



GOLD SENSEI
THE HIGHEST STANDARD

THE LEAN CLINIC

Creating a Culture of Continuous Improvement

Executive Summary

In 2017, Dr. Maksimov, the CEO of Columbia Pain and Spine Institute (CP&SI, columbiapainandspine.com), a comprehensive medical center specializing in the treatment of neck, low back and a variety of painful conditions, contacted Gold Sensei to undergo a Lean transformation with a focus on creating a continuous improvement culture. Following Gold Sensei's holistic approach, the institute implemented both Lean production methods and a Lean Management System that enabled them to deliver improved customer care, while also increasing employee engagement. In only three months, the clinic achieved remarkable results:



"The approach Gold Sensei took was holistic and focused on more than just tools; it focused on transforming behavior and the culture. Now I have 20 employees who think and act as if this business belongs to them because it does." – CEO, Columbia Pain and Spine Institute

- Net Promoter Score climbed from 46 to 86 (a healthcare study demonstrated that brand loyalty is achieved at 48)
- Patient on-time start and finish jumped from 25% to 92%
- Productivity rose by over 10%

More importantly, the culture began to transform into one that celebrated problems as opportunities.

Opportunities

Prior to going through their Lean journey, the CEO of CP&SI found it very difficult to manage his business, especially as a physician/owner who had to see patients throughout the day and could not always keep a watchful eye on how his business was performing.

The first obstacle CP&SI faced was that they did not have a common goal or direction to work towards collectively. This led to a lack of alignment and, as a result, everyone worked in silos. The providers did what they thought was best for the customer. The Medical Assistants did the same. So did the receptionists. This often led to a poor customer experience. For example, if a patient arrived, the receptionist would signal the Medical Assistant to room the patient. From the perspective of the receptionists, this was the right thing to do and translated into timeliness. However, this often led to the patient waiting in a room unattended while the provider finished with another patient. This led to customer frustration and presented a safety risk for the clinic.

The second obstacle faced was that there was a lack of focus on the process. At any given point in time, how the processes were performing at delivering customer value could not be seen. As the adage goes, you can't fix what you can't see and, as a result, problems in the process also remained invisible and persisted.

The third major obstacle was a direct result of the first two. The company culture at CP&SI was one that lacked accountability. When problems cannot be visualized, it is impossible for anyone to take ownership of finding

solutions to those problems, and, as a result, the creativity of the workforce is hidden.

From the CEO's perspective, he wanted to tackle all of these obstacles with the intent to change the company culture. Too often, Lean is pursued as some sort of quick fix to help improve financial performance. However, that kind of thinking often leads to poor behavior such as short-cuts to reach an aggressive financial target, which further deteriorates employee trust. By focusing on culture, you create the foundation for the right behaviors that lead to the right results, which, ultimately, achieves sustainable growth.

Solution

Gold Sensei's approach focused on the apprentice model, in which, leaders of CP&SI would first see the implementation of both Lean production methods and a Lean Management System. This allowed them to see what good looked like and learn. They would then execute elements with support to demonstrate they learned the skill. This approach, unlike that of most consultants, ensures the client is developing the necessary skills to become self-sufficient.

The first step in the Gold Sensei methodology is to **set the Direction** so that everyone knows what the organization is trying to achieve. Leadership spent an all-day session determining how to define success: what to measure, what targets to apply, and what behaviors they desired to see. Ultimately, this created a true north for the company focused on the right results with the right behaviors. Using a balanced scorecard approach, it was decided that the clinic would measure *timeliness* (on-time appointment start and on-time appointment finish), *production* (patient visit slots scheduled and patient visit slots utilized), and *customer satisfaction* (time to schedule an appointment and net promoter

score). With baseline measures for these targets, it was decided to set targets of 10% improvement across the board. Leadership also created a tagline for their true north of “come together” to stress the desired behaviors they wanted to see, e.g. employees working across silos to collectively solve problems and improve the system. The next day, Leadership shared the Direction with employees to create clarity on what CP&SI was trying to achieve.



Image 1.0. A vision board created by leadership to help visualize what they wanted to achieve.

Next, a **current state value stream map** of a typical patient visit was created. Patients were followed throughout their visit and key points were observed such as 1) when flow was obstructed or the patient had to wait, 2) obstacles that made the work more difficult on the employees, 3) the overall patient experience. These observations were then translated into a picture as seen in Image 2.0 below.

