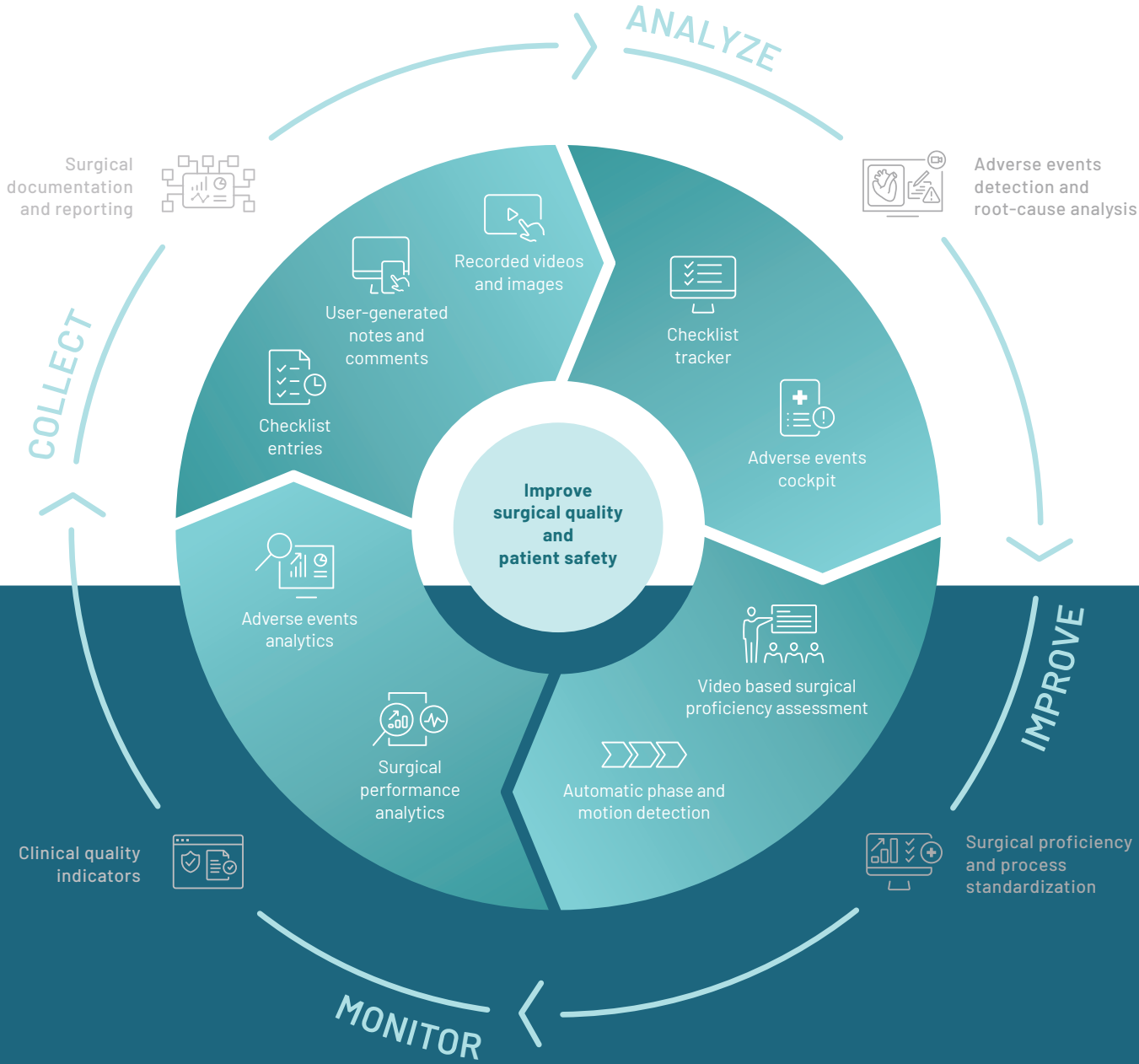
qvident®

Vendor-Neutral Surgical Safety Platform

caresyntax®

The caresyntax® Virtuous Cycle

Making surgery smarter and safer.



