Emergency Department Patient Care and Clinical Operations During the COVID-19 Pandemic

COVID-19 CLINICAL ROUNDS
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Emergency Department Patient Care and Clinical Operations During the COVID-19 Pandemic

Objectives:

Provide insight and tools to assist in readying hospitals and emergency department to respond effectively to the COVID-19 pandemic

Share clinical and operational experiences and observations

Share ready-made resources and clinical tools

Background: UW Medicine Department of Emergency Medicine

Responsible for three (3) Emergency Departments (ED):

- Harborview Medical Center ED
  - High volume county hospital
  - Level I Trauma & Burn Center (for 4 states)
  - Comprehensive Stroke Center
  - General referral center for critical care in PNW

- UWMC – Montlake Campus ED
  - Tertiary / quaternary care
  - Cancer care, transplant, cardiac dz, high risk OB/NICU

UWMC – Northwest Campus ED
  - Community hospital w/ significant elderly population

Background: The Seattle Story

First case of COVID-19 in the U.S.:

- diagnosed 1/20/2020
- Snohomish County, WA
- Recent travel to Wuhan, China

Coronavirus outbreak LTC

- 1st resident dx'ed 02/28/2020
- Epidemiologic investigation of LTC

  --129 cases assoc'ed with facility (81 residents, 34 staff, 14 visitors)

  --23 deaths

Click here

COVID-19 is spreading throughout all of Washington state. "Confirmed Cases" have had a positive test for COVID-19.

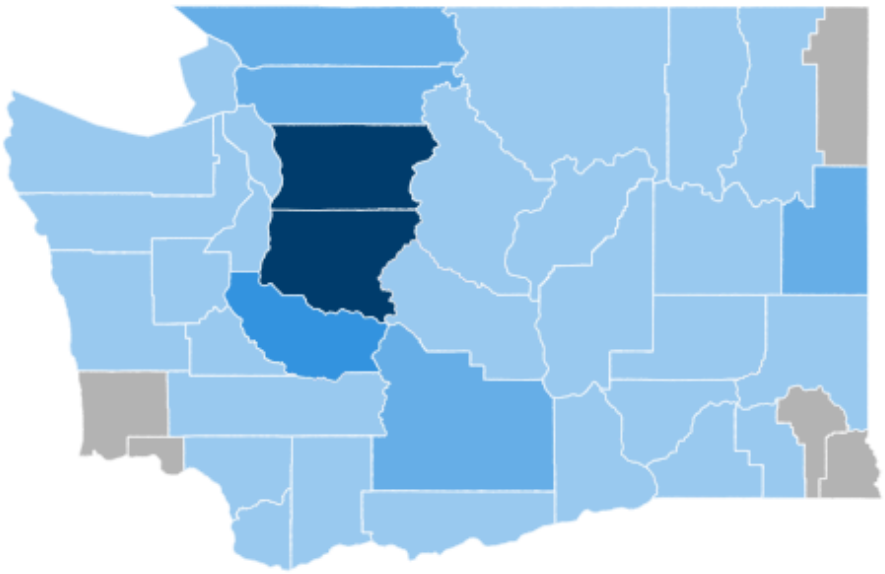
COVID-19 in Washington State

Data as of March 31, 2020 11:59PM PT

Total Confirmed Cases	5,984
Total Deaths	247
Percent deaths (deaths / confirmed cases)	4.1%
Total tests	74,798
Percent Positive	8.0%

Confirmed cases by county

Hover over a county for details



Counties

All

Click here:

Table view

Confirmed Cases

Deaths

Legend

- 480 +
- 361 to 480
- 241 to 360
- 121 to 240
- 1 to 120
- 0

672 of 5,984 confirmed cases do not have an assigned county

Links to local health jurisdiction websites are located on the local health jurisdiction map (click here).

COVID-19 data are reported as timely, accurately and completely as we have available. Data are updated as we receive information that is more complete and will change over time as we learn more.

