



CEdRIC: Strategy for Patient Education During COVID-19 Triage

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Abstract

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Main Content

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CEdRIC: Strategy for Patient Education During COVID-19 Triage

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The current coronavirus disease 2019 (COVID-19) pandemic is forcing healthcare systems around the world to organise care differently than before. Prompt detection and effective triage and isolation of potentially infected and infectious patients are essential to preventing unnecessary community exposure. Since there are as yet no medications to treat or vaccines to prevent COVID-19, prevention focuses on self-management strategies, creating patient education challenges for physicians doing triage and testing. This article describes a five-step process for effectively educating, at discharge, patients who are suspected of being infectious and instructed to self-isolate at home. We are proposing the CEdRIC strategy as a practical, straightforward protocol that meets patient education and health psychology science requirements. The main goal of the CEdRIC process is to give patients self-management strategies aimed at preventing complications and disease transmission. The COVID-19 pandemic is challenging clinicians to rapidly teach their patients self-management strategies while managing the inherent pressures of this emergency situation. The CEdRIC strategy is designed to deliver key information to patients and standardize the discharge process. CEdRIC is currently being tested at triage centres in Belgium. Formal assessment of its implementation is still needed. [West J Emerg Med. 2020;21(6)52-60.]

Disclaimer: Due to the rapidly evolving nature of this outbreak, and in the interests of rapid dissemination of reliable, actionable information, this paper went through expedited peer review. Additionally, information should be considered current only at the time of publication and may evolve as the science develops.

INTRODUCTION

Countries all over the world are facing a major public health security crisis related to the management of the coronavirus disease 2019 (COVID-19) pandemic. Every country will be affected, and governments around the world need to prepare a strategic response in order to minimize the impact of the disease and its spread on the morbidity and mortality of their populations, as well as the resulting social,

economic, and political disruptions. A key ingredient of a healthcare system's response to COVID-19 is the ability to institute prompt detection and effective triage and isolation of potentially infected and infectious patients, with the goal of preventing unnecessary community exposure.^{1,2}

The vast majority of suspected COVID-19 patients experience only mild symptoms,³ and will be instructed to self-isolate at home while awaiting their test results. (This was the case with 77% of the patients who presented at the University Hospital of Liège triage centre from 2 March–4 May 2020.) Patients who test positive are advised to stay at home, provided they are not experiencing complications. Even those who test negative must be warned that they remain at risk of the disease. Hence, sustainability

and preventing healthcare system overload will depend on people's ability to care for themselves at home, while minimizing the risk of infecting their families.

Since there are as yet no medications to treat or vaccines to prevent COVID-19,⁴ prevention focuses on self-management strategies: symptom monitoring; appropriate and frequent hand hygiene; cough etiquette; social distancing; and strict self-isolation.⁵ Behavioural science must, therefore, be at the heart of the public health response,⁶ especially when it comes to patient education. In emergency departments (ED), in particular, recommendations enhance the standard infection prevention and control practices.⁷

In most countries, the screening and triage of COVID-19 suspects are centralised at "triage settings." In Belgium, triage centres have been created specifically to screen patients referred by a physician and suspected of having COVID-19. Triage and screening centres have been set up at primary care facilities: first, near hospitals, to take advantage of their resources and experienced emergency staff; and second, at other, non-primary care facilities. Triage and screening tents (Figure 1) have been erected outside those facilities to reduce the risk to other patients and staff.

These settings serve two essential functions during the pandemic: 1) Triage: examining patients sent by outside doctors and likely to be infected with COVID-19. This prevents these patients from having to go to a general practitioner's waiting room or to a hospital ED, where they might infect others. If appropriate, they are referred to the hospital for admission. 2) Screening: testing to see whether patients are infected or not.

Patient screening and triage is a key opportunity for educating COVID-19 patients to prevent them from transmitting the disease. Effective triage should include patient education at discharge.⁸ Despite the constraints (unpredictable workload, in particular), triage and testing settings should be viewed as a good place to improve future patient adherence



Figure 1. COVID triage centre, University Hospital, Liège (Belgium).

to recommendations, thereby preventing complications⁹ and, in this context, disease transmission. Patient education should also help health professionals (general practitioners in most cases) who receive calls from patients and arrange for remote triage. Unless there is a clinical need for in-person care, patients should be able to get advice and care without visiting the practice. Moreover, informing patients that they have COVID-19 is giving them bad news; delivering that bad news and offering education is challenging in an ED context because the patient is meeting the physician for the first time. Because – as has been previously demonstrated¹⁰ – clinicians lack the skills needed for this, a support tool seems important.