Process dimension Clinical dimension Technical dimension

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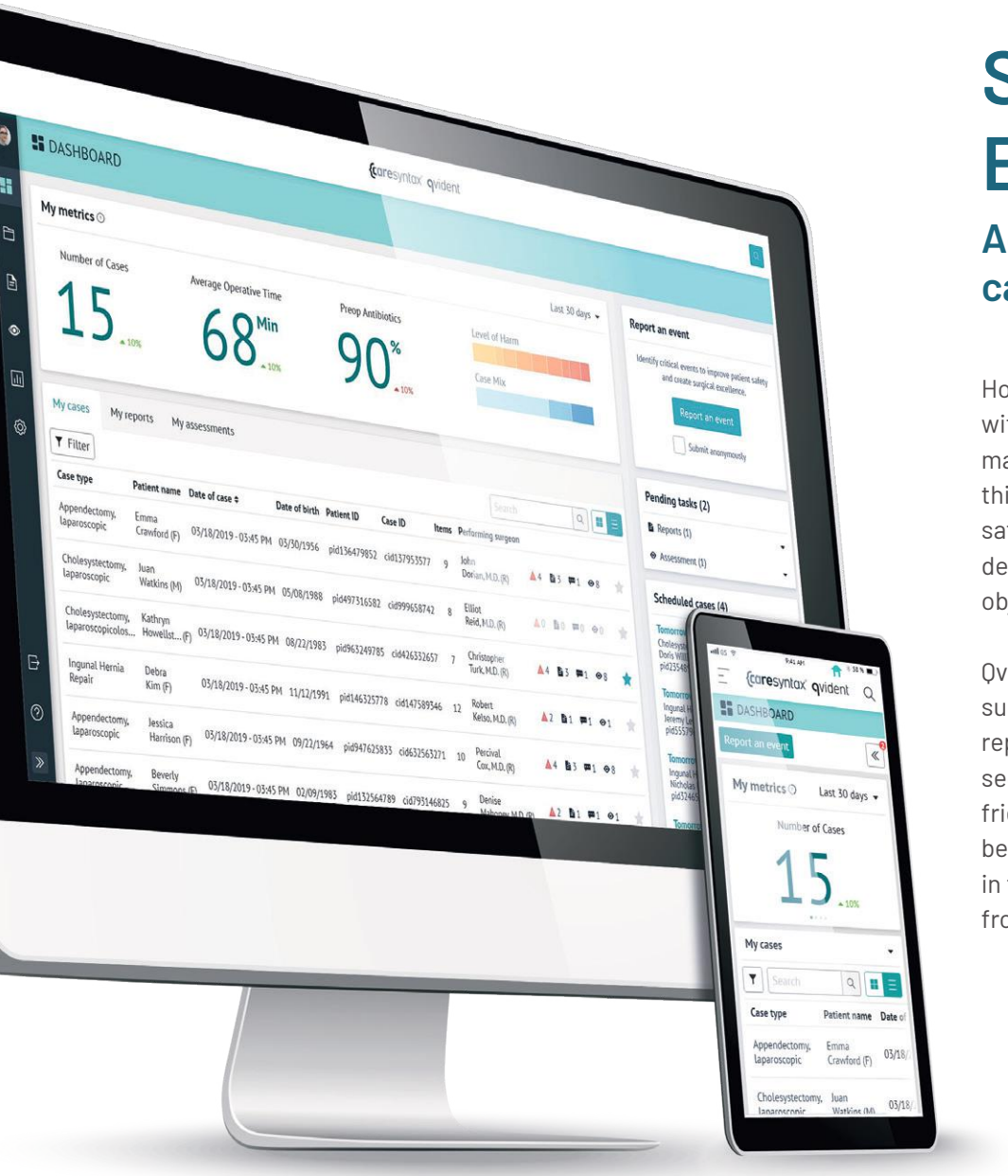


Standardizing Excellence

Across the surgical care continuum.

Hospitals around the world are faced with the challenges of collecting and managing surgical data, and leveraging this data to improve quality and patient safety. Qvident is a surgical data platform designed to accomplish both these objectives.

Qvident helps hospitals to utilize all surgical data, such as videos, images and reports within the patient context, in a secure and interoperable system. User friendly and vendor neutral, qvident can be easily installed in hospital premises or in the cloud and is accessible via browser from any device.

How qvident can support your hospital

Surgical Content Management
Provides commenting and editing features directly on video with pre-defined clinical markers to enrich content and identify key moments.

Capturing and Analyzing Adverse Events
Improve patient safety and quality by enabling front-line clinicians to proactively submit incidents, near misses and other adverse events in as less as 30 seconds.

Clinical Analytics
Get information about complications, costs, top adverse events types, etc. based on adverse event documentation workflow and built-in analytics in qvident.