Last updated 11:59pm 3/31/2020

Click here

Here we are showing the total number of people who tested positive for COVID-19 each day since January 21, 2020. The graph begins with February 28, when community transmission was first reported in Washington. The date reflects the day cases were reported which is usually several days after they first got sick. Washington state has seen a rapid increase in the total number of cases of COVID-19 through March 2020. The increase is due to both community transmission and expanded testing. You can also see the total number of COVID-19 deaths reported in Washington by the date of death.

Click here:

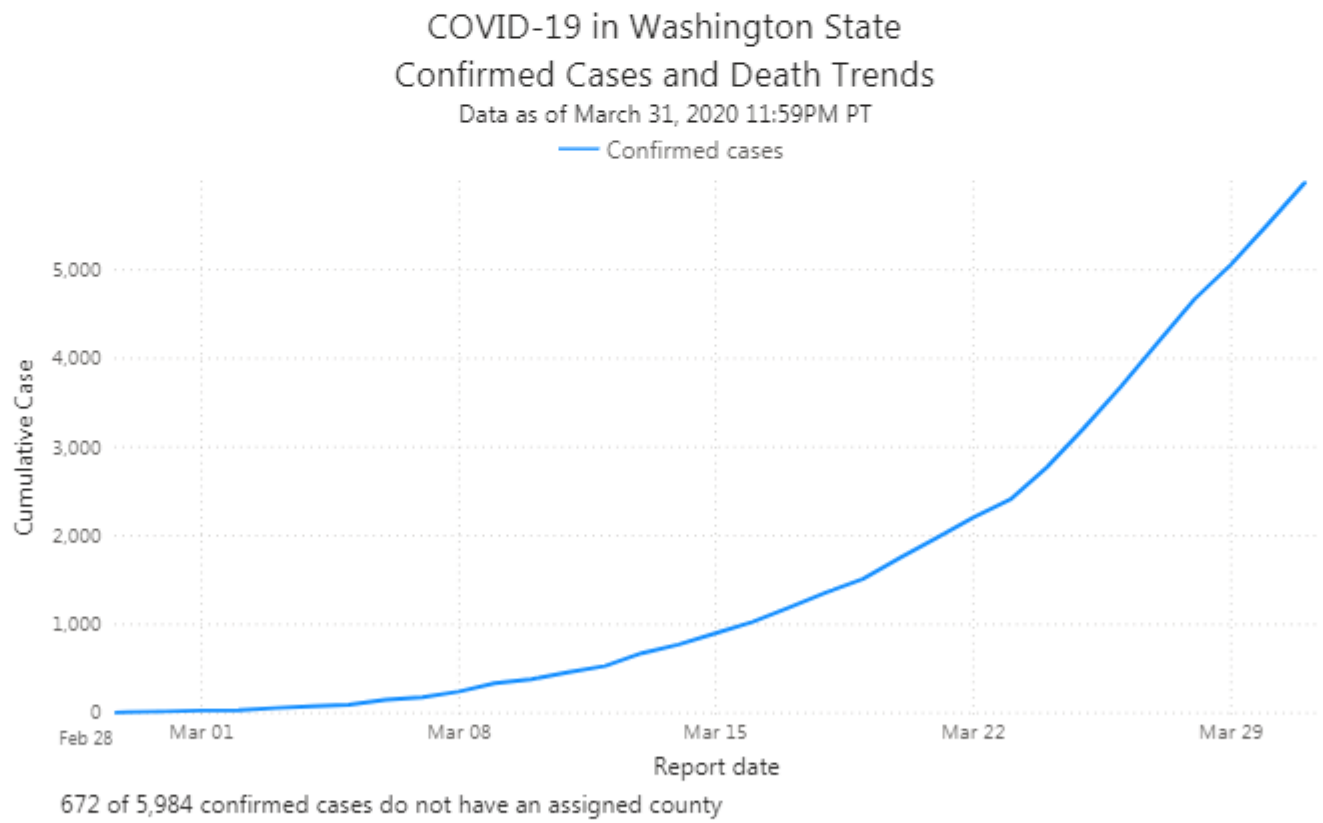
Confirmed cases

Deaths

Counties with greater than 10 cases / deaths

NAME

All



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Preparation and Response to COVID-19

Typical MCI in U.S.:

- swift response; all hands on-deck
- short-lived (hours to days)
- immediate high intensity and rapid de-escalation and recovery
- regularly drill
- a sprint

COVID-19 Pandemic Response:

- prolonged response; lasts weeks if not months
- initial intensity focused on planning & organizing
- later emphasis on clinical care
- no previous drills
- marathon; greater risk of fatigue and burnout
- health risk to providers

Preparation and Response to COVID-19

Anatomy of the Response:

- Set up an effective Incident Command Structure
- Communication
- Operations / Preparing the Environment
- Clinical Protocols
- Team preparation
- Partnerships & Collaborations (internal and external)
- Regional collaboration

Preparation and Response to COVID-19

Communication:

- Set up a ***communication system*** early
- Over communicate – you cannot
- Transparency
- Tools –
    - Daily e-mail updates
    - Biweekly zoom meetings
    - Repository of protocols and communications

Preparation and Response to COVID-19

Operations / Preparing the Environment:

- Cohorting COVID-10 or suspected COVID-19 patients
  - Hot and cold zones
  - Safety for patients and healthcare workers
  - Saves PPE

- Decant the ED of patients who do not need to be there
  - Need the space for surge
  - Greater space between patients and potentially healthcare workers
  - Hospital and DOH messaging to & education of the public RE> appropriate use of ED and sites for testing

Preparation and Response to COVID-19

Operations / Preparing the Environment:

- Tents & Screening

- Identify alternative UC settings near the ED for patients with minor non-respiratory complaints

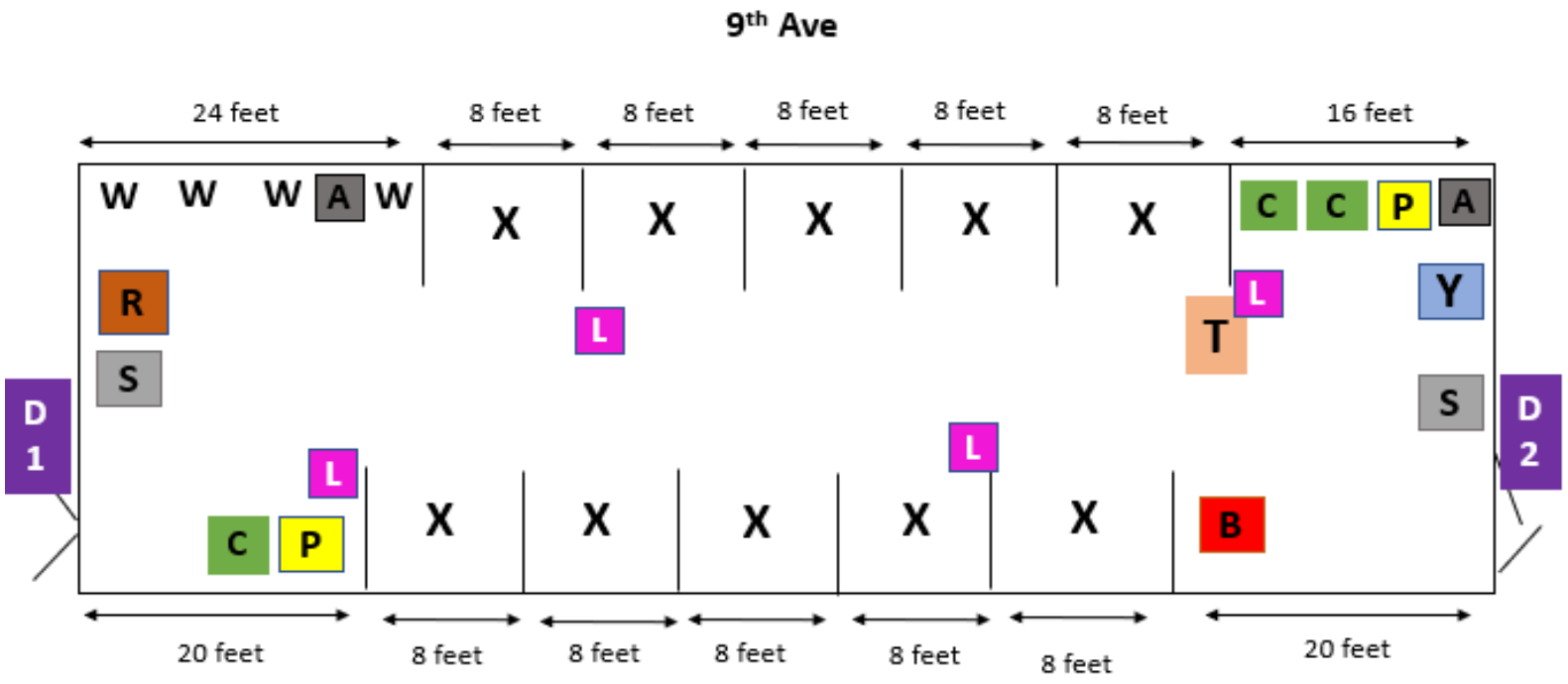
- Telehealth –
  - In the ED to reduce healthcare worker contact
  - Save PPE

