GUIDELINES FOR IMPLEMENTING LIVE VIDEO DOT (VDOT) NEW HAMPSHIRE (NH) DIVISION OF PUBLIC HEALTH SERVICES (DPHS) BUREAU OF INFECTIOUS DISEASE CONTROL (BIDC)

Table of Contents

POLICY:	2
GOAL:	2
OBJECTIVES:	2
ELEMENTS OF THE PROTOCOL:	2
1.0 Potential Candidates for VDOT:	2
2.0 VDOT Enrollment and Exclusion Criteria:	2
3.0 VDOT Project Management and Responsibilities:	3
4.0 Scheduling and Setting Up VDOT:	4
5.0 Monitoring VDOT Adherence:	5
6.0 Monitoring and Tracking Equipment (Smartphones and Peripherals)	5
7.0 VDOT Evaluation	6
8.0 Appendices	

GUIDELINES FOR IMPLEMENTING LIVE VIDEO DOT (VDOT), NEW HAMPSHIRE (NH) DIVISION OF PUBLIC HEALTH SERVICES (DPHS), BUREAU OF INFECTIOUS DISEASE CONTROL (BIDC)

POLICY:

Video directly observed therapy (VDOT) will be offered to patients receiving treatment for suspected or confirmed TB disease in New Hampshire who meet enrollment criteria.

- All participants must sign a VDOT enrollment form.
- VDOT participants may choose to return to in-person DOT at any time.
- Continuous participation in the VDOT project will depend on adherence to video interaction and monthly medical follow-up visits.

BACKGROUND:

Directly Observed Therapy (DOT) for TB treatment is considered to be cost-effective in that it prevents hospitalization, re-hospitalization, increases medication adherence, reduces the risk of disease reoccurrence, and prevents the development of acquired drug resistance. While DOT is the standard of care for TB treatment and should be offered to every patient started on anti-TB medications, the resources needed to make this service available to all TB patients may not be readily available. This is especially true in places where the patient's work schedules and long distance traveling can become a hindrance. A continuous decrease in resources compels the NH BIDC to seek alternatives that will help improve DOT enrollment, treatment adherence and treatment completion rates. State health department programs that have used the VDOT approach report this method to be more cost-effective and less intrusive for patients and staff than traditional in-person DOT. VDOT also offers a novel approach for improving medication regimen adherence with minimal burden to both patients and staff. The electronic devices that will be used to implement VDOT in NH will be a smartphone or the internet with a web cam.

ELEMENTS OF THE PROTOCOL:

1.0 Potential Candidates for VDOT:

All patients managed by BIDC who are diagnosed with suspected or confirmed TB disease who are eligible for in-person DOT and who meet the enrollment criteria outlined in section 2.1, will be given the option of enrolling in VDOT.

2.0 VDOT Enrollment and Exclusion Criteria:

Patients can be identified at any point in their treatment for enrollment in VDOT. Patients may opt to return to in-person DOT at any time.

- 2.1 All patients must meet the following enrollment criteria:
 - 2.1.1 Demonstrate proficiency in using VIDYO on their smartphone after 1 or 2 training sessions.
 - 2.1.2 Ability to accurately identify each medication and self-administer his or her medication by mouth.

- 2.1.3 Ability to communicate in English or in a language spoken by one of the assigned VDOT observers.
- 2.1.4 Have access to conditions that support optimal patient confidentiality in the observation environment (private room, or an area away from others.).
- 2.2 Patients who start on daily or intermittent DOT must maintain a 80% -100% adherence rate with in-person DOT for at least 2-4 weeks prior to enrollment in the VDOT program;

Note: Ideally, patients should be enrolled on in-person DOT for 2-4 weeks before enrolling in the VDOT program. However, if this requirement is not met it will not be used an exclusion for enrollment in VDOT.

2.4 Exclusion criteria:

Patients that exhibit any of the following characteristics or fall into categories below will not be enrolled in the VDOT Program. If any of these characteristics occur after enrollment, then VDOT should be discontinued. All issues and complaints should be addressed immediately by appropriate BIDC staff or a health care provider.

