

Do one thing, and do it better than anyone else

A paper on how to 'Optimize clinical operations'
co-authored with Professor Hartwig Huland, MD

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Paper

The Martini-Klinik: do one thing, and do it better than anyone else

Executive summary

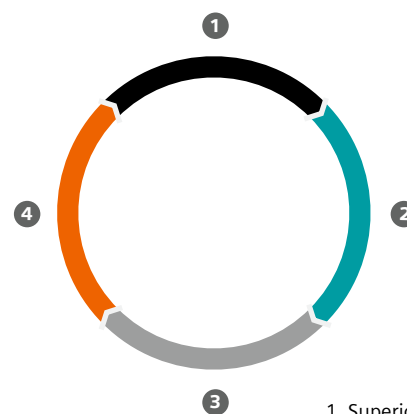
Efforts to optimize clinical operations are an intrinsic part of the broader goal of delivering high-value care. Providing healthcare with greater effectiveness, better outcomes, and greater patient satisfaction provides clear benefits to patients as well as to caregivers, providers, and other stakeholders.

Hamburg's Martini-Klinik has attained singular success in optimizing their clinical operations through the disciplined and strategic application of a number of operational principles. This private clinic within the University Hospital Hamburg-Eppendorf (UKE) is the global leader in prostate surgery. They perform more procedures than any other hospital or clinic and, more importantly, in studies, their reported outcomes were among the best in Germany or comparable countries.¹⁻³ In all key criteria including post-surgical urinary incontinence and erectile dysfunction, the Martini-Klinik was the leader by a wide margin.¹⁻³ They are also recognized as pioneers in academic and medical research related to prostate surgery and related medical conditions, as well as trailblazers in the collection and application of patient reported outcome data (PROMs).

This paper reviews the achievements of the Martini-Klinik, examines the factors that are the foundation of their success, and evaluates how these can be applied in other contexts. The Martini-Klinik's founder, Professor Hartwig Huland, made the decision to focus narrowly on one field, prostate surgery. This choice – whether to 'go broad' or 'go deep' – is a necessary first step in developing care delivery

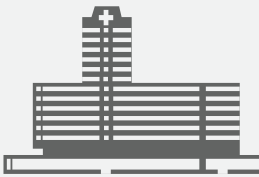
strategies and protocols that optimize effectiveness. In the case of the Martini-Klinik, Prof. Huland embraced three operational principles: I) specialization combined with high volumes; II) a rigorous commitment to follow-up and evaluation of outcomes; and III) strong patient orientation. In addition, they follow the overarching principle of being a 'faculty,' not a 'hierarchy,' which permits intense specialization, collaboration, and encourages organization-wide excellence. The successful application of these three principles has allowed the Martini-Klinik to enter into what we call the 'virtuous cycle,' a self-sustaining sequence of factors that enable lasting success, growth, stability, and ongoing improvement.

The virtuous cycle



1. Superior medical outcomes
2. Exceptional patient satisfaction
3. Strong economic success
4. Impactful strategic investments

Once an organization has successfully navigated its way onto this circuit, it becomes a continuous loop of success, enabling even better performance within all four segments of the cycle.



The Martini-Klinik,
a private clinic, founded 2005

Key figures (as of 2019)

2,600 prostate procedures p.a.

5,000 outpatient visits p.a.