Who to test?

Clinical Features	Risk Factors?	SARS-CoV-2 Testing?
Asymptomatic		No
Asymptomatic with an aerosol-generating procedure planned within the next 72 hours (Refer to testing schematic)		Yes
New symptoms of acute respiratory infection (such as fever, cough, shortness of breath, myalgias, rhinorrhea, sore throat, anosmia, ageusia) **And does NOT require hospitalization**	None	Defer to clinical judgement
New symptoms of acute respiratory infection (such as fever, cough, shortness of breath, myalgias, rhinorrhea, sore throat, anosmia, ageusia) **And does NOT require hospitalization**	• Healthcare workers and first responders • Person working in a critical infrastructure occupation[1] • Pregnant persons • Adults older than 60 years • Persons living homeless/unstably housed • Persons living in a congregate setting[2] • Persons with chronic lung disease (eg. COPD, asthma) • Use of an immunosuppressive medication (eg. Prednisone, rituximab, chemotherapy) • Persons with an immunocompromising condition (eg. Current cancer, history of transplantation (solid organ or bone marrow), diabetes, dialysis, HIV, cirrhosis, rheumatoid arthritis, lupus) • Close contact with a confirmed case[3] • Spent time at any skilled nursing facility	Yes[4]
New symptoms of acute respiratory infection (such as fever, cough, shortness of breath, myalgias, rhinorrhea, sore throat, anosmia, ageusia) **requiring hospitalization**		Yes[4]


HARBORVIEW
MEDICAL CENTER
UW Medicine
King County
EMERGENCY
8th Ave Lobby
P1 Garage
P2 Emergency Parking
P2 Garage
P3 Garage

The Tent



S Portable Sinks

R Reg Area (tablet, phone etc.)

