



COVID-19 Overview: Current State, Challenges, and Opportunities



This meeting will be recorded and will
be available at
www.fmda.org/journalclub.php



FMDA Journal Club

June 17, 2020

Diane Sanders-Cepeda, DO, CMD – Presenter

Bernardo J. Reyes, MD, CMD – Featured Guest



Agenda

COVID-19 State of the State

COVID-19 Overview: Current State, Challenges & Opportunities

Open Discussion



World Map



U.S. Map



Critical Trends



COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)



Total Confirmed

2,137,604

Confirmed Cases by
Country/Region/Sovereignty

- 2,137,604 US
- 923,189 Brazil
- 552,549 Russia
- 354,065 India
- 299,600 United Kingdom
- 244,328 Spain
- 237,500 Italy
- 237,156 Peru
- 195,051 Iran
- 194,347 France
- 188,474 Germany
- 184,449 Chile
- 181,298 Turkey

154,942 Mexico

Admin0 Admin1 Admin2



[Cumulative Confirmed Cases](#) |
 [Active Cases](#) |
 [Incidence Rate](#) |
 [Case-Fatality Ratio](#) |
 [Testing Rate](#) |
 [Hospitalization Rate](#)

188

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#).

Lead by JHU CSSE. Technical Support: [Esri Living Atlas team](#) and [JHU APL](#). Financial Support: [JHU](#) and

Global Deaths

116,964

116,964 deaths
US

US State Level
Deaths, Recovered

30,909 deaths, **68,938**
recovered
New York US

12,792 deaths, **28,872**
recovered
New Jersey US

7,664 deaths, **recovered**
Massachusetts US

6,398 deaths, **recovered**
Illinois US

6,276 deaths, **59,612**
recovered
Pennsylvania US

Global Deaths

US Deaths, Recovered



United States of America

To see results within this country, select a subnational location

Total deaths

Daily deaths

Infections and testing

Hospital resource use

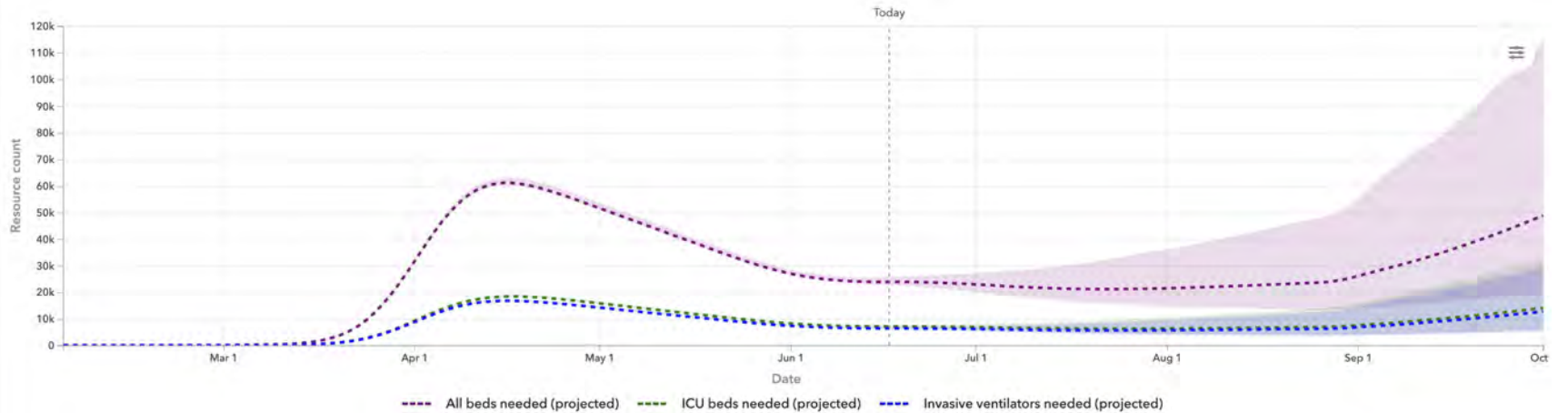
Social distancing

Shaded areas indicate 95% uncertainty interval.

