NCB Webinar
COVID Vaccinations: Practical and Ethical Considerations
February 24, 2021

Objectives

1. Have new tools for developing or strengthening their program’s approach to COVID vaccination
2. Be able to recognize current and novel treatment options for COVID-19
3. Be able to identify good practices and ethical considerations for talking with clients about COVID-19 vaccinations
4. Be able to locate resources to help themselves and their clients obtain accurate information on COVID-19
5. Learn/adapt approaches for addressing vaccine hesitancy and equity concerns among underserved clients

Attendee Controls
All functions are located at the bottom of your screen

• Use chat to type questions not related to the presentation content or comments to panelists
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COVID Vaccinations: Practical and Ethical considerations
Edwin Hayes, MD and Rajeev Bais, MD
The Carolina Survivor Clinic at USC
2/24/21

▪ Epidemiology
▪ Tests and Treatments
▪ Vaccines
▪ Variants
▪ Vaccine Hesitancy
▪ Barriers to Overcome
Decision analytical model
- Assessed multiple scenarios for transmission
- Estimated that over 50% of overall transmission from asymptomatic individuals
- Pre-symptomatic individuals and asymptomatic

Compared PCR and antigen test results:
- In PCR + symptomatic people, antigen test missed 1 in 5
- In PCR + asymptomatic people, antigen test missed 3 in 5

The benefit was greatest in:
- Patients with symptoms > 7 days
- Patients who required mechanical ventilation.
- No benefit among patients with shorter symptom duration or no supplemental O2
- Improved mortality
Convalescent Plasma

▪ NIH Update - October 9, 2020
  ▪ There are insufficient data for the COVID-19 Treatment Guidelines Panel to recommend either for or against the use of convalescent plasma for the treatment of COVID-19.

▪ January 6, 2021/February 18, 2021
  ▪ Randomized, double-blind, placebo-controlled study in Argentina b/w June 4 - October 25, 2020
  ▪ Convalescent Plasma with high antibody titers (1:1000) was given within 72 hrs of onset of symptoms
  ▪ 160 patients randomized: over 75yo or b/w 65-74 with significant co-morbidities
  ▪ Stopped early because of a decrease in COVID patients
  ▪ Progression to Severe Respiratory Disease was 16% in pts receiving CP vs 31% of placebo
  ▪ Patients receiving plasma with titers > 1:3200 reduced the risk of progression to severe disease by 73%

Tocilizumab

▪ Studies Showing No Benefit:
  ▪ RCT-TCZ-COVID-19 (n=126)
    ▪ Primary end point - hypoxia, ICU admission or death - Stopped early due to lack of benefit
  ▪ CORIMUNO-19-TOCI (n=131)
    ▪ Toci may have reduced need for mechanical ventilation but no impact on mortality
  ▪ BACC Bay Trial (n=478, 7 Boston hospitals)
    ▪ Placebo controlled
    ▪ Toci did not reduce requirement for intubation or reduce mortality
    ▪ ELSA-pRHS
    ▪ Placebo controlled
    ▪ Toci reduced need for mechanical ventilation but mortality did not improve
  ▪ REMCAP
    ▪ First global, randomized, double blind, placebo controlled phase III study
    ▪ Primary endpoint - clinical status in hospitalized patients with severe infection
    ▪ Did not meet its primary endpoint of improved clinical status
    ▪ No difference in patients mortality at week 4
  ▪ NIH Recommendations - August 27, 2020
    ▪ The Panel recommends against the use of IL-6 receptor monoclonal antibodies (sarilumab, tocilizumab) or anti-IL-6 monoclonal antibody (siltuximab) for the treatment of COVID-19, except in a clinical trial.

Ivermectin

▪ Ivermectin is an FDA approved antiparasitic drug - used to treat several neglected tropical diseases, including onchocerciasis, helminthiasis, and scabies
▪ Ivermectin inhibits the host importin alpha/beta-1 nuclear transport proteins
▪ ICON Study: Retrospective cohort study of consecutive patients hospitalized at four Broward Health hospitals in South Florida with confirmed SARS-CoV-2.
  ▪ Ivermectin was associated with lower mortality during treatment of COVID-19
▪ NIH Recommendation
  ▪ The COVID-19 Treatment Guidelines Panel recommends against the use of ivermectin for the treatment of COVID-19, except in a clinical trial (AIII).

