Torin

Efficient surgical planning
is the key to success

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Torin

It has never been easier to manage your surgical flow

Torin is the complete OR management solution that helps you predict better surgery times. Using artificial intelligence, you can improve your surgery planning and prioritise long surgical waiting lists. With Torin, you are utilising resources efficiently in and across departments.

To enable increased utilisation in the OR

Torin reduces administrative tasks to free up time for quality patient care. Both long term and daily planning becomes easier and more accurate, which leads to reduced waiting times and increased OR utilisation.[*] Torin also presents the hospital management with real-time data, enabling better hospital-wide decisions.

### To assist in time reduction for OR coordination

Torin improves the way coordinators and staff collaborate both in and across departments. By organising the workflow within the OR and to the other departments, staff have easy access to the same updated information, which reduces need for phone coordination and minimises disruptions.

Promoting a calm care environment for patients

Torin provides staff with valid and updated information to support communication to patients and their relatives. Patients experience the reassurance of a well-organised, calm hospital with surgeries that run according to schedule and have the necessary resources and staff available at the right time.[*]

»Overall, we have succeeded in making our OR area more precise and reliable, using resources more efficiently, and managing room capacities more optimally.«

Doctor Thomas Ramolla, (MBA), Head of Central Surgical Management, Klinikum Stuttgart
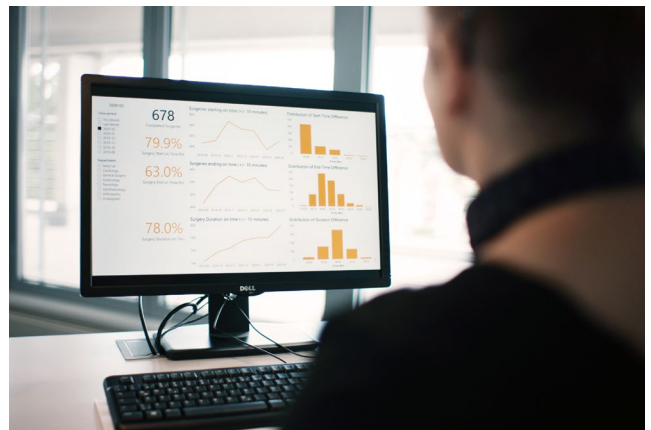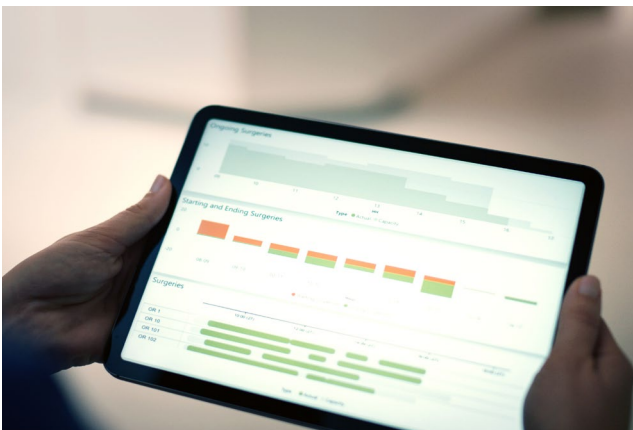
*This information represents findings from a multiple hospital case study at Klinikum Hospital in Stuttgart, Germany; Groupe Hospitalier Nord in France, is running Torin in Orsay and Longjumeau; and Tokyo Medical University Hospital in Japan.

Torin solutions

For OR challenges

Challenges faced today	Solutions with Torin tomorrow

Increasing waitlists

Hospitals across Australia and the world have been struggling with long waitlists for surgeries, as an impact of Covid. Without any streamlined changes, these lists have continued to grow and are expected to continue growing.

With Torin, you can better utilise your opening hours, current OR and current staff levels to do more. Torin reduces administrative tasks to free up time for quality patient care. Both long term and daily planning becomes easier and more accurate, which can assist hospitals in reducing waiting times and increased OR utilisation. Torin also presents the hospital with real time data, enabling better hospital-wide decisions.

Surgery schedule conflicts

From sudden changes to staff/equipment not being ready on time – OR managers are struggling to plan surgeries/OR without conflicts. Hospitals are struggling with the management of staff, equipment and OR availability. This is contributing to increased conflicts in the surgery schedule.

Torin syncs with other hospital tools to allow users to get the best out of their current resources. Through integration with T-doc, coordinators can manage instrument availability for their procedures and Insight allows coordinators to track the patient journey throughout the hospital.

