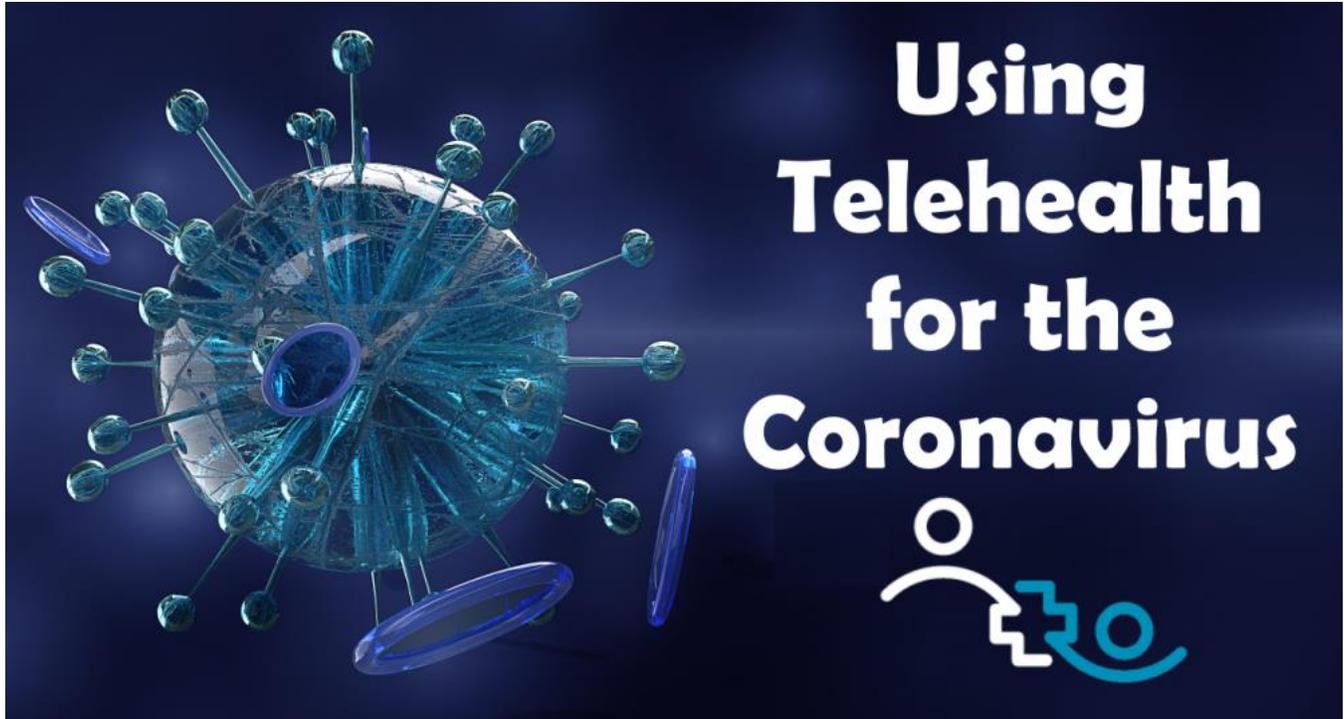


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Health**



# **Telehealth for the COVID-19 Health Crisis**

By Christian Milaster

Founder & President of Ingenium Digital Health

# COVID-19 REMOTE CARE CHECKLIST

by Christian Milaster  
Founder & President of Ingenium Digital Health



For organizations around the nation that are shifting to a remote care model by connecting with patients at a distance, here is a helpful checklist (in no particular order) of the various aspects of this new clinical service to keep in mind.