72 beds

5 operating theaters

200 staff

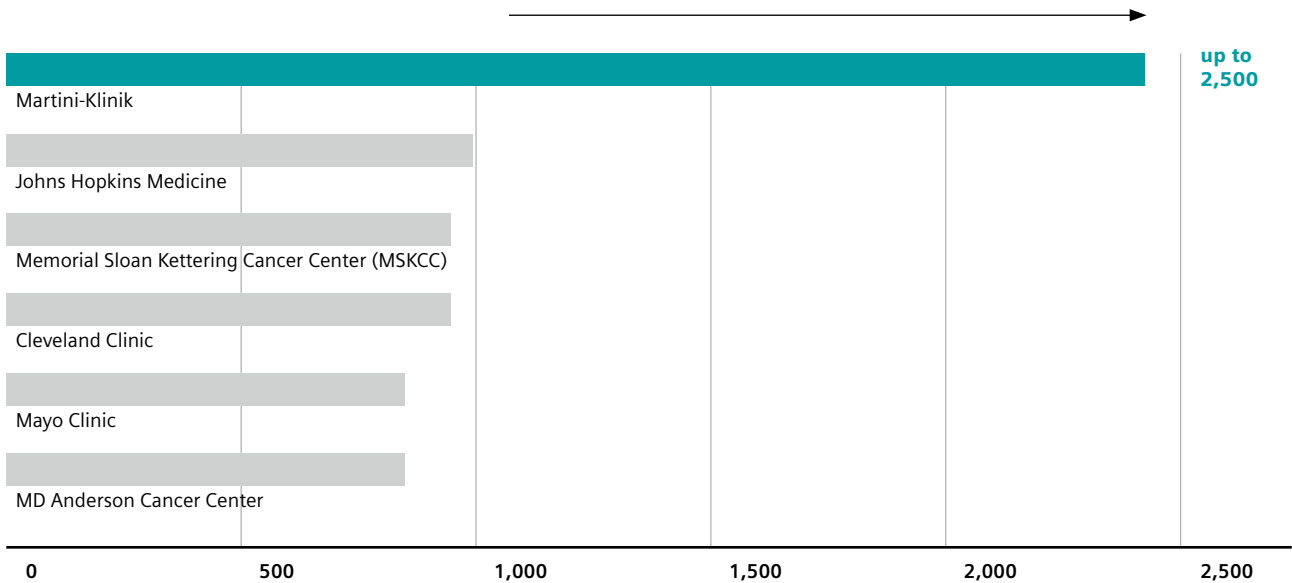
Source: Martini-Klinik

About the Martini-Klinik

The Martini-Klinik is a private facility affiliated with the University Hospital Hamburg-Eppendorf (UKE). It focuses exclusively on prostate cancer, serving both patients who are privately insured as well as those with statutory insurance, and is the world leader by volume in radical prostatectomies – one of the most complex and risky urological procedures. Its affiliation with Hamburg’s University hospital permits the clinic to operate independently while also benefiting from the resources and support offered by one of Germany’s largest hospitals. In case of unforeseen emergencies, patients can quickly receive care from necessary experts, tests and other procedures can be carried out almost immediately.

On a typical morning, the Martini-Klinik’s team arrives at 7:15 a.m. for their meeting to review the surgical procedures planned for the day, to discuss any especially problematic cases, and to conduct a short overview of new developments. The discussion is quick and professional. A radiologist projects scans of the patients to be operated on that day onto two large, high-resolution screens as the medical team – surgeons, oncologists, urologists, nurses, and supporting staff – carefully look on. Each morning is different, with new patients and focus topics, as well as short presentations during which various specialists

2.5×
 more prostatectomies than the
 second busiest hospital



Number of radical prostatectomies per year*
 Comparison of the six biggest academic centers

take turns sharing information with their colleagues. The surgeons seated around the table at the morning meeting have collectively performed more than 30,000 prostate procedures over the course of their careers. Each has earned the distinction ‘high-volume surgeon.’ There is little that surprises this team; the experience and expertise of the assembled doctors allows them to move briskly through the day’s topics. Questions are asked with precision. Answers are short and factual. Decisions are taken quickly. Then it is off to the clinic’s operating rooms where the patients are already waiting. Some have opted

for traditional open surgery. Others have chosen to have their procedure performed through a minimally invasive robotics-assisted system that supports doctors during laparoscopic operations (also referred to as ‘keyhole surgery’). In either case, the patient and his family can be confident they are in good hands and will benefit from outstanding outcomes in prostate care.

“The worldwide differences in outcomes after prostate surgery are truly horrific!”

Prof. Hartwig Huland

The challenge

Prostate cancer remains a uniquely challenging and complex illness, with significant complications and unpredictable treatment outcomes. Despite the advances made in recent years, it remains the fifth leading cause of death worldwide and the second most frequent cancer diagnosis in men. More than 1.3 million new cases were reported worldwide in 2018.⁵

Fewer complications, more predictable outcomes

Having dedicated his professional career to the field of urology, Prof. Huland was well acquainted with the prevalence of prostate cancer and with its unique risks and frequent complications. He was also troubled by the inconsistencies in the way the disease was treated and by the highly unpredictable results of radical prostatectomies. Decisions about whether or when to perform prostate surgery varied widely, not only from country to country but even between hospitals within the same region. Medical protocols were vague and imprecise. And for patients whose prostate cancer was successfully treated, related complications could be life-altering. Prof. Huland's primary motivation in establishing the Martini-Klinik was to deliver consistently better outcomes.

A more patient-centered environment

Prof. Huland was also determined to create a strongly patient-centered environment where each patient would receive personal, end-to-end attention from one physician

and his team. Particularly in light of the potentially life-altering complications related to prostate surgery, Prof. Huland realized that a prostatectomy is more than a medical procedure, it is a profound and frightening experience for patients and must therefore be approached with particular care and sensitivity. He asked himself the simple question, “If I were a patient facing such a procedure, how would I want to be treated?”