C Computer, phone charger

Y X-ray plate charging area

A Air Filters

H Biohazard bin

L Free standing Purrell

X Exam room chair

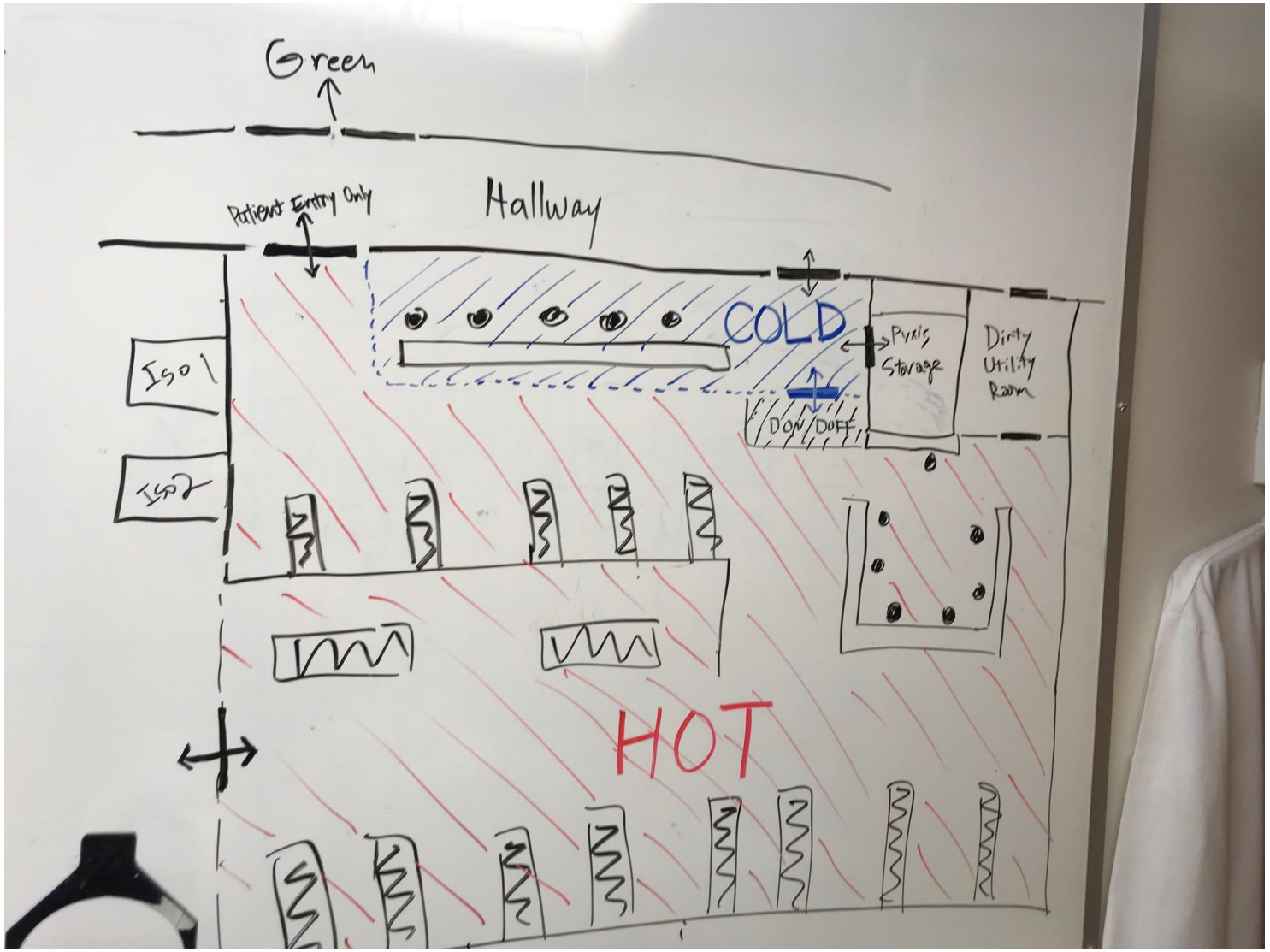
W Waiting room chair

T Specimen table

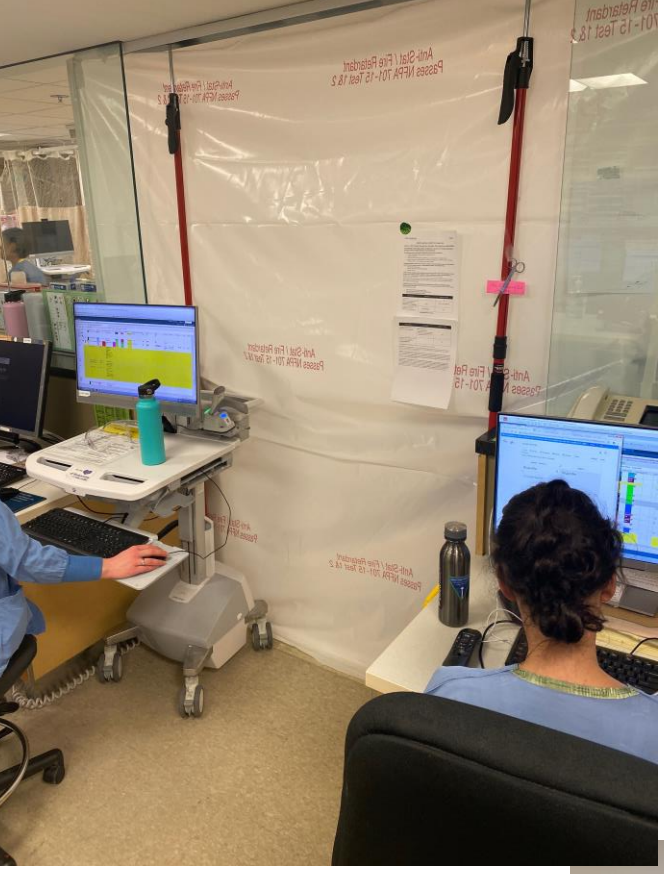
P Printers

B Supplies

D # D1 = Don
D2 = Doff



Be creative. Think outside the box.




