

COVID 19 Experience in Primary Care at Northwell Health

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*She is a 40-year-old mom of two. She is married to her college sweetheart.
She is a marathon runner - ran Boston and NYC marathon last year.
She lives in Brooklyn. She is a security officer in a public high school.
She does not smoke, has no past medical history.*

10:01pm: she calls on-call service with a chief complaint of – “thinks she has COVID-19 infection”

10:05pm: operator connects you – you are only able to hear a whisper. She is unable to complete a full sentence without pausing

10:07pm: you call EMS to request immediate assistance

10:18pm: EMS arrives at her home and you are disconnected

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Now imagine this is the 50th call this evening for the same disease: COVID19

Objectives

1. Identify the challenges in caring for patients with COVID
2. Understand the model of care for patients with COVID at home
3. Acknowledge the need of Post-COVID Care in the Primary Care setting
4. Discuss the lessons learned by Primary Care in caring for patients with COVID

COVID Impact

Surge from March - June 2020

Visits Since 3/1/20



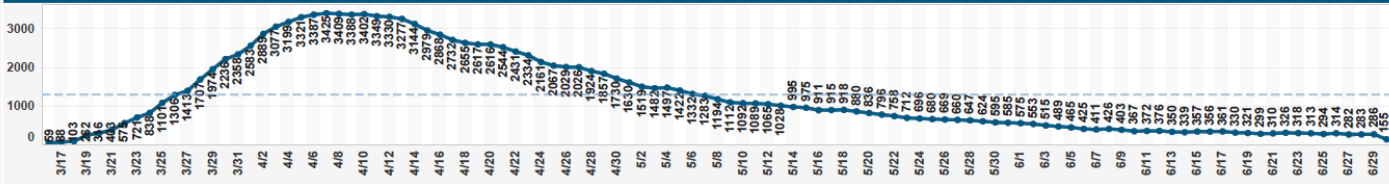
Emergency Operations Center In-House COVID Positive Patients

Data as of:
6/30/2020 8 AM

Select Measure
In-House COVID Positive Patie..

Northwell Health System

Average (3/16 - 6/30) = 1306



3/7. 3/1. 3/3. 4/1. 4/2. 5/6/.5/1. 5/3. 6/1. 6/2. 7/5/.7/1. 7/2. 8/1. 8/2. 9/3/.9/1.

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COVID-19 Impact

Volume of patients

372,656

Patients
evaluated for
COVID, across
Northwell

16,063

Hospitalized
patients with
COVID

85,967

Patients with
COVID infection
at Northwell

44,004

Outpatients
with COVID
(managed by
Primary Care,
Geriatrics,
Pulmonary)

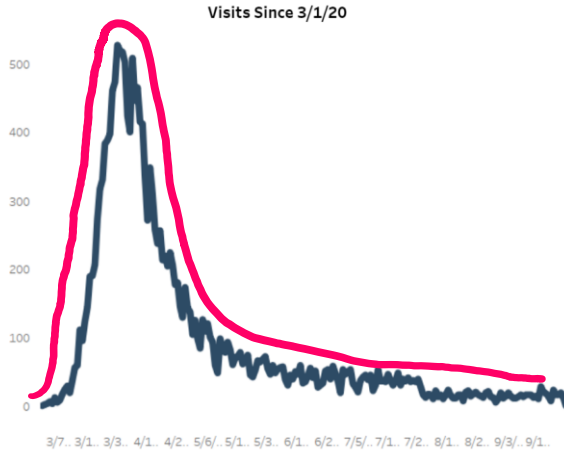
As of 9/10/2020

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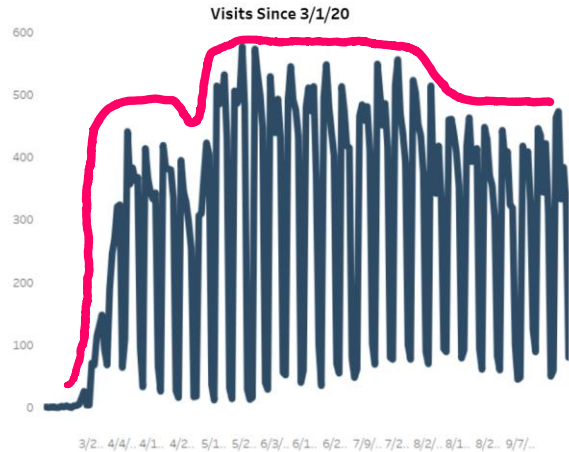
COVID-19 Impact

Volume of patients

Inpatient Volume



Outpatient Volume



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What does Outpatient management of 44,000 patients mean?