Prof. Huland was also determined to create a stimulating working environment that would attract and retain leading experts in the field. Instead of a team of surgeons that performs a variety of procedures without developing expertise in one specific area, his vision for the Martini-Klinik was of highly-focused specialization that would directly contribute to leading research and create an environment of ‘intellectual stimulation’. He wanted a working environment in which every member of the team was highly motivated and part of a collegial, collaborative fraternity. In keeping with UKE's mandate as a teaching hospital, the clinic's expertise was also to be passed on to others, with young doctors learning how to become experts in the field of prostate surgery.

Finally, for Prof. Huland, the goal of establishing a world-class specialized prostate surgery clinic was personal in many ways. He had already attained significant professional success, serving as a full professor and chief physician of urology at one of Germany's most respected academic centers, the UKE. Yet he was motivated to take on another challenge.

Optimize clinical operations

In order to achieve these goals, Prof. Huland and his team understood that it was necessary to define clear strategies to optimize clinical operations within the newly-established

Martini-Klinik. Every aspect of the clinic's internal operations and set-up had to be carefully considered and evaluated in order to contribute to the clinic's aims.

Go broad? Or go deep?

The first essential question healthcare providers must answer is whether they aim to offer an expansive range of healthcare services in order to serve as wide a range of patients as possible, or whether they aim to provide services that focus narrowly on one particular field, procedure, or area of expertise.

This decision about the volume and variety of services has profound consequences for every subsequent operational aspect, including establishing the optimum process flow.

The decision to 'go broad' carries with it the responsibility to offer a wide range of care and services to as many patients as possible – a course of action that requires providers to expect the unexpected on a daily basis. Alternatively, the decision to 'go deep' entails narrow specialization with one clearly identified patient segment, accompanied by a working environment in which efforts are actively made to avoid the unexpected. The Martini-Klinik opted for the second choice, to 'go deep', the path of super-specialization.

Various hybrid models are possible, yet the strategies for applying the principles of optimized clinical operations within such settings require a very different approach and are beyond the scope of this paper.



Excursus

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The three-step framework to 'Optimize clinical operations'

1. Improve your competitive position by defining your target market and understand population needs to shape your clinical portfolio and level of care. Then implement optimal workflows and inclusion of patient types.
2. Deciding on your delivery archetypes:
 - a) 'Go deep' (specialization and high volumes)
 - b) 'Go broad' (overcome resource constraints in interdisciplinary care)
 - c) 'Go to your patients' (enable low-acuity centers and establish universal standards and ensure compliance to de-escalate care)
3. Direct patients:

Qualify and guide patients through quick assessment for referral to the best possible care delivery archetype.



What is a high-volume surgeon?^{6,7}

- High-volume surgeons in urology perform more than 40 surgeries annually
 - In many surgical fields, the technical skill of the surgeon is a crucial – or even the decisive – determinant of surgical outcomes
 - A large body of academic literature illustrates that in radical prostatectomy, higher surgical volumes correlate to better patient outcomes as well as reduced costs to the healthcare system
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The solution

Hamburg's Martini-Klinik has developed an approach and operational model that represent a departure from conventional medical wisdom. Their 'faculty system' runs contrary to traditional hierarchical hospital structures; their dedication to rigorous patient follow-up and monitoring of outcomes is groundbreaking; perhaps most essential to their success is their commitment to super-specialization. Doing one thing only – radical prostatectomies – has enabled the Martini-Klinik to develop routines, expertise and a wealth of experience that directly contribute to superior outcomes.

Super-specialization and high volumes

The decision to develop the Martini-Klinik as a singularly specialized institution runs contrary to that of many other medical practices and facilities who seek to boost their profitability by catering to all the needs in their communities. Yet Prof. Huland was convinced that the high volume/specialization model was preferable. As he has said, "I quickly realized that I could be far more helpful as a physician within one narrow field than in a broad area with many illnesses." The high volume/high specialization model offers numerous benefits.

“Patients are certainly enthusiastic [about our follow-up]. They think it’s great, and we have very high response rates.”

Prof. Hartwig Hulan

Every surgeon is a high-volume surgeon

Every faculty member at the Martini-Klinik has personally performed more than 1,000 prostate surgeries – and continues to perform between 200–300 annually. This generates an extremely high level of competence. Today, approximately half of all radical prostatectomies in Germany are performed in hospitals where fewer than 50 such procedures are performed a year. Even if these were all performed by the same surgeon – which is not always the case – that still results in less than one such procedure a week on average. Research suggests that a surgeon reaches a plateau in terms of quality of outcomes only after 200–300 procedures.^{6,7} Anywhere below that a surgeon is still climbing a steep learning curve. High volumes directly contribute to higher standardization, as procedures become more routine and the team gains experience in coping with unexpected situations and sub-interventions. High volumes allow small differences in the disease or patient to be identified and treated accordingly. Finally, high volumes justify and effectively amortize investments in technology and training.

