

## Allina Health's Journey to Optimal Spine Care

### Story:

Imagine this scenario: several weekend warriors in neighborhoods across the Minneapolis-St. Paul area hurt their backs doing yard work, and each sees a different type of medical professional for an initial consultation. One sees a primary care physician, while another sees an orthopedist; one sees a neurologist, while another sees a rheumatologist; and so on.

Before long these patients are being referred to other physicians or therapists. Tests and imaging are ordered in multiple visits across multiple locations. No one is coordinating this care, and no one is keeping an eye on patient outcomes.

It's a recipe for rising health care costs and less than optimal patient outcomes and that pretty much describes the way that health care for low back pain is often delivered. Low back pain is the number one cause of disability globally (*Lancet*, 2018). It is a common and expensive problem--annual cost to patients, employers and insurers collectively exceeds \$100 billion in the United States, mostly stemming from lost wages and productivity, according to the *Journal of Bone & Joint Surgery* (2006). As the incidence of low back pain grows with our aging population, it's clear that a new approach to spine care is well worth considering.

### Innovative Approach to Spine Care: Integrated Practice Unit

Allina Health is taking a new approach to providing spine care. Their spine care program is integrated, multidisciplinary and evidence-based, and involves a high level of communication and collaboration among all clinical disciplines involved in spine care, including surgeons, physiatrists, nurses, physical therapy, social workers and other medical spine specialists.

The program also offers evidence-based integrative medicine services such as acupuncture, nutrition, group-based visits, and a range of mind-body services alongside traditional Western medical practices. Sometimes called holistic or alternative medicine, integrative medicine has been proven to help reduce patients' stress, anxiety and pain, while also reducing hospitalization costs.

Allina directs the care process from the start, guiding patients toward a portal of entry known as their Spine Clinical Service Line. A patient's first contact is with an Allina primary spine care provider, who is responsible for front-line diagnosis, management and triaging based on patient's symptoms.

During the initial evaluation, the provider triages patients to ensure that the first health provider that a patient sees is the most appropriate. The screener checks for “red flag” conditions that indicate serious issues, and in those cases a patient could be referred for an immediate surgical consultation.

For the vast majority of patients with low risk or moderate conditions, Allina has developed a spine care Integrated Practice Unit (IPU) as the first portal of entry to its spine care program. The spine IPU offers a multidisciplinary approach involving a team of specialties, including chiropractic, physical therapy, acupuncture, massage, yoga, psychological therapy and more. In many cases these services are co-located within one facility, making it easier for the outpatients and hospitalized patients to receive care and for Allina to monitor progress.

“Our integrative medicine approach is an important part of our Integrated Practice Unit concept,” said Michael Egan, MaOM, Dipl OM, an acupuncturist with the Penny George Institute for Health and Healing at Abbott Northwestern. “Chronic pain has physical, psychological and emotional components, and through communication and collaboration among our wide range of health care practitioners we take a mind-body-spirit approach that benefits our patients.”

*Harvard Business Review* (October 2013) described as the IPU model as “a dedicated team made up of both clinical and nonclinical personnel (that) provides the full care cycle for the patient’s condition.” Allina’s spine IPU is organized around the patient, providing a full cycle of care for his or her spine condition. Patients are educated about their condition and engaged in the decision-making process related to their treatment. Specialists from nutritionists and physical therapists to interventional medicine providers and surgeons function as a medically integrated team in a systematic approach to delivering treatments and analyzing patient outcomes.

Allina’s spine care team develops core treatment plans that involve education, exercise, possibly psychosocial evaluation, and if needed, integrative medicine referrals, with home follow-up to monitor progress.

If pain persists or worsens, Allina refers patients to their Spine Center to determine whether injections, imaging or other treatments may be required. Patients who display immediate red-flag symptoms or who do not respond well to less-invasive therapies are referred to surgeons within the IPU.

Allina’s surgical spine professionals have an international reputation as leaders in the diagnosis and treatment of spine-related disorders. Abbott Northwestern has been named one of America’s best hospitals in orthopedics, neurology and neurosurgery since 2005, and Allina’s Spine Institute is an Abbott Northwestern

Hospital Center of Excellence. Each year the Institute's staff treats more than 4,000 patients from around the world and performs that largest number of spine procedures in the United States.