- 2.4.1 Patients who experience adverse reaction(s) to prescribed medication;
- 2.4.2 Patients at risk for hepatic complications while receiving anti-TB medications;
- 2.4.3 Pediatric patients;
- 2.4.4 Patients with disabilities that prevent full participation: vision, hearing, physically challenged, etc.;
- 2.4.5 Patients on commissioner orders for DOT;
- 2.4.6 Homeless patients;
- 2.4.7 Patients who consistently miss VDOT calls/appointments;
- 2.4.8 Patient in isolation;
- 2.4.9 Patients that fail to consistently accomplish VDOT within 15 minutes;
- 2.4.10 Inability of the patient to demonstrate effective use of VIDYO and or smartphone;
- 2.4.11 Patient has multi drug resistant TB (MDR) or extensively drug resistant TB (XDR).

3.0 VDOT Project Management and Responsibilities:

- 3.1 VDOT Application Coordinator:
 - 3.1.1 A centrally-located Video Application Coordinator will be assigned as the primary oversight agent responsible for implementing the VDOT program and performing overall coordination with a NH BIDC public health professional (PHP).
 - 3.1.2 The VDOT coordinator will monitor VDOT operational issues including phone connectivity, conferencing, and related IT problems;

3.1.3 The Video Application Coordinator will track all issues related to this project;

3.2 Patients:

- 3.2.1 Patients who have met the selection criteria will be required to sign an agreement form expressing their willingness and ability to:
- 3.2.2 Participate in the VDOT program;
- 3.2.3 Maintain VIDYO on the smartphone;
- 3.2.4 Maintain payment of phone and data plans.
- 3.3 Public Health Professionals (PHP) are defined as epidemiologist, disease investigation specialist or other designee:
 - 3.3.1 PHP who is knowledgeable of BIDC's policy and procedures related to DOT and VDOT will be assigned to assess the patient's eligibility to participate in the VDOT program based on the selection and exclusion criteria in section 2.0.
 - 3.3.2 The PHP will use a culturally-sensitive approach to interview and educate the patient about:
 - 3.3.2.1 Their TB status;
 - 3.3.2.2 Directly Observed Therapy including in-person DOT and VDOT procedures;
 - 3.3.2.3 The TB care medical evaluation and follow-up process;
 - 3.3.2.4 The importance of adherence to treatment and keeping medical and DOT appointments;
- 3.4 The assigned PHP will confirm to the BIDC practices in managing a suspected or confirmed TB case during the course of the VDOT program. This includes:
 - 3.4.1.1 Ensuring compliance with medical visits;
 - 3.4.1.2 Assessing treatment response and progress;
 - 3.4.1.3 Communicating with all providers involved in the patient's case management;
 - 3.4.1.4 Ensuring adherence to treatment through completion;
 - 3.4.1.5 Ensure that each observation encounter and outcome (i.e., medication ingestion), adverse events or technical issues with VDOT are documented.
- 4.0 Scheduling and Setting Up VDOT:
 - 4.1 The PHP will arrange 1 or 2 initial encounters with the patient to assess the patient's capabilities and determine logistics for use of VIDYO.
 - 4.2 On the first day at the clinic or in the patient's home, the PHP will:

- 4.2.1 Discuss with the patient all aspects of the VDOT program to ensure clear understanding of his/her rights and responsibilities when receiving VDOT; as well as understanding of his/her responsibility in maintaining VIDYO on their personal smartphone.
- 4.2.2 Review and sign a written consent form that includes an agreement for VDOT. See Appendix 9.1 Agreement for Video DOT (VDOT).
- 4.2.3 Review the patient confidentiality commitment.
- 4.2.4 Demonstrate for the patient the control s/he can have over his/her privacy by positioning the camera to limit the view of others in his/her environment.
- 4.2.6 Instruct the patient on the use of the VIDYO application.
- 4.2.7 Test the equipment while in the home/clinic setting.
- 4.2.8 Observe the patient performing the first video DOT session while a Video Application Coordinator or designee calls the patient from BIDC office.