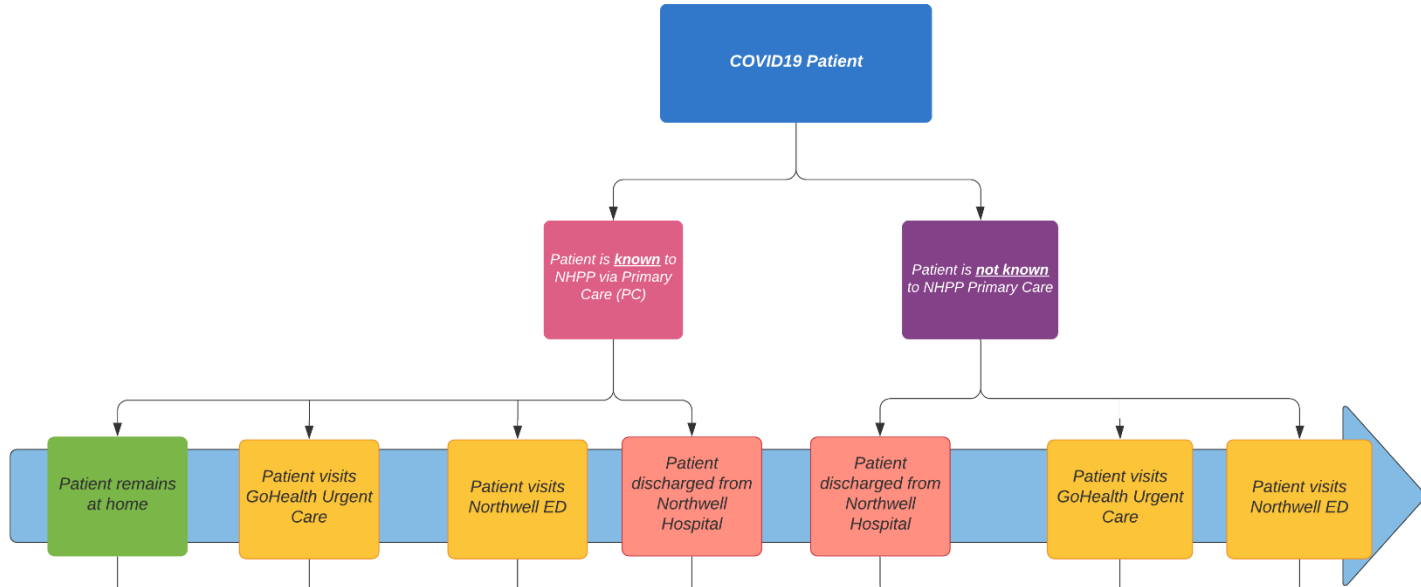
44,000 patients = 60,000 visits

Over 90-100,000 calls

This is **in addition to non-COVID acute & chronic care visits** for management of other illnesses, including: DM II, HTN, CAD, COPD, Insomnia, Anxiety, Depression, CHF, CKD, Advanced Care Planning and more.

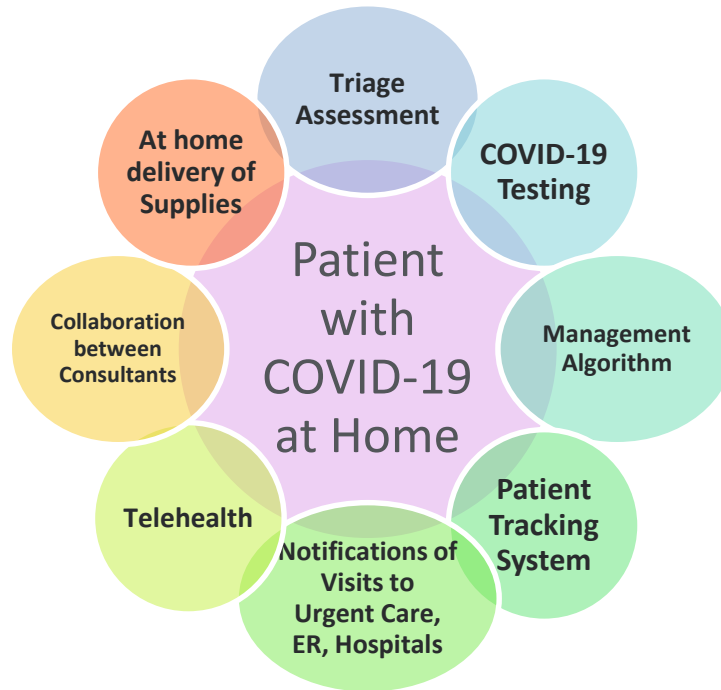
COVID-19 Impact

Patients are on a spectrum of disease for COVID-19



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What does it take to manage a patient at home?