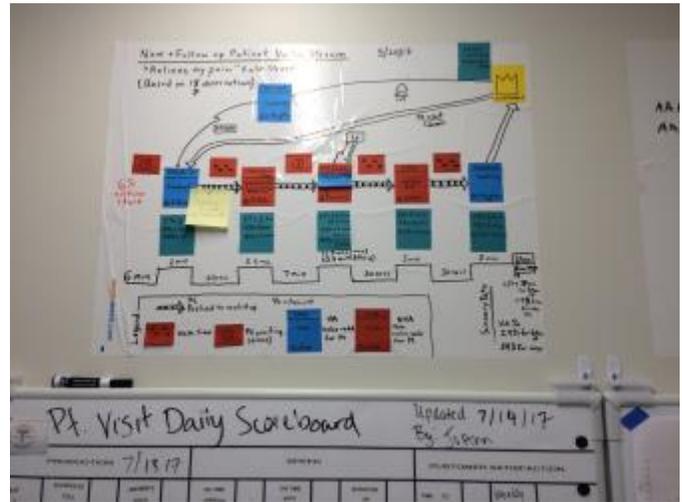


Image 2.0: Current State Value Stream Map

The current state value stream map was eye-opening and, although employees knew that suffering existed, they didn't know to what extent. Only 29% of the time the patient spent during their visit was considered value add (the patient would be willing to pay for it). The typical duration for a 20-minute appointment was 37 minutes and appointments started on time a dismal 6%. The customer experience was often cold and impersonal as the provider spent 50% of their time in front of a computer taking notes. As difficult as it was to acknowledge the suffering in the value stream, now it was visible and something could be done about it.

The focus quickly shifted to creating a **future state value stream map** of what the patient experience ideally should-be. Lean principles of standardization, flow, and pull guided the design. In the future state, there were several key changes:

1. Patients would no longer be pushed to a room where they would be forced to wait for a provider. The Medical Assistant would pull the patient to the room when the provider was ready to see them.
2. The documentation of patient notes would be standardized and a scribe would be utilized to help provide the patient with more face-time with the provider. In Lean, this is known as a “coordinated cell.”

3. The same Medical Assistant that pulled the patient from the waiting room would also provide a “polite knock” on the door 5 minutes prior to the end of the patient’s appointment to try and ensure timeliness.

This future state would improve the patient experience significantly and increase the value add time from 29% to 96%. Although the future state was inspirational, it led employees to quickly question how they would be able to get there. Whenever there is something worth getting to, it will naturally create feelings of fear and self-doubt.

As a result, the next step was very deliberate. Staff were asked to come in on a Saturday to create standard work, using a technique used in WW2 to build planes called Training Within Industry. First, they created the standard work of the current state and then created the new standard work of how they felt the work should be done to make the future state a reality. This new piece of standard work was a hypothesis we needed to test. We then tried out the standard work with a patient simulation, checked to see how it performed and adjusted. This process is known as PDCA or Plan Do Check Act. This process yielded many small improvements (known as *Kaizen* in Japanese). For example, rather than have the Medical Assistant bring urine samples to the laboratory after each Urine Drug Screen, the fridge was moved from the lab to point of use for the Medical Assistants. Two times a day, somebody from the lab would come and pick up the samples. This would save the Medical Assistants 30 minutes of time, freeing capacity for one more patient visit. With each piece of standard work, employees gained confidence in being able to execute the future state.

Unfortunately, most Lean journeys end here with changes to how the work is done using Lean production methods, but fail to implement a way to manage the new way of working using a Lean Management System. As a result, at best, the new way of working is temporarily achieved before old habits persist. To combat this

entropy, a Lean Management System was implemented consisting of three elements:

1. Visual Management
2. Huddles
3. Leader Standard Work

Visual Process Adherence boards were created at each key process in the value stream to ensure the process performed to standard such as the ones seen below in images 3.0 and 4.0.



Image 3.0 A Process Adherence Board used to track gaps in the schedule so that the scheduling department could problem solve how to close the gaps and put countermeasures in place to fill the schedule. This visualization was a critical part in helping to increase productivity by 10%. One problem that this board brought to light was the light schedule for the newest provider. This led employees to standardize physician referrals to this provider until the schedule evened out a bit more, at which point referrals should be level loaded evenly amongst all providers.



Image 4.0 A Process Adherence Board used to ensure the pull system was working per standard. At each 20-minute interval, employees update actual to target and capture obstacles and countermeasures when targets are not achieved. Actuals below target are written in red to signal leadership should go and observe the process to better understand obstacles.

In addition, a Visual Performance Board was created to show success of the entire value stream as seen below in image 5.0. This board demonstrated whether the entire value stream was winning or losing.

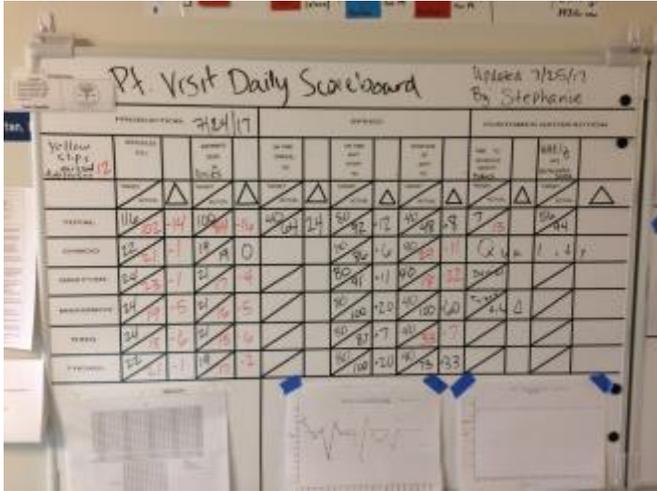


Image 5.0 A Visual Performance Board showing how the value stream was performing to key performance indicators such as production, timeliness and customer satisfaction daily. Trend charts showed performance throughout the month and year.