Although patient education is a key component in the fight against COVID-19, health providers have no clear guidance on how to proceed. Here we propose a protocol for providing basic in-person and remote patient education to suspected or confirmed cases in patients who are instructed to self-isolate at home. Patients who are admitted to hospital require special attention and are excluded from the discussion.

The Five-step CEdRIC Strategy

While the need for patients to understand discharge instructions is well established in the literature,¹¹ in emergency situations – especially mass casualty events – discharge communications may be reduced to a brief exchange,¹¹ leaving patients uncertain about what to do when they return home; this is especially true for patients with low health literacy. The CEdRIC strategy is a practical, straightforward protocol that meets the requirements for effective discharge patient education adapted to the special conditions made necessary by the current situation. The CEdRIC protocol consists of five steps that clinicians can use to develop a structured approach to discharge instruction (see Table 1 for an overview of the protocol). Each step is supported by references to the education and health psychology literature.

Step 1 – Ensure that the patient Comprehends and accepts the situation.

The first step after testing and triage involves giving the patient information about his condition, its potential course, and how to self-isolate at home. This information can cause great anxiety when people do not understand why they are being advised to go home while potentially infected with COVID-19. As anxiety impairs patients' ability to take in and process new information,¹² it is important that clinicians listen to and reassure their patients. Clinicians can use open-ended questions to determine how well the patient understands his medical situation.¹³

Jay (1996)¹⁴ showed that methods such as "touch, company and information" are effective in reducing anxiety in seriously injured patients. Information is the only one of these three types of action that is appropriate and applicable in triage settings. Informing patients and raising their awareness of their clinical situation involves two tasks:

Table 1. CEdRIC strategy: a five-step process to improve education of suspected or confirmed COVID-19 patients who are instructed to self-isolate at home.

	Steps	Objective(s)	Features/strategies	Sample sentences to be used with the patient
C	Comprehension of the situation	To inform the patient about their situation To address patient's anxiety	Strike a balance between the seriousness of the situation and reassurance. Inform the patient about strategies for avoiding disease exacerbation and transmission.	"You are showing the symptoms of COVID-19. We can't test you because there are not enough tests available. They are reserved for people requiring hospitalization. Hearing this makes you worried/anxious! Most patients experience mild to moderate flu symptoms (fever > 38°C, cough, headache, etc.), which take time (at least 2 weeks) to diminish or disappear. At that point they have recovered from COVID, but may still be contagious. In all of these cases (and most likely yours), you do not need to be hospitalized. There is no specific treatment for COVID-19. You must take the necessary preventive measures for yourself (to avoid secondary infection) and for others (to avoid infecting them). We can relieve your symptoms, however (antipyretic, antitussive, inhaler, etc.). We will tell you what to do."
Ed	Patient Education about self-management strategies	To instruct the patient on how to take care of themselves and how to protect relatives from infection	Give patients clear instructions about what to do. Reinforce the patient's sense of control, value, and self-efficacy regarding self-management strategies. Use clear verbal communication.	Stay home Monitor your symptoms carefully. Rest and drink lots of fluids. If you have a medical appointment, call the healthcare provider ahead of time and tell him or her that you have, or may have, COVID-19. Cover your cough and sneeze. Wear a face mask whenever you are around any other people. Wash your hands often. Whenever possible, stay in a specific room and away from other people in your home. Do not share your personal items with others. Clean all frequently touched surfaces.
R	References to reliable resources	To point patients to reliable websites and free helplines	Choose evidence-based, easy-to-understand references.	Resources (fill in as appropriate) (Examples from the New York State Department of Health. https://www.albany.ny.gov/Government/MayorsOffice/COVID19ResourceGuide.aspx) www.cdc.gov www.who.int You should call New York State Department of Health at 1-888-364-3065 or Albany County Department of Health at (518) 447-4580 to receive guidance on what to do and how to self-quarantine. Provision of resource materials to patients
I	Explanation about what to do in case of emergency	To bolster patients' ability to monitor and detect symptoms of worsening disease	Inform patients about red flags that should prompt them or other family members to seek medical attention.	"Emergency warning signs include difficulty breathing; new or persistent pain or pressure in the chest; new confusion or inability to wake up; bluish lips or face; discomfort. This list may not describe all possible symptoms. Please consult your healthcare provider for any other serious or worrying symptoms".
C	Checking the patient's comprehension	To assess how well patients understand the instructions To make patients aware about contact tracing	Use the teach-back method Address learning transfer Give patients an opportunity to ask questions.	"We've talked a lot today and I want to make sure I've explained things properly. So let's review what we've been talking about. Can you describe the main instructions on how to prevent complications and the spread of COVID-19?" (If this reveals a misunderstanding, explain again using a different approach). "What are your questions?" (Don't say "Do you have any questions?" since most patients will respond to this by saying "no"). "You will be contacted or invited by authorities shortly to let them know your contacts during the last 7-10 days. Please cooperate actively for contact tracing in order to avoid the spread of the disease."