Trend Compare Map

Hospital resource use

All resources All beds ICU beds Invasive ventilators



All resources specific to COVID-19 patients.
Shaded areas indicate 95% uncertainty interval.

United States of America

To see results within this country, select a subnational location

Total deaths

Daily deaths

Infections and testing

Hospital resource use

Social distancing

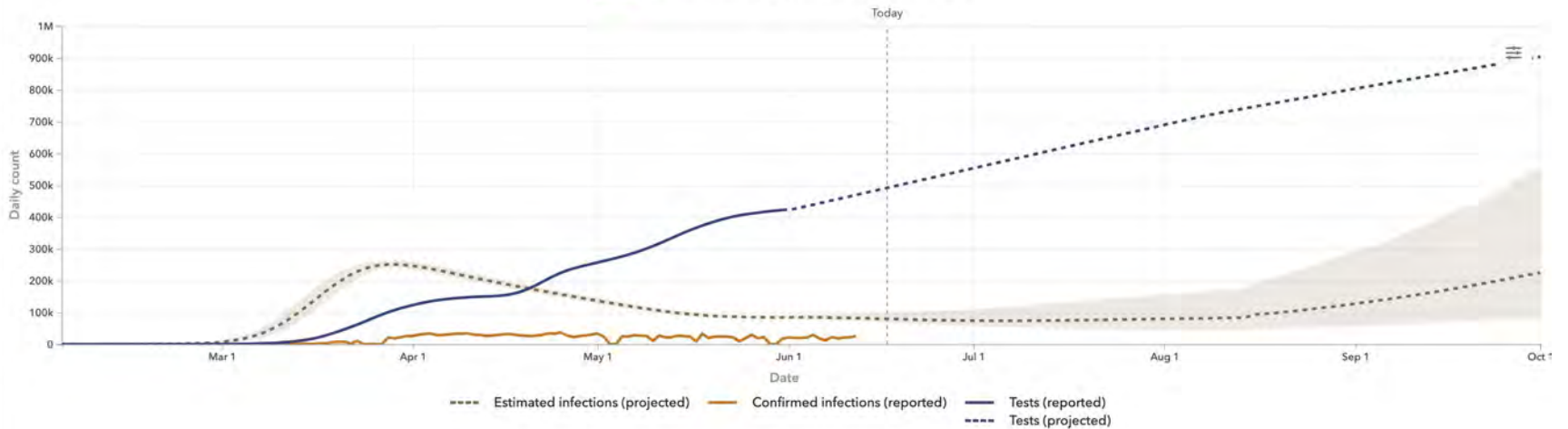
Trend

Compare

Map

Daily infections and testing

All Estimated infections Confirmed infections Tests



Shaded areas indicate 95% uncertainty interval.

COVID-19 Overview: Current State, Challenges, and Opportunities

Bernardo J. Reyes, MD, CMD

Assistant Professor of Geriatric Medicine
Associate Program Director,
Internal Medicine Residency



