

The Effect of Video Direct Observation Therapy on Medication Compliance on Tuberculosis Patients

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PICOT Question

In adults with tuberculosis, what is the effect of video direct observation therapy (VDOT) on medication compliance compared to direct observation within 9 months?

Literature Search

- **Databases:** CINAHL, PubMed, Google Scholar, Science Direct, and EBSCOHost,
- **Keywords:** Video Direct Observation Therapy, Tuberculosis Medication Adherence, Electronic Reminders
- **Article Criteria:** Published after 2015, in peer-reviewed journals

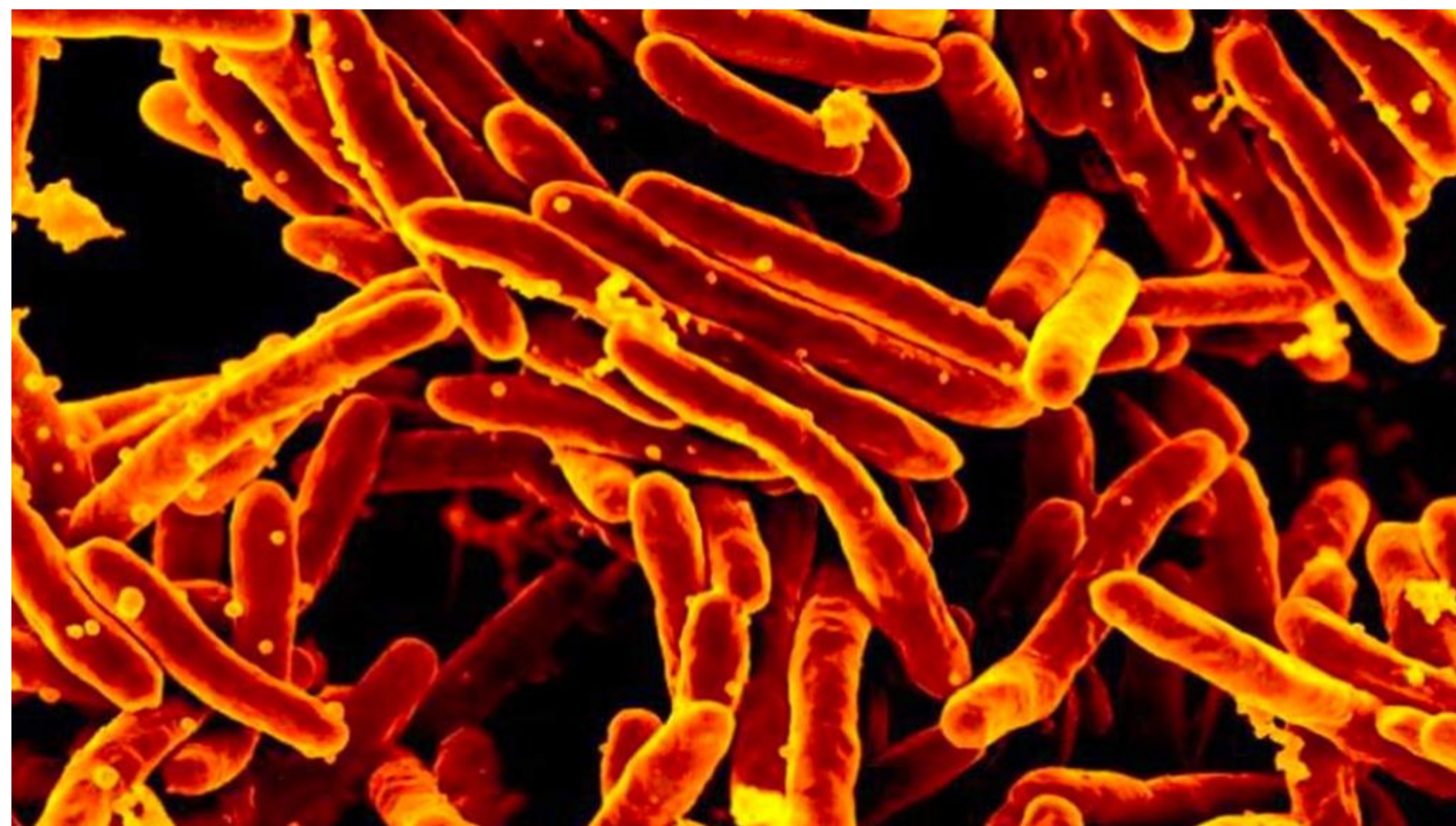


Figure 1. A medical illustration of drug-resistant, *Mycobacterium tuberculosis* bacteria, retrieved from the National Institute of Allergy and Infectious Diseases (NIAD).¹



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Synthesis of Findings

- VDOT has been shown to be a feasible replacement for in-person direct observation therapy with a 74-92% compliance rate with pulmonary tuberculosis patients^{2,3}
- 87% of programs reported higher medication compliance with electronic direct observation therapy when compared to traditional direct observation therapy^{2,4}
- The use of VDOT was tested in both the United States and in low-resources countries with success^{3,4,5},
- VDOT was shown to have a 38-80% decreased program cost when using electronic direct observation therapy compared to traditional direct observation therapy^{3,4}
- When using VDOT, patients reported feeling more autonomy, more confidentiality with 98.9% of patients not feeling an intrusion on their privacy, and were able to take medications on their own time and in a patient's preferred location rather than a doctor's office^{6,7}
- 91% of patients found that text message reminders were helpful when combined with VDOT^{5,8}

Decision to Change Practice

- VDOT should become the new standard of care for TB patients
- DOT can be used for patients for whom VDOT does not promote medication compliance
- VDOT can be combined with additional strategies such as electronic pillboxes.
- Educate patients on how to use the technology for VDOT and on the importance of medication compliance to prevent antibiotic-resistant TB
- Educate nurses who are observing patients how to use the technology for VDOT and how to identify patients who are at strong risk of medication noncompliance

Evaluation

- Increase use of VDOT
- Increase medication adherence

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