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Challenges in caring for COVID patients



COVID-19 Era

Challenges

- No blue-print
- Rapidly evolving data and understanding
- Initial focus on hospitals and facilities
- Patients with non-COVID diseases – acute and chronic
- Infodemic

Infodemic

Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis



This article has been retracted: N Engl J Med. DOI: 10.1056/NEJMc2021225.

THE NEW ENGLAND JOURNAL OF MEDICINE

Summary
Background Hydroxychloroquine and chloroquine have been widely used for treatment of COVID-19, but their effectiveness and safety are unclear. We compared the effects of hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19 with those of standard care.

Methods We did a multinational, open-label, randomized controlled trial involving 10,000 patients in 15 countries. Patients were assigned to receive hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19 or standard care. The primary end point was the proportion of patients who died or were discharged to hospital.

Findings 9632 patients were included in the primary analysis. The primary end point was met in 17.3% of patients in the hydroxychloroquine or chloroquine group and 17.3% in the standard care group. There was no difference in the proportion of patients who died or were discharged to hospital between the two groups.

Interpretation Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19 did not reduce the risk of death or hospital discharge compared with standard care.

Funding Bill & Melinda Gates Foundation.
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Cardiovascular and

Mandeep Kuy, M.D., N

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Chloroquine or hydroxychloroquine for COVID-19: why might they be hazardous?



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CDC: Sobering news about cleaning and drinking water for coronavirus

By ANDREW JOSEPH

Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation

Joint statement by WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, and IFRC

23 September 2020 | Statement

COVID Care at Home

COVID-19 at Home

Protocol: Triage and Management

Guiding principles

1. Provide care at the **right time**
2. Provide care in the **right setting** based on patient's preference
3. Manage a **spectrum of symptoms** in an objective manner
4. Keep patients with **mild & moderate disease out of ED/Hospitals**
5. Escalate care setting for **severe disease to ED/Hospitals**

COVID-19 at Home

Protocol: Triage and Management

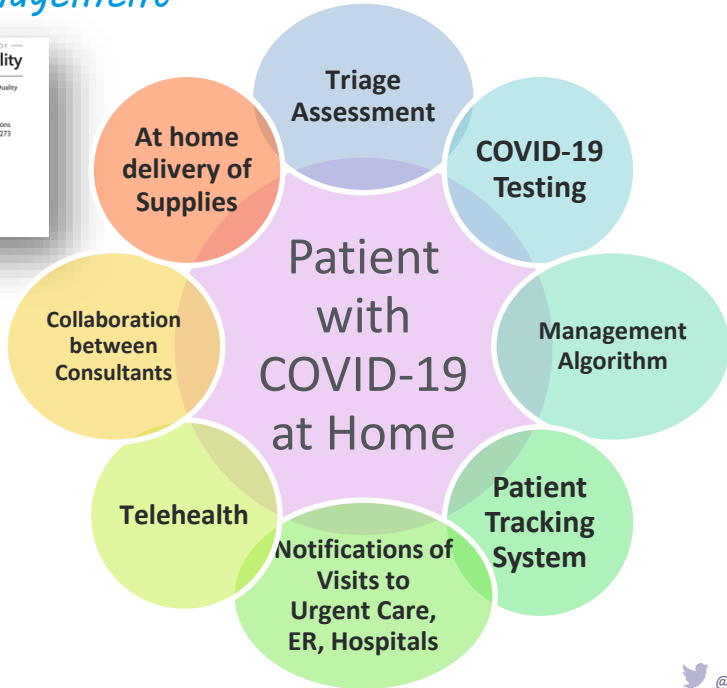
Article

Practical Tips for Ambulatory Care in COVID-19: Lessons Learned in a New York Health System