The Joint Commission awarded Abbott Northwestern the prestigious Certificate of Distinction in the management of spine surgery, and Becker's Hospital Review included Abbott Northwestern in its Top 100 list of hospital and health systems with outstanding neurosurgery and spine programs. Abbott Northwestern has been designated as a Blue Distinction Center for Spine Surgery by BlueCross BlueShield of Minnesota.

Allina recently added Mazor X spinal robotics technology to its Abbott Northwestern spine center, enabling surgeons to use 3D software to plan minimally invasive, custom surgery they can preview in advance with patients. Robotic-assisted surgery often means reduced post-operative pain, faster recovery and shorter hospital stays.

"Allina's Spine Care program provides a seamless continuum of care, from the first contact through treatment and followup," said Kyle Grunder, Director of Operations and Program Administration for Allina Health's Spine Clinical Service Line. "We offer patients a group of practitioners who are trained to function as primary care practitioners for the spine, including chiropractic and physical therapy, which we see as an important component of our IPU.

Allina operates free-standing spine clinics at Mercy Hospital (Coon Rapids), Abbott Northwestern Hospital (Minneapolis), Woodbury Clinic (Woodbury), and Abbott Northwestern-WestHealth (Plymouth), with plans to develop two additional regional/metro sites utilizing the IPU team model.

*Chiropractic & Manual Therapies* (July 2011) noted that for the treatment of spine related disorders (SRDs), "It is our view that the addition of a primary spine care provider who is responsible for front-line diagnosis, management and triage would (bring) greater value in the care of patients with SRDs.

"Costs of medical care for SRDs has skyrocketed in recent years," the journal said. "Despite this, there is no evidence of improvement in the quality of this care. In fact, disability related to SRDs is on the rise. One of the key solutions to this is for the health care system to have a group of practitioners who are trained to function as primary care practitioners for the spine."

"It's an exciting approach from the patient's perspective, getting the patient to a caregiver that is probably most relevant and probably taking care of the majority of problems most people face," said Anthony Delitto, PhD, PT, FAPTA, Dean of the School of Health and Rehabilitation Sciences at the University of Pittsburgh

and a professor in the university's Department of Physical Therapy. "Most back pain does respond to non-surgical, non-pharmacological treatments, so getting patients to non-pharmacologic providers first makes sense."

### **Benefits of Having Chiropractors and Physical Therapists as Primary Spine Providers**

Physical therapy and chiropractic—a therapy once marginalized by mainstream medicine—have become recognized as key components of complementary and alternative medicine which play important roles in the IPU approach to spine care.

The American College of Physicians (ACP) recommended the use of noninvasive treatments for acute, subacute and chronic lower back pain in guidelines published by the organization in 2007. Noting that "Surgery is rarely needed for patients with low back pain," the ACP noted that non-invasive, non-pharmacologic approaches such as massage, acupuncture, spinal manipulation and exercise could be effective tools for to back pain management.

An article in the American Medical Association's journal, *JAMA* (2017), noted that studies have indicated that spinal manipulative therapy was associated with improvements in pain and function for some patients with acute low back pain. The results of a comparative effectiveness clinical trial published in *JAMA Network Open* (2018) found that "patients who received usual medical care plus chiropractic care reported a statistically significant moderate improvement in low back pain intensity and disability at six weeks compared with those who received usual care alone."

"Back pain is different from many other health conditions," said David Elton, DC, Senior Vice President of Clinical Programs at Optum, a health services innovation company. "In a seven to 10 minute appointment a well-intended primary care physician (PCP) may not have the time available to thoroughly evaluate back pain and introduce treatments consistent with available guidelines. Working within these time constraints may result in a PCP's initial action being to provide a prescription and/or to obtain some imaging studies.

"Chiropractors and physical therapists are typically able to spend more time with their patients, enabling them to better identify the root causes of lower back pain. In cases with red flags a chiropractor or physical therapist immediate escalates a patient to an appropriate specialist, and in the absence of red flags provides the non-pharmacological treatments recommended by guidelines. Allina's approach of making available and starting with the least invasive approach to lower back pain is just good fundamental health care."

Recent studies have shown that traditional PCPs are not well trained in the differential diagnosis and management of musculoskeletal disorders, so they are not likely to be the best choice for selecting a treatment approach for SRDs.

