint Replacement (CJR) program and more recently with the Bundled Payment Care Initiative Classic (BPCI) and Bundled Payment Care Initiative–Advanced (BPCI-A), has embraced the transition from fee-for-service enthusiastically [14]. Hip and knee surgeons worked closely with officials at the Centers for Medicare and Medicaid Innovation Center to design, implement, and refine these models. Unlike most other programs in bundled care, CJR and BPCI have saved the Centers for Medicare and Medicaid (CMS) hundreds of millions of dollars [15,16]. Unfortunately, many of the hip and knee surgeon groups that were successful in CJR and BPCI withdrew from BPCI-A as CMS chose to lower the target price to where it was impossible to break even [17].

A major lesson learned from our participation in these programs is that surgeon-conveners added more value to the system compared to hospital-conveners.

Bundled payments were one of the original introductions to risk and could be viewed as the start of the decline in surgeon autonomy and reimbursement, as very few physician groups have the infrastructure and technology to successfully manage a bundle. Despite this, hip and knee surgeons now have the knowledge and experience to take risk management to the next level and expertise could be easily disseminated to other musculoskeletal specialties.

### Specialist-Led Risk—Who Should Be Leading the Change

Moving to a global risk model for musculoskeletal care will surely face many bumps in the road. Hospital administrators, despite the obvious opportunity for collaboration with physicians in this space, have decided to focus on destabilizing physicians in an effort to maintain “control” over them. These national-level campaigns are particularly troubling, especially given that the administrators generally do not actually share any personal financial risk in the operation, nor do they have the training, expertise, and licensing to conduct the actual core mission of a hospital, which is to care for patients. The insurance industry will likely be slow to come along as well, as this will clearly chip away at their profits. Also, some specialists themselves will likely have reservations about jeopardizing a guaranteed income, through hospital employment, despite the ongoing loss of autonomy. This is not unexpected given that physicians, but less-so surgeons, are considered among the most risk-averse professionals.

Despite the challenges highlighted above, we view this time as a tremendously exciting one for healthcare delivery systems. One only needs to look at the success of the Medicare Advantage program to see that the opportunity for specialists to manage risk in musculoskeletal care holds the promise of enhanced value and increased physician autonomy [18]. Failure to act now will only contribute to the maintenance of the steep downward spiral that our current healthcare system finds itself in. Do we sit back and allow value-based care to continue to diminish both our clinical control and reimbursement for the care of these complex procedures? Or do we take steps into the risk corridor and begin the specialist-led care movement?

While the concept of surgeons taking on risk may seem daunting, we physicians went into the practice of medicine to help patients, and with the continuous loss of autonomy to treat our patients with the preauthorization process and primary care physicians owning patients in “at-risk models,” what will the future of the surgeon/patient relationship be if we do not begin steps into the risk corridor?

### References

- [1] Devalue the doctor: the response of a manipulated system to orthopaedic surgeons. <https://www.forbes.com/sites/premramkumar/2021/09/04/devalue-the-doctor-the-response-of-a-manipulated-system-to-orthopaedic-surgeons/amp/>. [Accessed 16 December 2022].

- [2] Krueger CA, Yayac M, Vannello C, Wilsman J, Austin MS, Courtney PM. Are we at the bottom? BPCI programs now disincentivize providers who maintain quality despite caring for increasingly complex patients. *J Arthroplasty* 2020;36:13–8.
- [3] Canaries in a coal mine: California physician groups and competition | health affairs. <https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.20.4.97>. [Accessed 16 December 2022].
- [4] Key considerations for providers thinking of capitation payments. <https://revcycleintelligence.com/news/key-considerations-for-providers-thinking-of-capitation-payments>. [Accessed 16 December 2022].
- [5] Hochman M, Asch SM. Disruptive models in primary care: caring for high-needs, high-cost populations. *J Gen Intern Med* 2017;32:392–7. <https://doi.org/10.1007/s11606-016-3945-2>.
- [6] Muhlestein DB, Croshaw AA, Merrill TP. Risk bearing and use of fee-for-service billing among accountable care organizations. *Am J Manag Care* 2013;19:589–92.
- [7] Haverkamp MH, Peiris D, Mainor AJ, Westert GP, Rosenthal MB, Sequist TD, et al. ACOs with risk-bearing experience are likely taking steps to reduce low-value medical services. *Am J Manag Care* 2018;24:e216–21.
- [8] The origin of fee-for-service - American college of cardiology. <https://www.acc.org/membership/sections-and-councils/cardiovascular-management-section/section-updates/2018/07/10/14/42/the-origin-of-fee-for-service>. [Accessed 16 December 2022].
- [9] Davis K, Schoen C, Schoenbaum SC, Doty MM, Holmgren AL, Kriss JL, et al. Mirror, mirror on the wall: an International update on the comparative performance of American Health Care. <https://www.commonwealthfund.org/series/mirror-mirror-comparing-health-systems-across-countries>. [Accessed 23 June 2010].
- [10] Waste in the US health care system: estimated costs and potential for savings | health care quality | JAMA | JAMA Network. <https://jamanetwork.com/journals/jama/article-abstract/2752664>. [Accessed 16 December 2022].
- [11] CMS innovation center episode payment models. 8. <https://innovation.cms.gov/files/reports/episode-payment-models-wp.pdf>. [Accessed 29 May 2023].
- [12] bpciadvanced-targetprice-my1-2.pdf. <https://innovation.cms.gov/files/x/bpciadvanced-targetprice-my1-2.pdf>. [Accessed 22 November 2020].
- [13] Siddiqi A, White PB, Mistry JB, Gwam CU, Nace J, Mont MA, et al. Effect of bundled payments and health care reform as alternative payment models in total joint arthroplasty: a clinical review. *J Arthroplasty* 2017;32:2590–7.
- [14] Jubelt LE, Goldfeld KS, Blecker SB, Chung W-Y, Bendo JA, Bosco JA, et al. Early lessons on bundled payment at an academic medical center. *J Am Acad Orthop Surg* 2017;25:654–63. <https://doi.org/10.5435/JAOS-D-16-00626>.
- [15] Haas DA, Zhang X, Kaplan RS, Song Z. Evaluation of economic and clinical outcomes under Centers for Medicare & Medicaid Services mandatory bundled payments for joint replacements. *JAMA Intern Med* 2019;179:924–31.
- [16] Group TL. CMS bundled payments for care improvement initiative models 2-4: year 3 evaluation & monitoring. 2017. p. 457. <https://innovation.cms.gov/innovation-models/bundled-payments>. [Accessed 29 May 2023].
- [17] Springer BD, McInemey J. Medicare bundles for arthroplasty. *Bone Joint J* 2021;103-B(6 Supple A):119–25. <https://doi.org/10.1302/0301-620X.103B6.BJJ-2020-2315.R1>.
- [18] RevCycleIntelligence. Entering The next phase of value-based care, Payment Reform. <https://revcycleintelligence.com/features/entering-the-next-phase-of-value-based-care-payment-reform>. [Accessed 16 December 2022].