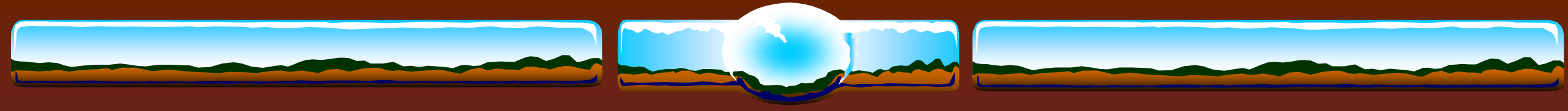




COVID-19 Clinical Update

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Disclosures



COVID-19 and cardiovascular outcomes

(Puntmann et al, JAMA Cardiology July 27,2020)

- ❖ MRI imaging from recently recovered patients with COVID -19
 - ❖ 100 patients assessed with MRI
 - ❖ 67% were recovered at home and 33% were hospitalized
 - ❖ 71% had detectable troponin and 5% had high troponin at time of the MRI
 - ❖ Recovered patient compared with health controls and risk factor-matched controls had:
 - ❖ Lower Left Ventricular (LV) ejection fraction
 - ❖ Higher LV volumes
 - ❖ Higher LV mass
 - ❖ Endomyocardial biopsy in patients with severe findings revealed lymphocytic inflammation



Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19

- ❖ CDC Study in July 24 MMWR by Tenforde et al.
 - ❖ 292 patients were interviewed 14-21 days after PCR diagnosis
 - ❖ 94 % had symptoms at the time of testing
 - ❖ 35 % of symptomatic respondents had not returned to their usual health
 - ❖ Cough, fatigue and shortness of breath were the most common symptoms
 - ❖ Median Duration of symptoms was 4-8 days (longest for taste and smell)
 - ❖ Risk of not returning to health was highest at age ≥ 50 or with three or more comorbidities



Discontinuation of COVID-19 Precautions

CDC.gov 7/17/2020

❖ Test based strategy to stop precautions is no longer recommended



Discontinuation of COVID-19 Precautions

- ❖ Stop precautions for patients with **severe to critical illness** or who are **severely immunocompromised** after **20 days**
 - ❖ **Severe Illness** : > 30 breaths per minute, $\text{Sat} \leq 94\%$ or decrease $> 3\%$, $\text{PaO}_2/\text{FiO}_2 < 300$, or infiltrates involving $> 50\%$ on imaging
 - ❖ **Critical Illness**: respiratory failure, septic shock, Multiorgan dysfunction
 - ❖ **Severely Immunocompromised** :
 - ❖ Chemo, AIDS, Primary immunodeficiency, Prednisone > 20 mg for > 14 days
 - ❖ Advanced age, DM and ESRD may not clearly affect duration of precautions



Discontinuation of COVID-19 Precautions

- ❖ Stop precautions for **mild to moderate illness** after **10 days**
 - ❖ **Mild Definition:** COVID-19. symptoms without SOB, dyspnea, Abnl CXR
 - ❖ **Moderate definition:** lower respiratory disease with RA sat $\geq 94\%$
- ❖ Stop precautions at least 24 hours since last fever (not 72 hours)
- ❖ Stop precautions after improvement in symptoms (not respiratory)



Discontinuation of COVID-19 Precautions

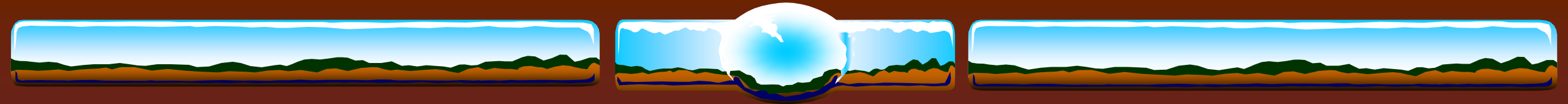
- ❖ Asymptomatic patients can stop isolation **after 10 days**
- ❖ Severely immunocompromised asymptomatic patients should stop **after 20 days**



Remdesivir Recommendations

NIH COVID Treatment guidelines July 24, 2020

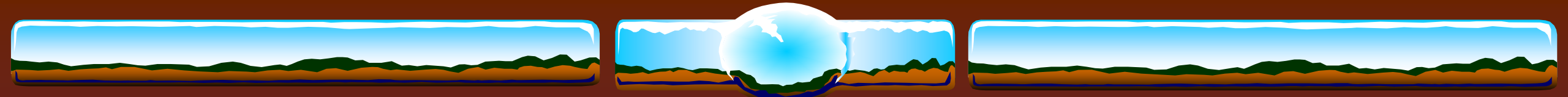
- ❖ Remdesivir supplies are limited
 - ❖ Prioritize to use in hospitalized patients who require oxygen but are not on high-flow oxygen, noninvasive ventilation, mechanical ventilation or ECMO
 - ❖ Recovery rate ratio for persons on supplemental O₂ alone: 1.47 [CI 1.17-1.84]
 - ❖ Hazard ratio for death on supplemental oxygen: 0.22 [CI 0.08-0.58]
 - ❖ Give Remdesivir to patients on supplemental oxygen for 5 days or until hospital discharge whichever is first.
 - ❖ If a patient progresses from supplemental oxygen to high flow, noninvasive ventilation, mechanical ventilation, or ECMO, complete the course.



Remdesivir Recommendations

NIH COVID Treatment guidelines July 24, 2020

- ❖ There is uncertainty about starting remdesivir for patients on high flow oxygen, noninvasive ventilation, mechanical ventilation or ECMO
- ❖ Some experts extend treatment to up to 10 days for patients who do not improve after five days but there is uncertainty
- ❖ Patients with mild to moderate COVID-19 do not benefit from Remdesivir



Evaluation of the mRNA-1273 Vaccine against SARS-CoV-2 in Nonhuman Primates

(Corbett et al, NEJM 7/28/2020)

- ❖ Non-human primates received 10 or 100 mcg of mRNA-123 vaccine
- ❖ Antibody and T-cell response was assessed before upper and lower airway challenge with SARS-CoV-2. BAL and Nasal PCR viral load measured.
- ❖ The candidate vaccine induced antibody levels exceeding human convalescent phase serum.
- ❖ Viral replication was undetectable in 7 of 8 BALs in both groups at day 2
- ❖ Viral replication was undetectable in the nose at 2 days in both groups
- ❖ No pathologic changes were noted in the lungs



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

