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

Siemens Utilization Management

Leverage your system's utilization and aim for maximum transparency – to get the most from the potential of your medical equipment.

Management
Services

Focus on maximizing your system usage

Through profound analysis data that enables highest possible transparency

Imaging has consistently been shown to be one of the most effective and quickest means of diagnosing healthcare issues. There's tremendous value in terms of making a diagnosis, even in exams that deliver a negative result. But along with value comes costs. And these costs are high. Consequently, CEOs focus on process improvement as the most important way to control costs, closely followed by labor efficiencies and capacity management¹ – especially in view of the constantly increasing demand and the rising use of imaging systems since the beginning of the 2010s. Some of the reasons for this include:²

- **Aging population:**
Based on National Institutes of Health data, the rate at which patients age 65 and older undergo diagnostic imaging is at least twice the rate for younger individuals. In addition, women tend to use imaging at slightly higher rates than men.
- **Added clinical pressure:**
As the patient population increases, so does the pressure placed on primary care and emergency room providers. To handle the growing patient load, many doctors might order an imaging study instead of conducting a face-to-face, physical exam. For example, conducting a physical exam may be of little value for a patient who has either a lung or abdominal problem. Instead, a CT scan or chest X-ray would provide faster, more definitive results.
- **Affordable Care Act (ACA):**
With the U.S. Supreme Court's 2012 decision to uphold the ACA, the healthcare system has been bracing to accept and serve a much larger pool of insured patients. This greater population base will play a significant role in imaging utilization in the near future.



¹ Fit for the Future, 17th Annual Global CEO Survey, PWC 2014

² <http://www.diagnosticimaging.com/reimbursement/imaging-utilization-trends-and-reimbursement>

A great-sounding triad: profound analysis enables high transparency and paves the way for optimized system utilization

Information is the key to better performance – and Siemens Utilization Management is one way of achieving this. It helps in evaluating the medical necessity, appropriateness, and efficiency of using specific healthcare procedures and systems. Accordingly, Utilization Management provides you with system-specific usage data of Siemens Healthcare imaging systems, which is collected for a stipulated time period (month, quarter, year) and summarized in reports. You can thus get an overview of how many patient examinations are carried out each day, for example, or which individual system components are used most frequently.

These periodically generated Utilization Management reports, visualized in an easy-to-read graphical format, help you to capitalize fully on your equipment's potential in the next phase. In the highly competitive healthcare market, an important add-on is the option to configure Utilization Management to provide anonymous benchmark information from comparable systems at facilities with similar environments. This helps your institution gain transparency on how you operate compared with competitors.

This is specifically adoptable to each Siemens Healthcare modality and provides a variety of information, including, for example, detailed dose information for a CT system or coil usage data for an MR device. Utilization Management is available for most systems in AX, CT, MI, MR, and XP³.



Valuable measures in times of transition

In the transition to value-based care, all healthcare industry stakeholders are facing various challenges to staying financially viable, including those presented by healthcare reform and consumerism. Many healthcare providers have realized that valuable measures to overcome those challenges and create a sustainable revenue stream often lie within the realms of operational optimization and within strict clinical imperatives. Siemens believes there is great potential to be achieved with Utilization Management in all three areas of clinical imperatives, operational optimization and financial performance.

Clinical imperatives

- Improve the utilization of your imaging systems, thereby benefiting patient outcomes.
- Increase staff satisfaction through better staff planning, which in turn increases your time with patients.
- Increase staff confidence in system usage thanks to benchmarking.
- Increase patient satisfaction by reducing dose per examination with the help of transparent dose information.

Operational optimization

- Improve process efficiency by utilizing system data and benchmarking with others.
- Streamline operations by quickly and recurrently identifying peak loads and idle times and re-adjusting your assets and workflow accordingly.
- Speed up your processes and examinations and increase throughput with more efficient workflows.
- Improve system uptime by utilizing equipment to its full potential.
- Identify areas for improvement in workflow efficiency.
- Identify operational improvements for your organization by analyzing your own specific usage data.
- Identify strengths and shortfalls in terms of system utilization and staffing, cost management and profitability, and patient volumes.
- Avoid unnecessary waiting times by offering targeted scheduling for your systems.

Financial performance

- Increase your revenues by benchmarking, which can reveal areas for improvement.
- Heighten your organization's reputation by achieving benchmark values.
- Intensify the usage of your MR systems and thus increase revenues by analyzing the number of coils used.
- Capture additional streams of revenue through a broader coil mix for MR.

Siemens Utilization Management

How knowledge leads to more efficient equipment operation

Utilization Management is one of four offerings from our Management Services, and consists of the following:

- A scorecard that provides a summary of all relevant performance parameters of the systems – in total and on average per day for the stipulated time period.
- The usage data is split into three categories: (a) patient throughput, (b) time (mean time between exams and duration of examination), and (c) examination types.

Utilization Management is available in two options:

- The **Utilization Management Basic Report** is a transparent overview of the system's utilization. It provides a periodic evaluation of capacity performance, including information on patient throughput and the number of studies conducted on individual body parts.
- The **Utilization Management Advanced Report** provides all the data of the Basic Report plus benchmarking. It compares your system data with anonymous information on comparable systems operating in similar environments, and thus enables you to see how your system is performing as measured against others.

Identification of strengths and shortfalls in terms of system utilization, staffing, patient volumes, cost management, and profitability

Heightening your organization's reputation by achieving benchmark values

Substantial improvement of imaging systems' usage, thereby benefiting patient outcomes

More transparency, with detailed reports that help prevent overutilization and inappropriate equipment usage



Monetizing care value

The following examples are based on generic assumptions. They are intended to trigger a general discussion and thought exchange on how continuous education in care providing environments, or the lack thereof, can substantially influence a healthcare institution's profit and loss statement.

Radiology department with 10 systems

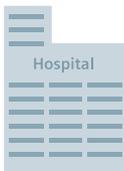
Without Utilization Management		With Utilization Management	
Average system utilization	40%	Average system utilization	50%
Possible revenue generation per system per annum for 100% utilization	100,000.00 €	Possible revenue generation per system per annum for 100% utilization	100,000.00 €
Actual revenue generation per system per annum	40,000.00 €	Actual revenue generation per system per annum	50,000.00 €
Overall revenues per annum	400,000.00 €	Overall revenues per annum	500,000.00 €
		Increase in revenues per annum	100,000.00 €

Transformation through partnership: working with you to drive success



Alice Turner, Principal Radiographer
Royal Stoke University Hospital, Stoke-on-Trent, UK

“CTs are hugely expensive assets and the Trust is always challenging us to maximize efficiency. By being able to benchmark the utilization data, we’ve been able to demonstrate we are using the technology to maximum capacity. We’ve just had the procurement of a fourth CT scanner approved via a business case that used this evidence.”



Royal Stoke University Hospital

The Royal Stoke University Hospital is a teaching and research hospital at Hartshill in the English county of Staffordshire. It serves as an integral part of the University Hospitals of North Midlands NHS Trust. The goal of the institution is to be a world-class center of clinical and academic achievement, where staff work together to ensure patients receive the highest standards of care and the best people want to come learn, work and research.



Number of inpatient beds in all NHS Trust Hospitals:
> 1,500



Amount NHS Trust staff members:
10,384



Siemens equipment:
SOMATOM CT Scanners



Clinical specialties:
Accident and Emergency (A&E), Bariatrics, Cancer Services, Cardiology, Chemotherapy, Elderly Care, Fetal Medicine, Haematology, Neurosurgery, Nuclear Medicine, Paediatric Intensive Care, Surgery, Vascular Surgery

