

Video DOT in the Field: Translating Research to Practice

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emocha radically improves medication adherence with video DOT

50%

Average adherence with emocha

Average adherence

90-95%

Directly Observed Therapy works



DOT is the gold standard for medication adherence



Leverages human observation (Hawthorne effect) Ų.♥

Strengthens the patient-provider relationship



emocha allows DOT to become a scalable, tech-enabled service





Patient App



Provider Web Portal

Created to address high priority health challenges



HIV/PrEP



Tuberculosis





Hepatitis C



Heart Failure

DE



Hypertension











Kidney disease



TB prevalence in Maryland



NIH clinical research | Study design

STUDY DESIGN | Pragmatic, pilot prospective implementation study from April 2016-June 2017

INCLUSION CRITERIA | Adult TB patients in Montgomery Co., Baltimore City, or Anne Arundel Co. at the discretion of local providers

- + Intensive or continuation phase
- + No prior adherence requirement
- + Selected at the discretion of local providers based on individual considerations

PRIMARY OUTCOMES

Qualitative data: Staff and patients attitudes and impressions, before and after implementation of video DOT Quantitative data:

+ Adherence: defined as the percentage of 'expected' doses that are verified by video observation per person during video DOT implementation (compared to before Video DOT implementation)

+ Percentage of 'observable doses' observed: defined as total doses prescribed during phase (DOT doses + self-admin) that are observed before and after Video DOT implementation

COST & IMPLEMENTATION OUTCOMES | Used an 'ingredients' approach in which we multiply quantity of consumables / labor utilized by their unit costs

- + Conducted time motion studies at each site, and obtained local costing information from clinics/clinic managers
- + Divide costs into Labor, Consumables (e.g. supplies), Equipment (e.g. vehicles, computers, etc)
- + Conducted 'sensitivity analysis' to examine different methods of implementation and different program structures

NIH clinical research study | preliminary results



Patients on emocha maintained high, comparable levels of adherence

Patients & staff felt emocha was less burdensome & more private than in-person DOT

emocha led to cost savings that varied by program structure To be released April 26, 2018

Open Forum Infectious Diseases





emocha experience in Maryland

12,407 sq miles

3 health departments Anne Arundel County Baltimore City Montgomery County



emocha experience in Maryland



28 patients enrolled in study

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55 patients have used or are using emocha post-study

emocha experience in Maryland



7,500+ Videos submitted since April 2016

National traction & global experience



emocha implementation & success beyond Maryland



Fresno data provided by: Prado J, Vue G, Hernandez M. Use of asynchronous video directly observed therapy to improve the patient treatment experience and reduce greenhouse emissions. Independent program evaluation, January 2018.

CDC Morbidity and Mortality Weekly Reports

Puerto Rico

CDC

Centers for Disease Control and Prevention CDC 24/7: Saving Lives, Protecting People™

Morbidity and Mortality Weekly Report (MMWR)

CDC > MMWR

Notes from the Field: Use of Asynchronous Video Directly Observed Therapy for Treatment of Tuberculosis and Latent Tuberculosis Infection in a Long-Term-Care Facility — Puerto Rico, 2016–2017

Weekly / December 22, 2017 / 66(50);1386-1387



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View suggested citation

To treat a cluster of tuberculosis (TB) transmission cases in a long-term care facility for cognitively impaired adults located in Puerto Rico (facility A), the Puerto Rico TB Control Program used a novel video directly observed therapy (VDOT) application. In 2016, active TB disease was diagnosed in 11 residents and latent TB infection (LTBI) was diagnosed in



Twitter (43)



Centers for Disease Control and Prevention CDC 24/7: Saving Lives, Protecting People™

Hurricane Harvey | Texas

Morbidity and Mortality Weekly Report (*MMWR*)

<u>CDC</u> > <u>MMWR</u>

Notes from the Field: Tuberculosis Control Activities After Hurricane Harvey – Texas, 2017

Weekly / December 15, 2017 / 66(49);1362-1363

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View suggested citation

On September 14, 2017, the Texas Department of State Health Services (DSHS) reported that Hurricane Harvey had caused 82 deaths in Texas during August 25–August 30, 2017 (*1*), with property damage that could total \$180 billion (*2*). Houston alone received 45 inches of rain from August 24 to September 1, 2017, and some parts of Texas received 60 inches or more. Dozens of inches of rain also fell on the cities of Port Arthur and Beaumont. Several local health departments experienced closures during the week of



UNITE TO \rightarrow **END TB**



Thank you!

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