Surgical Skills Training and Coaching
Enables surgeons to view surgical videos and event logs, and evaluate trainee performance via standardized tools (OSATS, NOTSS, etc.).

Event Reporting

Overcome it's challenges.

Punitive nature of reporting and the absence of easy-to-use reporting systems results in almost 90% adverse events (AE) not being reported by clinicians. The qvident event reporting feature is designed to standardize and automate the event reporting process.

1

Clinician accesses qvident on phone, tablet or computer to report an event.

2

Clinician selects the case with the event from the case list (can filter list by case type, date, surgeon, etc.).

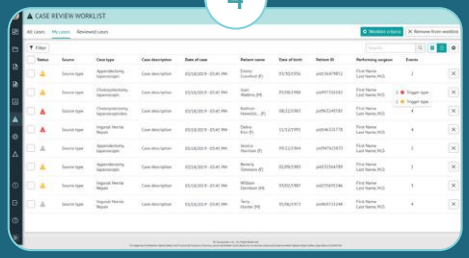
3

Clinician completes report with 3-4 quick key data selections with his/her credentials or anonymously.

Frontline AE registration

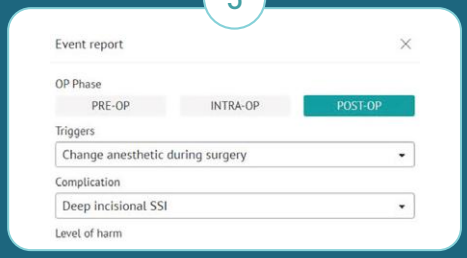
Clinical reviewer

4



Clinical reviewer accesses qvident to review cases and investigate if any adverse event occurred.

5



Clinical reviewer filters cases to specific procedure/OR worklist and reviews for specific triggers and complication levels.

6

On demand, the videos associated to the adverse event can be reviewed as well in qvident.

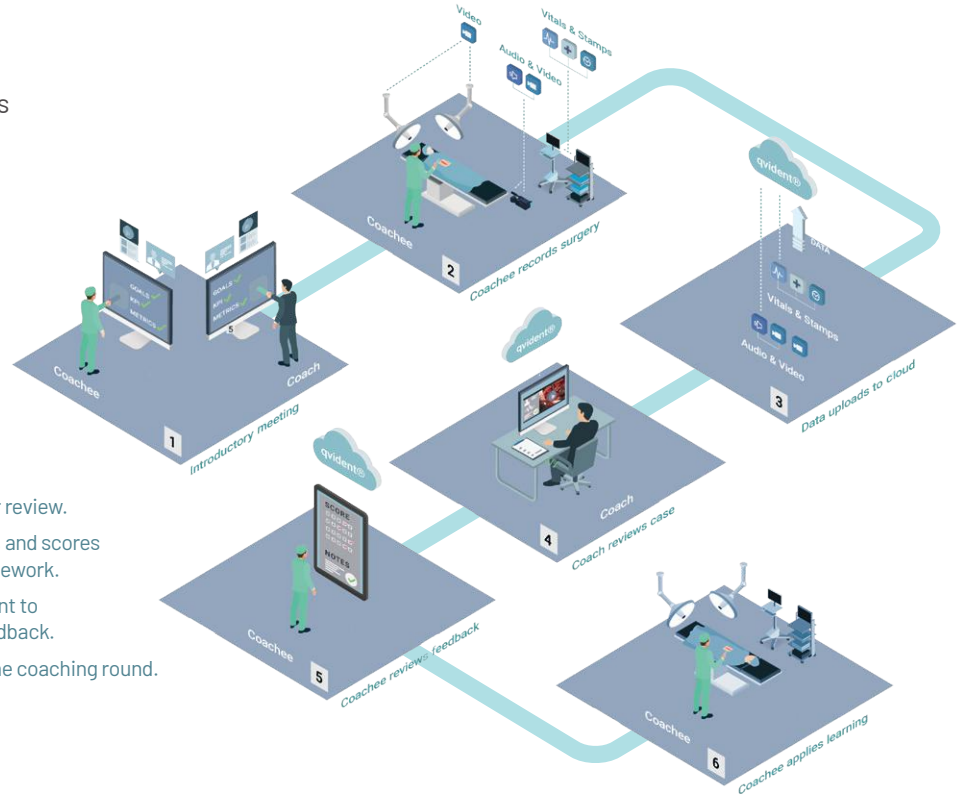
7

Statistics of the adverse events give concrete indication for change management.