Rigorous follow-up and monitoring of outcomes

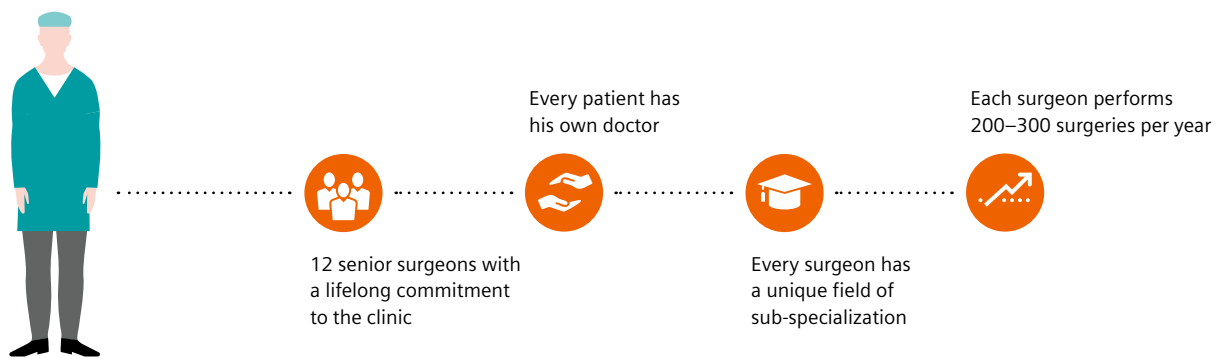
The Martini-Klinik’s decision to specialize also entails a commitment to thoroughly understand and carefully monitor all patient outcomes, not just immediately after surgery but for as long as possible. After discharging a patient, most hospitals have almost no information on the results of their treatment. Follow-up is usually done elsewhere, often with a patient’s family doctor or in a hospital closer to home.

Prof. Hulan realized that this post-surgical patient data was a vital source of information and developed a system of in-house follow-up with every patient. This follow-up

continues for a patient’s entire lifetime. Treatment and monitoring of any side effects or conditions is also part of this research, not just during the time immediately before and after surgery but lifelong. Patients are evaluated six months after their procedure, again after one year, and then once every following year. The follow-up after six months and one year is more comprehensive than subsequent questionnaires, with a stronger focus on complications. In the following years, a total of 26 questions are asked, including questions that go beyond the usual oncological results (e.g., local recurrence and follow-up treatment), with data gathered on issues including the patient’s quality of life, continence, and general health.

Patient participation is voluntary, but response rates are consistently between 70–80% in the year of treatment and remain close to 70% five years after treatment. The Martini-Klinik database has served as the foundation for the definition of a standardized outcome data set that is intended for benchmarking across institutions.⁸ All patient responses (today primarily online) are subject to data privacy protection.

The information gathered through this follow-up has allowed the Martini-Klinik to create the world’s largest database on prostate cancer, providing unique insights into what works, what does not, and actionable ideas on how to further improve treatment. Managing this information presents unique challenges. As Prof. Hulan recalls, in their early years they were able to manage this incoming data with minimal staff. Today, however, this database requires a dedicated team including two document assistants, a biostatistician, and an IT specialist. Additionally, PhD students are often involved in registering and evaluating the data. This rich pool of data also serves as the source for many publications in academic and medical journals.



Faculty System

The decision to specialize also enabled the Martini-Klinik to establish a unique 'faculty system' that ensures collaboration and helps maintain their clinical excellence. The conventional set-up of surgical departments in hospitals in Germany and many other regions rests on a model with one physician-in-chief ('Chefarzt') at the top of a hierarchical structure. Below this position is a team of senior physicians ('Oberärzte') and below them is a group of assistant physicians. The Martini-Klinik rejected this model from the outset, opting instead for what Prof. Huland calls a 'team of physicians-in-chief.' All surgeons regard their positions as life-long jobs and are equal in terms of rank and status, but with unique specializations and responsibilities permitting surgeons to achieve high volume within their various sub-specializations. These puzzle pieces come together to form the clinic's overall picture.

This equality is also reflected in the Martini-Klinik's incentive and compensation system. The variable component of each physician's income is determined according to the clinic's overall performance and outcomes, not each

physician's individual performance, which encourages all members of the team to support one another and reduces pressure to 'out-perform' others.