Anti-Stat / Fire Retardant
Passes NFPA 701-15 Test 1& 2


Andie R.
Blanca Z.
James P

Preparation and Response to COVID-19

Develop Clinical Protocols:

- COVID-19 testing
  - *If limited access to testing, prioritize for high risk population and to strategize preservation of limited resources*

- ED risk assessment algorithm to guide admit v. dc and acute care v. icu

- Intubation & Resuscitation –
  - Avoidance of NIPPV, HFNC
  - Early intubation
  - Intubation kits & resuscitation
  - Favor use of video laryngoscopy
  - Use of viral filters
  - Repository of protocols and communications

Preparation and Response to COVID-19

Develop Clinical Protocols:

- Partner with Palliative Care
  -- Begin this process before surge
  -- Meet regularly
  -- Educate clinicians; develop talking points to increase comfort level with these discussions

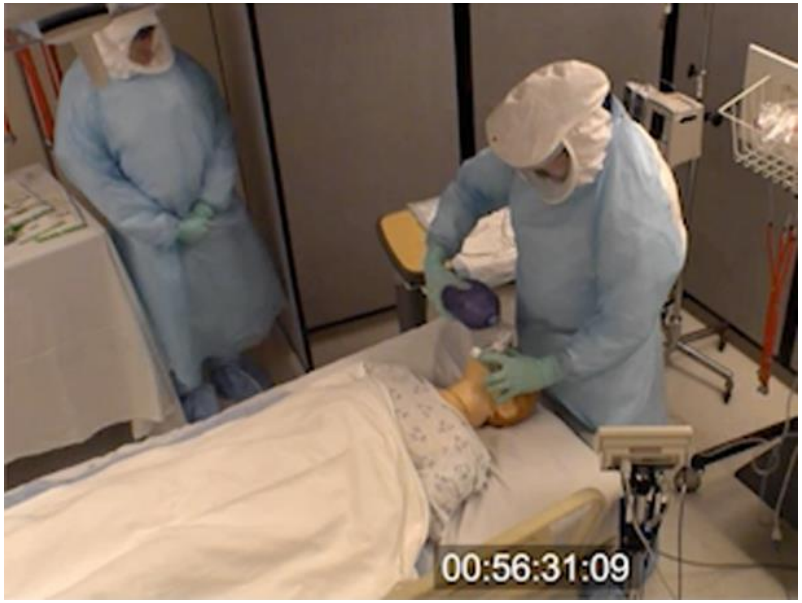
- Process for Implementation of Crisis Standards of Care
  -- formation of institutional and healthcare system Triage Teams
  -- ensure a transparent, equitable, and consistent approach to allocation of scarce resource
  -- team composition: 1-2 CC and/or EM faculty, 1 senior nurse, 1 clinical ethicist

Preparation and Response to COVID-19

Team Preparation:

- PPE – Fit testing; PAPR training

- Delivery of care in different settings and different teams requires training and drilling and simulation