Ankita Sagar, MD, MPH¹, JoAnne Gottridge, MD¹, and Nancy LaVine, MD¹

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American Journal of Medical Quality
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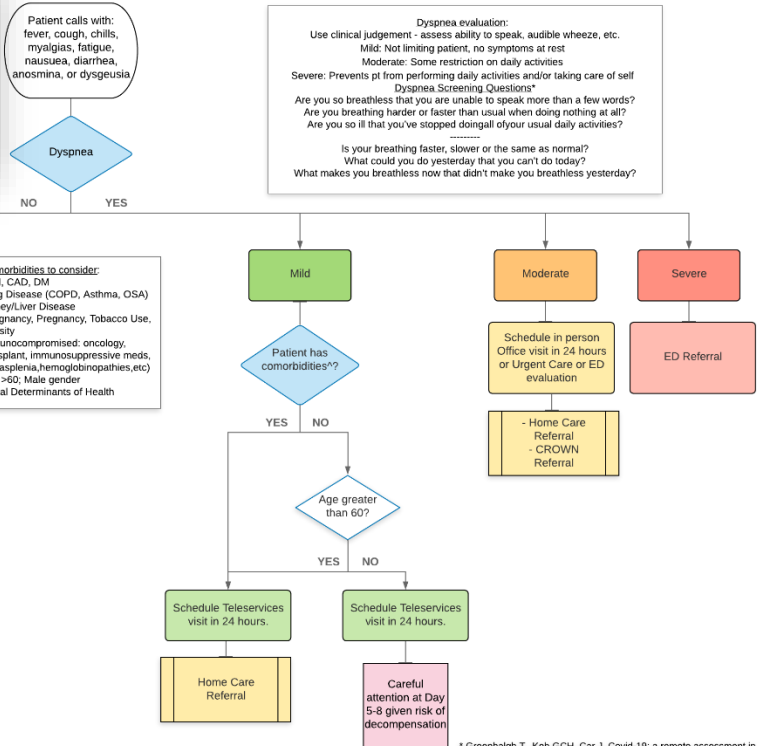


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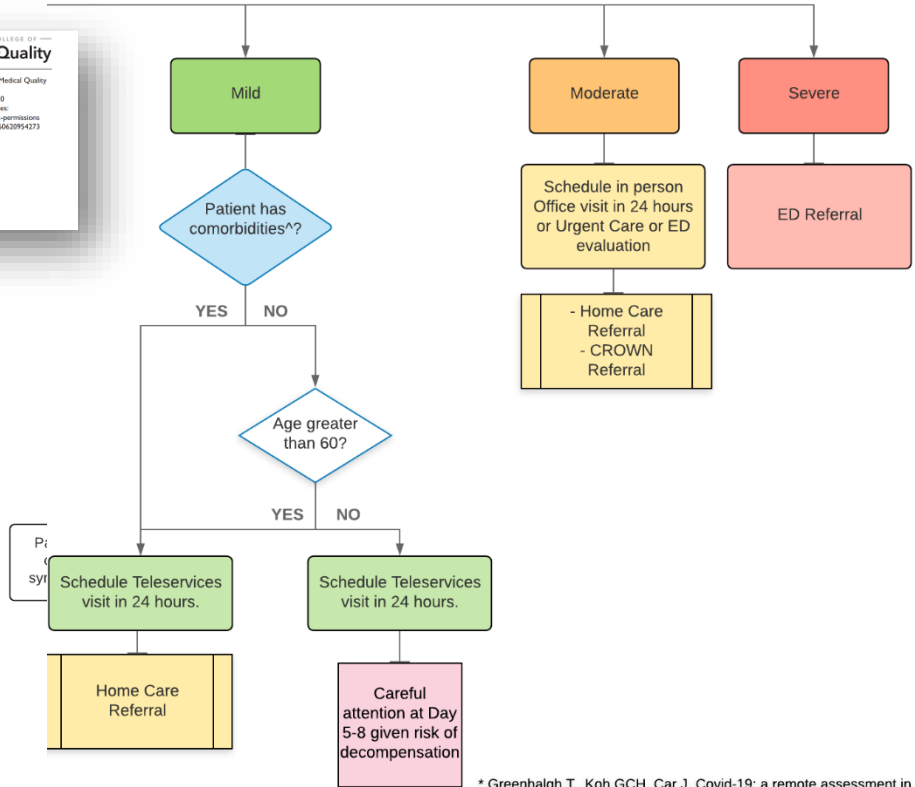


* Greenhalgh T, Koh GCH, Car J. Covid-19: a remote assessment in primary care. BMJ. 2020 Mar 25;368:m1182. doi: 10.1136/bmj.m1182.

