## Background

- Acute hepatitis is characterized by hepatic parenchymal injury, resulting in elevated liver enzymes, coagulopathy and occasionally, encephalopathy. In patients with underlying liver disease, acute viral hepatitis can be life threatening.
- The incidence of hepatitis A has increased since 2016; 37 of 50 states in the United States have had outbreaks.

## Case History

A 71-year-old female with a history of hereditary hemochromatosis (HH), breast cancer, and atrial fibrillation presented at emergency department with one week of progressive weakness, fatigue, and nausea. Physical exam was unremarkable, including a lack of signs suggestive of advanced liver dysfunction such as encephalopathy, jaundice, or asterixis. The patient had regular visits with her gastroenterologist for quarterly phlebotomy sessions to treat her HH.

## Objective Data

- Serum chemistry showed elevated liver enzymes
- Right upper quadrant imaging showed mild dilation of the common bile duct, with normal caliber intrahepatic ducts and no other abnormalities noted.
- Viral hepatitis panel revealed positive hepatitis A IgM antibody.
- In the setting of worsening liver function and coagulation profile, our patient was diagnosed with subacute liver failure secondary to hepatitis A.

## Management

- Intravenous fluids,
- N-acetylcysteine (NAC) on day 1 of admission
- Ondansetron for persistent nausea and vomiting.
- The patient improved over the span of 1 week
- Monitoring: LFTs and MELD score

## Conclusion

- There are reports of acute hepatitis A with alcoholic liver disease, fatty liver disease, hepatitis B, and HIV.
- There is a paucity of reports of hepatitis A with HH resulting in subacute liver failure, as in our patient.
- We demonstrate the use of NAC as an initial, temporizing measure to improve survival.
- More importantly, we identify the importance of vaccination for preventable diseases in patients with chronic liver disease to avoid potentially catastrophic illnesses and/or liver transplant.

## Public Health Implications

- The patient did not have any international travel to countries where hepatitis A is endemic.
- This is likely a case of hepatitis A contracted in the Philadelphia metropolitan area.
- Public health department has been involved for contact tracing.