



Technology Supporting Hand Hygiene Professionals

Sean Bay, CEO

***GLANTA* Ltd**

sean.bay@surewash.com

Overview



- History of SureWash technology
- SureWash and Showcase Hospitals
- Results of Trials
- Recent Developments
- The SureWash Mobile Training System

History



- Hand Hygiene Practice
 - Alcohol Based Hand Rub (ABHR) correct technique reduces the bacterial load by 50%¹
 - But people are bad at measuring their own skills^{2,3}
- Can computer feedback help?
- SureWash – real-time analysis of camera images of hand washing technique
 - Technology Invented Trinity College Dublin 2005
 - Dr Gerard Lacey & Dr David Fernandez Llorca

surewash Concept



Technology to Find and Measure Fast Hand Movements

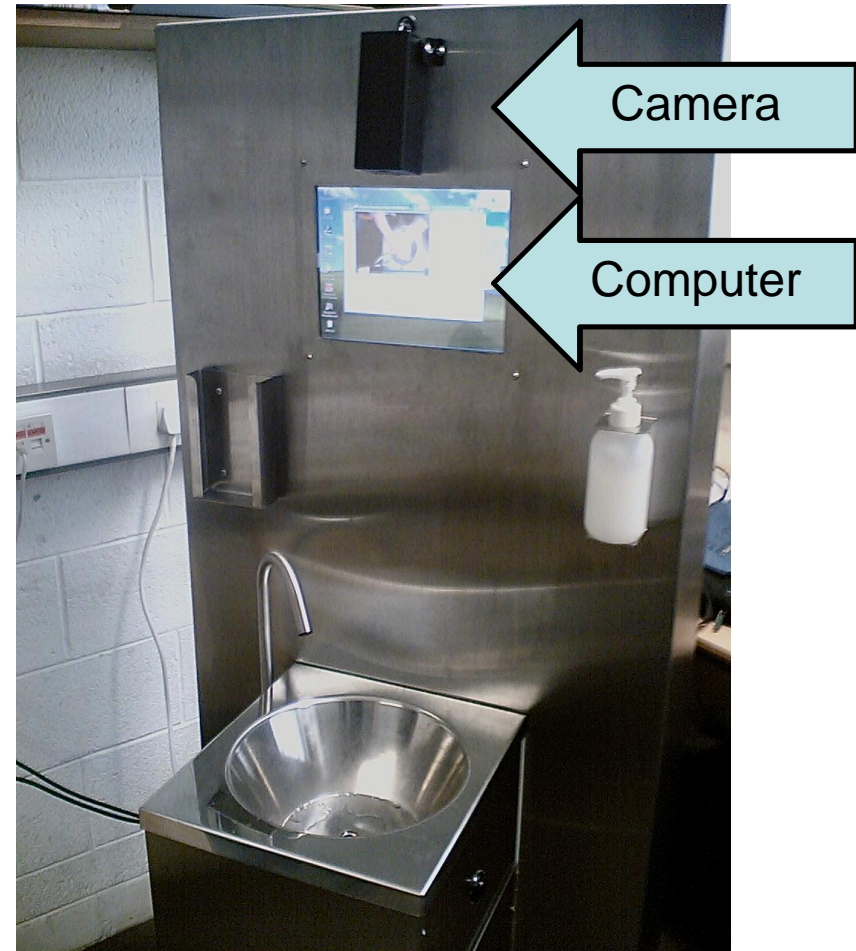


Field Tests



➤ Tested in Ireland

- Letterkenny
- Altnagelvin
- Cork Dental Hospital



First Trials



➤ Pilot Trials

- Beaumont Hospital Dublin 2009
 - ” Prof Hilary Humphries
- Mobile Unit
 - ” Unattended, Voluntary, Anonymous
- Technique Improved with Feedback
 - ” SHEA abstract March 2010
 - ” Paper in Press



Showcase Hospital

- Introduced to Showcase Hospitals July 2009
- Start of Trial January 2010
 - All 8 Sinks, Anonymous
- Development of protocol
 - Phase 1: Baseline capture
 - Phase 2 & 3: Feedback turned on
 - Phase 4: Feedback turned off



Results of Trials



– ICPIC 2011

➤ Massive Amount of Data

- . Analysis by Trinity College Dublin team
- . Large day-to-day variation & weekly trend pattern