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COVID-19 at Home

Building Partnerships

Guiding principles

1. Leverage **established** partnerships
 - Home care services
 - Pulmonary consultants
 - Hospice care
 - Lab services
2. Create **new** partnerships rapidly
 - CROWN Program
 - Oxygen supply at home
 - Physical, Occupational, Behavioral Therapy at home

COVID-19 at Home

Northwell at Home



5,000 average daily
census



4,666 hospital beds

On average **more patients each day** than there are hospital beds in Northwell Health Hospital facilities

Available across the NYC & boroughs, Long Island and the Hudson Valley

Director: Irina Mitzner

Services available:

- Telehealth RN
- Case Management
- Lab draws at home
- Oxygen Supply setup
- Pulse oximeter drop off w. virtual RN visit

COVID-19 at Home

Coronavirus Related Outpatient Work Navigators (CROWN) Program

A Covid-19 Lesson: Some Seriously Ill Patients Can Be Treated at Home

To ease pressure on hospitals, Northwell Health brought medical workers, oxygen tanks and intravenous equipment into patients' homes. Now Florida is taking cues.



When Joan Murray of Westbury, N.Y., a retired registered nurse, came down with Covid-19, she insisted on fighting the illness at home. "The last place I wanted to be was the hospital," she said. Johnny Milano for The New York Times

A multidisciplinary team of CROWN Physicians

CROWN Physician
TeleHealth Visit
Task Note to Referring Physician

Labs COVID Swab, "Bundle" CBC, CMP, DDIMER, CRP, Ferritin, Procal, IgG Repeat per physician's discretion
Homecare Includes Oxygen and Pulse oximetry IV Fluids , RN Follow Up and Physician Communication
Medications If starting on O2, dexamethasone 6mg daily x 10 days Xarelto - 10mg qd for 30 days. For D-Dimer >900, consider >600.
Radiology Physician's Discretion
Goals of Care Identify HCP, Establish and Document GOC Hospice Referral If Appropriate
Patient / Caregiver Instruction Monitor Pulse Oximetry QID and if short of breath Report changes of >4% Call EMS if severe shortness of breath or can not maintain O2 sat>88% Unless not consistent with GOC

ing in ts with

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She is a marathon runner - ran Boston and NYC marathon last year.
She lives in Brooklyn. She is a security officer in a public high school.
She does not smoke, has no past medical history.*

Hospital course:

- Admitted with requirement of non-mechanical ventilation; started on high dose steroids;
- Complicated by atrial thrombus and DVT in lower extremity – on anticoagulation at home

Since discharge:

- Persistent symptoms: fatigue and muscle atrophy - able to mobilize but needs multiple breaks in her day;
- Activity level: Unable to return to work full-time due to fatigue
- SDOH: financial hardship due to lack of return to full-time work

*What now?
What do we do for her?*

Post-COVID Care in the Primary Care Setting



COVID Ambulatory Resource Support (CARES) Program

What is CARES Program?

The **COVID Ambulatory Resource Support (CARES) Program** aims to approach COVID-19 care as a **collaboration between Primary Care, Medical/Surgical/Behavioral Specialties, Nurse Navigators, and Care Managers.**

CARES Program

Who are the patients in need?

Patients with
acute or new symptoms,
suspicious of or confirmed
COVID-19

Patients with
post-acute COVID19
sequelae or complications

COVID Ambulatory Resource Support (CARES) Program

Why create a program like CARES?

COVID-19 infection has a **range of presenting symptoms and severity**

Journey through **recovery is varied**

Evolution of acute symptoms into **post-acute syndrome**

Ongoing **research on long term sequelae** of COVID-19 infection

Continued learning & development of clinical expertise for care of patients with COVID-19