This non-hierarchical system also produces clinical benefits. Several years ago, one of most junior members of the Martini-Klinik's surgical team, a colleague Prof. Huland jokingly refers to as 'an upstart,' developed a surgical technique of following the sphincter directly into the prostate, a practice more senior surgeons felt brought them too close to the cancer. But when faculty-wide results were reviewed, it became apparent that his technique was in fact producing superior outcomes. Initially, the more senior faculty were, as Prof. Huland concedes, somewhat skeptical of this new technique. But the clinical evidence was clear: his positive margin, where the cancer extends right up to the cut, was no worse, and otherwise his outcomes were better. This technique was then adopted by the entire team – with the result that clinic-wide, one-year full continence climbed from 80% to over 90%. Under a more hierarchical system, more senior surgeons may not have demonstrated such a willingness to learn from a junior colleague.

The virtuous cycle – a self-sustaining system for enduring success and profitability

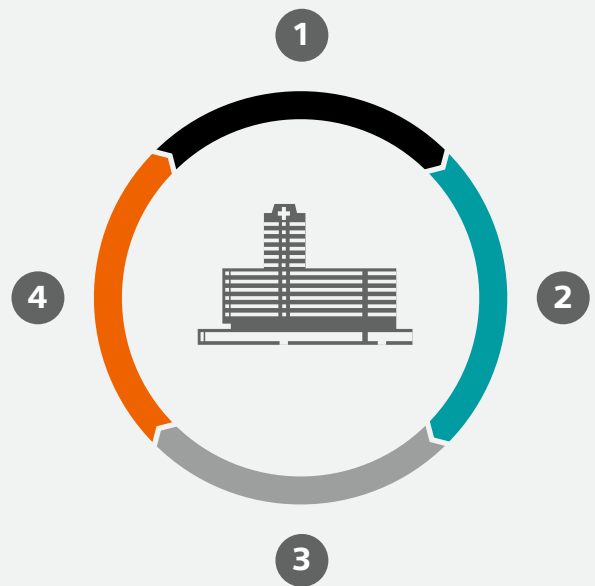
The virtuous cycle

The decision to embrace the high volume/high specialization model, combined with Prof. Huland's dedication to outcome measurement, patient orientation, and a faculty system, has enabled the Martini-Klinik to benefit from a self-sustaining cycle of success that consistently improves their overall outcomes, clinically as well as economically. This can be referred to as the 'virtuous cycle,' a self-sustaining sequence of factors that enable lasting success, growth, stability, and ongoing improvement.

The four phases of the virtuous cycle are:

1. Superior medical outcomes
2. Exceptional patient satisfaction
3. Strong economic success
4. Impactful strategic investments

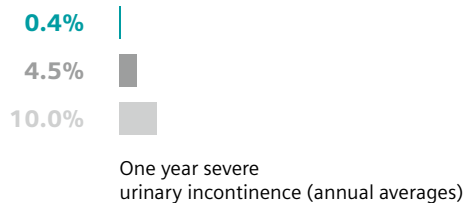
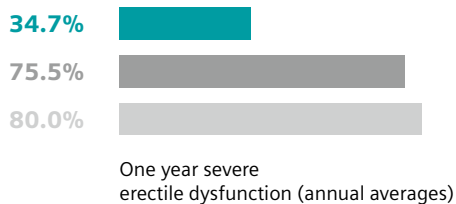
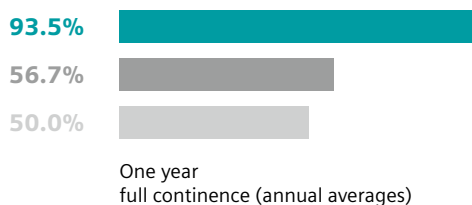
Superior medical outcomes directly contribute to exceptional patient satisfaction, which in turn brings in more business and fuels the clinic's economic success. This robust economic success makes it possible to continue to invest – in the best technology, the best people, and new and specialized infrastructure. These investments, if intelligently made, are the backbone of ongoing clinical excellence and contribute to continued superior patient outcomes. Each segment of the cycle is essential to the high performance of the next section.



- 1 Superior medical outcomes**
Due to the superior medical outcomes that matter to patients, patients want to be treated by Martini-Klinik.
- 2 Exceptional patient satisfaction**
Smooth, well-tested processes, ultra-experienced staff, and superior technology excite patients. This is coupled with a focus on the customer's needs. With highly-satisfied patients who recommend the institution, the Martini-Klinik is well utilized.
- 3 Strong economic success**
With high utilization, the clinic is economically viable and successful.
- 4 Impactful strategic investments**
As long as there is economic leeway, Martini-Klinik can invest in the best people and an optimum infrastructure. This means the Martini-Klinik can maintain its unique standard of quality and strengthen it going forward.