Communication issues

Hospitals use many different systems which assist in managing the patient journey. In a lot of cases, these systems are not communicating with each other, causing increased phone calls and follow up of the current patient status.

Torin improves the way coordinators and staff collaborate both in and across departments. By organising the workflow, within the OR and to the other departments, staff have easy access to the same updated information, which reduces needs for phone coordination and minimises disruptions.

OR delays

Managing the surgery schedule is becoming increasingly difficult, OR coordinators are having to deal with surgery delays and running behind schedule, causing increases in staff overtime or delayed/cancelled surgeries.

Torin takes into account the several factors including surgery type, surgeon's experience along with cleaning and other miscellaneous tasks post and pre-surgery, this allows coordinators to manage expected delays efficiently.

Case Story: A balancing act

Between quality, cost and time

Founding and board member of the Association for OR Management e.V.,
Member of the Association of German Anesthetists (BDA)

**Dr. med. Thomas Ramolla, MBA,
Head of OR-Management at Klinikum Stuttgart
in Germany**

"Standardisation, transparency, workload reduction
with the help of our integrated Torin OR management
software provided a decisive contribution to managing
our tasks in the complex requirements of today's
OR management."

**Klinikum Stuttgart is one of the largest hospitals
in Germany. The hospital generates an annual
turnover of approximately 650 million Euro and the
surgical department has an annual budget of around
200 million Euro.**

**At Klinikum Stuttgart, a few years ago, the major
objective in our surgical department was to keep
punctual start and defined suture times. Nowadays,
the requirements are much more complex. In today's
OR management, you must manage the balancing
act between quality, cost and time.**

The balancing act between
complex requirements

It is essential for us that we safeguard a high quality of
care, says Dr. Ramolla. It is about managing the hospital
economy, ensure profitability and at the same time
provide the optimal medical care for our patients.

"We must ensure optimal use of our
resources and constantly utilise available
capacities, especially in times of shortage
in trained and skilled staff."

OR management plays a key role for us at Klinikum
Stuttgart. The surgical department is the most cost-
intensive department in every hospital. It can create an
important bottleneck that determines speed, efficiency,
and quality of care. A higher standardisation of workflows
and resource utilisation is the key to profitability,
efficiency and risk reduction, Dr. Ramolla explains.

Success factors at a glance:

○ Early involvement of hospital management
and departments

○ Implementation of strategic capacity planning

○ Performance standards with Torin OR
management software and predefined settings

○ Resource management based on individual
demands

○ More precise and reliable surgery planning with
integration of perioperative process times

○ Accurate upstream and downstream
process steps

○ Optimisation and standardisation of
surgical workflows

○ In-depth integration at peripheral interfaces

○ Transparency and timely reporting

○ Digitalisation of surgery documentation

○ Implementation of standardisation concepts

Efficient surgical planning is the key to success

Plenty of room for improvement

We decided to update our OR Management with a lot more SOPs (Standard Operating Procedures) and we implemented Torin* in September 2018. The results were evident and showed plenty of room for improvement in capacity management as well surgical and resource planning, says Dr. Ramolla.

OR capacity and staff were not adjusted for the actual requirements. Our rather inefficient surgery planning process accounted for a considerable part of delays and disorganisation. Process times and staff were not well planned and changes to the surgery plan were dealt with in a relatively disorderly manner.

This had a particularly unfavorable effect on the morning start, which was often late due to delays in the upstream process steps and thus impaired the schedule quality of the entire day. We often experienced unnecessary delays to occur in incision-to-suture times and suture-to-incision times. More important, this sometimes led to cancellations of scheduled surgeries or overtime work for the surgical team.

"Discontinuous OR utilisation diminish economic potential and can negatively influence employee satisfaction and quality of care."
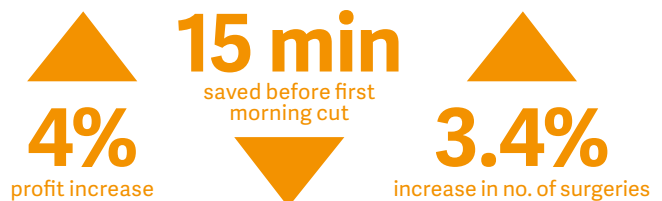
The cornerstones of our change management

During the strategic capacity planning, we coordinated elective and emergency surgery volumes to align our resources of staff, material, OR capacities and time with the number of surgeries projected for each OR. Process

4%
profit increase

15 min
saved before first morning cut

3.4%
increase in no. of surgeries

times and perioperative process times were defined and set as key performance indicators (KPIs).