Hydroxychloroquine

▪ NIH Recommendations:
  ▪ The Panel recommends against the use of chloroquine or hydroxychloroquine with or without azithromycin for the treatment of COVID-19 in hospitalized patients (AI)
  ▪ In non-hospitalized patient, the Panel recommends against the use of chloroquine or hydroxychloroquine with or without azithromycin for the treatment of COVID-19, except in a clinical trial (AI)
  ▪ The Panel recommends against the use of high-dose chloroquine (600mg twice daily for 10 days) for the treatment of COVID-19 (AI).
MONOCLONAL ANTIBODY: Bamlanivimab

- A neutralizing monoclonal antibody that targets the receptor-binding domain of the spike protein of SARS-CoV-2
- Blocks viral entry into cells
- November 9, 2020, the FDA issued an Emergency Use Authorization (EUA) to make bamlanivimab available for the treatment of non-hospitalized patients with mild to moderate COVID-19 who are at risk for progressing to severe disease and/or hospitalization.
- Criteria:
  - BMI>35
  - Chronic Kidney Disease
  - Diabetes mellitus
  - Immuno-compromising condition
  - Aged >65 years
  - Aged 55 years and have:
    - cardiovascular disease, or
    - hypertension, or
  - Chronic obstructive pulmonary disease/other respiratory disease

MONOCLONAL ANTIBODY: Casirivimab Plus Imdevimab

- 2 recombinant human monoclonal antibodies that bind to nonoverlapping epitopes of the spike protein receptor binding domain of SARS-CoV-2
- Blocks binding of the spike protein to the host cell
- November 21, 2020, the FDA issued an Emergency Use Authorization (EUA) to make casirivimab plus imdevimab combination available for the treatment of non-hospitalized patients with mild to moderate COVID-19 who are at risk for progressing to severe disease and/or hospitalization.
- Criteria:
  - BMI>35
  - Chronic Kidney Disease
  - Diabetes mellitus
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SARS-CoV-2 Vaccines: How Did We Get Here?

- Usually a very deliberate process but stakes were too high
- Operation Warp Speed
- Modern Science
- Experiences from MERS/SARS
- A LOT OF LUCK!
BNT 162b2 (Pfizer/BioNTech)

- mRNA vaccine EU submitted 1/20/2021
- Reviewed 1/30/2020 (92 pages)
- C45900 was started as a Phase 1/2 study in the US and amended to expand to a global Phase 2/3 study enrolling ~44,000 participants (1:1 randomization)
- 83% White, 28% Hispanic, 42% >55 yo
- 20% with comorbidity, 30% obese, 23 pregnancies (9 withdrew)
- Ediary in > 6,000 patients
- SAEs, deaths, treatment limiting AEs (0.1%), same in both arms
mRNA-1273 (Moderna)
- mRNA vaccine EUA submitted 11/30/20
- Reviewed 12/17/20 (54 pages)
- mRNA-1273-P301 is a 30,000 participant study done at 99 sites in the US (1:1 randomization)
- 80% White, 20% Hispanic, 25% >65 yo
- 26% with comorbidity, 6.7% severely obese, 13 pregnancies (2 abortions: 1 spontaneous (both in placebo))
- Solicited AE in all patients
- SAE, death, treatment limiting AEs (0.1%) - same in both arms

ChAdOx1 (Oxford/Astra Zeneca)
- Chimpanzee adenovirus chimeric vaccine
- Approved in Canada, UK
- ChAdOx1 combination of 5 studies in UK, SA, Brazil (12k patients)
- 18-55 yo cohort planned as single-dose cohort. The protocol was modified in July 2020 to offer a 2nd dose (after robust booster responses identified in early immunogenicity cohorts)
- >80% white, average BMI 25, female, >80% HCW
- 70% efficacy but only approx. 10% against B1.351 variant
Johnson and Johnson/Janssen

- Efficacy 72% in the US, 66% in Latin America, 57% in South Africa (due to prevalence of B.1.351—95% cases with the variant)
- 66% effective overall at preventing moderate/severe COVID-19 (85% effective against severe)
- Onset of protection observed as early as day 14
- No cases reported after day 49
- Consistent protection across race, age (including >60yo)
- Viable in the refrigerator for 3 months
- US has agreed to purchase 100 million doses
- One dose!

