In the typical hospital, most clinical service lines operate as distinct entities. That is, they work independently from one another as separate units—rarely coordinating efforts outside of a patient consult or hand-off. This common configuration can be clinically and financially inefficient for hospitals, as well as confusing and frustrating for patients, physicians and administrators.

In an ideal world, all hospitals would be clinically integrated—with all relevant departments and healthcare providers working together from the time a patient enters the hospital, throughout their hospital experience and into the post-discharge period. This white paper explores the concept of clinical integration and illustrates how achieving true clinical coordination across the entire hospital enterprise can lead to increased patient satisfaction, improved quality and enhanced hospital operations and finances.

WHAT IS CLINICAL INTEGRATION?
Simply put, clinical integration refers to a scenario in which some or all of a hospital’s clinical service lines work together in a coordinated and cohesive way, across departments, with the goal of delivering high-quality and more efficient patient care. It means removing the departmental “silos” that are typical of today’s hospitals and finding new ways for clinicians to work together. When service lines are integrated, clinicians from across departments communicate with one another to treat patients in a way that considers the patient’s entire hospital experience and potential outcomes, not just the treatment delivered by the individual physician at a fixed point in time.

Among the clinical service lines that hospitals may consider integrating are:

- **Emergency Medicine.** Usually the first department to see and treat hospitalized patients, emergency physicians make diagnostic and treatment decisions that can affect the rest of the patient’s hospital experience.

- **Hospital Medicine.** After the admission decision is made, the hospital medicine team assumes primary responsibility for patients’ care—essentially serving as the central point of contact to ensure proper coordination.

- **Specialty Hospitalist.** Specialty hospitalist physicians such as orthopedic hospitalists, general surgery hospitalists and OB/GYN hospitalists provide 24/7 coverage for unassigned patients and emergent conditions and procedures. Close coordination with other clinical service lines can allow for expedited care.

- **Anesthesiology.** Responsible for pre-surgical testing, pain management and intraoperative care, the anesthesia team can more easily facilitate any needed surgery when working in lockstep with emergency physicians, hospitalists and surgeons.

- **Surgery.** When all inpatient departments work together, surgical cases can be accelerated—in some cases to the same day—prompting a shift in surgeons’ workflow.

In addition, hospitals with ancillary services such as urgent care centers and medical call centers can...
integrate those offerings into their care continuum to support clinical integration. Urgent care centers, for example, can fill an important role for both pre- and post-hospital care by helping patients with non-emergent conditions receive prompt treatment without visiting the emergency department (ED). In the case of post-discharge patients, this may help patients avoid a readmission. Similarly, medical call centers can provide nurse triage and nurse advice lines, giving patients the convenience of 24-hour clinical support and providing hospitals a convenient way to make post-discharge check-in calls. These services can efficiently reinforce patients’ understanding and compliance with discharge instructions so they avoid unnecessary readmissions.

HOW IT WORKS
To better understand the concept of clinical integration, consider the example of an elderly patient who arrives in the ED with a hip fracture. In a clinically integrated hospital, after the emergency physician confirms the fracture, he or she immediately notifies the anesthesia and hospital medicine teams about the patient. The hospitalist admits the patient while assessing and stabilizing any medical comorbidities, and the anesthesiologist immediately notifies the orthopedic surgeon, schedules the surgery and does a pre-operative risk assessment before the patient is moved to the operating room. In many cases, the patient can receive surgery the very same day. After discharge, the hospital’s medical call center may check-in with the patient to make sure they understand and are following their physician’s instructions, assess any risk factors for readmission and answer questions.

On the other hand, in hospitals without clinical integration, it may take up to 36 hours after the patient presents in the ED before the pre-surgical process even begins. That’s because the typical hospital’s clinical workflow would move the patient in a linear fashion—from an X-ray and diagnosis in the ED, to admission by a hospitalist, to a consultation with a surgeon to an anesthesia consultation—before the patient is ready to be prepped for surgery.

At that rate, many hip fracture patients end up facing a costly three- to five-day inpatient wait for surgery, which can increase the chances that these typically older, high-risk patients will face complications such as infections or even death. According to the Centers for Disease Control and Prevention, one out of five hip fracture patients die within a year of their injury.

BENEFITS OF CLINICAL INTEGRATION
When a hospital’s clinical service lines are integrated, and clinicians are working across departments to deliver coordinated patient care, there are multiple potential benefits to the hospital. Those benefits may include:
- **Improved Quality of Care.** When service lines are integrated, clinical teams can develop new protocols that follow medical evidence to deliver positive outcomes on an expedited timeline.

- **Improved Patient Safety.** With members of a patient’s care team working together throughout the patient’s hospital stay, there are fewer chances for miscommunication or errors.

- **Improved Throughput and Decreased Length of Stay.** With integrated care, patients move through the hospital stay more efficiently, shortening their time in the hospital when appropriate. This can have a positive impact on patient outcomes and satisfaction, while also reducing hospitals’ costs and enhancing capacity.