Surgical Coaching and Assessment

Made smarter and simpler.

The qvident Surgical Coaching feature enables holistic and effective surgical performance feedback, driven by surgical data, and fully managed within the qvident dashboard.



1. Introductory meeting between surgeon coach and coachee. Goals and KPIs set for program.
2. Coachee records surgery from different sources.
3. Aggregated data is pushed to qvident, and an automated email is sent to coach, notifying that the case is ready for review.
4. Surgeon reviews case video in qvident *, adds comments, and scores the surgery based on globally validated assessment framework.
5. Once the case has been reviewed, automated email is sent to coachee, who logs in to qvident to review scores and feedback.
6. Coachee returns to surgery and applies learnings from the coaching round.

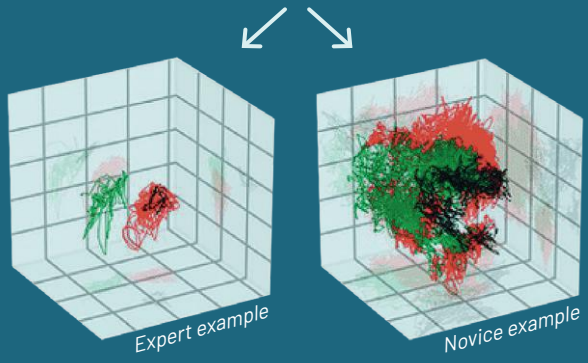
*See below, phase and motion detection algorithms

Phase and motion detection algorithms within qvident®

With the presence of a large number of videos in the qvident database, phase and motion detection can be triggered to analyze the videos and evaluate surgeon proficiency.**

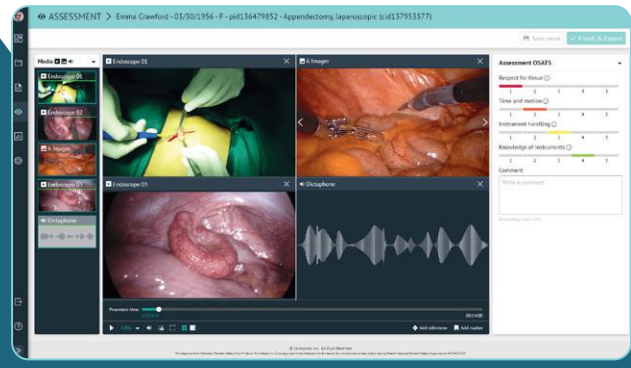
3D visualization of specific surgical phase instrument motion. Here: Bladder mobilization

Phase 1 → **Phase 2** → Phase 3



Movements:
dominant instrument non-dominant instrument camera

Empower your surgical team with data-driven training and deep, procedural insights.



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**AI algorithms are dependent on availability of sufficient videos per case type, and is possible for cloud based installations. Use of surgical data is allowed only under the terms of a data sharing agreement.

Use Cases

Best practises with qvident®

	University Hospital of Strasbourg, France	Medizin im Grünen Berlin, Germany	Sheba Medical Center Ramat Gan, Israel
Projects	32 operating rooms fully equipped with qvident	Use of qvident together with recording and video conferencing functionalities in simulation training	Risk assessment for surgical complications
Goals	• Enhanced surgical education with the use of qvident and evidence-based feedback • Quality improvement with seamless documentation	• Training practitioners and masters for medical perfection in routine and unusual situations • Accelerate learning with video based feedback. • Medical training in a state-of-the-art simulation environment	• Build machine learning models to predict the risk of post-operative complications using electronic health records • Provide recommendations on how to counteract complications in high risk patients

Qvident is used in our surgical center of excellence - Medizin im Grünen - where medical practitioners train for perfection in routine and unusual situations. Among our clients are large medical device vendors and robotics companies and qvident is the ideal tool for training surgeons and surgical teams. Fully compatible with video-conferencing functionality and cloud-based documentation capability, it provides an excellent platform for virtual training.

Dr. Heiko Ziervogel
CEO, Owner
Medizin im Grünen

Prof. Philippe Liverneaux
Chief surgeon of the
Hand Surgery Department
Strasbourg University hospital

Qvident changes the paradigms of surgical training and provides seamless and semi-automatic documentation. In situations with extremely high workload and limited human resources, this is essential for the efficient use of our capacities without compromising quality.

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