Dramatic variations in outcomes on national and international level¹⁻³

- The Martini-Klinik
- Germany
- Sweden



1 Superior medical outcomes

Hamburg’s Martini-Klinik has achieved a remarkable level of clinical excellence, significantly ahead of medical norms elsewhere. A large body of data on patient outcomes after radical prostatectomies exists in Sweden and Germany, from various sources. The results in both countries are quite similar in each of three key areas: one-year full continence, one-year severe erectile dysfunction, and one-year severe urinary incontinence.¹⁻³ More limited data suggests that results in other countries are comparable to those in Sweden and Germany.⁹ At the Martini-Klinik, results are dramatically better in all three areas – not by just a few percentage points. According to studies¹⁻³, erectile dysfunction, one of the most common and disruptive complications following prostate surgery, is on average twice as common in Germany and Sweden as in the Martini-Klinik’s patients. Average urinary incontinence is ten times more common in Germany and twenty times more common in Sweden than amongst Martini-Klinik’s patients (see left). These are remarkable differences – with profound consequences for patients and their day-to-day lives (for example, does a patient have to wear incontinence products – ‘adult diapers’ – for the rest of his life after surgery?)

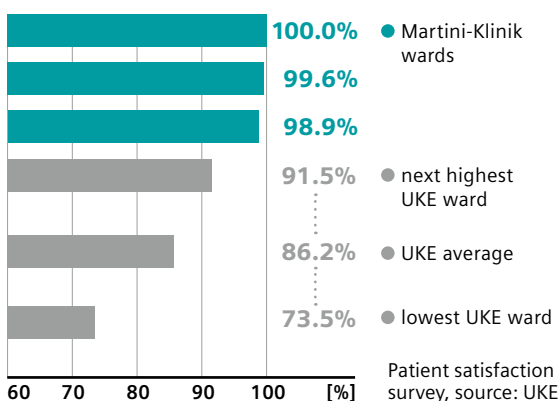
A study conducted by Barmer GEK, one of the largest statutory health insurers in Germany, provides similarly astonishing results.¹ This study indicates that the rate of erectile dysfunction among patients who have their procedure performed at the Martini-Klinik is less than half the German hospital average.¹ The percentage of patients suffering from severe incontinence is one tenth the German average. And in preventing and avoiding complications such as pulmonary embolism and thrombosis, the results at the Martini-Klinik are eight times better than the German averages.

2 Exceptional patient satisfaction

At a time when more attention is being paid to patient experience, patient satisfaction scores play an increasingly meaningful role for all health institutions. At the Martini-Klinik, these scores are exceptional. At UKE this boils down to the question of whether a patient would recommend the clinic to family and friends. Across the more than 40 departments and clinics that are part of the University Hospital Hamburg-Eppendorf, the average patient satisfaction score (i.e., patients answering the question with 'yes') is a solid 86.2. The lowest grade is a 73.5.

The Martini-Klinik's three wards receive scores of 98.9, 99.6, and 100, giving them the top-three rankings in the hospital. Even the lowest of these scores, 98.9, is six points higher than UKE's next best performing ward/department.

Patients of all 40 UKE wards were asked:
"Would you recommend the clinic to family and friends?"



Patients also appreciate the 'one-stop-shopping' offered by the Martini-Klinik. For a patient, the knowledge that a team of experts are evaluating his case and are able to deliver the full range of treatment options, from 'watchful waiting' to radical prostatectomy, is reassuring and convenient. In addition, the team is highly attentive, committed, experienced, and service oriented.

Intense specialization also provides patients with a high degree of confidence. Knowing that the team responsible for your medical care is following clear and carefully-developed processes based on empirical data is not simply a technocratic detail, it is profoundly reassuring for patients, particularly as this expertise is evident in everything the medical team does. Every aspect of their routine is based on evidence, experience, and best practices.

Finally, the faculty model introduced by Prof. Huland permits more personal patient interaction. All patients have their 'own' doctor, who advises them before their procedure, meets with them daily during their time at the clinic, performs the operation, and treats them should any complications or issues arise after surgery. The important discharge briefings are also conducted one-on-one with the surgeon assigned to that case. This contributes to high patient satisfaction, before and after surgery.

3 Strong economic success

High patient satisfaction is a direct contributor to economic success. While this should not be a medical organization's only objective, it must be one objective. Successfully helping a patient in his battle to overcome prostate cancer is deeply rewarding; however, the organization must rest on an economically-sound business model. Hospitals and clinics face pressure from owners, investors, and shareholders to operate profitably, even those operating in primarily public healthcare systems such as in Canada or Sweden.

The Martini-Klinik's economic success is clear. It is the best performing entity of the UKE. In fiscal year 2018 it generated revenue of €32 million as well as solid profit for UKE.

The German healthcare system under which the Martini-Klinik operates regulates prices for inpatient services and does not permit even the best-performing clinics to charge higher prices for their services. Nonetheless, the Martini-Klinik's superior outcomes do contribute to lowering costs by decreasing complication rates and lowering the number of readmissions. Their optimized clinical operations also give a direct boost to the bottom line by ensuring that resources are utilized at maximum efficiency and by creating economies of scale.