- **Fewer Readmissions.** The combination of improved inpatient processes, better post-discharge planning and medical call center follow-ups helps lower the 30-day readmission rate. When that happens, it means more patients are recovering well, and—because readmissions are tied to reimbursement rates—the hospital will receive more favorable reimbursement.

- **Improved Patient Experience.** Patients report higher levels of satisfaction when they know their caregivers are communicating with one another and working as a team to provide the best care possible. Improvements in patient survey scores can also directly benefit hospital finances through better reimbursement rates. Plus, happy patients also tend to be strong spokespeople for the hospital in the community, promoting a positive reputation and referrals.

- **Increased Clinician Satisfaction.** Physicians, advanced practice clinicians and nurses enjoy greater collaboration and communication with their colleagues, and the chance to deliver better, more efficient care. This can have a positive impact on clinician burnout and turnover rates.

Again, consider the example of a hip fracture patient. In the clinically integrated hospital scenario described above, there is improved communication among clinicians and a more streamlined care process. When properly applied, this rapid hip protocol has been shown to dramatically lower length-of-stay, reduce the likelihood the patient will need a blood transfusion, and lessen the risk of post-operative infection, consequently cutting the rehabilitation time needed for the patient to return to a normal level of activity.

These improvements not only save the hospital time, money and bed capacity, they help ensure patients have better outcomes.

**HOW TO ACHIEVE CLINICAL INTEGRATION**

It’s no secret that changing hospital and clinician workflows can be challenging. Hospital structures and processes tend to be configured around separately functioning service lines. And physicians and advanced practice clinicians often have well-established preferences and practice patterns that can be difficult to adapt—especially when the change is as significant as clinical integration.

To overcome these obstacles, there are a few strategies to consider.

**Build Consensus**

Instead of directing change to hospital clinicians and staff, engage them in a conversation about clinical integration to achieve their buy-in and assistance. By convening the most important participants in the process and building consensus around a new approach to care, hospitals can create a new sense of teamwork toward achieving integration. Those participants may include the service lines described above, including emergency medicine, hospital medicine, anesthesia, specialty hospitalists and surgery.

**Identify First Steps**

With champions from each service line willing to work together, the group can begin considering how to make clinical integration a reality. It’s often beneficial to take an incremental approach to change—focusing on high-value conditions and processes where integration could have the most dramatic results. Those may include:

- **Hip and Fragility Fractures.** As described above, a rapid, integrated response and treatment process for patients with hip and other fragility fractures allows for same-day surgery, reduced length of stay, lowered infection risk and shorter rehabilitation time.

- **Patient Blood Management.** Blood transfusion is the single most common procedure in the hospital today. Through the application of evidence-based medical and surgical concepts, hospitals can manage anemia, minimize blood loss and reduce the need for blood transfusions, thereby improving patient outcomes.

- **Sepsis Management.** Effective, efficient, and evidence-based management of patients presenting to the emergency department with sepsis has a major impact on clinical outcomes and hospital costs. A seamless, integrated approach to sepsis management can deliver more rapid, safe and effective care.

- **Perioperative Surgical Home Model.** This team-based system of coordinated care is designed specifically for patients who require a surgical or procedural
intervention during hospitalization. By providing integrated, standardized care throughout the perioperative, intraoperative and postoperative periods, patients experience safer, and more effective care.

Establish Infrastructure
Structural changes can support the shift to clinical integration. For example, clinical departments may want to establish new collaborative meetings that bring departments together on a regular basis to discuss patient care, even for those cases outside the initial conditions/diagnoses selected for integration initiatives.

Many facilities find success with multi-disciplinary rounding. In multi-disciplinary rounding, clinicians and staff from relevant departments come together to conduct daily bedside rounding for hospitalized patients. Together, the patient’s physician, nurse, pharmacist, case manager, and any other relevant team members would meet at the patient’s bed to discuss his or her status, course of treatment and discharge plan. By meeting together with the patient, clinicians have the chance to efficiently coordinate treatment, discuss any challenges and answer questions from the patient and family. Multi-disciplinary rounding can support positive outcomes, improved patient satisfaction and decreased length of stay.

In addition, while having clinician collaboration is essential to clinical integration, having appropriate infrastructure in place to support those clinicians is also important. To streamline operations across departments, hospitals can consider changes such as standardizing supplies and medications to eliminate variation from department to department. Additionally, having information technology systems that allow for comprehensive tracking and reporting of quality metrics within a clinician’s workflow will allow teams to better assess the impact of their clinical integration initiatives and determine whether adjustments are necessary.

Align Incentives
Because clinical integration can represent a dramatic shift from established workflows, it can take extra effort to make sure clinicians remain committed and do not slip back into old, siloed practice patterns. One way to handle this issue is to set quality and service performance targets and then create shared incentives for clinicians and departments to reach those goals.