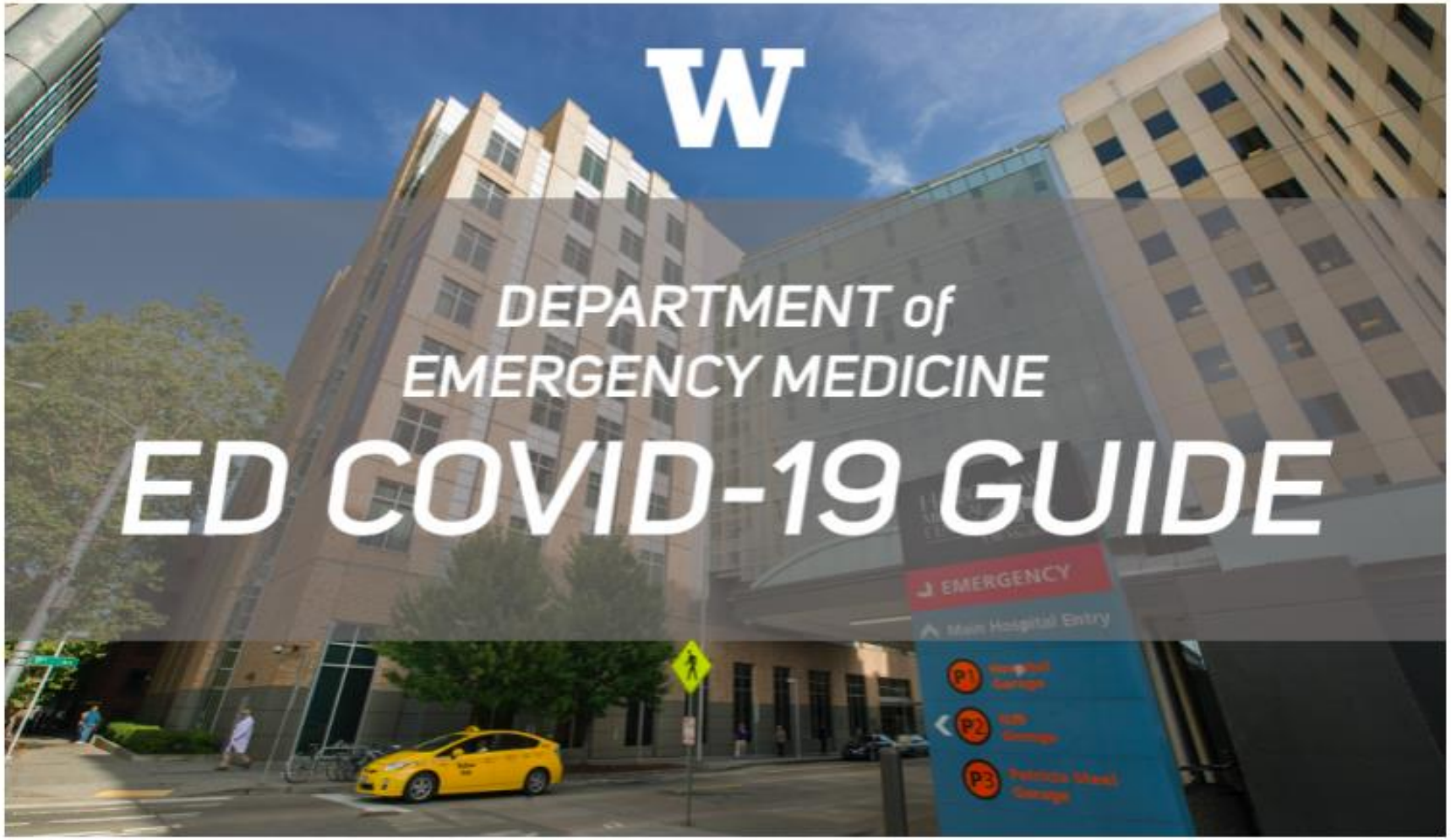
Preparation and Response to COVID-19

Partner and Collaborate with the Region:

- Not an ED response; requires a hospital and regional response
  - Local and State DOH
  - Healthcare Coalitions
  - Shelters and SNFs
  - EMS agencies
  - Jail / Department of Corrections

- Building a coalition

UW Department of Emergency Medicine ED COVID-19 Guide



Preliminary Recommendations on Preparing Your ED for the US Red Zone

Final Considerations

- *Begin planning now*
- *It is a marathon*
- *Take care of your team*
- *Communication drives everything*
- *Practice / drill – it builds teamwork and confidence*
- *Collaboration regionally will be critical to success*

UW Medicine COVID-19 Resources:
https://em.uw.edu/news/uwashem-edicu-covid-19-guide

https://covid-19.uwmedicine.org/Pages/default.aspx