As with all hospitals, doctors, and medical services, word-of-mouth referrals are perhaps the most valuable form of "publicity". Therefore, the Martini-Klinik's consistently superior results and high patient satisfaction are essential to their economic viability. Demand today is extremely high, not just in Germany but worldwide – as evidence of their global reputation the clinic's website is available in 12 languages including Arabic, Chinese, and Russian.

4 Impactful strategic investments

Much of the economic surplus generated by the Martini-Klinik is strategically reinvested in people, technology processes, and research. The Martini-Klinik is committed to investing to attract the best people, and providing ongoing learning opportunities to enable continuous improvement. They offer dedicated, long-term instruction to new personnel, and permit them to assist with surgeries for 3–6 months prior to performing their first surgeries on their own. There is a cost to such careful training, yet the Martini-Klinik recognizes this as an investment in their future and in their reputation.

Another area of investment is technology. The Martini-Klinik operates with cutting-edge technologies and is committed to pioneering new approaches along the prostate cancer care continuum from diagnosis to therapy and follow-up. One example: they are leaders in utilizing robot-assisted surgery in appropriate situations. This procedure, in which the operating surgeon uses a highly sophisticated machine that follows his own hand movements, results in smaller incisions and scars and less blood loss. Results are not significantly better than those of classical incision surgery or laparoscopic surgery. Yet for certain patients, for example those suffering from obesity, this relatively new technique can be a preferable option. For other patients, for example those with heart conditions, it is not always suitable.

The Martini-Klinik also embraces a mindset of continuous learning. In practice this means that everyone's results are objectively evaluated and collectively reviewed. This benchmarking is made much easier through the patient data that is being continually collected. If necessary, retraining, coaching, or supervision is required of even the most senior surgeons. Again, investments in this type of



Watch the full video!



Interview with Prof. Hartwig Huland

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retraining are not strictly necessary, yet for the Martini-Klinik this is part of the cost of maintaining their world-leading position.

Publication is another element of this dedication to peak performance. The Martini-Klinik produces approximately 85 publications annually, resulting in 300–400 impact points annually. This supports optimization in the treatment, the attractiveness, and renown of the clinic for both caregivers and patients.

Perhaps the most significant capital expenditure: a decision was made to expand the Martini-Klinik. In 2023 it will move to a custom-designed building currently under construction across the street from their existing location. The new building includes an optimized layout with short walking distances, eight operating theaters (an increase of three from the current capacity), on-site offices for both faculty and associated faculty (some of whom are currently quite far away), and greater and modernized bed capacity for patients. Everything from diagnosis to therapy is consolidated; the new facility even has its own MRI and x-ray unit providing greater opportunities for imaging enhancement. “This is where I see the largest potential for the future to optimize clinical operations as well as the overall patient outcomes,” says Prof. Huland.

Conclusion

Across the breadth of today's highly competitive and rapidly changing healthcare landscape, all providers are under pressure to deliver greater value: better outcomes at lower cost. We believe that significant progress along the road to better value can be made by retaining a sharp focus on a few basic goals and strategies. One corresponding strategy is optimizing clinical operations. It is available to all providers, large and small, in all healthcare settings.

Hamburg's Martini-Klinik has been extraordinarily effective at this, undertaking the task with passion and precision. Their clinical operations are one of the key determinants of the remarkable success and reputation they enjoy. This paper examines their operating philosophy as well as the practical ways in which they apply this philosophy. More importantly, this paper identifies the crucial decisions and tactics – the building blocks – of optimizing clinical operations. These can serve as an implementation blueprint for healthcare practitioners.

This blueprint can be summarized as follows:

Improve your competitive position

Define your clinical portfolio: what type and level of care do you want to provide? Understand market opportunities, map out future scenarios and understand the importance of measuring patient outcomes and performance against KPIs.

Decide on your care delivery archetype(s)

I) Specialization and high volumes: (In this paper we characterize this approach as 'go deep,' the route chosen by the Martini-Klinik). Success with this approach requires intense specialization combined with high volumes and a continuous flow of work. Successful implementation of

mass-market approaches will accelerate iterative improvements and allow providers to excel in patient outcomes and performance.

II) Go broad: Embracing this delivery approach requires providers to offer a wide range of services to a wide range of patients. This demands flexibility in multi-disciplinary settings and constant preparation for challenging, unexpected cases.

III) Go to your patient: A third option is to establish low-acuity centers, which simplify procedures to attract patients – going to them rather than waiting for them to come to you. This approach requires the expansion of service offerings at remote low-volume centers and is made economically viable through the establishment of universal standards and – when required – access to specialists through hub-and-spoke models.