1. **Clinical Guidelines:** Clearly define clinical criteria to decide which patients and which chief complaints are suitable for remote care and which ones are not.
2. **Medical licensure:** While reimbursement regulations have been relaxed, medical licensure requirements still may apply at the state level.
3. **Emergency Procedures:** Ensure that in the case of an emergency on the patient end (harm to themselves, to others, by others, etc.) you can alert the appropriate authorities.
4. **Privacy:** Ensure that the patient's privacy is protected during the consults.
5. **Billing:** The rules and regulations around telehealth reimbursement have and will continue to change frequently. You need to establish a central authority that internally pre-authorizes any telehealth visit.
6. **Scheduling:** Telehealth appointments should be scheduled as designated telehealth visits with their own appointment type to allow for appropriately billing and tracking of telehealth visits.
7. **Telemedicine Consent:** Depending on your state's statutes or the requirements of the payors, patients may need to consent to this form of care orally or in writing and processes need to be in place capturing that consent was obtained.
8. **Technology Testing (Patient):** Confirm and test beforehand that the patient has adequate technology (smartphone, tablet, PC), adequate, reliable connectivity, and the ability to operate the technology.
9. **Telehealth Technology:** Consider using different technical solutions for delivering remote care, based on the clinical specialty and the patient population.
10. **Support Processes:** With an increasing number of telehealth users comes the need for having a first line of contact to address telehealth-related questions. You need to establish both, operational and technical support.
11. **Provider Training:** All providers offering telemedicine need to be trained on a variety of aspects of telemedicine. This training should be delivered just-in-time on an as-needed basis. It can be conducted in person or remotely or via a pre-recorded video/presentation. This training should cover clinical guidelines (inclusion and exclusion criteria), policies (licensure, consent, emergency contact, privacy, etc.), billing rules, webiquette/webside manners, use of the telemedicine technology, the process for prescriptions, post-visit documentation and follow-up visit scheduling as well as access to support.
12. **Allied Health Staff Training:** Similarly training materials (documents, presentations, etc.) should be developed for the various audiences affected by telemedicine, including, but not limited to schedulers, patient service representatives, medical billing staff/coders, MAs & RNs, providers and leadership.
13. **Communication/Publicity:** Lastly, and very importantly, you need to clearly communicate your vision, your objectives, your directives and processes regarding the use of telehealth to all staff members as well as to your patients and the public at large.



## **Covid-19: Launching Telemedicine in 5 locations in 2 days**

### **COVID-19: LAUNCHING TELEHEALTH IN 5 LOCATIONS IN 2 DAYS**

by Christian Milaster

Founder & President of Ingenium Digital Health



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The tension in the medical directors meeting was high. It was now clear that the Coronavirus crisis was going to have a significant impact on the world and on the rural healthcare organization that I was working with. The previous day had brought close to 200 cancellations of patient appointments and at 9:30 on a Wednesday, the lobby in this busy clinic was completely empty.

That's when the CEO, over a video link, turned to me and said: How fast can we launch telemedicine in our clinical practice? And I replied: "By Friday. This Friday."

Except for a few pediatricians, none of the primary care providers had delivered care "at a distance" before and while we had a usable solution (that some behavioral health providers had used, with varying degrees of success), none of the providers had been trained on it.

By Friday, just 2 days later, we already had at least 12 successful telemedicine visits under our belt and on Monday, yesterday, at least 20 more visits were conducted at a distance. While not all visits went flawlessly (about half had some audio problems that for the most part could be overcome) the general consensus was that the visits were of good clinical quality (4.1 to 4.25 on a 5-point scale). Based on this limited, preliminary data, here are some initial lessons learned:

#### **1. Emphasis on workflow is crucial.**

The most important piece of any successful telemedicine service is the workflow. When the various players are not following the workflow as designed things fall apart rapidly and frustrations can quickly run high. Given the traditional variability across providers and locations as to how to organize the work, standardizing on a workflow feels unsettling and is creating some resistance. However, having the end in mind it's crucial to insist that the workflow steps be followed.

#### **2. In a time of crisis, attention to detail is limited**

While we communicated the desired workflow to staff, to providers, and through PDFs, the attention to detail was seemingly limited for most, given the pressure and the novelty of the approach. What was (and is) needed is constant retraining and reminders to follow the process, providing rationale for each step along the way.

#### **3. Training on telemedicine can truly occur in less than half an hour**

In just half an hour in a group session including providers and staff we were able to cover the workflow, policy, technology setup and technology use. While immediate retention was maybe at 50%, the quick overview provided everyone with the same knowledge. In adult learning we need to hear things 7 times in 7 different ways (including our

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own experiences) before they truly sink in and this rapid overview provided one of those 7 ways very effectively.

#### **4. Capturing Data is key.**

What's absolutely crucial during this time is to capture data - not only the volume data from the medical record, but also subjective and objective data from the providers. Did you have any audio problems? Any video problems? How do you assess the clinical quality? What suggestions do you have? Only with those data are we able to continuously change and improve the process, the training materials, the technology configuration, the messaging, the marketing, etc. I.e., everything that has to be in place for this "clinical service" to be delivered flawlessly.

#### **5. Designing the process for long-term is easy to do, but hard to sell**

One of the hallmarks of good process design is that it stands the test of time. While most people are focused heads down on the problem at hand, it behooves those responsible for the process design to look 3, 4, 5 steps ahead. What should the process look like in 3 months, in 6 months? What will happen in the next weeks that may have an impact on the quality of the service? As an example, currently, virtually most billing limitation and legal constraints have been waived to get the care to the patients now. However, that is likely going to change and corralling in a wild-west process where everyone does telemedicine when and with whom they want, is going to prove difficult. Which is why I instituted a process that starts with an eligibility check, even though these days the automatic answer is "yes".