For example, for hospitals working on integration around hip and fragility fractures, the hospital and clinical teams may create a shared risk pool based upon metrics such as the percentage of patients who receive same-day surgery, length of stay or readmission rates. If the participating clinicians/departments achieve those metrics, then they could all benefit from the shared savings. This approach helps ensure that all clinicians are sufficiently motivated to do their part, even if it requires additional effort, and hospitals and patients can experience the rewards of better outcomes and lower costs.

Choose the Right Partner
For many hospitals, achieving clinical integration may be most attainable by consolidating service lines under a single clinical outsourcing partner. A partner who offers services across the continuum of care—such as emergency medicine, hospital medicine, anesthesia and specialty hospitalist—is well-positioned to integrate hospital service lines. Often, they will have a consolidated leadership structure and technology infrastructure that allow for easy alignment of incentives and sharing of performance metric information so clinical teams can work together toward the shared goal of providing efficient, quality care that benefits the hospital and its patients.

MEASURING PERFORMANCE
No improvement project would be complete without a system to benchmark progress and measure success. As stated above, IT systems that allow for easy analysis of performance metrics are key to supporting clinical integration.

Hospitals that partner with a clinical outsourcing provider to integrate service lines may have access to existing, vetted tools and avoid the hassle of building their own. For example, clinician services organization TeamHealth provides a staging tool that gives partner hospitals step-by-step resources to establish and measure effective service line integration. The four-stage process begins with organizing medical director collaboration and works through setting and achieving shared goals and proactively addressing any program variances.

Additionally, the company’s integrated services dashboard provides a monthly snapshot of each service line and composite service line metrics, showing mutual goal achievement on measures such as HCAHPS, core measures and length of stay.

INTEGRATION SUCCESSES
Though an abstract concept to many facilities, some hospitals have already undertaken clinical integration projects and are seeing positive results. Consider these case studies:

Sunrise Hospital and Medical Center
This 690-bed hospital, located just minutes from the Las Vegas Strip, was struggling with ED hold hours when
its ED patient volumes ballooned following Nevada’s expansion of Medicaid. Sunrise worked with its clinical outsourcing partner to integrate its emergency department and hospital medicine departments with the goal of streamlining patient flow and improving efficiency throughout the continuum of care.

The department leaders began engaging in regular, collaborative meetings to establish and maintain accountability to the same clinical and quality standards. Each meeting’s agenda included the question, “What can I do to make your job better?” It prompted participants to think beyond their specialties to achieve cross-departmental goals. Additionally, both departments shared performance data and discussed strategies for improvement—leading to changes in the approach used during consults with admitted patients, how diagnostic testing orders are handled, and the elimination of batched admissions.

The integrated team consolidated its efforts around observation patients by creating a new, 30-bed observation unit with dedicated providers and case managers. And it instituted a new, mandatory 7 a.m. huddle focused on early discharges.

The integration initiative had a dramatic impact on patient flow within the hospital. With both emergency department and hospital medicine teams focused on throughput, the number of patients discharged prior to 11 a.m. increased from 10 percent to 50 percent, and the hospital achieved a half-day reduction in its average patient length of stay.

With the increased capacity on the hospital floor, the emergency department could move patients through the department more quickly. Hold hours dropped an impressive 50 percent. Today, the department’s hold hours average 10,000 per month – with a new low of 6,000 achieved in late 2016.

**Ascension All Saints Hospital**
Located in Racine, Wisconsin, Ascension All Saints Hospital receives approximately 60,000 ED visits and performs 8,500 surgical procedures annually. After a 2014 review of its surgical data, the hospital identified a number of challenges, including declining surgical volumes, mediocre patient satisfaction scores, too many canceled and delayed surgical cases and higher-than expected lengths of stay for joint replacement and colon surgeries.

The hospital worked with its clinical outsourcing partner to adopt a perioperative surgical home (PSH) model of care—implementing new protocols for multi-disciplinary clinician coordination and standardized care pathways. One area of focus was an “Enhanced Recovery after Surgery” protocol for colorectal surgery patients. The ERAS approach focuses on patient optimization before surgery and is driven by evidence-based care pathways and protocols that require collaboration between anesthesiologists, surgeons and the entire care team with the goal of helping patients recover more quickly, shortening their length of stay and reducing pain.

Through ERAS, colorectal surgery patients experienced:
- 375% reduction in the use of opioids postoperatively
- 50% reduction in post-operative pain scores for the first two days after surgery
- 1 day reduction in length of stay
- 1 day reduction in time to ambulation

**CONCLUSION**
Integrating clinical service lines is an effective strategy for hospitals to deliver more coordinated, efficient, quality patient care. When clinical service lines are integrated, hospitals can experience benefits such as enhanced clinical performance, improved patient safety and satisfaction, reduced length of stay and fewer readmissions.

If you would like more information concerning Clinical Integration, please contact our Business Development team today at **800.818.1498** or **business_development@teamhealth.com** for more information.