COVID-19 Overview: Current State, Challenges, and Opportunities

Key Learning Points

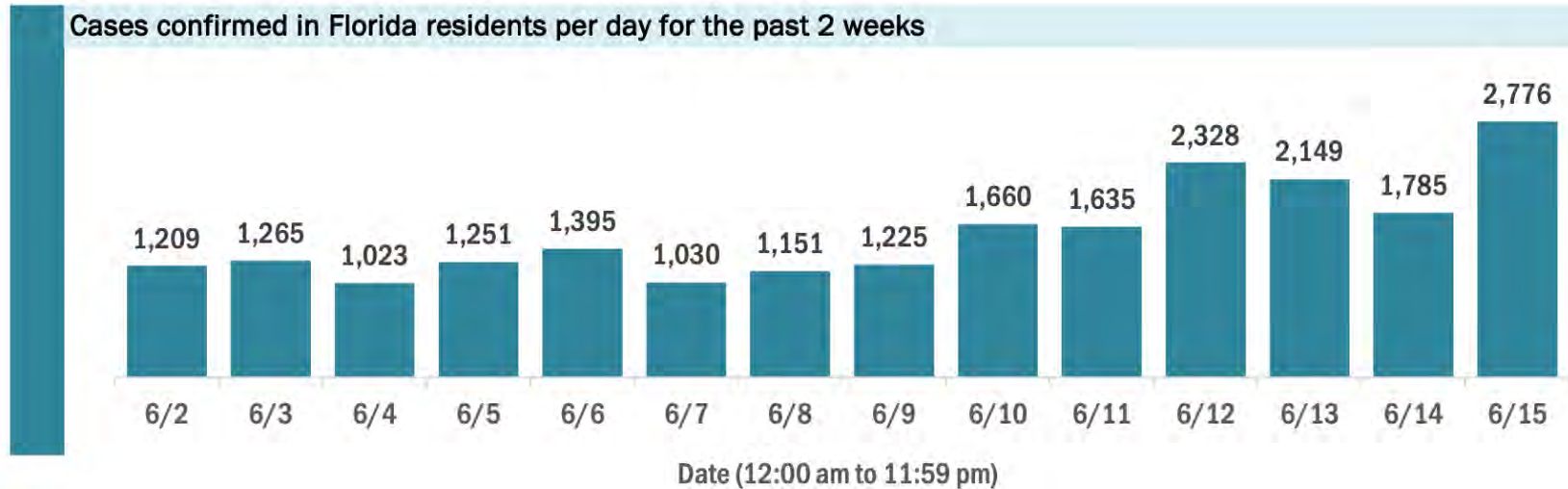
1. Reported Cases: National and State Trends
2. Nursing Home Data
3. Updates on testing
4. Current Therapies
5. Future Opportunities

COVID-19 Overview: Current State, Challenges, and Opportunities

New Cases: *Florida Gen Population*

June 16, 2020

Cases confirmed in Florida residents per day for the past 2 weeks



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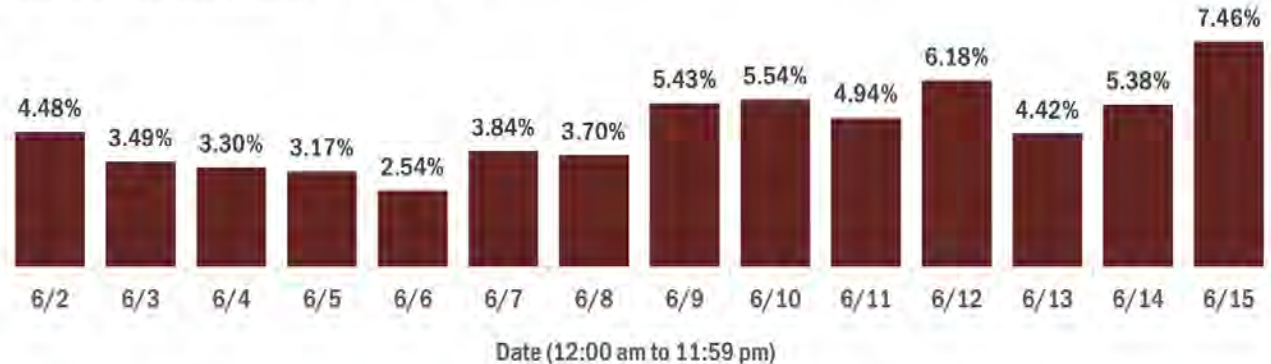
New Cases: *Florida Gen Population*

as Jun 6, 2020

Percent positivity for new cases

The percent of positive results ranged from 3% to 7% over the past 2 weeks and was 7% yesterday.