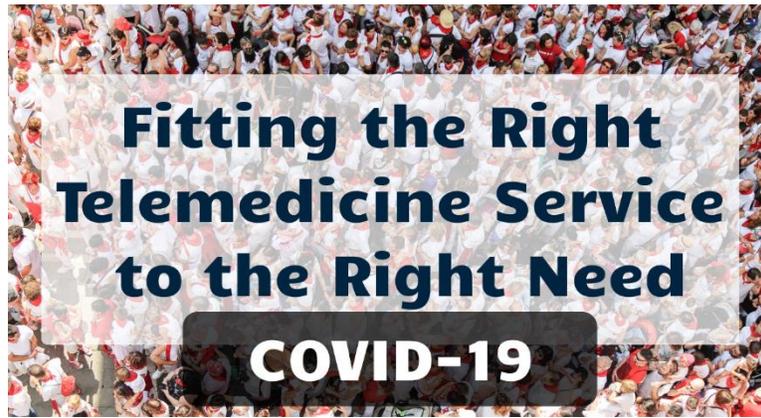
#### **6. Direct-to-Consumer Telemedicine is truly one of the most challenging telemedicine use cases**

For me, this was a long-held belief and maybe this is just a self-fulfilling prophecy, but the sheer diversity in the ways that patients are using technology to connect is incredibly hard to manage. Which is why from the beginning I instituted a "test with the patient before scheduling" process that was, for the most part initially ignored by staff. Motivated by the successful tests with me (or other staff in the office), providers felt confident to be able to conduct the visits (which they are) while underestimating the complexities of the patient-facing technology, which we have very little control over. Now, that close to half of the visits did not go as smoothly as hoped, I'm confident to be able to gain more traction with the pre-scheduling test.

#### **7. Clinical Leadership involvement is key**

Ultimately, telemedicine is about practicing medicine at a distance. And not all patients and conditions are amenable to telemedicine. To avoid patient harm or dissatisfying telemedicine experiences (for both, providers and patients), an organization has to quickly establish clinical guidelines as to what the clinical leadership deems to be appropriate. There are also numerous clinical telemedicine guidelines published for a variety of specialties that should be consulted.

In summary, a complete successful telemedicine launch can be accomplished in as little as a week. I fully expect that by the end of this week all ~20 providers in all 5 locations to be confident in their ability to deliver great care via telemedicine, whether the providers are in the office or at home.



# FITTING THE RIGHT TELEMEDICINE SERVICE TO THE RIGHT NEED

by Christian Milaster

Founder & President of Ingenium Digital Health



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I've been fond of using one of the quotes of Don Berwick, the founder and past president of the Institute of Healthcare Improvement (IHI): "Every system is perfectly designed to get the results it gets". In order to get the results we want (as few direct and as few indirect fatalities from the coronavirus as possible) we need to create systems and leverage processes and tools to thoughtfully manage the unprecedented demand on our healthcare system.

The first design principle of a system that gets us these results focuses on understanding the different affected patient populations and designing different, tailored solutions that are tailored to the differing needs of those populations:

## 1) The Covid-19 confirmed

- 1a) Mild or asymptomatic (~80%, 0% mortality)
- 1b) Severe (~15%, 0% mortality)
- 1c) Critical (~5%, 50% mortality)

## 2) The Sick and Injured

- 2a) sick with mild to severe ailments (ambulatory)
- 2b) chronically ill patients (ambulatory)
- 2c) severely sick or injured (requiring hosp.)

## 3) The Physiologically Healthy

- 3a) Requiring mental health treatment (outpt.)
- 3b) Newborns, children & pregnant moms (amb.)
- 3c) Birthing moms or high-risk pregnancies (hosp.)

1 - COVID-19 Confirmed	2 - Sick and Injured
<ul style="list-style-type: none"> <li>a. Mild / Asymptomatic (~80%, 0% †)</li> <li>b. Severe (~15%, 0% †)</li> <li>c. Critical (~5%, 50% †)</li> </ul>	<ul style="list-style-type: none"> <li>a. Mild to severe ailments (ambulatory care)</li> <li>b. Chronically ill (including SNF residents)</li> <li>c. Severely sick or injured (requiring hospitalization)</li> </ul>
<b>Remote Care Patient Population Segmentation</b>	
3 - Physically Healthy	4 - Healthcare Workers
<ul style="list-style-type: none"> <li>a. In mental health treatment</li> <li>b. Healthy newborns, children &amp; pregnant moms (ambulatory)</li> <li>c. Birthing moms or high-risk pregnancies (hospitalization)</li> </ul>	<ul style="list-style-type: none"> <li>a. At home, healthy (FMLA, lay-offs, quarantine)</li> <li>b. At home, mild illness (including 1a, 2a, 3a)</li> <li>c. Hospitalized or unable to work from home</li> </ul>

