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CONSIDERATIONS FOR MANAGEMENT OF LIVER DISEASES DURING THE COVID-19 PANDEMIC

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Introduction

The pandemic of coronavirus disease-2019 (COVID-19) caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has led to significant morbidity and mortality around the world. The first case of COVID-19 was reported in Australia on the 25th January 2020; there have been 7,118 confirmed cases with 102 deaths as of 26th May 2020, with 6,532 cases reported as recovered. More than 1,244,200 tests have been conducted so far in Australia with 9 new cases reported in the last 24 hours. Given the strong public health measures and travel restrictions instituted in Australia, we are currently in the **post-peak phase** with only a few cases reported across Australia each day. The National Cabinet has recommended that baseline restrictions be eased from Friday 8th of May, but the challenge is to remain vigilant and be prepared for a second surge as the restrictions are eased, while catching up with care of our liver patients that had been put on hold.

Abnormal liver tests can be seen in up to 15% of patients with COVID-19 but there is no definitive evidence that this is a direct effect of the SARS-Cov-2 virus. Hence it is important to look for alternate aetiologies, especially other viral hepatitis and drug-related liver injury.

The COVID-19 pandemic has led to a disruption of medical care for patients with chronic diseases¹. Patients with chronic liver diseases represent a particularly vulnerable population and their care can be negatively impacted during this pandemic, both directly and indirectly. Several international societies including AASLD and EASL have issued guidelines on how to manage patients with chronic liver diseases during the different phases of this pandemic². The broad principles for the management of liver diseases in the Australian context moving forwards from May 2020 are summarised below.

1. Inpatient care:

- a. Patients with advanced chronic liver disease (CLD) remain likely to be hospitalised during the pandemic either with complications of COVID-19 or from complications of their liver disease.
- b. The broad principles of testing, isolation and mitigation strategies which are universally applicable, will also be relevant to patients with CLD.
- c. The number of visitors and healthcare workers who come in direct contact with the patient, either during rounds or otherwise, has to be minimised and remote care should be encouraged.

- d. Patients should preferably be transferred between facilities only for emergent medical care which is not available locally.
- e. Inpatient blood tests and imaging exams should be reduced to a minimum.
- f. Discharge planning has to be proactive to avoid prolonged hospitalisation which can substantially increase the risk for exposure to COVID-19.

2. Outpatient care:

- a. During the acceleration and peak phases of the pandemic, most outpatient clinics have been closed and face-to-face visits were switched to telehealth appointments.
- b. During the post-peak phase these clinics are being slowly reopened with an emphasis on addressing urgent issues and prioritising symptomatic patients and patients with liver cancer for face to face review.
- c. Patients with all chronic liver diseases including hepatitis B, hepatitis C and autoimmune hepatitis need to continue their usual outpatient medication regimen.

3. Alcohol Related Liver Disease:

- a. In patients with alcohol related liver disease, there is increased concern for relapse into alcohol use during the period of isolation.
- b. It is important to track alcohol use and offer online resources which can support patients through this.
- c. Hospitalisations have been low during the peak phase but we are likely to see a surge of sicker patients with decompensated liver disease and alcoholic hepatitis in the coming weeks as restrictions are eased and patients feel more comfortable about coming to hospitals.

4. Liver transplantation:

- a. Most transplantation related processes had been stalled during the pandemic with the exception of patients with acute liver failure or high MELD scores.
- b. Transplant surgery and evaluations are now beginning to resume.
- c. Transplant centres in Australia are developing internal strategies to prioritise patients who need expedited evaluation and to determine which parts of the evaluation can continue remotely.
- d. The role of immunosuppression in COVID-19 is not clear and most experts have recommended continuing stable doses of immunosuppression in post-transplant patients.
- e. In post-transplant patients who develop COVID-19, immunosuppression can be reduced with a close eye on drug-drug interactions.

5. Hepatocellular Carcinoma:

- a. Patients with liver cancer are a particularly high-risk group since disruption of medical care to these patients can result in cancer progression or other cancer-related complications.
- b. All efforts should be made to continue HCC treatment uninterrupted.
- c. In patients with cirrhosis who are undergoing HCC surveillance with 6-monthly ultrasounds, a 2-3 month delay during the pandemic is felt to be reasonable.

- d. These patients need to be contacted promptly after care re-opens, to ensure they are not lost to follow-up.
- e. Most clinic visits for patients with a known diagnosis of liver cancer can be converted to telehealth consultations, but face-to-face visits might need to be arranged when major treatment decisions or imaging findings need to be explained in detail.
- f. If elective procedures like resection or ablation are postponed, bridging with trans-arterial therapies can be considered.
- g. Patients with advanced liver cancer should continue treatment with systemic treatments.
- h. Since clinical trial enrolment is paused, patients who are otherwise eligible for clinical trials can remain on their systemic drug regimens.

6. Endoscopy:

- a. Clinicians are advised to read the most current GESA statement on endoscopy. It is important to use clinical criteria such as Baveno VI criteria (Fibroscan® liver stiffness >20 and platelet count <150) to avoid unnecessary variceal screening endoscopies.
- b. For those who need repeat endoscopies for prophylactic banding, it is important to assess the need on a case by case basis to determine if they can be deferred.
- c. During the post-peak period, it is reasonable to cautiously resume endoscopies for variceal screening with robust procedures for pre-visit COVID-19 screening by questionnaires, temperature checks and where necessary by specific testing with swabs for PCR.
- d. Based on the local prevalence, local health services may have more specific pre-visit screening strategies. It is important to check with your hospital policies and recommendations from the state health department.
- e. The management of acute variceal bleeding is no different to usual but with appropriate PPE, anaesthetic assistance and airway intubation where appropriate³.

References

1. Tapper EB and Asrani SK. The COVID-19 pandemic will have a long-lasting impact on the quality of cirrhosis care. *J Hepatol.* [2020 Apr 13;S0168-8278\(20\)30217-8.](#)
2. Bollipo S, Kapuria D, Rabiee A, Yakov GB, Lui R, Lee HW, Kumar G, Siau K, Turnes J, Dhanasekaran R. One World, One Pandemic, Many Guidelines- Management of Liver Diseases During COVID-19. Accepted *Gut* Apr 2020.
3. Lui, RN, Wong SH, Sánchez-Luna SA, Pellino G, Bollipo S, Wong MY, Chiu PWY, Sung JY. Overview of Guidance for Endoscopy during the Coronavirus Disease 2019 Pandemic. *J Gastroenterol Hepatol.* [2020 May;35\(5\):749-759.](#)

Disclaimer

The Gastroenterological Society of Australia (GESA) provides the above advice to guide gastroenterologists and hepatologists who provide care for patients with chronic liver diseases during the COVID-19 pandemic. These guidelines should be modified to fit the context of individual medical practice based on the local policies of the relevant health facilities. Given the rapidly evolving situation, these guidelines are subject to change and we will make efforts to update them as needed.