5.0 Monitoring VDOT Adherence:

- 5.1.1 Ideally, patients selected for the program should have received 2 weeks of inperson DOT; this is not an exclusion criterion however.
- 5.1.2 Once the patient has successfully completed 2 weeks of in-person DOT, the PHP will review the VDOT procedures and initiate as appropriate;
- 5.1.3 If the patient agrees to participate in the VDOT program, the PHP will arrange a convenient date and time for the virtual visits.
- 5.1.4 During the virtual visit, the PHP will observe through the video, patient displaying the medications on screen; patient placing medications in his/her mouth and swallowing them.
- 5.1.5 In case of technical failure, the PHP will arrange an in-person home visit to avoid interruption of the DOT treatment.
- 5.1.6 The PHP will instruct the VDOT patient with clear guidelines on who to call for emergency medical needs.
- 5.1.7 The PHP will follow standard medication monitoring procedures, inquire about adverse reactions, etc. and render advice accordingly.
- 5.1.8 At the end of each VDOT encounter, the PHP should confirm the next encounter date and time. S/he should remind the patient of the next medical follow-up visit at least a week prior to and during the last observation before the appointment date.
- 5.1.9 PHP will confirm dose on DOT calendar.

6.0 Monitoring and Tracking Equipment

- 6.1 While enrolled in the VDOT Program, access to the VIDYO application will be given to the patient.
- 6.2 The VDOT Application Coordinator will provide oversight to this project. Typical responsibilities will include:
 - 6.2.1 Processing requests for the VDOT enrollment;
 - 6.2.3 Following-up on reports of application malfunction;
 - 6.2.4 All malfunctions must be reported to the VIDYO Help Desk within one working day and before the next VDOT session (whichever comes first);
- 6.3 The contact information for the Video Application Coordinator will be provided to the patient and staff for trouble shooting;
- 7.0 VDOT Evaluation and Reporting (see attached NH VDOT Evaluation Plan)
 - 7.1 The Video Application Coordinator will prepare a monthly summary of communication and operational issues that were identified and the percentage that were successfully addressed.
- 8.0 Appendices

Video Application Consent Form

NEW HAMPSHIRE DIVISION OF PUBLIC HEALTH SERVICES (DPHS) BUREAU OF INFECTIOUS DISEASE CONTROL (BIDC) Video Application Consent Form

Between NH DPHS BIDC and	on this date
PATIENT SECTION	
It has been explained to me that the most effective to the patient and having a trained health care wo	n virtual space by use of a smartphone or the internet
I will take my treatment under direct observation i my home, or a place of my choosing. I understand	in virtual space by use of my smartphone and VIDYO in that my information will be kept confidential.
I agree to keep all my VDOT appointments.	
If, for any reason, I cannot keep my scheduled VDC	OT appointment, I will call
at	to reschedule.
I will attend all scheduled medical appointments u complete.	ntil my physician tells me that my treatment is
If, for any reason, I cannot keep my scheduled med	dical appointments, I will call
at	to reschedule.
	program, I must keep all my VDOT appointments as my appointments satisfactorily, I may be required to
I understand that I may choose to return to in-per program.	rson DOT at any time during the course of the VDOT
If I have any questions, concerns, suggestions or co	omplaints about any aspect of my care, I will
tell Professional	my VDOT Public Health
DPHS SECTION:	
J,	, agree to the following:
Name of PHP /VDOT Observer	
l will call	at the agreed time.
Name of Patient	

Occasionally, the VDOT observer's schedule may change and if so, the patient will be notified as quickly as possible. I will ask questions and respond to all questions and concerns raised by the patient, including referral for social services, to the best of my capacity.

I will assist the patient in maintaining his/her video and medical a	ppointments.
SIGNATURES:	
Signature of Patient:	Date//
Signature of PHP /VDOT Observer:	_Date/