

December 15, 2011

Dear Colleagues,

This is a “year in review” of progress that we have made together on infusion safety since October 2010, when we were all together for the AAMI-FDA Infusion Device Summit. We hope you will want to share this update widely within your organizations, to show how far we have come and what’s in store for 2012.

2011 Progress

Research:

- **Johns Hopkins Study:** Inspired by the summit, attendees from Johns Hopkins decided to tackle one of the clarion themes – the human factor. They applied for and received a three-year grant from the Agency for Healthcare Research and Quality (AHRQ) to improve the user interface. The study design uses a systems engineering approach. It involves testing prototype pump interface designs at the Johns Hopkins Applied Physics Lab (and then putting the prototypes through their paces at the simulation center). The primary end result will be recommendations to industry on improved user interface in device design. Read more about the study in *AAMI News*, where we will be following its progress along the way.
- **University of Toronto Multiple Line Study:** A research team at the University of Toronto’s University Health Network (UHN) is conducting a study on errors and issues that can result from the complexities of administering multiple line infusions at once. Andrea Cassano-Piche, member of the infusion system steering committee and working group leader on multiple-line-management, is part of this research team. The study is being conducted in three phases:
 - Phase 1: Environmental Scan
 - Phase 1a: Situation Scan
 - Phase 1b: Practice and Training Scan
 - Phase 2: Laboratory Study
 - Phase 3: Dissemination of Findings

Phase 1b presents in-depth findings and analysis of a field study, where data was collected from 12 hospital units across the province of Ontario. The entire study is due to be completed in 2012. Andrea’s working group is reviewing the findings and lending comment to the report. Phase 1a is posted on the UHN’s website, and Phase 1b is expected to be posted there early in 2012, with

recommendations that will be of interest to all of you.

<http://www.ehealthinnovation.org/?q=node/576>

- **Standardized Drug Concentrations:** In collaboration with the American Society of Health-System Pharmacists (ASHP), one of the working groups (led by Bona Benjamin at ASHP) has developed a basic list of standardized drug concentrations. It's part of a larger project to develop a formulary of medications with standardized data elements. We will be sharing the basic list of standardized drug concentrations at a working group event in January, and will have more information to share with all of you thereafter in 2012.
- **APSF Survey:** Related to the above, the Anesthesia Patient Safety Foundation (APSF) conducted a survey of anesthesiologists this fall that included questions about medication errors. 97% of respondents (over 200) agreed that "standardization of drug concentrations and equipment would improve medication safety in the operating room." This suggests that the work on standardizing drug concentrations is definitely on the right track.
- **Replication of Marla Husch Study:** In a 1996 article, Marla Husch and others reported on a study conducted at Northwestern Hospital, in which observers on the first shift on a high volume day documented one or more errors in 67% of IV infusions. We are in the process of proposing a study that will replicate the Husch study. We hope to have a lot more detail to announce early in 2012. Here is the citation to the original Husch study: Husch M, Sullivan C, Rooney D, et al, "Insights From the Sharp End of Medication Errors: Implications for Infusion Pump Technology," Qual. Saf. Health Care 2005: 14: 80-6.
- We have begun to post article abstracts and links to full articles focused on infusion systems and devices on the AAMI Foundation website. We will continue to add to this library of resources and will send out notices regarding new additions. We plan to supplement this library with a forum for people to share lessons learned, ideas for infusion system improvement, and other experiences. Watch for more to come. The link to the library is:
<http://www.aami.org/foundation/htsi/infusion/library/index.html>. **Please send citations of great articles worth sharing with the community so we can post them.** Contact:
jwilliams@aami.org.

Establishment of the AAMI Foundation Healthcare Technology Safety Institute (HTSI):

- We have an official name for what we have been loosely calling the "safety council" within the AAMI Foundation. The Healthcare Technology Safety Institute (HTSI) is where AAMI's non-standards work on patient safety initiatives will reside. The AAMI Board of Directors has publicly declared its commitment to this newly formed community with a \$500,000 commitment from the AAMI reserves.

- The HTSI's leadership has been named the *National Council for Healthcare Technology Safety*. This outstanding group of nationally recognized leaders will help guide our work. Dave Schlotterbeck, retired CEO from CareFusion, will be the first chair of the Council, and its first meeting is set for February 8, 2012. Here are the members:
<http://www.aami.org/foundation/htsi/leadership.html>
- The vision for the work is “no patient will be harmed from a drug infusion.” See the vision and mission statement here:
<http://www.aami.org/foundation/htsi/infusion/mission.html>
- For a more detailed look at working group information , here are links to charters:
Steering committee:
<http://www.aami.org/foundation/htsi/infusion/charter.html>

Working groups:
<http://www.aami.org/foundation/htsi/infusion/workinggroups.html>

Alarms:

- One of the clarion themes from the 2010 summit was infusion device alarms, which led us to look at alarms as a *horizontal* issue across all medical devices. On October 5-6, 2011, we co-convened an alarm summit with the FDA, ECRI Institute, the Joint Commission, and ACCE. The post-summit publication from that event will be available next week, and we will make sure each of you receives an electronic copy so you can think about these issues in the context of alarms on infusion devices. One of our infusion system working groups is tasked with looking at alarm safety, and they will be considering what we all learned at the 2011 summit as a part of their work plan.
- You also might be interested in this pre-alarm summit survey, and the alarm summit presentations, all of which can be found at the link below. The post-alarm summit publication also will be posted here next week: <http://www.aami.org/alarms/materials.html>.

What's Ahead in 2012

- Working Group Event: We are bringing together the members of all of the infusion safety working groups, with some additional special invited clinician experts, for a two-day event on January 25-26, 2012, with these desired outcomes:
 - Development of a research agenda
 - Clarity on critical user education/training programs with tools to implement best practices and policies
 - Ideas for collaborative projects between hospitals, industry, and other groups (that will lead to a cohesive understanding of infusion systems, better practices, better designs, and reporting systems)

- Clear roadmap of working group priorities (re-calibration of the work)
- Consensus on how we can make the biggest impact on safety (do we have the right priorities)
- Information we can share widely on new projects and what we have learned
- A checklist of what healthcare organizations can do now to achieve short term progress
- HTSI National Council for Healthcare Technology Safety Meeting: As noted above, this is our leadership council.
- The Johns Hopkins Project: Watch for updates in *AAMI News*.
- Replication of the Marla Husch Study: We expect to finalize plans and hope to begin this project in 2012.
- Standards Committee Projects: The AAMI standards committee on infusion devices continues to plug away at a TIR on safety assurance cases, along with development of a stronger standard.

Watch for an update next spring on all of the above.

Please Send

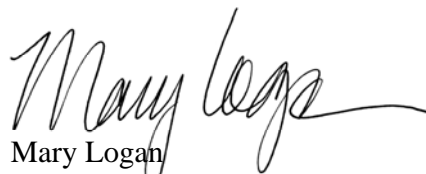
We want to continue the free sharing of information that this community started at the 2010 summit. We need your help and participation. Please send to information to jwilliams@aami.org about:

- Research studies
- Articles
- Information on successful projects that others might want to replicate
- Lessons learned
- Your ideas for what healthcare organizations can do now to achieve short term success (for the checklist that will be developed at the January event, noted above).

Thank you again for your commitment to the common goal we all share: “no patient will be harmed by a drug infusion.” Together we can get there!

Best wishes for a healthy, happy holiday season and new year.

Kindest Regards,



Mary Logan
President, AAMI