dealing with their emotional response; and developing a strong rationale. Dealing with a patient's emotional response is difficult. Health professionals must strike a delicate balance between reassuring patients that it is safe to return home and convincing them of the seriousness of the situation, so that they do not minimise the problem.¹⁵

The large majority of patients who are at low risk should be told that in most people the disease is not as severe as the media reports, and that there are strategies for avoiding transmission to their families (see Step 2). Indeed, recent research suggests that the real-world mortality rate may be lower than previously reported and that the vast majority of suspected COVID-19 cases experience none or only mild symptoms.^{3,16,17,18} This could be due to the "iceberg" effect, in which there are many more patients below the surface who act as a reservoir of "spreaders" transmitting the disease to the rest of the population, and include the more vulnerable of those at risk of severe disease. Patients should, however, be warned that this new virus appears to be highly contagious,¹⁹ and requires strict self-isolation.

Step 2 –Educate the patient about self-management strategies.

An important part of this step is making sure that the patient develops "an accurate mental model of the process of transmission that provides a strong rationale for what they need to do to prevent it".¹⁵ Rather than just telling people what not to do, the main goal of Step 2 is to give patients clear instructions about what they should do and why. An example (Figure 2) will illustrate the point.

At a minimum, patients should be instructed on how to take care of themselves; in that regard, see the Michie et al (2020)⁶ review of advice from the World Health Organisation, US Centers for Disease Control and Prevention, and Public Health England, setting out 13 behaviours important for reducing transmission (see Table 2). As patients' families are usually not allowed in the triage room, patients should also be instructed on how to protect their relatives from transmission.

These recommendations should be described, demonstrated, commented upon, and practiced (at least mentally), so that patients develop a sense of self-efficacy,²¹ that is, self-esteem regarding their own capacity to perform these acts at the appropriate time, place, and frequency. This sense of mastery (what Bandura calls "self-efficacy," or the feeling of being competent) is one of the three most important factors explaining involvement and perseverance in tasks (at least in the educational context). The other two factors²² are perceived value (of the actions, ie, how effective they are, and their ethical value) and perceived control (ie, does the result depend on my efforts; how much control do I have?). The latter is related to the concept of causal attribution, as described by Rotter (1990),²³ while the former distinguishes internal locus of control (results depend upon me) from external locus of control (chance, or other factors beyond my power). Weiner (1985)²⁴ distinguishes belief in

the changeability or immutability of causes. The more a task is perceived as internally controllable and modifiable by the patient himself, the more likely his involvement.

As an example, consider Michie et al⁶ behaviour #9 (out of 13) : "social distancing: if not caring for a symptomatic person, avoid contact and proximity. Maintain distance between yourself and other people, particularly those who are coughing, sneezing, or have a fever." The caregiver should not just give the patient models of behaviour (see "the long hand" above), but also ensure that the patient is – and feels – able and willing to perform them. Without this, there is a risk that the patient will feel powerlessness, what Seligman (1972)²⁵ calls "learned helplessness" and even give up on doing those behaviours.

Clear verbal communication strategies (see Table 3) should be used to help patients better understand health information.²⁶⁻²⁹

Figure 2. Social distancing: suggested gestures to replace close contact: "the long hand."²⁰

In the context of social distancing, Leclercq (2020)²⁰ has suggested gestures that could replace close forms of contact such as hugging or kissing to communicate deep sympathy in highly emotional situations like funerals, weddings, anniversaries, and childbirth. The author advises against gestures (such as footshakes, fist-bumps or elbow-bumps) that require approaching the other person. Similarly, he rejects gestures that bear a commonly shared religious connotation (Muslim, Hindu or Christian greetings) or that have connotations of ordering, praying, begging, obeying, etc. To take advantage of the automaticity of "shaking" (in French "serrer la main = to tighten"), this author recommends two gestures visible from a distance: on the left, when both hands are free, and on the right (fingers spread apart) when only one hand is free. In both cases, he recommends reinforcing these gestures by looking the addressee in the eye, uttering (audible or not, but visible) words of sympathy (as brief as possible, such as "I am with you" or the even shorter "With you"), and, finally, a small nod of the head. The signs should be customized according to the context (a sad or a happy one).



These gestures were chosen for their simplicity and sensoriality (pressing hands instead of pressing the other person's body), to avoid any similarity to religious signs or giving the impression of mimicking sign language for the deaf (which differs from country to country).

Since sender and receiver should have the same understanding of such gestures, they should be promoted by mass media and social networks, so that they "go viral" like COVID-19 has. National government media outlets could get this started, after which local and private media outlets could take over and spread the message

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