Novavax

- Phase 3: 89.3% efficacy
- Trial done in UK with the UK (501Y.V1) variant dominating (>50% cases)
- Phase 2b:
  - South Africa with 93% cases attributable to SA (501Y.V2) variant
  - 60.1% efficacy in HIV negative
  - 49.4% overall
- Note: 1/3 of participants had prior COVID-19 infection indicating prior infection may not protect against 501Y.V2 variant

Goals of Mass Vaccination

- Decrease Morbidity
  - Vulnerable, elderly, high risk, essential, socially mobile
- Decrease Mortality
  - Elderly, vulnerable, high risk
- Decrease the Transmission/lower R0
  - Socially mobile, essential, 'anti-maskers/denialist/party animals'

New Variants

- B.1.1.7 lineage (UK variant): RBD mutation at position 501 (N501Y)
  - Increased transmissibility
- B.1.351 lineage (South Africa or Zambia variant): multiple mutations in the spike protein (K417T, E484K, N501Y)
  - Some evidence that the E484K may affect neutralization by some polyclonal/monoclonal antibodies
- P.1 lineage (Brazil variant): 3 mutations in RBD (K417T, E484K, N501Y)
  - Concern for reinfection as well as increase in transmissibility
Serum Neutralizing Activity Elicited by mRNA-1273 Vaccine — Preliminary Report

- Serum obtained 7d after 2nd vax
- Recombinant virus
- Neutralization of B1.117
  - 1.2 fold reduction of titer
- Neutralization of B1.351
  - 6.4 fold reduction of titer
- GMNT was 1:290
- All samples were neutralized

Neutralizing Activity of BNT162b2-Elicited Serum — Preliminary Report

- Engineered mutations into USA-WA1/2020
- 50% plaque reduction neutralization testing
- Sera 2-4 weeks after 2nd Pfizer vax
- GMNT for USA-WA1/2020 was 501
- GMNT for B1.351 was 184
  - Weaker by 2/3

Where do refugees fit in all of this?

Implementation in the Refugee Community

- Multiple barriers to care in general, many of which are illuminated by COVID and vaccination procedures
- Limited information regarding knowledge, attitudes, and practices surrounding vaccines
- Historic mistrust in certain communities
- Turbulent US political environment
- Novelty of COVID-19 vaccines
- Refugees, immigrant, and migrant populations are not homogeneous
  - Attitudes towards vaccinations are varied
  - Need to be familiar with each varying community needs and concerns

Hesitation

Barriers
Hesitation in the Refugee Community

Advocating Agency

Paternalism

What do you know?


Understanding and Explaining mRNA COVID-19 Vaccines

Key Points to Share with Your Patients

Underline terms you believe your patients would use:

- mRNA
- COVID-19
- Vaccines

- A third dose of COVID-19 vaccine is recommended for everyone age 12 years and older who received a two-dose series or a single-dose Johnson & Johnson (Janssen) vaccine.
- mRNA COVID-19 vaccines are usually injected into the arm.
- It is common for people to notice pain at the injection site before the injection.
Hesitation in the Refugee Community

What do they know?

- Heterogenous groups have heterogeneous needs and hesitations
- Need to assess to avoid generalizations
- Systemic distrust
- Doctors may be present in torture
- May be fleeing an antagonistic government
- May be traumatized by US government
- Many predators financial and physical
- Sharing information could lead to judgement or antagonism

Addressing systemic distrust
- Avoid wearing a white coat
- Hear and address their needs (may be far from your specialty)
- Meet in nonclinical settings, including home visits
- See family, context
- Establish community centered activities
- Tutoring, soccer, language classes, support group, gardening
- Cultivate agency
- Avoid judgement
- Be consistent
- Good rapport can take years
- If lacking rapport, reach out to a community leader/advocate

Congolese focus group
- Nearly all had seen social media posts decrying vaccines
  - Often in French or Swahili, sometimes English
  - Often invoke religion, particularly Christianity
Hesitation in the Refugee Community

- Congolese focus group concerns from social media
  - Will this be mandatory? (No, vaccination requires consent.)
  - Will this cost money? (No, it is free.)
  - Will this change my DNA? Give the mark of the beast?

