

Human Factors Engineering in Cardiovascular Product Development

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Abstract

A practical overview of human factors engineering and its critical role in the design of medical devices and systems will be presented. A brief history of the field of human factors engineering will be given, and its evolution into a key discipline in the medical device industry will be discussed. To promote awareness amongst health care practitioners, a brief overview of the newest human factors and usability engineering regulatory standards will also be presented. With this as the backdrop, Dr. Cassidy will discuss the role of human factors engineering in the product development process and he will provide a case study example of how he applied the science of human factors and ergonomics to the design and engineering of a new cardiovascular medical device.

The overarching objective of the talk is to promote awareness of the immensely important need for healthcare practitioners to collaborate with human factors scientists in the medical device industry. By doing so, this reciprocal relationship will help companies best understand their users' needs and ultimately help research and development teams develop new, innovative, and even safer medical devices and systems that provide patients the best outcomes possible.