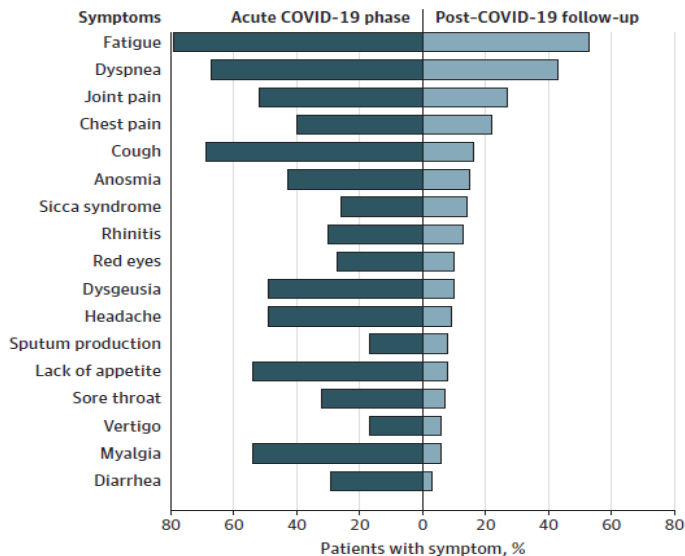
Morbidity and Mortality Weekly Report

Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19 in a Multistate Health Care Systems Network — United States, March–June 2020

1 in 3 reported not returning to usual health 14 - 21 days after testing

1 in 5 young adults aged 18–34 years with no chronic medical conditions reported returning to their usual state of health 14 - 21 days after testing

Figure. COVID-19–Related Symptoms

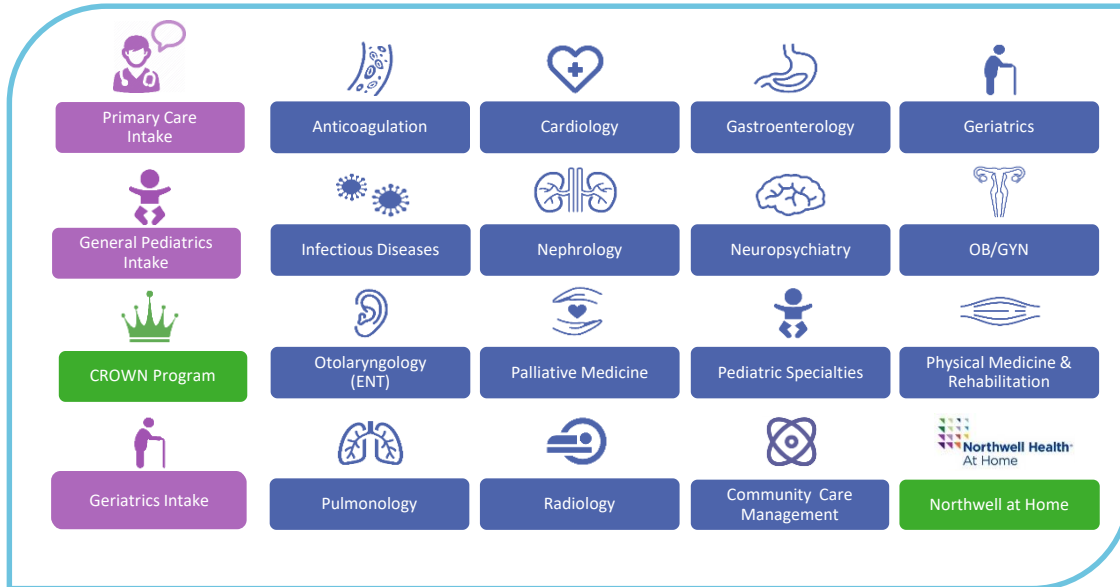


The figure shows percentages of patients presenting with specific coronavirus disease 2019 (COVID-19)–related symptoms during the acute phase of the disease (left) and at the time of the follow-up visit (right).

Source: <https://jamanetwork.com/journals/jama/fullarticle/2768351>

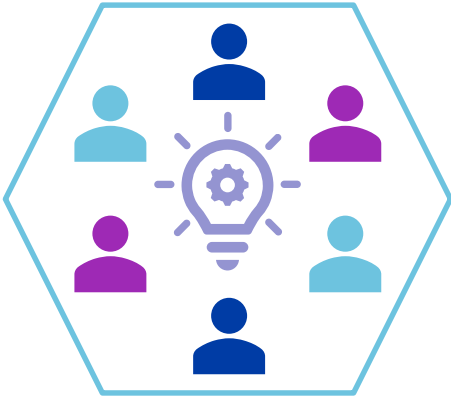
CARES Program

Who are the specialties part of CARES?