This percent is the number of people who test positive for the first time divided by all the people tested that day, excluding people who have previously tested positive.



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Florida Gen Population

as Jun 6, 2020

Age group	Cases		Hospitalizations		Deaths	
0-4 years	985	1%	47	0%	0	0%
5-14 years	2,139	3%	40	0%	0	0%
15-24 years	8,451	11%	235	2%	2	0%
25-34 years	13,321	17%	669	5%	17	1%
35-44 years	12,254	16%	1,041	9%	50	2%
45-54 years	12,770	16%	1,550	13%	113	4%
55-64 years	11,532	15%	2,133	17%	266	9%
65-74 years	7,771	10%	2,421	20%	617	21%
75-84 years	5,203	7%	2,275	19%	855	29%
85+ years	3,675	5%	1,795	15%	1,073	36%
Unknown	27	0%	0	0%	0	0%
Total	78,128		12,206		2,993	

← 8%

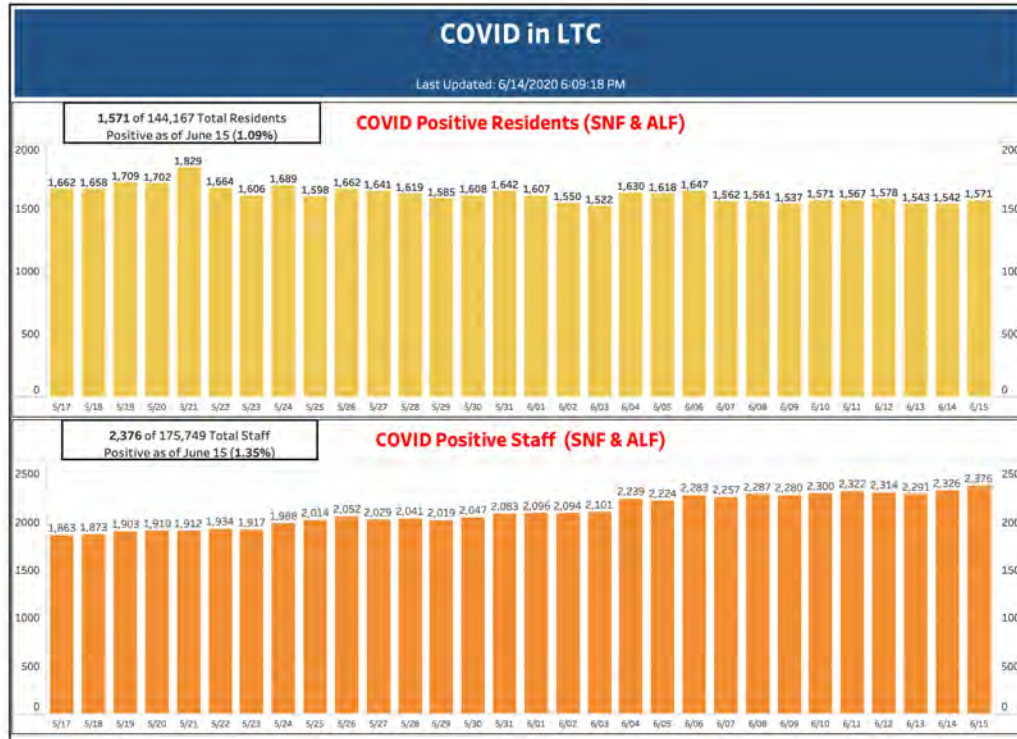
← 16%

← 29%

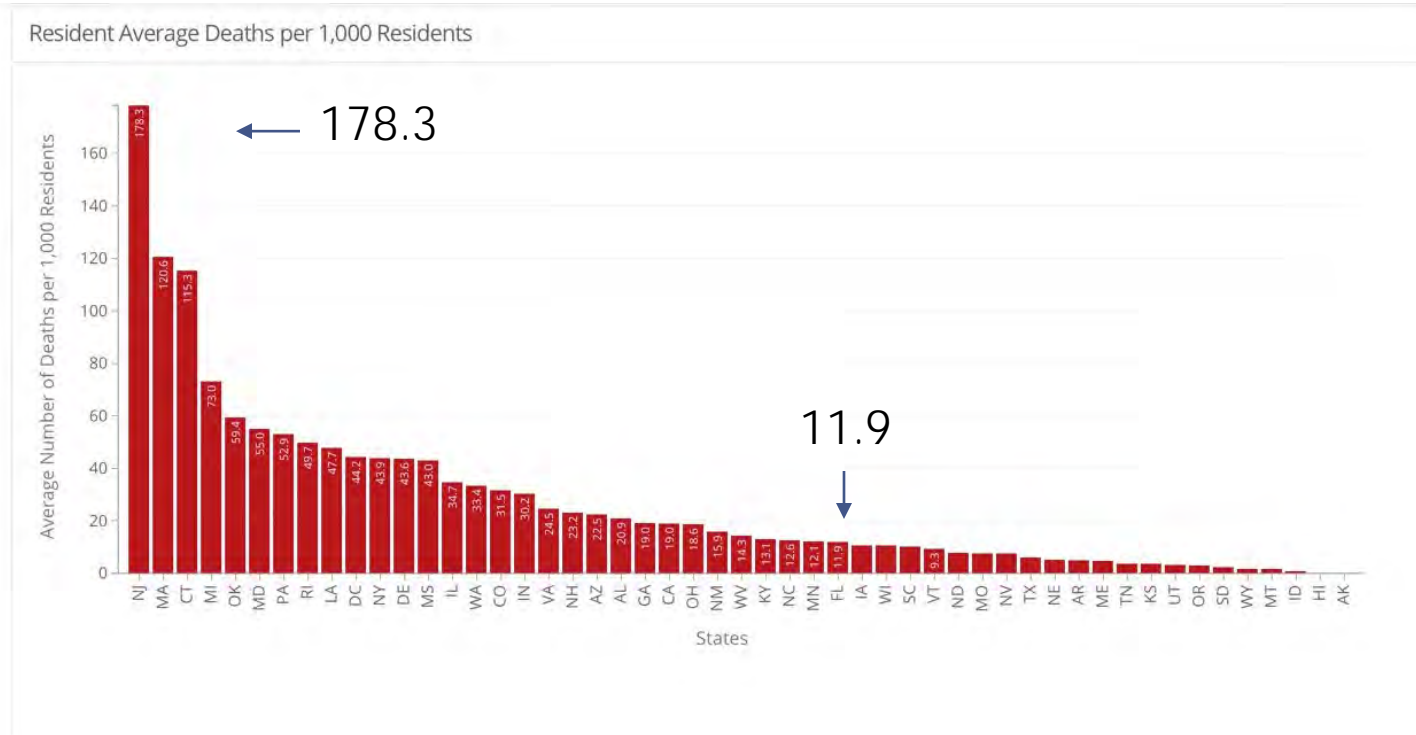
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Florida Nursing Home Data

Jun 6, 2020



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Challenges: Asymptomatic Cases

THE NEW ENGLAND JOURNAL OF MEDICINE

CORRESPONDENCE

Natural History of Asymptomatic SARS-CoV-2 Infection

June 12, 2020

- The outbreak of coronavirus disease 2019 (Covid-19) on the cruise ship *Diamond Princess* led to 712 persons being infected
- 410 (58%) of these infected persons were asymptomatic at the time of testing
- 96 of the asymptomatic passengers were transferred to a hospital
- 11 of 96 developed symptoms in ~4 days.
- *The risks of being pre-symptomatic increased with age*

