# Episode 2: The Wicked Crown

The sun rises over the San Joaquin Valley, California,today is March 6, 2020.

This week, the United States Preventive Services Task Force (USPSTF) updated its recommendation for hepatitis C screening to include all asymptomatic adults, with no evidence of liver disease, aged 18 to 79 years. A one-time screening for most adults is enough, more frequent screenings is recommended in patients with continued risk for Hepatitis C infection. There is limited evidence to recommend a screening frequency(1) at this time.

Also, COVID-19 is spreading but not as fast as corona-phobia. The Coronavirus is still a hot topic in the media with over 100,000 confirmed cases and 3,500 deaths worldwide. There are over 250 infected patients and 14 deaths reported in United States(2). We’ll have time to talk about Coronavirus later on in this episode.

We are all very ignorant what happens is that not all ignore the same things. Albert Einstein.

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Hello! Our quote for today is very proper because we are going to try to fight ignorance about a hot, current topic. Welcome again to Rio Bravo qWeek, I am Dr Arreaza, a faculty in Rio Bravo residency program. I am happy to inform that Our pilot episode was a success, we received feedback, and we hope to keep improving. Thanks to all who have supported this project, including Rene Mendizabal and Sheila Toro, two podcasters who gave me technical support, and Suraj Amrutia, however, he may edit this later to delete his name.

Our Episode number 2 is called “The Wicked Crown”, do you want to be the king or the queen who receives this crown? Listen until the end to find out if you want it, you may be surprised!

Today our guest is Dr Terrance McGill, one of our PGY2s, who accepted the challenge to talk about Coronavirus, you are very brave, Terrance, thank for being here. How are you?

So, this podcast is based in 5 questions. We are going to jump right in.

**QUESTION NUMBER 1:** **Who are you?**

I am Terrance McGill, 2nd year resident born and raised in Bakersfield, California where our residency program is located.

**QUESTION NUMBER 2:** **What did you learn this week?**

This week, I learned about **Coronavirus.**

**What is it?**

Coronaviruses are pleomorphic, single-stranded RNA virus measuring 100-160nm in diameter. The name derives from “crown-like” appearance due to club-shaped projections surrounding the viral envelope. In general, human coronaviruses are difficult to cultivate in vitro, and some strains only grow in human tracheal organ cultures [1].

The current coronavirus disease outbreak is caused by the **severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).** This virus is thought to have an animal origin. The primary source of infection became human-to-human transmission in early January 2020.

**Epidemiology**

The coronavirus disease outbreak (COVID-19) began in Wuhan, China, in December 2019, and has since spread to 103 countries and territories, including the United States.

As of March 9, 2020, there were 80,000+ reported cases in mainland China, and more than 20,000 cases in locations outside mainland China. 423 cases have been confirmed in the US, and 19 deaths have been reported in the CDC, as of the last update on March 9, 2020, with at least 13 people dead at Life Care Center nursing home in suburban Seattle, according to the King County Health Department.

Public health measures may not be able to fully contain the spread of COVID-19 because of its characteristics, however they will be effective in delaying the onset of widespread community transmission, reduce peak incidence and its impact on public services, thus decreasing the overall attack rate. Also minimizing the size of the outbreak can reduce global deaths by providing health systems the opportunity to scale up and respond. Vaccines are currently in development and the containment of the coronavirus will provide more time for vaccines to become manufactured.

This is what I call “seeing the glass half full”. The mortality rate is estimated to be 3.4% by the World Health Organization.

**Presentation:**

Coronavirus has an incubation period that lasts 2 to 7 days. Usually begins as a systemic illness marked by onset of fever accompanied with malaise, headache, myalgias and followed and one – two days by nonproductive cough, dyspnea. In severe cases, respiratory function may worsen during second week of illness and progress to frank ARDS accompanied by multi-organ dysfunction. Risk factors for severe disease include age greater than 50 years and comorbidities such as cardiovascular disease, diabetes, and hepatitis.

The presentation of coronavirus is similar to influenza, and all persons age six months and older should receive annual influenza vaccination. Vaccination will help to prevent influenza and in turn possibly prevent unnecessary evaluation for COVID-19.

Uncommon symptoms include runny nose, sore throat, productive cough, and GI symptoms. Labs: leukopenia (25%), leukocytosis (30%), lymphopenia (63%), and elevated ALT and AST (37%). Thrombocytopenia (36%). Most patients have normal serum levels of procalcitonin on admission. Chest CT images have shown bilateral involvement in most patients. Multiple areas of consolidation and ground glass opacities are typical findings reported to date.

**When to test?**

Positive symptoms and close contact with confirmed infected patients or travel within 14 days to China, Iran, Italy, Japan, South Korea. This list may change over time. Contact your local public health department if a person under investigation is identified. Start isolation protocol. Samples from nasopharynx, oropharynx and possibly sputum will be needed, also notify immediately the CDC’s Emergency Operations Center (EOC) at 770-488-7100.

**Treatment**

There is currently no antiviral therapy available for the coronavirus so **prevention and containment** is key. The best ways to stay safe are **to wash your hands** with soap and water, or alternatively use alcohol-based hand sanitizers with at least 62% alcohol. **Avoid touching your face** as this is an easy way to prevent contact with mucosal membranes. Stay up-to-date on this information by visiting CDC and WHO websites.

Hand washing cannot be overstated. Wash your hands for 20 seconds (sign happy birthday twice or you can get creative with your favorite song), use cold or warm water (work about the same), liquid soap is preferred (if no soap, use only water), wash all surfaces of hands, common missed places are the back of hands, the lower palm and around fingernails. Hand washing is not only a chemical disinfection, but also a mechanical removal of germs. Don’t forget to dry your hands*(3)*

**What about mask use?**

Wear a mask if you are sick or if you are taking care of an infected patient.