“Chiropractic is the right tool for the right job, an appropriate portal of entry for many spine related issues,” said Joseph Cunniff, DC, DO, Medical Director of Allina Health’s Medical Spine Services and Courage Kenny Centers. “At end of the day most patients with low back pain won’t need intervention beyond the level of chiropractic or physical therapy. Chiropractors are excellent diagnosticians, and as a result are uniquely qualified to appropriately refer patients within Allina’s spine care IPU if a patient’s condition is not responding as expected to chiropractic manipulation.”

Lori Froehling, PT, MS, Director of Therapies at the Courage Kenny Rehabilitation Institute, said, “Physical Therapists are typically able to spend more face-to-face time with the patient than a primary care provider or spine surgeon whose focus is on explaining the results of imaging or whether the patient is a candidate for surgery.

“In contrast, Physical Therapists are uniquely trained in evaluating individuals with spine pain, educating them on their condition, and teaching them exercises or activities they need to do in order to feel better. In addition, they provide direct treatment to assist in the recovery process.”

### **Patients Benefit from Value-Based Approach**

Ensor Transfeldt, MD, Medical Director of Allina’s Health Spine Clinical Service Line, is a leader in Allina’s value-based approach to spine healthcare. “Our constant goal is an integrated program that assures that all spine care is high value and appropriate,” he said. “We strive to provide comprehensive spine services throughout a defined care continuum.”

There are several components to the high-value healthcare delivery system that Allina has adopted:

- Organization based around Integrated Practice Unit (IPU)
- Measurement of outcomes and costs for each patient
- Integrate care delivery across separate facilities
- Expand value-based services across geographic locations
- Maintain an enabling information technology platform

Amir Mehbod, MD, Medical Director of Allina’s Surgical Spine Services, said that a value-based approach placing special emphasis on quality, cost and

appropriateness of healthcare service has yielded positive results for patients and Allina. “We have seen reductions in length of stay, complications and readmissions,” he said. He said Allina has also noted a reduction in patient opioid dependence and has achieved cost savings through negotiations with vendors and other quality initiatives.

Maximizing health care value can provide many benefits for patients, including:

- Speedier recovery
- Reduced hospital length of stay
- Less days off work
- Fewer unnecessary procedures
- Lower cost by reducing unnecessary expenses
- Reduced chance for surgical site infections
- Opiate education, awareness and reduction where appropriate

The term “value” is not always the same as “inexpensive.” Some expensive tests and treatments may have high value because they provide high benefit and cause low harm. Conversely, some inexpensive tests and treatments have low value because they do not provide enough benefits to justify even their low costs, and may even be harmful.

*Harvard Business Review* defined the “value agenda” as shifting the focus from “the volume and profitability of services provided—physician visits, hospitalizations, procedures, and tests—to the patient outcomes achieved.” This means maintaining revenue while minimizing unnecessary tests and treatments.

A value-based approach to spine care is intended to achieve best outcomes at the lowest cost, but it poses challenges to health care providers and payers. Allina and other health systems that seek a value-based approach must find ways to ensure that patients receive excellent care, while the health care system controls costs and maintains revenue.

According to Health Catalyst, a data warehousing firm focused on improving healthcare quality improvement, Allina has tracked and analyzed data across its system since initiating its spine care program and focusing on value and the IPU model, and has noted improvements in a wide range of outcomes, including length of stay, post-operative complication rates, readmissions and costs.

“Our highly integrated and coordinated spine care program has helped us improve spine care outcomes,” said Kate Radmer, MS, MBA, Allina Health’s Manager of Operations and Clinical Programs.

Minimizing tests, procedures and surgeries saves the patient money, but means less revenue for the health system. A key concept behind value-based care is

that if providers can improve patient outcomes, they can sustain or grow their market share.

Health care payers are moving away from fee-for-service and toward performance-based reimbursement, or “bundled” payment that gives health care providers a flat fee for treating specific problems. Allina’s IPU and value-based approaches are designed to allow the health system to grow and prosper in a changing economic environment.

Finally, Ross Gustafson Vice President of Operations for the Spine Clinical service line said, “Nationally, the migration to value based payment for episodic care has been slow, but Allina’s spine program has positioned itself to succeed in both a value-based world and fee-for-service based world.”