



Fun Qstream Competition Helps Nurses at VA Boston Improve Patient Safety

Qstream is a new form of collaborative, yet competitive, online learning and knowledge reinforcement delivered in the form of simple questions, answers and rewards.

Based upon two psychology research findings known as the spacing and testing effects, the Qstream methodology has been shown in randomized trials to improve knowledge acquisition, boost learning retention for up to two years, and durably improve clinical behavior.

Two hundred sixty-seven nurses at VA Boston/West Roxbury participated in a friendly and/or fierce competition between the nursing wards running from September to December, 2012. Every Tuesday and Thursday, two questions (and explanations) were posted online on topics of patient safety and infection control. Based on how each nurse performed, the question was re-sent over differing intervals of time: 8 days if answered incorrectly and 16 days if answered correctly. After a question was answered correctly twice, it was retired.

Points were awarded when nurses first answered a question and again when it was retired. Cumulative leaderboards were posted weekly showing the relative performance of the nursing wards and individual nurses. Each nurse was randomly assigned a rock band name (e.g. SICU Spice Girls) as a leaderboard identifier. At the end of the game, nurses on the ward with the highest average point total received a VA Boston fleece jacket. All nurses in the game received a VA Boston golf umbrella and were exempt from mandatory infection control training for 2013.

Of the 267 nurses, 97% submitted an answer to one or more questions and 87% completed all 22 questions. The nurses on 3 North surged out to an early lead that they maintained to the end, in spite of the efforts of SICU and 2 North nurses to dethrone them. On a final survey, 90% of the nurses requested to receive other mandatory VA training via Qstream. As stated by the nurses, Qstream "made learning fun" and is "one of the best team-building tools."