With these boards in place, for the first time, performance to standard and problems could be visualized. Now, it was important to bring employees together to discuss what the boards were telling them. This is where huddles were introduced.

Huddles are short meetings used to plan, check performance, and make any necessary adjustments. They are employee-led and typically take 5-15 minutes. Every morning at 7:50am, as seen below in image 6.0, employees would meet to discuss targets for the day, assignments, and key communications



Image 6.0 A huddle being led by Jennifer O'Neill with the Medical Assistants.

At the end of the day, employees would huddle to reflect on how the day went, what obstacles they encountered, and what adjustments they should make for tomorrow. At 12:45pm, there was a meeting by leadership to discuss the value stream performance and to see if they could help employees in any way to overcome more difficult obstacles employees could not solve for themselves. The huddles created accountability for both employees and leadership.

Lastly, Leader Standard Work was implemented to ensure the needed discipline to keep the Lean

Management System working as designed. Supervisors at the process level, a value stream owner, and leadership all had standard activities they would do daily, which included process observations, problem solving, and 1:1 development.

Process observations are a way to ensure the standard work is being followed. This is especially important because processes using Lean production methods are more disciplined and, as a result, more difficult to achieve. If the standard work is not being followed, leadership should explore why. Either employees are not skilled and need to be trained or obstacles exist and problem solving should be done to explore removing those obstacles.

Dedicated time to problem solving allows leaders to take a deeper look at persistent problems and to plan experiments to try out. If those experiments yield the desired result, they are incorporated into the standard work. If they don't, adjustments are made based on what is learned and another experiment takes place. This creates a continuous learning environment where each problem truly becomes an opportunity.

1:1 development allows leaders to act as coaches. This is there opportunity to build development plans with employees and to provide feedback and coaching on how employees are progressing towards their goals. At companies such as Toyota, this is the ultimate form of showing respect. Leaders demonstrate care for their employees by helping them develop and grow.

With all these elements in place, CP&SI now had a system they could use to continuous improve daily.

Results, Return on Investment and Future Plans

As stated at the beginning of this case study, CP&SI was able to achieve impressive results:

- Net Promotor Score climbed from 46 to 86 (a healthcare study demonstrated that brand loyalty is achieved at 48)

- Patient on-time start and finish jumped from 25% to 92%
- Productivity rose by over 10%

"The Lean Management System has changed my way of thinking and doing, not only in my professional life, but in my personal life as well. I am so thankful for Daniel and what he has brought to our clinic. He is approachable, encouraging and truly has our best interests at heart. His knowledge and vision is easy to understand and has made me a better leader." Jen O'Neill, CMA (AAMA)

However, there are still major obstacles that exist that they must overcome.

One of the leaders asked me, "I know we are getting better from the results, but why do I feel so bad?" My advice to her and to anyone considering a Lean journey is this: when you have hidden problems for so long, it can be overwhelming when you visualize them for the first time. Often, businesses don't know where to start or try and tackle all their problems at once. For CP&SI, the main obstacle they face is stabilization. It is key they:

- Appropriately staff to ensure employees can both do their work and improve their work. If they don't have time to break-away from production, they won't improve the process or train and develop their peers.
- Create leadership accountability and discipline. Employees will follow the lead of leaders. If leadership does not follow their standard work, i.e. attend huddles, observe the process, etc., come to work on-time, or focus on the process, then employees will not buy-in and momentum will be lost.

The great news for CP&SI is that they have achieved great results and they are very new to their Lean journey. The exciting question to ponder is, "what will the results be like as they mature?"



Daniel Custódio started his career at the General Electric Co. where he became a 6-Sigma Black Belt and graduated atop the IMLP (Information Management Leadership Program) class. Upon graduating from business school, he went on to help Capital One Bank where he was exposed to

the Toyota Way, working alongside coaches from the University of Kentucky True Lean Systems Program. In 2012, Daniel was recruited by ING US to help lead their cultural transformation. While there, he led the successful deployment of continuous improvement to over 3,000 employees and was promoted to Vice President. In 2013, leveraging the new Lean culture, the company became Voya Financial in the fifth largest IPO of the year. In search of new challenges, Daniel went on to enter the healthcare space. In 2015, he became the Chief Process Improvement Officer at Cooley Dickinson Health Care where he helped create their Lean program from the ground up.

Over his career, Daniel has helped companies realize over \$1 billion in revenue and cost savings, but, most importantly, he has helped create sustainable cultures centered around people development. He brings these skills into his own consulting practice and continues to help clients achieve the right results with the right behaviors.

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