The anesthesia and surgical intensive care department is a central interface between the other clinics and institutes within Klinikum Esslingen, which treats more than 100,000 patients each year as the main tertiary facility in the district. As such, the efficiency of this department has a direct impact on other departments within the system. Klinikum Esslingen chose Philips Healthcare’s Clinical Transformation and Education consultants to collaborate with them in support of their efforts to achieve measurable improvements in anesthesia processes and perioperative data.

As at many other hospitals, statistics on perioperative processes are a regular source of disagreement at Klinikum Esslingen. The quality of routinely collected baseline data, which is often documented retrospectively, is often questionable. What’s more, the information provided by the data collected is frequently insufficient to perform a reliable process analysis. At Klinikum Esslingen, changeover times and the frequency of an on-time start for the first cases in the morning have been used as a proxy to determine the quality of anesthesia processes. With the use of this proxy, the effect of factors external to anesthesia are not considered.

“*If you can’t measure it, you can’t manage it*”

*Peter F. Drucker*
Tablet-based software was then configured to enable doctors and the anesthesiology team to record all relevant times and disturbance variables with minimal effort.

Some surprising associations came to light when the data was evaluated: A large majority of the circumstances that led to delays were outside of the area of responsibility for the anesthesia department.

“We are therefore able to base our perioperative processes on concrete, detailed and reliable data.”

A large number of concrete recommendations could be developed based on the analysis. The way was cleared to tap significant resources and reduce overtime.

Collaborative Partnership Leading to Long-Term Success

However, in order to ensure results could be achieved as quickly as possible, only those problems that could be solved independent of other external factors were addressed. This approach first of all ensured that project risks were minimized. What’s more, the improvements seen in the department sent a clear message to other departments that would need to be involved at a later stage, that improvements can be made if a structured and consistent approach is applied.

An initial workshop was held to gather ideas and recommendations from doctors and nursing staff. These were then evaluated and prioritized, taking cost, benefit, and the likelihood of success into account. A small database of suggestions for improvement was compiled: For each proposed improvement idea, the expected benefit, time and expenditure, risk and status, as well as details of implementation, were documented and updated regularly.

“One important outcome was the willingness of colleagues to look beyond their day-to-day ‘anesthetic’ work.”

A “Mini Project” for each Improvement

Each of the suggestions – of which there were more than 20 – was treated as an individual project with its own PDCA (Plan-Do-Check-Act) cycle. In the PDCA method, a solution is firstly developed in the “plan” stage, and is then provisionally implemented (“do”). The results are studied (“check”) and, if successful, the concept is introduced as the new standard (“act”).

The Plan-Do-Check-Act process

The Plan-Do-Check-Act process

Targeting Continuous Improvement

Previous attempts by staff to initiate process improvements were unsuccessful. However, with the help of the advisor from Philips, a much more rigorous approach was implemented. The improvements made affected almost all areas within the anesthesiology department: from the morning meeting, the organization of overlapping anesthesias, the transfer of patients from the room more quickly, and hygiene improvement, to the use of a process diagram for anesthesiological problems.

“We have made improvements in all areas – from patient safety and collaboration with other departments, to quicker release and reduced overtime for employees,” explains PD Dr. Bissinger, head physician at the anesthesiology and intensive care clinic, speaking about the results achieved so far. “It has really revitalized the department,” adds senior physician Dr. Marquard.

“A large number of respondents saw the improvements successfully implemented thus far as just the first step on the way to continuous optimization of all operational activities.

PD Dr. Bissinger also shares this opinion, and has an optimistic view of the future: “We haven’t reached the end of our journey yet. Although we have already made improvements across the departments, we still need to address other problems in collaboration with other clinics. We are now ready to meet this challenge.”

A large number of concrete recommendations could be developed based on the analysis. The way was cleared to tap significant resources and reduce overtime.

The Plan-Do-Check-Act process
Working Together to Solve Complex Problems – with Success

Philips Healthcare’s Clinical Transformation and Education partner clinic has been providing advice since 2012. The key objectives are to simplify clinical processes and improve financial results, and ultimately to save lives and promote health.

Before a high performance culture can be developed – combining in-depth knowledge with a high level of commitment in the team – all employees need consistent motivation and guidance to achieve this aim. Thanks to their many years of experience in the clinical field, Philips advisors provide the key to long-term success of the consultancy project. The interaction between processes, technology, and the people involved is investigated in detail as part of a comprehensive approach. The first step focuses on the “people” and “process” components, rather than the technological aspect. This is because although investment in the latest technology is critical to success, it can only be used to its full potential if its users work methodically, confidently, and in close cooperation with one another.

The key difference in this process is made by the use of the right methods coupled with the necessary experience.

The positive change over the course of the consultancy project at Klinikum Esslingen demonstrates the added value that external expertise can provide in the clinical environment. In this way, Philips works as a partner to achieve common goals.