Workflow optimisation performance measures were considered next, including time of first suture, sluice, anesthesia release and incision-to-suture times. We also defined KPI-based standards for surgical procedures including OR set-up times, diagnostic and procedural codes and instrument consumption standards, Dr. Ramolla explains.

"An important means of realising our ambitious plan was, and still is today, the Torin OR management software."

Torin is integrated with our hospital information system (HIS) since 2018. We use Torin for the entire surgical planning and coordination of ORs, patients and resources. The software enables us to permanently monitor all processes and provides us with a full overview of all ongoing and future planned surgeries in every OR room. To get a fast and easy visual overview, all process steps are color-coded, Dr. Ramolla points out.

Additionally, documentation of the surgical process, which was previously carried out manually, and often at times was non-transparent, is now completely digitalised. Medical record documentation has brought significant benefits. Postoperatively, Torin now transfers ICD and OPS codes to our HIS for billing purposes and the intraoperative utilisation of instruments and disposables are booked.

Optimised performances led to about 2,000 additional surgeries carried out or a 3.4 % increase in surgeries in 2019. Through optimisation, we streamlined our surgical workflows and we saved time. For example, we have been able to significantly improve the timing of the first suture in the morning by up to 15 minutes, says Dr. Ramolla.

Klinikum Stuttgart in numbers:**

No. of beds:	2,200
No. of employees:	7,000
No. of inpatient/year:	90,000
No. of outpatients/year:	600,000
No. of ORs:	55
No. of surgical procedures/year:	53,000

*At that time known as myMedis in Germany
**Data in material originates from 2019.

OR management in three levels
Matching your facility's needs

Torin Optimization
Business Intelligence for optimised decision support

Torin Optimization promotes advanced surgical planning, efficient day-to-day management, and improved resource utilisation.

- Better prediction of surgery times with artificial intelligence
- Manage surgical waiting lists
- Unique data analytics for decision support
- Improved department performance
- Customised solution

Torin Progress
On-time execution and complete documentation

Torin Progress supports surgical staff and managers in handling the increasing complexity in the surgical department.

- On-time surgery schedule
- Rescheduling tool to accommodate deviations
- Complete surgery documentation
- SmartView displays essential operating room information on digital door signs

Torin Planning
User-friendly OR scheduling and visual overviews

Torin Planning helps surgical departments optimise their long- and short-term surgery plan and increase the OR utilisation.

- Validated and conflict-free surgery plan
- Maximised use of resources
- Consistent quality of care

Expansions
Covering the entire surgical flow through integrations

Torin offers a number of expansion options for a better integrated surgical flow and increased patient safety.

- Add-on functionality and modules
- Integration to existing hospital IT solutions
- Expansion to collaborating departments

Key Torin features

Developed specifically for the challenges in the surgical department

Torin features	Torin Planning	Torin Progress	Torin Optimization
Long-term capacity and resource planning	●	●	●
Adjustable surgery schedule to accommodate sudden deviations, delays and cancellations	●	●	●
Resource and conflict checking	●	●	●
Quick assignment of surgery staff based on surgery details	●	●	●
Customisable booking templates for a fast surgery scheduling	●	●	●
Color-coded surgery schedule	●	●	●
Immediate information-sharing across collaborating departments	●	●	●
Surgery schedule export for Tegris OR Integration and Sterile Supply Management T-DOC solutions	●	●	●
Real-time updates of surgery progress		●	●
Standard checklist for comprehensive surgery documentation		●	●
Clearly assigned patient responsibilities among staff		●	●
Visualisation of surgery patient readiness		●	●
Cost calculation based on surgery type and consumables and instruments used		●	●
Live availability checks of surgical instruments through Sterile Supply T-DOC solutions		●	●
SmartView – software for digital door signs NEW		●	●
Real-time visualisations of department KPIs			●
Graphic Business Intelligence for advanced data analysis			●
Ordering of patient and equipment transports			●
Customised screen configurations			●
Artificial intelligence for better prediction of surgery time NEW			●
Manage surgical waiting lists NEW			●

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With a firm belief that every person and community should have access to the best possible care, Getinge provides hospitals and life science institutions with products and solutions aiming to improve clinical results and optimise workflows. The offering includes products and solutions for intensive care, cardiovascular procedures, operating rooms, sterile reprocessing and life science. Getinge employs over 10,700 people worldwide and the products are sold in more than 130 countries.