

PHILIPS

Services and solutions delivery

Operational
Intelligence



Extracting value
from medical
equipment

Executive briefing



Extracting value from medical equipment

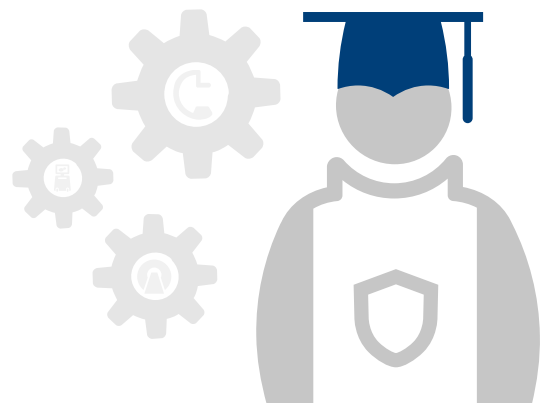
These essential items of equipment represent significant cost investments and health technology partners, such as Philips, are continuously innovating, adding breakthrough new system and operating features to drive forward the performance of these solutions.

And yet, without ongoing education, new release innovations and updates run the risk of being under utilized or simply not used at all.

Anecdotal research by Philips Education Services indicates that many operators don't access the wide range of features available on their devices, opting to only use the small range of features they know. And with a plethora of new innovations and upgrades every year, that's a lot of back end investment and innovative improvements that are not being maximized.

Committed to partnering with healthcare providers to deliver the Quadruple Aim, Philips is not just innovating an ecosystem of health care solutions. Hand in hand with our world-leading solutions, it also offers a complete continuing training and development service in order to help the hospital workforce of today make the most of the technology and data at their fingertips, learning new features and techniques, while also helping upskill for Talent 2.0.

One such technique is Philips Compressed SENSE, a breakthrough MR acceleration technique that speeds up not only sequences but your entire exam. This new paradigm in productivity requires a unique implementation, enabling 2D and 3D scans to be up to 50% faster with virtually equal image quality¹. Compressed SENSE can be used in all anatomical contrasts and all anatomies. Research has shown that training on the benefits of such techniques, however, is essential. With specific coaching, an average operator can achieve higher adoption rates and reduced overtime.

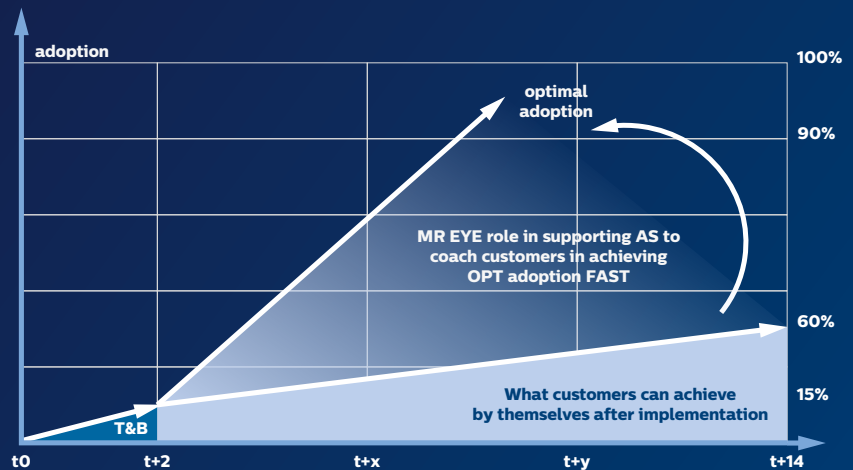


Training on Philips Compressed SENSE: a break-through MR acceleration technique that speeds up not only sequences but your entire exam

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MR C-SENSE: Business case (Customer value generation)

- Many CS customers do not succeed by themselves to achieve a high adoption during 1st year of commercial usage (average adoption after 12 months = 60%)
- An MR EYE based, proactive AS support service can help customers during first year of commercial to achieve
 - highest possible adoption rate
 - in shortest possible time
- For an average customer with C-SENSE potential of 100 mis/day, the PR EYE based AS support can lead to an **extra 30 mins/day** (from 60 to 90 mins/day).
- In addition, this will also lead to a more satisfied customer with hogher NPS, which will indirectly positively impact up-sales and socket retention rate.



For an average customer* the **additional benefits** from a **faster achieved optimal adoption**, is valued at **19K-125K€ annually**, depending if free time is used for overtime reduction or extra patients (**72€** in mixed 50-50% scenario)

* NB: based on preliminary data analysis in MR EYE; further validation still ongoing with more data and support from Bangalore team (MR EYE backend)

Philips Education Services offers courses and activities that support clinical excellence, instill confidence in the quality of exams, and enhance workflow and productivity. Clinical application training enhances the clinical use of healthcare technology and Philips Education Services courses cover monitoring and imaging systems and software applications and are designed to support clinical excellence. Courses include basic concepts like system functionality and clinical solutions as well as specialized curricula. It is supported by over 500 clinical education specialists and instructors around the world.

