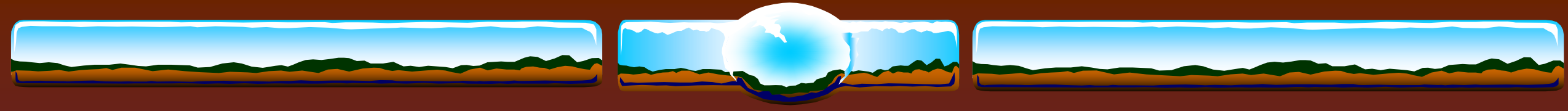


COVID-19 Clinical Update

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Disclosures



Co-Morbidities: HIV

- ❖ Incidence and severity of COVID-19 in HIV Positive Persons receiving antiretroviral therapy (Amo et al, Ann Intern Med 6/26/20)
 - ❖ 77,590 patients with HIV on Antiretroviral therapy (ART)
 - ❖ 236 developed COVID-19, 151 hospitalized, 15 admitted to ICU, 20 died
 - ❖ Men and persons age > 70 had more frequent diagnosis and hospitalization
 - ❖ Tenofovir Disoproxyl Fumarate was protective vs Tenofovir Adefenamide
 - ❖ Diagnosis rate 16.9 vs 39 per 10K; Hospitalization rate 10.5 vs 20.3 per 10K
 - ❖ No patient on TDF was admitted to ICU or died



Effect of coronavirus disease 2019 (COVID-19) on maternal, perinatal and neonatal outcome (Juan et al, Ultrasound Obstet gynecol, Jul 2020)

- ❖ Review of 24 studies including 9 Case series, 15 case reports
- ❖ 324 pregnant women with COVID
 - ❖ Maternal age 20-44, Gestational age at admission 5-41 weeks
 - ❖ Fever, cough, dyspnea, myalgia and fatigue were most common symptoms
 - ❖ Severe pneumonia present 0-14%, all requiring ICU care
 - ❖ 219 delivered, 78% by C-section, APGARs: 7-10
 - ❖ One neonate died of asphyxia in the case reports
 - ❖ No maternal death occurred in the consecutive case series, 9 in nonconsecutive case series



COVID-19 in Pregnant women: CDC data

- ❖ CDC MMWR June 26 report by Ellington et al showed higher hospitalization rates 31.5% vs non pregnant 5.8%
 - ❖ Risk of hospitalization 5.4 x higher
 - ❖ Risk of ICU admission 1.5 x higher
 - ❖ Risk of mechanical ventilation 1.7 x higher
 - ❖ No difference in risk for death
- ❖ ACOG points out that the pregnancy status was missing for 72% of women surveyed. Underlying conditions not reported in 77%



COVID-19 Care by Pregnant Healthcare Workers

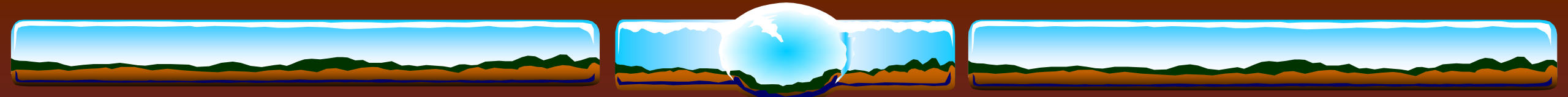
- ❖ Should pregnant healthcare personnel only do Non-Covid Care?
 - ❖ All HCP should be prescribed proper PPE and follow public health guidance
 - ❖ Health Care Facilities may consider limiting exposure of pregnant HCP to COVID-19
 - ❖ If PPE not available, Pregnant HCP should avoid exposure
 - ❖ Pregnant individuals may work in patient-facing roles until they give birth if they so desire and all recommended are PPE available



Persistent Symptoms in Patients after Acute Covid-19

Carfi et al, JAMA, 7/9/2020

- ❖ 143 patients from Rome, Italy the Fondazione Policlinico Universitario Agostino Gemelli IRCCS for post-COVID-19 care
 - ❖ Median age 56.5 (19-84 range), 37% women
 - ❖ 735 had interstitial pneumonia, LOS 13.5 days, 5% intubated
 - ❖ **Only 12.6% were symptom free at 60 days**
 - ❖ Residual symptoms
 - ❖ Fatigue. 53.1%
 - ❖ Dyspnea 43.4%
 - ❖ Joint Pain. 27.3%
 - ❖ Chest Pain. 21.7%



Characteristics of Persons Who Died with COVID-19 — United States, Wortham et al, MMR July 20, 2020

- ❖ 52,166 deaths occurred February 12-May 18, 2020
 - ❖ 54% Male
 - ❖ 79.6% were \geq 65 Years Old
 - ❖ Median age 78 years old
- ❖ Supplemental surveillance of 10,647 deaths
 - ❖ Percentage Hispanic (34.9%), Non-white (29.5%) < age 65 double that of whites (13.2%)
 - ❖ Underlying condition present in 76.4% (CVD, DM, CKD, CLD)



68% Have Antibodies in This Clinic. Can a Neighborhood Beat a Next Wave?

- ❖ NY Times report from Queens in NYC (J Goldstein, NYT, 7/9/2020).
 - ❖ 68% in one clinic in the Corona neighborhood had antibodies to COVID-19
 - ❖ 56% in Jackson Heights neighborhood had antibodies
 - ❖ Only 13% in wealthier Cobble Hill neighborhood of Brooklyn had antibodies
- ❖ Questions to ponder:
 - ❖ Is this herd immunity?
 - ❖ Will heavily affected minority communities have lower incidence in the future?



SARS-CoV-2 mRNA vaccine update

- ❖ **An mRNA Vaccine against SARS-CoV-2** (Jackson et al, NEJM 7/14/20)
- ❖ Phase 1 study of mRNA-1273 vaccine encoding stable prefusion spike protein
 - ❖ Lipid nanoparticle-encapsulated nucleoside-modified mRNA
 - ❖ Gave healthy volunteers 25 mcg, 50 mcg or 100 mcg at day 0 and 28
 - ❖ No serious adverse events noted
 - ❖ Fatigue, chills, headache, myalgia and pain at injection site were most common
 - ❖ Anti-SARS-CoV-2 immune responses were elicited in all participants
 - ❖ No safety concerns noted



More COVID-19 Training

- ❖ **CDC:** <https://www.cdc.gov/coronavirus/2019-ncov/hcp/index.html>
- ❖ **ACP Physician Handbook:** <https://www.acponline.org/clinical-information/clinical-resources-products/coronavirus-disease-2019-covid-19-information-for-internists>
- ❖ **UW Protocols:** <https://covid-19.uwmedicine.org/Pages/default.aspx>
- **UW IDEA Program:** <https://covid.idea.medicine.uw.edu/>
- **NIH Guidelines:** <https://covid19treatmentguidelines.nih.gov/>
- ❖ **Brigham and Women's Hospital:** covidprotocols.org