➤ Human Vs Human Vs SureWash

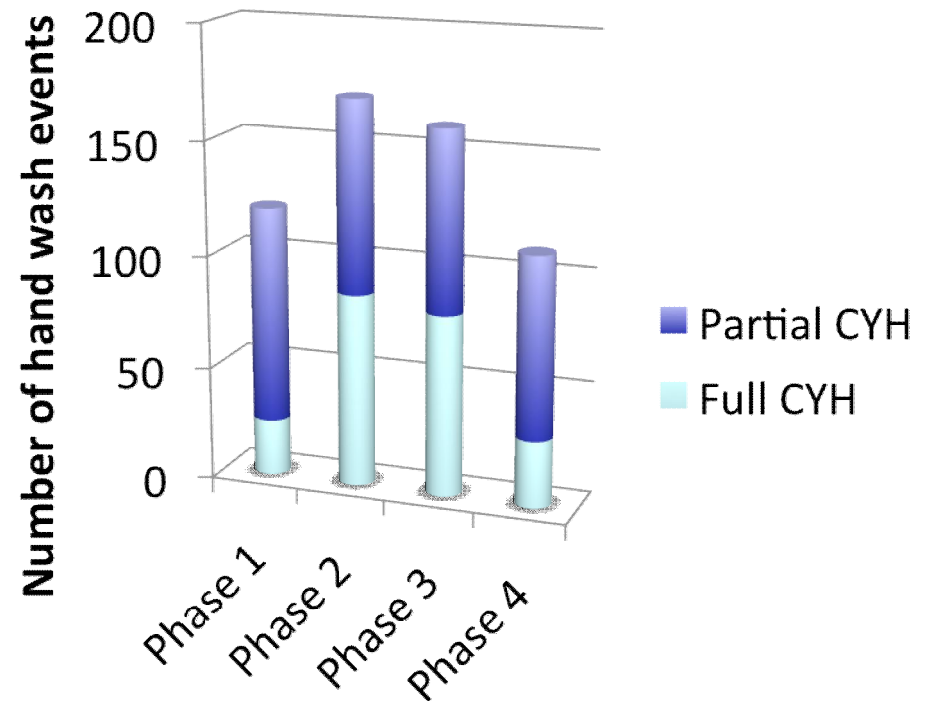
- . Human Inter-rater reliability (IIR) 65%
 - ” 8 people – consensus lower than previous studies
- . Consensus Human Vs Surewash (IIR) 86%
 - ” Humans find it hard to mark each pose consistently

Results of Trials - ICPIC 2011



- Average hand washes per patient per day
 - . Phase 1: 5.5
 - . Phase 2: 7.2
 - . Phase 3: 7.5
 - . Phase 4: 4.4
- Large day to day variation
 - . Longer phase 1 and 4 would have been good

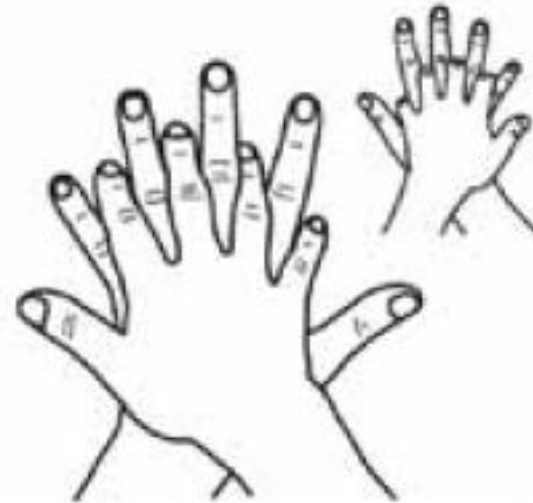
Compliance with Clean Your Hands (CYH) protocol



Results Analysis



- Study did not count
 - . Opportunities
 - . Gel Washes
- Reason for Partial Clean Your Hands Result
 - . Inter-Digital Spaces



surewash

mobile hand hygiene training



New Developments



Today




Bare to Elbow



Logout


surewash



4

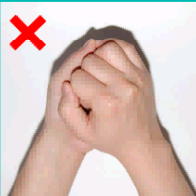

Progress:

Left Right



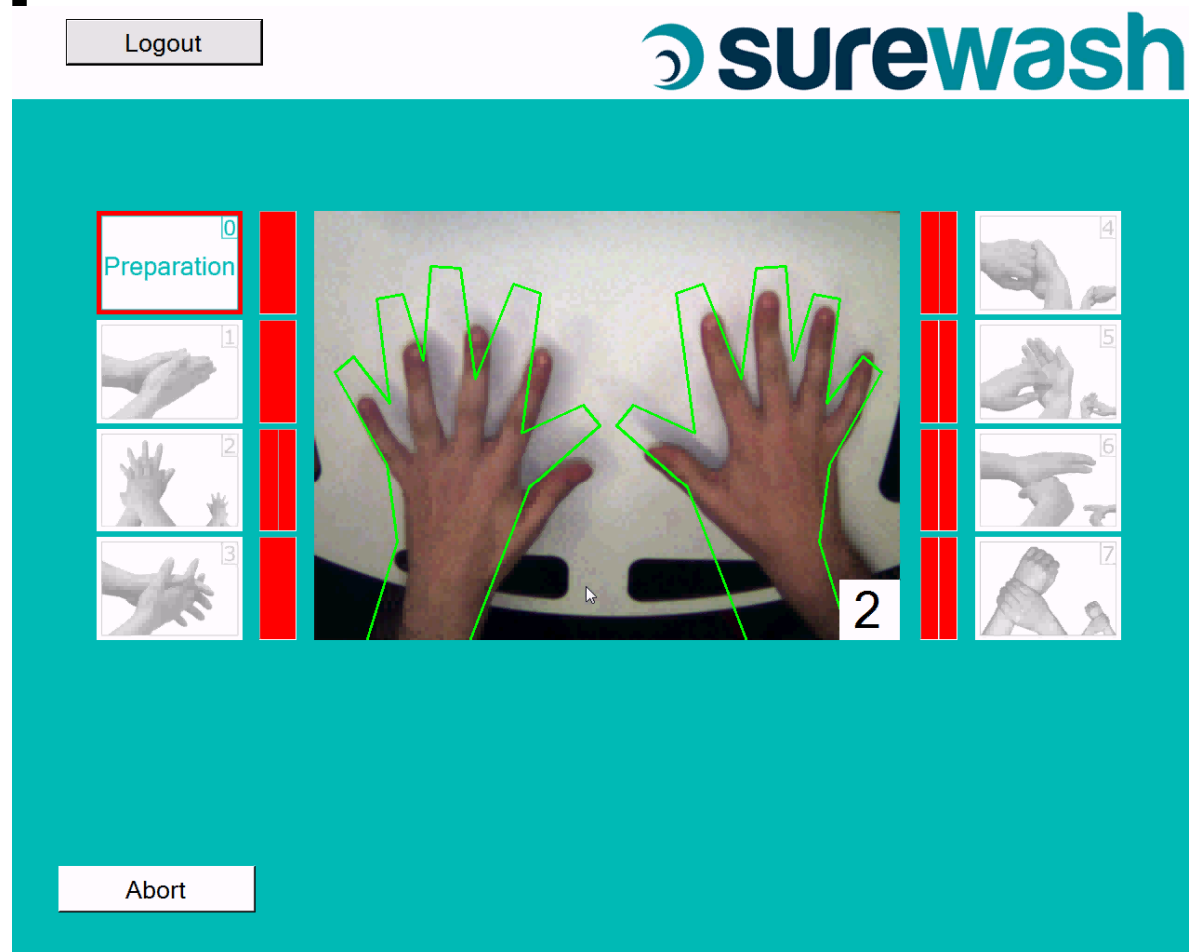
Roll up your sleeves!

Back Next



Abort

Rings / Watches in Reports





surewash

mobile hand hygiene training

- SureWash is a mobile hand hygiene training unit
- SureWash uses video and computer technology to **automatically**

Train & Measure

hand hygiene according to the WHO hand hygiene protocol



 **surewash**
mobile hand hygiene training

➤ **saves time**

- Automatic hand hygiene training 24/7
- Brings training to the wards
- Automatically builds training records



 **surewash**
mobile hand hygiene training

➤ **saves money**

- Reduces time needed for staff to complete hand hygiene training
- Frees infection control team for other tasks
- Improves compliance due to increased frequency of hand hygiene training



 **surewash**
mobile hand hygiene training

➤ saves lives

- Improved compliance with hand hygiene reduces HCAs by up to 50%
- Good hand hygiene technique reduces the bacterial load on hands by 50%



surewash

mobile hand hygiene training

- Provides comprehensive training and usage reports
- Builds a culture of patient safety
- Makes hand hygiene training **fun!**
- Training package can be customised to reflect existing training messages



 **surewash**
mobile hand hygiene training

➤ For Further Information:

www.surewash.com

info@surewash.com