

## VCHIP CHAMP VDH COVID-19

May 28, 2020 | 12:15-12:45pm Call Questions and Answers\*

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### **VDH Updates**

We received a corrected HAN: Guidance on N95 Respirator Sterilization in Your Region. There were two very small corrections: Brattleboro Memorial Hospital contact info and the correct name of North Country Hospital.

The new HAN: Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Novel Coronavirus Disease 2019 did come out yesterday. We thank Jennifer Read for putting this document together. The HAN does recap some of what's known about the epidemiology to date, the CDC case definition, and reporting. Please report any patients that meets the case definition to VDH. This is a reportable condition and we ask you to also consider this condition in any pediatric death with evidence to SARS-CoV-2 infection.

Temperature screening during extreme heat: one of our colleague had an interesting experience with the fact that she had some parents who screened positive for fever during the practices's usual screening approach, but these parents had no known COVID exposure or illness. It was extremely hot yesterday as well. She admitted the parents through the "sick door" at her office, did some additional screening by telephone, and then place the parents in the "sick room" for the visit. We explored this a bit more yesterday through literature and asked our infectious disease experts. There are some literature that supports alignment between, for example, the use of rectal temperatures in children and use of temporal artery scan and other temperature methods. All of us have wondered about an approach that might mean using a different method to take a temperature if you got an elevated temperature with the scan methodology. This is something we may need to think about as we get into hotter weather and is an important conversation to have on how we read the infrared thermometer.

### **Practice Issues: COVID-19 in Vermont – Pulse Oximetry Project**

*Jennifer Read, MD MS MPH DTM&H*

Dr. Jennifer Read provided a clinical overview of deaths among Vermonters from the HAN dated April 21, 2020. Dr. Read highlighted some facts: all of the patients who died had comorbidities, some were falling at home, some presented to the ER with altered mental status, lethargy, somnolence, and confusion, and some had syncopal episodes at home. In spite of a range of signs and symptoms, all deaths appeared to have a common final clinical pathway of hypoxemic respiratory failure.

This issue has been discussed nationwide and it appears there is significant hypoxemia that precedes respiratory distress in patients who died of COVID-19. People have theories that there is a slow and gradual development of COVID-19 pneumonia. There are compensatory respiratory efforts which are sufficient to avoid hypercapnia and the concomitant sensation of "shortness of breath." Patients in VT have arrived at a medical facility and had low oxygen saturation levels (i.e. 75%), abnormal chest x-ray (consistent with pneumonia) but no respiratory distress. Subsequently, the patients who died had a fairly rapid decline thereafter.

Dr. Read proposed a public health intervention for patients diagnosed with COVID-19 by asking them to use pulse oximetry at home to monitor their COVID-19 illness. Patients are routinely contacted within 24 hours after their positive test comes back. They are asked if they are interested in self-monitoring at home with a

\*Note: This is a paraphrased synopsis of the call and is not a word-for-word transcription.

pulse oximeter. Dr. Read sends them a manual and the patients are asked to check their pulse oximetry value three times per day. The patients are given information explaining what is displayed on the device. They are asked to record their oxygen saturation values on a log sheet and then to mail the log back to VDH. All newly diagnosed patients are given a warning that they could experience shortness of breath and, if they do, they should seek medical attention. Those agreeing to use pulse oximetry monitoring at home are also asked to seek medical attention based on the oxygen saturation values they record, when needed.

For clinicians, Dr. Read is encouraging awareness of this new pulse oximetry program for laboratory-confirmed COVID-19 cases. Physicians should anticipate being contacted by COVID-19 patients in your practice/health care system if they develop dyspnea and/or hypoxemia while self-monitoring at home.

### Questions/Discussion

**C: As a reminder, UVMC ED is fully up and running (safe waiting areas for Pediatric patients and a family member) so if you are unsure about a patient by Telehealth, please don't hesitate to send to the ED. The physician call line to give us a heads up is 802-847-2700.**

*A: Jessica Denton, Community Health Team Social Worker, Timber Lane Pediatrics: Good to know, too, as an outpatient social worker. Surprisingly, so many families are still thinking health care is not accessible. I'm doing a lot of myth busting here.*

**Q: Parents with a positive temperature (via an infrared thermometer) at the door (but no exposure, no illness, presumably from the heat?) are admitted through my "sick door", their intake is done by phone and then to the "sick room". I'm curious to hear if others are encountering the same? I'm doing teaching to the non-clinical staff about correct techniques.**

*A: Becky Collman, MD, Collman Pediatrics: I had a 99.9 temperature on a pre-op visit Tuesday afternoon; I rechecked later in the visit and it was down to normal. She said she had been outdoors, and was feeling very hot!*

*A: Breena Holmes, MD, VDH: How are you measuring temperature? What type of thermometer do you use?*

*A: Becky Collman, MD, Collman Pediatrics: I usually use an ear thermometer. We do not have one of the "no-touch" types, but we have ear and temporal artery thermometers.*

**C: FYI: Timber Lane Dental is open for routine pediatric cleanings.**

**Q: UVM MC Birthing Center Policies update?**

*A: Breena Holmes, MD, VDH: Home health nurses in Central Vermont are going out to homes and testing patients pre-C-section so that they can come in and just have their section without testing. It's just a laboratory test that would normally be done in a clinical setting but is now administered in the home by the home health nurse. I'm interested in learning what all of the communities are doing.*

**Q: In speaking with a family of a child with special health needs, the parent stated they have family coming to VT to their summer home. The out of state family was told they could quarantine in their home state for 14 days, then come to VT and not have to quarantine. Is there any legitimacy to this or another myth?**

