Visual Patient Avatar
A new way to see patient vitals takes shape

The operating room is a hectic environment where the smallest mistakes can have enormous consequences.

81.5% of anesthesia incidents are related to situational awareness failures.

Used with a conventional monitor, Philips Visual Patient Avatar (VPA) can improve users’ situational awareness and may reduce stress and augment patient care.

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Philips and University Hospital of Zürich together conducted studies with over 150 clinicians in two Swiss hospitals to validate and refine Visual Patient Avatar using a range of proven methods. Key findings include:

Elevated clinical confidence

Looking at the VPA for 3 seconds transmitted more information than 10 seconds of conventional monitoring.

Accelerated information transfer

VPA can help improve the parallel perception of multiple parameters and vital signs information transfer with a single glance at the avatar.

Numerical vital signs are translated into an avatar using color, shape and animation to help improve situational awareness.

Identified changes in multiple patients

57% of all vital sign information was correctly identified on first use of VPA.

73% of all vital sign information was correctly identified on first use of VPA.

In addition, the perceived workload for the task decreased by 12%.

Benefited from human-centered design

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References:

For additional information, please read the narrative summary, “Situation Awareness-Oriented Patient Monitoring with Visual Patient Technology: A Qualitative Review of the Primary Research”.

It summarizes the scientific background of the VPA, including situational awareness, the limitations of conventional patient monitors, synthetic vision, and aviation. Moreover, it explores the design philosophy behind the solution and connections with related topics, such as alarm fatigue, artifacts, trend monitoring, pattern recognition, and event monitoring.