



## Hepatitis C Positive Organ Donors: Is That Possible?

### About the Hepatitis C Virus (HCV)

- RNA (ribonucleic acid) viral infection
- Causes liver inflammation and can cause severe liver damage
- Spread through contaminated blood
- Half of people infected with HCV are asymptomatic and do not know they are infected

### Symptoms Can Include:

- Almost always only occurs with advanced liver disease (cirrhosis)
- Bleeding & bruising easily
- Fatigue
- Jaundice & itchy skin
- Ascites & peripheral edema
- Hepatic encephalopathy

### Treatment of HCV

- 2/3 infected with HCV become chronically infected, 1/3 spontaneously clear the infection
- Current treatment includes all-oral medications (e.g., Zepatier, Harvoni, Mavyret, Epclusa) which have very high cure rates and few side effects.

## The Good News: Hepatitis C is Curable!

### Why can HCV positive (active viral infection) organ donors donate?

The national waitlist for organ transplants is a national crisis. Daily, 18-20 die waiting for their life-saving transplants. Due to the curability of HCV, the following questions must be asked when determining whether to utilize a HCV+ organ for a HCV+ or HCV- potential recipient:

- Does the risk of waiting for a viral-free organ outweigh the risk of taking a HCV+ organ that could be treated?
- What is the risk of an acute HCV infection in a newly transplanted patient?
- Which patient will be best suited to receive a HCV+ organ?

### Current State of HCV Treatment Post-Transplant

- Liver – Similar cure rate in HCV- versus HCV+ donors to recipients (HCV-TARGET study)
- Kidney – Similar cure rates (95-100%) (Sawinski D. et al, AJT, 2016)
- Lung & Heart – Unknown efficacy (little to no published data), important interactions to consider
  - Lungs – Anti-fungals
  - Heart – Amiodarone

### Considerations When Utilizing HCV Positive Organs

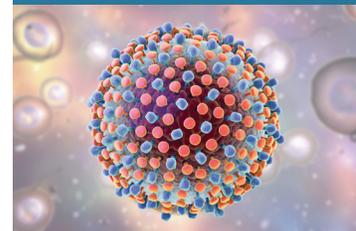
#### Prophylactic therapy of the intended recipient:

- Before infection occurs.
- When organ offer accepted, on call to the operating room (OR) for transplant, or in OR.

#### Pre-emptive therapy of the recipient:

- When infection is first detected.
- Infection identification and definition have to be clarified.

Many studies are currently under way to research the best treatments of HCV, indication of use of infected organs for transplant, and treatments when such organs are utilized. Learn more by researching the listed references.



Based on a webinar presentation by David S. Goldberg, MD, MSCE (Assistant Professor of Medicine, Medical Director of Living Donor Liver Transplant, University of Pennsylvania, Philadelphia, PA). Special thanks to Dr. Goldberg for his contributions to this in-service.

#### References:

- <https://www.mayoclinic.org/diseases-conditions/hepatitis-c/symptoms-causes/syc-20354278>
- <https://hcvtarget.org/>
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- <https://www.clinicaltrials.gov/ct2/show/NCT03146741?term=NCT03146741&rank=1>
- Goldberg DS. Trial of transplantation of HCV-infected kidneys into uninfected recipients. *N Engl J Med.* 2017; 376: 2394-2395. doi: 10.1056/NEJMc1705221
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