**QUESTION NUMBER 3: Why is that knowledge important for you and your patients?**

Coronavirus is a current cause of nationwide fear and is a persistent headline in the news. Is important for us as providers to be able to educate our patients on the signs and symptoms of the coronavirus and to identity which patients may be affected by the coronavirus.

**QUESTION NUMBER 4: How did you get that knowledge?**

Interest in this topic came from the various news headlines and news leaders regarding updating guidelines on preventing the spread of coronavirus.

**QUESTION NUMBER 5: Where did that knowledge come from?**

Harrison’s Principles of Internal medicine, CDC, WHO, AAPF.

**Harrison’s is a classic! CDC and WHO are reliable sources of information. Terrance, now give us a summary**

COVID-19 is a novel acute viral illness that affects the respiratory system, it is transmitted person-to-person, with a mortality rate of 3.4%; being elderly or chronically ill places patients at higher risk of mortality. The preventive measures proven to be effective so far are **hand washing** and **isolation of infected patients**.

***Reasons to be worried?***

Limited surge capacity of our health system, partial availability of testing (improving), limited supply of protective equipment which may put healthcare workers at risk (avoid “panic shopping”), vulnerable population at risk, no cure and no vaccine(4).

***Reasons to be optimistic?***

Disease is mild in most people, children seem particularly protected from severe disease, and there has been extraordinary global cooperation from doctors, scientists and public health officials(4).

We can end this podcast on that positive note. Thanks for the information, Terrance. So, “corona” is the Latin word for crown or halo. The coronavirus is a crown you don’t want to get, but if you get it and survive it, you should consider yourself a king or queen who got crowned with the wicked crown.

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**Speaking Medical**
by Lisa Manzanares

The medical word of the day is *Dermatophagoides farinae*. (Farin-EYE) This name doesn’t sound very common, but it actually refers to a very common organism, the American House Dust Mite. Why do we care? *Dermatophagoides farinae* is a common household allergen known to cause asthma, allergic rhinitis, and atopic dermatitis. The feces of the mites are responsible for the majority of the reactions from *Dermatophagoides farinae*. Yuck. Even worse, their meal of choice is dead human skins cells that have been shed. So, next time one of your patients complains that their allergies are flaring and they don’t know why, think: *Dermatophagoides farinae*.

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**Espanish Por Favor**
by Roberto Velazquez (Dr RAVA)

Today's word of the day is *cuadril*, which actually means the buttocks. People may use this word to refer to the pelvic girdle, and it refers to the area of the lower back, pelvis, hips, and buttocks. The scenario when someone will use may sound like this: “*Doctor, ayer me caí y me duele mucho el cuadril*”. This means: “*Doctor, I fell yesterday and my pelvic area hurts… or somewhere in there*”. This points to a nonspecific location, since the area that is hurting can be anywhere in the lower back, the sacroiliac joint, the buttocks, hips, or anywhere else in the pelvis. It’s a broad term, huh? Now you know the Spanish word of the day, *cuadril*, all you need to do now is to assess your patient’s *cuadril*. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**For your Sanity**
by Terrance McGill

This week we bring you a riddle. Pay attention.

A father and son were in a car accident where the father was killed. The son was brought by ambulance to the hospital in critical condition. The little boy was on the verge of death. He needed emergency surgery. The best trauma surgeon in town was called to the operating room. The surgeon came to the OR, looked at the little boy and said “I can't operate on him. He is my son.”

Who is the doctor?

If you thought the surgeon was the mother of the boy. You are correct!

If you already knew the answer to this riddle, maybe you will enjoy the twist that when this was told to a female surgeon, she also looked momentarily blank before being horrified by her reaction(4). Yes, we have very competent trauma surgeons who are women.

March 8, 2020, was International Women’s Day. For all those great women who listen to us, Happy International Women’s Day!

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References:

1. USPSTF, *Hepatitis C Virus Infection in Adolescents and Adults: Screening*, Release Date: March 2020, <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/hepatitis-c-screening1> , accessed on March 6, 2020.
2. World-O-Metters, <https://www.worldometers.info/coronavirus/>, accessed on March 6, 2020.
3. Brenda Goodman, MA, The Power of Hand-Washing to Prevent Coronavirus, March 06, 2020, <https://www.medscape.com/viewarticle/926373?src=soc_fb_200310_mscpedt_news_mdscp_handwash&faf=1>, accessed March 9, 2020.
4. Infectious Disease Doctor: What Does (And Doesn't) Scare Me About The Coronavirus, <https://www.wbur.org/commonhealth/2020/03/02/infectious-disease-doctor-coronavirus> , accessed on March 9, 2020.
5. Sandra Ondraschek-Norris, <https://www.theguardian.com/women-in-leadership/2013/aug/15/guilty-of-unconscious-bias-job-roles>
6. Harrison’s Principles of Internal medicine- 19th edition. Deniis L. Kasper, et. Al
7. World Health Organization. Coronavirus disease 2019 (COVID-19) situation report–34. Geneva, Switzerland: World Health Organization; 2020.
8. Jernigan DB. Update: Public Health Response to the Coronavirus Disease 2019 Outbreak — United States, February 24, 2020. MMWR Morb Mortal Wkly Rep 2020;69:216–219.
9. Can we contain the COVID-19 outbreak with the same measures as for SARS?The Lancet Infectious Annelies Wilder-Smith,Calvin J Chiew,Vernon J Lee.

5 March 2020

1. Nursing Home Hit by Coronavirus Says 70 Workers Are Sick. New York Times. Mike Baker. March 8, 2020