Philips MR Technologist Development Program at Burjeel Hospital for Advanced Surgery (BHAS), a leading orthopaedic and joint care center in Dubai, UAE.

A compelling example of the importance of ongoing education can be seen at the Philips MR Technologist Development Program at Burjeel Hospital for Advanced Surgery (BHAS), a leading orthopaedic and joint care center in Dubai, UAE.

Together with Philips Education Services, the Burjeel Hospital for Advanced Surgery in Dubai undertook a 6 month systematic education program to increase the core competency levels of their radiologic technologists. The ultimate goal of the program was to ensure that the whole team of technologists would be able to respond to a wide variety of clinical examinations and patient needs. The development program- designed, deployed and delivered together with Philips Healthcare provided the participants with a solid and thorough understanding of the foundations of MRI, improved their clinical understanding and brought them up-to-speed with the latest medical innovations.

A spokesperson for the Burjeel Hospital commented: “Following the training program I can say – without exaggerating – that all of the technologists in the department are now at a much higher standard of qualification and are able to produce truly exceptional radiological images.”

The training resulted in an average 30% improvement in image quality across all procedures . Team knowledge increased by 30-40% in key areas of patient care, imaging procedures, data acquisition and the physics of image formation.

Tommy Strandvall, Education Product Marketing Service Lead from Philips Education Services comments: “Our comprehensive, clinically relevant courses, programs and learning paths are designed to support clinical excellence, enhance operational efficiency and provide high quality care.”

Achieving clinical excellence through ongoing education.

Philips Education Services and the Burjeel Hospital for Advanced Surgery, Dubai, UAE embarked on consistency staff equipment competency training. Philips MR Technologist Development Program delivered:

30-40%
increase in
assessed team
knowledge².

Increase
in consistency competency levels
across the entire team, removing
scheduling bottle necks.

21 new
procedures and
improved abilities in
common procedures.

30% average
improvement in
image quality across all
procedures

Increase
in self assessed
confidence across new
and existing procedures

Overview of the Philips MR Technologist Development education program

Approach	Number of days on site	Number of classroom hours	Number of scanning hours	Number of Individual sessions
Education phase 1	5 days over 2 weeks	28 hours	8hours	0
Education phase 2	5 days	20 hours	13 hours	6 hours
Education phase 3	7 days	0 hours	42 hours	0
Assessment	1 pre and 1 post assessment, mid-term assessments			
Participation in Individual Courses	3 attendees in 2 day MR essentials course			
	2 attendees in 2 day MR breast program			
	5 attendees in 2 day MR cardiac program			



Many experts recommend mandatory training for newly introduced device or technology, while others call for more transparency to allow hospitals to quickly share usability issues and solutions. Philips Education Services takes a connected and blended approach, helping train users on the technology but also the process – how to thoughtfully integrate the equipment into the workforce. The right processes require understanding the devices and the users.

1 Based on a customer study performed at Burjeel Hospital for Advanced Surgery, Dubai. Results from case studies are not predictive of results in other cases. Results in other cases may vary. Improvements recorded across the following competencies: Patient care, imaging, procedures, data acquisition, physics of images formation.
 2 Based on a customer study performed at Burjeel Hospital for Advanced Surgery, Dubai. Results from case studies are not predictive of results in other cases. Results in other cases may vary. Improvements recorded across the following competencies: Patient care, imaging, procedures, data acquisition, physics of images formation.

When considering an effective ongoing health technology usage training program, Philips Healthcare Education offers the following top tips:



Take a blended approach to keep training ongoing and varied.



Start by explaining how it works.

It's difficult to feel completely comfortable operating a medical device if you don't know how it works. Although there's usually no need to focus on overly technical details, an explanation of each part of the device and its function is an essential part of a device training program. If the operator knows what a part is supposed to do, they can more readily identify problems. Providing information on typical problems and malfunctions and instructions regarding what to do if they occur may help your staff feel more confident.



Ensure training considers the “human factor”.

Testing in controlled environments often does not adequately consider the “human factor,” or how people interact with technology in high-pressure, real-life situations. Human factor teams investigate what could go wrong in the deployment of new technologies and recommend ways to minimize their threat to patient safety. Human-factors engineers scrutinize new devices from a human and technical perspective, often testing them in simulation scenarios as close to reality as possible.



Encourage peer-to-peer learning and train the trainer.

Learning work arounds, how to handle challenges and exploring under-utilized features is key.



Think short, sharp and regular.

Finding time for additional training can be a barrier to achieving proficiency with new medical devices, but short training sessions require limited time away from the unit or department and can be conducted in five or 10 minutes during weekly meetings.



Plan competency assessments and usage check ins.

Operators may know how to use the medical device, but that doesn't necessarily mean they can use it properly in all circumstances. Competency assessments allow operators to demonstrate competency in a variety of simulated clinical scenarios, ensuring they're qualified to safely operate the device.



Build in opportunities for familiarity and repetition.

Familiarity and repetition are the keys to learning any new skill. Providing a comprehensive training program offers the perfect opportunity.



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