Use of Internet Technology for Training, Certification, and Monitoring in the Gulf Long-Term Follow-up Study (GuLF STUDY)

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Background

2010 Deepwater Horizon Oil Spill

- Caused by drilling rig explosion
- Largest maritime oil spill to date
- >100,000 persons involved in clean-up
- Clean-up workers and residents exposed to crude oil and dispersants
Objectives

Gulf Long-term Follow-up Study

Assessing health effects associated with the oil spill

Focused on oil spill clean-up workers, most exposed group

Largest, most comprehensive study of oil spill disaster

- 40 major spills worldwide
- Few studies of health effects
- No long-term studies
- Community concerns about a range of health effects
Study Timeline

4/20/10 Deep Water Horizon Oil Spill

- 90% of clean-up ended
- Home Visit Exams (May 11 – May 13)
- Cohort Enrolled (Mar 11 – Mar 13)
- Clean-Up Work

Clinical Exam (Aug 14 – Jan 16)
- Follow-Up (May 13 – Apr 15)

Study Timeline

2010 2011 2012 2013 2014 2015
Study Cohort

32,608 adults enrolled between 2011 and 2013

- Worked at least one day in active oil spill clean-up, did support work, or took safety training but not hired
- Enrollment telephone interview collected information about clean-up jobs, symptoms, medical history, lifestyle, socioeconomic factors, demographics
- Home visit included collection of anthropometric measurements, biological samples, environmental samples, and lung function testing with subgroup of 11,193 in the Gulf

Follow-up is currently underway

- 1st telephone follow-up nearly complete
- Multi-center follow-up clinical exam is ongoing
Clinical Exam Overview

Focused on neurological, pulmonary, and mental health outcomes

- 4 hour visit, not including drive time
- Carried out by clinical sites at New Orleans and Mobile
- $100 for effort, plus $25 - $50 based on travel
- Sharing some clinical results – e.g. BP, PFT, A1C, Lipids

Initiated in August 2014

Inviting ~ 6,200 participants within 60 miles of clinics

Hoping for > 65% response, 4,000 completed exams
Training Considerations

- Two-site clinical study, 8 staff members per site
- Each staff member carries out 2 - 3 exam components
- Coordinating center staff and experts train sites
- Central training was effective for initial training
- More cost effective approach needed for ongoing training
Remote Training Approach

Webinar
- Introduction to the study and clinical exam
- Presentation on clinical procedures

Live Training Demo
- Trainers demonstrate procedures via streaming video

Practice
- Trainees practice procedures with coordinator shadowing

Certification
- Trainees demonstrate proficiency to trainers over the web

Monitoring
- Coordinating center monitors data to assess performance
- Study coordinators monitor performance using QC check list
- Coordinating center and experts perform periodic site visits
Low-Tech Requirements

Requirements:

- Telephone
- Conference Call Account
- Computer
- Web-cam
- Google Hangout Account
- Internet Access
Video of Live Training

Remote Training Accusway.MOV
Our Experience

Easy to implement and very inexpensive

Positive feedback from sites

Useful for a wide range of procedures

- 5 staff trained on neurobehavioral assessments
- 2 staff trained on biological sample collection
- 2 staff trained on pulmonary function testing

Appears to be comparable to central training

- No major difference in staff performance
Investigators and Study Team

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