Hesitation in the Refugee Community

- Congolese focus group concerns from social media
  - Will this be mandatory? (No, vaccination requires consent.)
  - Will this cost money? (No, it is free.)
  - Will this change my DNA? Give the mark of the beast? (No, it does not interact with DNA.)
  - Are there microchips to track me? (No, the vials and the fluid are clear and there is nothing to see in them. We have given these vaccines to other people and received them ourselves. All ingredients in vaccines are public knowledge. Messenger RNA is a medical term.)

Hesitation in the Refugee Community

- Social media posts/ memes
  - What is in the vaccine? Purported pork products, aborted fetal tissue?
    - No pork
    - No fetal tissue
    - Infertility from S-protein?
      - No

Hesitation in the Refugee Community

- Vaccine effects
  - Is this going to give me COVID? Will I need to quarantine after vaccination? (No, this is not an COVID infection, and it will not make you contagious. You will not need to quarantine.)
Hesitation in the Refugee Community
- Social media posts/ memes
  - What about side effects? Death, Bell’s palsy (or stroke), allergy?

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Bell’s palsy
- Not a stroke
  - Noted in 4 people in Moderna vaccine trial out of 30,000
  - This could be normal population variance
Hesitation in the Refugee Community

- Social media posts/memes

- What about side effects? Death, Bell’s palsy (or stroke), allergy?

- Anaphylaxis
  - Sixty-two reports of anaphylaxis have been confirmed, 46 after receipt of the Pfizer-BioNTech vaccine and 16 after receipt of the Moderna vaccine
  - 4.5 cases per million doses administered, is within the range reported after receipt of inactivated influenza vaccine (1.4 per million), pneumococcal polysaccharide vaccine (2.5 per million), and live attenuated herpes zoster vaccine (9.6 per million)
  - Effective treatments for anaphylaxis exist – they live

- Elderly deaths
  - Norwegian study suggests a handful of people had died following vaccination
  - Very frail, elderly patients
  - No controls
  - Systemic effects may have been related but difficult to show clear link

Hesitation in the Refugee Community

- Benefits of Vaccination
  - May help prevent spread to other people you care about
  - Avoid missed days of work/missed pay
  - Long term functionality is protected (brain fog, functional capacity)
  - People who get the vaccination don’t die from COVID

Barriers

Implementation in the Refugee Community

- Policy competence
  - What phase are we in?
  - Who is included?
  - Different from state to state
  - Often unclear even to providers
  - Interpreters are Phase 1a
  - Volunteers working frontline healthcare should be considered
  - Check health department guidance
Implementation in the Refugee Community

- Technological competence
  - Especially in elderly
  - May not know how to access scheduling
  - Register on site

- Transportation
  - Getting to the vaccination site and back
  - Group transport can be arranged but consider COVID precautions (spaced seating, masks, etc...)

- Language Services
  - Autonomy must not be jeopardized due to a language barrier
  - Resources (registration, consent) available in appropriate language
  - Challenging when dealing with varied small populations
  - [https://switchboardta.org/blog/a-round-up-of-multilingual-resources-on-covid-19/](https://switchboardta.org/blog/a-round-up-of-multilingual-resources-on-covid-19/) (pretty extensive)
  - Not everyone can read
  - Interpreters or phone lines at vaccination site (confirm this)

- Availability
  - Being able to take time from work is a major constraint
  - Many vaccination sites have hours during times when people typically work
  - Identify accessible sites at accessible hours
  - Lobby for these sites if not available
  - Consider doctor’s note for medical necessity
  - If can get doctor’s note, consider requesting 2 days given vaccine effects on second day, although most patients are functional
Summary

- COVID-19 is an ongoing threat
- It is evolving new variants
- Testing is available but not perfect
- Treatments are available but not perfect
- Vaccination saves lives and the risks are low
- Refugee and immigrant populations have unique, heterogenous barriers to vaccination that require a proactive approach and good rapport

Questions/Discussion

Thank you for attending this webinar by
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February 24, 2021

The National Capacity Building Project is a project of the Center for Victims of Torture
www.cvt.org

More resources are available at www.healtorture.org

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