## 4) Healthcare Workers

- 4a) At home, healthy, due to FMLA, lay-offs or covid-19 quarantine
- 4b) At home, Sick with mild symptoms (including 1a, 2a, and 3a)
- 4c) Unable to work from home

## Telemedicine

Given the non-negotiable need for absolute physical distancing, no patient should be required to venture into the community and a medical facility unless absolutely clinically necessary. Given the advancements in technology over the last 10 years, we now have a host of proven, reliable, secure, user-friendly solutions that can provide appropriate and safe clinical care at a distance.

I am, of course, talking about telemedicine.

Each of those 12 population segments listed above (and especially those in categories 1c and 2c) will greatly benefit from the judicious and proper implementation of clinically-designed telemedicine services. Whether you are a concierge physician, an urgent care clinic, a group clinic, a rural FQHC, an urban community health center, or a small health system or critical access hospital. We all must work together across the health system to make the absolutely feasible technology of telehealth a reality for all Americans to have safe, rapid access to clinically sound care. The goal is to keep as many people as possible out of the hospital so we can protect and save those that become critically ill from Covid-19.

### Telemedicine Solutions Menu

Here is a brief menu of just a few high-level telehealth solutions and how they can be used to serve those populations:

**1. direct-to-home audio/video telemedicine** ("interactive patient care", IPC) for 1a, 2a, 3a, 3b and 4b; with healthcare workers under 4a being able to provide clinical care while being home-bound.

Keeping these patients out of our health system facilities improves capacity, reduces the use of personal protective equipment (PPE) and contributes to physical distancing

**2. remote physiological monitoring (RPM)**, coupled with interactive patient care primarily for 2b and some of 1b and some high-risk pregnancies under 3c

- keeping those vulnerable patients away from potential exposure
- preventing the decompensation to the state of requiring emergency care or hospitalization through vigorous monitoring and detection of early onset
- keeping home health workers mostly distanced, allowing them to focus on the cases that indeed cannot be treated solely remotely

**3. TeleICU and remote critical care** using stationary IPC and RPM equipment in the ICU and mobile equipment (manual and robotic carts) on the hospital floor for populations 1b, 1c, 2c and 3c.

**4. interactive patient care with exam capabilities**

- those could also be deployed alongside the same populations as for RPM; potentially in a mobile fashion handled by trained "telepresenters"

**5. self-service solutions through patient portals**, including teleeducation.

Patients need access to clinical information to coordinate their care and given the remote work environment few healthcare organizations can aid in the creation of paper documents

### Where do those insights leave the leadership of health systems?

Most health systems we've heard about are focusing on building capacity for the anticipated surge in severe to critical Covid-19 cases at a rate of 15-20% of confirmed cases in addition to the base critical care case load.

What health systems may not be focused on yet is to offer alternative solutions to their ambulatory care offerings and to prevent the exacerbation of the chronically ill's health. As one anecdotal example illustrates, one 80+ year old neighbor of one of us had 3 pre-scheduled appointments canceled with no offering of an alternative, such as direct-to-home telemedicine, which may lead to an undetected and untreated decompensation, potentially resulting in a hospitalization that could have been preventable.

Yet even those that are implementing telehealth are rarely doing it in a thoughtful, orderly pace. Those new to telehealth focus too much on the technology and step over the complexities of clinical workflow design, well-defined and enforced policies, proper training and a mindset of continuous refinement and improvement.

And then there are those who are not doing anything at all, holding on to their long-held belief that telehealth is not for them or their patients and hiding behind red herrings such as not feeling comfortable without being hands-on or the onerous task of obtaining consent in a physical distancing world.

## ABOUT CHRISTIAN MILASTER

Christian Milaster is an expert in optimizing the delivery of care through Digital Health & Telehealth.

Christian is the founder and president of Ingenium Digital Health Consulting and the Executive Director of Healthcare Shapers USA. Born, raised and trained in Germany as an Engineer, Christian has worked at IBM Global Services and studied healthcare delivery for 12 years at the Mayo Clinic in Rochester, Minnesota. Since 2012 he has been a strategy, design, and implementation advisor at the intersection of Care Delivery and Technology to numerous health systems, behavioral health agencies, community health organizations, urgent care organizations, federally qualified health centers, etc.



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