Global Symposium: Post-acute Care and Rehabilitation during COVID-19 Pandemic
(June 14, 2020)

<https://www.youtube.com/watch?v=Z7jrmfEu7XU&feature=youtu.be>

- Who is at risk (# Beds, Blacks, Population Density, # Cases in the community)
- Atypical presentation of symptoms
- Lower threshold for temp (100.4 F might to high)
- Low O2 saturation (few days before patient becomes pos)
- Change in condition

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Challenges: *Testing*

Viral testing of healthcare personnel (HCP)

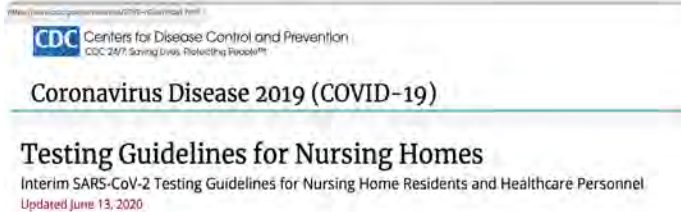
- initial testing for all
- weekly testing

Viral testing of residents

- *each resident* in a nursing home
- consider testing for other causes of respiratory illness
- Contact tracing

Viral testing in response to an outbreak

- Perform expanded viral testing of all residents and HCP
- Continue repeat viral testing of all previously negative residents, generally between every 3 days to 7 days, until the testing identifies no new cases of SARS-CoV-2 infection among residents or HCP for a period of at least 14 days



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Challenges: *Testing*



Perspective

False Negative Tests for SARS-CoV-2 Infection — Challenges and Implications

Steven Woloshin, M.D., Neeraj Patel, B.A., and Aaron S. Kesselheim, M.D., J.D., M.P.H.

- False negative rates 2 to 29%
- Pre-test probability (more challenging)
- Post-test probability very low

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Challenges: *Infection Control*

- Very high index of suspicion and low threshold for isolation for COVID-19
- Operate under the assumption that available testing is inaccurate
- Open up facilities to visitors
- Services such as dining rooms and physical therapy rooms
- Occupancy of short term vs long-term residents

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Challenges: Second Wave (It's a Marathon, Not a Sprint)

1. What is the role of post-acute care in this pandemic
2. Operate under this "New Normal"
3. Mental Health
4. Sustainability (financial and logistic issues)
 - PPE
 - Testing

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Challenges: Business Model

- Cost of testing, special COVID units, and PPE
- Perception in the community
- Perception of community partners
- Resources Available

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Opportunities: *Acute Transfers of Long-Term Residents*

- Reduction in hospital transfers among long-term residents
- Implementation of programs to manage change in condition in the facility to avoid transfers (AMDA Clinical Practice Tools, INTERACT)
- Value-based payment models that meaningfully engage clinicians in both postacute care and long-term nursing home care

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Opportunities: *Telemedicine*

- Using relationship with community partners to have access to necessary expertise
- Limit provider exposure to high risk patients (office visits)
- Better utilization of staff

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Opportunities: *Treatment*

- Remdesivir
- Hydroxychloroquine
- Dexamethasone

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Opportunities: *Advanced Care Planning*

- Many educational and documentation tools are available
 - Using evidence on prognosis (e.g. www.ePrognosis.com) and simple language descriptions of risks and benefits, such as those available in the INTERACT program are helpful

 - Being clear about the limited meaning of “DNR” is also helpful

 - COVID-19 specific tools are available
 - <https://respectingchoices.org/covid-19-resources/>
 - <https://www.vitaltalk.org/guides/covid-19-communication-skills/>
 - <https://www.capc.org/toolkits/covid-19-response-resources/>
 -
- Documenting and communicating discussions and decisions is critical so that hospital transfers and other interventions are either implemented or withheld based on the patient/resident and family preferences
- **Be prepared for patients/residents dying in the facility**

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Questions?

Comments?

Suggestions?



Open Discussion



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