Direct your patients

Qualify and guide patients through quick assessment for referral to the best possible care delivery archetype or care provider. Gain insights on patients' histories and behavior patterns, assess symptoms and identify root causes robustly to guide patients.

If these steps are followed, we believe that clinical operations can be effectively optimized, resulting in tangible and meaningful benefits for patients, caregivers, and all other stakeholders.



Suggested follow up on

[siemens-healthineers.com/transforming-care-delivery](https://www.siemens-healthineers.com/transforming-care-delivery)

- Siemens Healthineers Insights series, issue 4: Achieve twice as much but only work half as hard
- Siemens Healthineers Insights series, issue 2: Culture of diversity, respect and inclusion
- Harvard Business Review: Transforming care delivery to increase value



References

- 1 Bitzer, EM et al. 2012. BARMER GEK Report Krankenhaus 2012. Schwäbisch Gmünd: BARMER GEK, 214p.
- 2 The National Prostate Cancer Register of Sweden (NPCR). 2013. National quality report for the year of diagnosis 2012.
- 3 Martini-Klinik. 2013. Martini-Klinik Outcome Measurement database. Hamburg.
- 4 Huland, H et al. 2018. Das Martini-Prinzip: Spitzenmedizin durch Spezialisierung, Ergebnistransparenz und Patientenorientierung, 1st ed. Berlin: Medizinisch Wissenschaftliche Verlagsgesellschaft.
- 5 Bray, F et al. 2018. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: A Cancer Journal for Clinicians, 68 (6), p394–424.
- 6 Vickers, A et al. 2010. The Learning Curve for Surgical Margins After Open Radical Prostatectomy: Implications for Margin Status as an Oncological End Point. Journal of Urology, 183 (4), p1360–1365.
- 7 Trinh, QD et al. 2012. Variations in the quality of care at radical prostatectomy. Therapeutic Advances in Urology, 4 (2), p61–75.
- 8 Huland, H. 2017. ICHOM. Localized Prostate Cancer. Data Collection Reference Guide.
- 9 Huland, H. 2019. The winning formula for state-of-the-art medicine. Siemens Healthineers Talk, [Online] URL <<https://www.siemens-healthineers.com/de/insights/news/shs-talks-huland.html>> [Accessed: December 03, 2019].

About the authors



Professor Hartwig Huland
Co-founder, Physician-in-Chief
of the Martini-Klinik at University
Hospital Hamburg-Eppendorf



Dr. Herbert Staehr
Vice President
Global Head of Transforming Care
Delivery at Siemens Healthineers

Professor Hartwig Huland is widely recognized as a leading authority on prostate surgery and as a creative and successful trailblazer in making medical care more transparent, patient-centered, and outcome-driven. Under his leadership, the Martini-Klinik has become the world's leading center for prostate surgery, performing more surgical procedures than any other hospital or clinic worldwide, and consistently achieving superior outcomes.

Prof. Huland received his medical training at a number of leading universities including Stanford University (California), and received his medical degree from the University of Hamburg in 1968. In 1988 he became professor at the Free University of Berlin. Three years later he moved to the University Hospital Hamburg-Eppendorf, where until 2008 he served as full professor and director of the Department of Urology and its Polyclinic. From 1997 to 1998, Prof. Huland served as president of the German Society of Urology (DGU). He co-founded the Martini-Klinik with Prof. Graefen in 2005 and was appointed physician-in-chief. Prof. Huland has published more than 500 academic and scholarly articles as well as books. He speaks frequently at conferences and academic gatherings around the world, is the recipient of numerous awards, and continues to perform surgery three or four times a week.

Herbert Staehr is passionate about healthcare and, as global head of Transforming Care Delivery, drives activities to equip healthcare providers to deliver higher-value care. Prior to this position, he led Portfolio Development and Marketing within the Enterprise Services and Solutions business of Siemens Healthineers. Before joining Siemens Healthineers, Herbert Staehr worked with a major private hospital group in Germany in senior leadership roles including serving as managing director of an acute care and a post-acute care hospital. Earlier, he led the group's Corporate Development department. He was employed for several years in the Healthcare Consulting practice of McKinsey & Company on various European and international assignments. Herbert Staehr holds a PhD in Healthcare Economics from the University of Hohenheim, Germany. He obtained a dual degree (Bachelor of Arts and Diplom-Betriebswirt) in International Business and Finance from the European School of Business, Germany, and Dublin City University, Republic of Ireland.

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Siemens Healthineers**Headquarters**

Siemens Healthcare GmbH

Henkestr. 127

91052 Erlangen, Germany

Phone: +49 9131 84-0

[siemens-healthineers.com](https://www.siemens-healthineers.com)