Polish company from Krakow offers medical simulators for distribution abroad

Summary

Profile type
Business Offer

Company's country
Poland

POD reference
BOPL20240216007

Profile status
PUBLISHED

Type of partnership
Commercial agreement

Targeted countries
• World

Term of validity
16 Feb 2024
15 Feb 2025

General Information

Short summary

A Polish start-up company from Krakow has developed several awards winning medical simulators which are already used in hospitals and universities around the world to train medical staff. They offer a transesophageal echocardiogram simulator (TEE Simulator), a virtual transesophageal echocardiogram simulator (e-TEE Simulator) and a multimodal transseptal puncture simulator (TSP Simulator) for distribution on foreign markets in EU and beyond.

Full description

A Polish start-up company which develops and implements medical simulators for teaching medical personnel was founded in 2016 followed by 5 years of research and development by medical specialists and engineers, all with an academic background. Their team is a multidisciplinary group of experts: programmers, hardware specialists and medical practitioners. Thanks to this they were able to create awards winning solutions for practical training of medical staff, including:

1) Professional TEE Simulator (transesophageal echocardiogram simulator) - an economical and effective training tool which helps medical personnel to achieve high number of good quality diagnostic studies, at the same time preventing patients and physicians from unnecessary discomfort and the possible complications of real patient examinations.

The educational package of TEE simulator consists of:

- USB compatible TEE probe simulator hardware,
- a phantom,
- a transportation case,
- a software license,
- a 3D dataset library of two real patients,
- promotional access to new heart models under development on our website
- remote technical support,
- a hardware guarantee.

This TEE Simulator helps:
-understand the three-dimensional anatomy of the heart,
-learn how to obtain standard transesophageal echocardiogram (TEE) views in individual patients,
-substantially shorten the TEE learning curve,
-rapidly improve skills of both beginner and advanced imagers,
-practice TEE guidance of structural heart interventions,
-test TEE skills,
-protect patients from unnecessary discomfort and harm.

2) eTEE Simulator – virtual transesophageal echocardiogram simulator based on the TEE Simulator accessible through a website.

3) Multimodal TSP Simulator (transseptal puncture simulator) –built on the same technology as TEE Simulator. It has following features:
- Ultrasound Imaging: The TSP simulator boasts a state-of-the-art ultrasound imaging system, providing users with realistic and detailed visuals of the procedure. This unparalleled visual fidelity enables medical professionals to refine their skills with an incredible level of realism.
- Fluoroscopic View: Offering a comprehensive view, the TSP simulator allows users to practice transseptal punctures with very high precision. This realism ensures that trainees are well-prepared for real-world procedures.
- CT-Based Technology: The TSP simulator utilizes technology based on computer tomography to provide a highly accurate 3D anatomical representation, ensuring that practitioners gain a deep understanding of patient anatomy.
- Tools Visualization: The TSP simulator allows users to interact with a variety of medical tools, including needles, dilators, and more. The realistic visualization of these tools enables trainees to develop their procedural skills in a safe and controlled environment.
- Haptic Responses: Realism is further enhanced with haptic feedback, including tenting pulsing. Users can experience the tactile sensations of performing a transseptal puncture, allowing for a more immersive and effective learning experience.

Benefits of using this simulator:
- Enhanced Learning: TSP's multimodal approach combines cutting-edge technology to provide a comprehensive learning experience, ensuring that practitioners are well-prepared for actual procedures.
- Safety: With the TSP simulator, medical professionals can refine their skills without any risk to patients. This safe and controlled environment is ideal for both trainees and experienced practitioners looking to hone their abilities.
- Customized Training: The TSP simulator can be tailored to suit the needs of different medical disciplines and experience levels, making it a versatile tool for a wide range of practitioners.
- Realistic Practice: The TSP simulator offers unparalleled realism, empowering medical professionals to practice and perfect transseptal puncture techniques with confidence.

These simulators are offered for distribution around the world.

Advantages and innovations

The offered simulators enable economical and effective practical training for medical professionals. They increase the potential number of good quality diagnostic studies, at the same time preventing patients and physicians from unnecessary discomfort and the possible complications of real patient examinations. They improve skills of both beginner and advanced medical staff without any risk to patients.

They are already used by leading universities and hospitals around the world (e.g. in the EU, the USA, the ZEA, China or Brasil) and at the moment the company would like to intensify their presence of foreign markets through distributors.

The company has obtained many grants to their innovative activity and awards for their products including first award in EIT Health GoEurope Accelerator, second award in EIT Health Catapult, Polish Product of the Future, SME Instrument grant, first award at EIT Health's Bridgehead Global 2022 programme or Healthy Longevity Catalyst Award by the US National Academy of Medicine.

Technical specification or expertise sought

Stage of development

Already on the market

IPR Status

Sustainable Development goals

- **Goal 3: Good Health and Well-being**

Partner Sought

Expected role of the partner

To intensify their presence on foreign markets they would like to start new cooperation with distributors of medical equipment and educational devices in the field of medicine from Europe and other continents.

Type of partnership

Type and size of the partner

Commercial agreement

- **SME 11-49**
- **Other**
- **SME 50 - 249**
- **University**
- **SME <=10**

Dissemination

Technology keywords

Market keywords

- **05002003 - Ultrasound imaging**
- **05002005 - Other medical imaging**
- **05002002 - CAT scanning**
- **05004005 - Diagnostic equipment**

Targeted countries

- **World**

Sector groups involved

- **Health**

Media

Images

simulator.png

TEE simulator 2.png

TEE simulator.png