*A: Breena Holmes, MD, VDH: This is not currently allowed in the policy today, however there is lots of quarantine advocacy occurring with the Governor and his team, and there may be some discussion tomorrow or next week as we are looking at overnight camps, visiting, and the whole tourism industry, which that addition would be important. Currently today, the Governor and his team feel like it's too risky of a strategy based on regional case rates.*

*C: I got similar advice when I called the Department of Health recently; with the caveat that a test is done upon arrival to Vermont.*

*A: Monica Ogelby, Clinical Services Director, VDH: Not quite upon arrival, but 7 days after arrival.*

*A: Breena Holmes, MD, VDH: Super important clarification from Monica Ogelby.*

**Q: Is there an age cut off for providing pulse oximeters?**

*A: Jennifer Read, MD, VDH: No, this would be provided for pediatric patients as well. In terms of symptomatic monitoring, currently, if it's a pediatric patient, the parent is called to ascertain symptoms and to follow up.*

**Q: I'm curious about the national literature and if hypoxemia is noted in pediatric COVID patients?**

*A: Jennifer Read, MD, VDH: There have been some cases of severe disease, but not in VT. An example is a recent publication from D.C. Children's. They had hundreds of patients they were evaluating. A fraction of those required hospitalization and a fraction of those required ICU admission. Some of those did have some respiratory symptoms.*

**Q: We are already screening patients/parents before they enter the office or hospital. Should we be also checking their pulse ox? These would be asymptomatic people who haven't been tested for COVID.**

*A: Jennifer Read, MD, VDH: It's something you may want to consider. In the pediatric population here in VT, kids have not been severely ill and not been hospitalized. But people are experiencing hypoxemia with no respiratory distress. It's pretty easy to check along with vitals.*

**Q: What cutoff is being used for normal pulse ox? For which level are patients instructed to call their PCP? For other respiratory illness, we often use 93%.**

*A: Jennifer Read, MD, VDH: Patients get information about what pulse ox is and a reference range of 95-100. We are recommending that they seek medical attention if it goes below 90. But we are trying to illicit information on a daily basis and not waiting for the 3-week period to be up. What may happen is that we may see a downward trend. It's just not known.*

*A: Breena Holmes, MD, VDH: I think pediatrics may want a different cut off for this. I'm curious if we want a different cut off? 90 sounds low to me for pediatrics.*

*A: Jennifer Read, MD, VDH: I'd be interested to hear pediatrician's opinions, as there is a lot of discussion in the literature about an acceptable cut-off. 93% was what I had originally thought about, but there seems to be more of a consensus below 90. People debate the 90 to 95 range. Pediatric and elderly patients might reasonably express concerns in this range. We are encouraging these populations to call their PCPs with concerns. They will also be contacted routinely by VDH.*

*A: William Raszka, MD, UVM MC Children's Hospital & Larner COM Department of Pediatrics: Lots of references use 90% for this condition.*

*A: Shannon Hogan, DO, Pediatric Primary Care, Burlington: My fear is that if it is taken home and done incorrectly this will induce increased anxiety in parents.*

*A: Monica Ogelby, Clinical Services Director, VDH: We could explore partnering with our MCH nurse colleagues within the VNAs to provide support. I'll follow up about capacity and availability.*

**Q: We would want to be following children carefully if their pulse ox fell into the 92-94 range. Do we know if hypoxemia is an earlier finding than fever, or the reverse?**

*A: Jennifer Read, MD, VDH: No one is systematically checking these values. It would be interesting to find out if we can get information on pulse ox monitoring and checking temperature and find out what is happening first.*

**Q: Do you all have pulse oximeters in your office?**

*A: Alex Bannach, MD, North Country Pediatrics: Yes.*

*A: Ashley Miller, MD, South Royalton Health Center: We do, but I find them very inaccurate in kids.*

**Q: Is there funding/resources to buy pulse oximeters to give to patients?**

*A: Jennifer Read, MD, VDH: I'm not aware of a funding source for purchase of these. You can buy them at all price ranges. Most you can get \$30-50. You can even order from Amazon and Target.*

*A: Breena Holmes, MD, VDH: I believe you can be reimbursed as a pediatrician for checking pulse ox. So it's easy to recoup the purchased price.*

*A: David Nelson, MD, UVM MC Pediatrics ED: To get reimbursed for pulse ox, you then need to give a clinical impression i.e., "pulse ox 95% - which is normal" or "89% - which is indicative of hypoxia" etc.*

**Q: I tried to vote yesterday for the AAP, and the link just brought me to the home page?**

*A: Wendy Davis, MD, VCHIP: My email had 2 links - one to the general election page, and then one to my ballot, if I'm remembering correctly. We can check.*

**Q: Are there written instructions in different languages for taking home a pulse oximeter?**

*A: Jennifer Read, MD, VDH: No, it has not been translated to other languages at this time, but we can do that if it's needed.*

**Q: Do the lower price ones work as well? Any idea if pulse ox brands are all the same in terms of accuracy?**

*A: Jennifer Read, MD, VDH: If you try to search for them on the web and buy them, some are listed as FDA-approved, and some are not. I read a lot of sources indicating you can get a really good pulse ox machine for \$30 to \$50 that are fairly accurate. There are a lot of them out there from lots of manufacturers.*

*A: Ashley Miller, MD, South Royalton Health Center: They were not available for a while due to COVID.*

*A: Marshall "Buzz" Land, MD, Pediatric Medicine: Further guidance around pulse ox brands would be helpful, especially if we're looking at cutoffs like "93". We need to be confident in accuracy.*