CARES Program

Learning Collaborative



- **Foster collaboration** with members of the CARES program, including various specialists, primary care physicians, geriatricians, pediatricians, physical/occupational therapists, home care clinicians, community care managers, and nurse navigators
- **Promote timely access to care** for patients within the CARES program
- **Leverage Telehealth services**, where applicable, to promote timely access to care
- **Build further upon understanding** of the COVID-19 disease and sequelae

*From Challenges
to
Lessons Learned*



COVID-19 Era

Continued Challenges

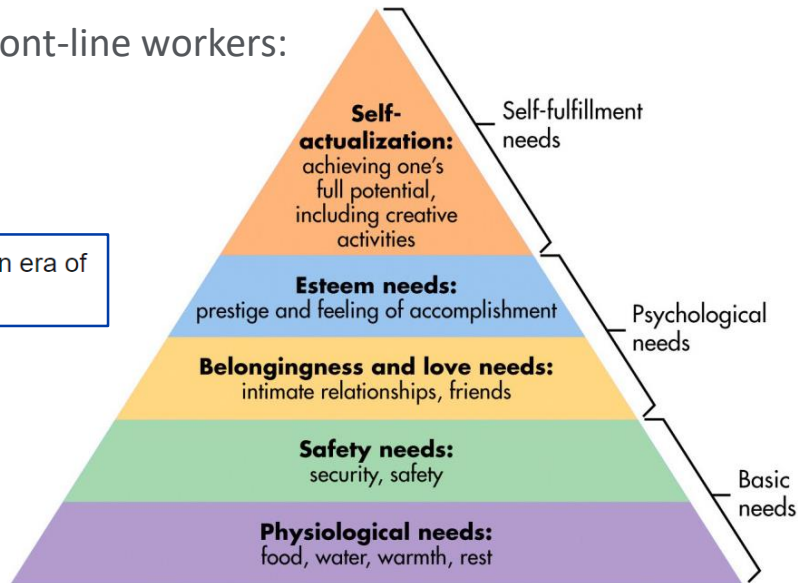
- No blue-print
- Rapidly evolving data and understanding
- Initial focus on hospitals and facilities
- Patients with non-COVID diseases – acute and chronic
- Infodemic
- Evolving data on post-COVID sequelae and complications
- Patients lost to follow up
- Gaps in care for preventive measures (cancer screenings, vaccinations, and more)

COVID-19 Era

Continued challenges and Barriers

- Recovery for clinicians and front-line workers:
 - Physical & Behavioral

#primarycare = saving souls from eternal guilt in era of #COVID19 😞

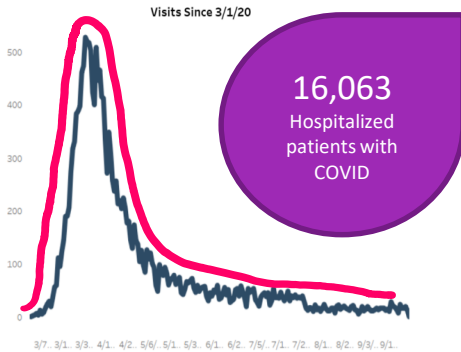


Maslow's Hierarchy of Needs: <https://www.simplypsychology.org/maslow.html>

COVID-19 Impact

Lessons Learned

Inpatient Volume



Outpatient Volume



COVID-19 Era

Lessons Learned

1. Early, consistent **communication** at **all** levels – staff, leadership, and across partners
2. Address the **recovery of front-line** clinicians & staff – physical, mental, emotional
3. Quickly and efficiently **update protocols**
4. Leverage **technology and telehealth** (wearable devices, remote monitoring)
5. Expand capacity to **provide care in home** (especially expanding home-based diagnostics & supplies)
6. Patients will forego healthcare – we need to **address care gaps** now
7. Be **flexible**, lean-in
8. Be **kind** to yourself and your team
9. Be **united** – we need to speak in **one** voice for our patients, peers, and communities

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Acknowledgements

Dr. Thomas McGinn
Dr. JoAnne Gottridge
Dr. Nancy LaVine
Dr. Gita Lisker

Dr. Maria Carney
Dr. Chris Hollweg
Dr. Zenobia Brown
Irina Mitzner
Karen Abrashkin
Dr. Barry Goetz
Dr. Michael Oppenheim
Dr. Mary Curtis

Dr. Abraham Saraya
Dr. Vishnoo Kothapeta
....and more!