

Human Factors is No Picnic

Our friends in information technology (IT) have a favorite word in referring to technology-challenged people: PICNIC. “Hey Mike, would you go to the nurse’s station on three—we have a PICNIC going on there.” PICNIC means “problem in chair, not in computer.”

Human factors issues in our world of medical technology are no picnic, in any sense of the word. AAMI’s new human factors standard, HE75, is 400-plus pages of intense, necessary reading—no picnic there. The U.S. Food and Drug Administration (FDA) has already recognized this new standard because human factors is now a significant priority for its Center for Devices and Radiological Health—no picnic there, either.

Imagine for a moment what it’s like to be a clinician in a fast-paced hospital. The average nurse in a 350-bed hospital could be working with over 1,000 different makes, models, and ages of medical devices. From industry to the Joint Commission, from hospital chief executive officers (CEOs) to the patient in the bed, we all expect those clinicians to be experts on every single piece of technology they touch. And, by the way, that hospital CEO might or might not understand and thus support adequate training, cleaning, maintenance, or repair budgets for all the new gadgets. Human factors is no PICNIC.

We learned a lot in researching topics, reading articles, interviewing experts, and deciding what information would be most helpful to the widest AAMI community. As a technology-challenged person myself, it was a relief to learn that we should be talking about “use errors”



rather than “user errors” (let’s get rid of that PICNIC assumption). The articles are fascinating from every angle: premarket approval of devices, device planning and procurement, and identifying and understanding use errors.

Let’s get it all out on the table here. Hospital staff of all varieties do abuse equipment: they wrap cords too tight, drop equipment, force things to fit that do not fit, throw expensive scopes across the room, neglect to clean the transmission gel from probe heads, unplug devices, and more. Biomedes have the best and the worst stories about equipment abuse. This is a major problem. It’s not what we’re talking about with human factors.

We all have a responsibility to work together to understand the human interaction with equipment in the clinical care environment in which it is used. Our own assumptions are dangerous, because we think we know more than we do about how equipment is used by humans, about how clinicians “think” when they figure out how to operate a device, and about how the complexity of the surroundings (other equipment, noise, distractions, etc.) will impact the safety of a medical device.

That’s what human factors is all about. That’s what we hope is the real picnic in this issue.

A handwritten signature in black ink that reads "Mary Logan".

Mary K. Logan, JD, CAE
President, AAMI



ON THE
COVER

Vitruvian Man,
istockphoto.com

Human Factors Horizons is a special, one-time magazine focused exclusively on human factors issues as they relate to medical devices. The latest in a series of special *Horizons* publications released by AAMI, it examines how the principles of human factors can be used to improve the design, use, and management of medical devices.

Founded in 1967, AAMI is a unique alliance of more than 6,000 members united by the common goal of increasing the understanding and beneficial use of medical instrumentation.