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31<sup>st</sup> March 2020 Members of New Zealand Society of Gastroenterology Dear Colleagues,

Over the next few weeks, the demand for inpatient hospital services for the COVID-19 pandemic is projected to increase rapidly. This will significantly impact the New Zealand Liver Transplant Unit's capacity to provide tertiary management for some patients with hepatocellular carcinoma (HCC) and also outpatient assessment for liver transplantation. This letter is to update you on changes to NZLTU referral criteria for patients with HCC or liver failure.

## 1. Patients with hepatocellular carcinoma:

Because of pressure on ACH inpatient and radiology services, TACE will be limited to those patients most likely to benefit including:

- a) Patients being bridged for transplant if they have; i) single tumour >2cm, ii) multiple tumours, iii) Raised AFP. These patients are being treated with a good prospect of cure but are likely to face a longer time on the waiting list.
- b) Patients who are being down-sized with the aim of providing potentially curative non-transplant treatment principally reducing size to enable thermal ablation. These patients have a prospect of curative treatment.
- c) Patients for whom there is no curative treatment option but have favourable characteristics with respect to response and benefit from TACE (characteristics include hypervascular lesions, well circumscribed, limited burden of disease, reasonably well preserved underlying liver function, limited co-morbidities, good performance status and younger age).

Surgical management of HCC patients (resection, transplantation) will continue as long as capacity and resources allow (see below).

2. Patients referred for assessment for liver transplantation: Over the next few months, an increase in the number of severe COVID-19 cases requiring hospital admission will result in a reduction in transplant activity. Therefore, it is unlikely that any patient listed for either chronic liver failure with low MELD or early stage HCC would be transplanted during the pandemic. In such cases, the risk of disease progression during a 6 month period should be low and would not justify the risk of COVID-19 transmission during a transplant assessment at Auckland City Hospital. Therefore, any patient with liver failure referred with MELD score less than 15, without a specific MELD-exception indication

(such as primary sclerosing cholangitis, hepatopulmonary syndrome, or intractable encephalopathy) and any patient with a single, small (<2cm) hepatocellular carcinoma will be deferred for 6 months. This decision will be reviewed in any patient who demonstrates significant disease progression during this waiting period. When transplant activity has returned to normal following the pandemic, all patients deferred during the outbreak would be reconsidered for assessment.

In the "worst case scenario" where New Zealand's ICUs are overwhelmed with severe COVID-19 cases, then NZLTU would need to halt elective transplantation because of lack of available intensive care beds. Many of you will be aware that all 7 liver transplant centres in United Kingdom have now ceased elective transplantation. The Auckland City Hospital Incident Management Intensive Care Escalation Plan is for this to be triggered when the number of ventilated COVID-19 patients in the Auckland City Hospital Department of Critical Care Medicine exceeds 12 beds. It is likely by this stage that the nationwide demand for ICU beds will also impact the ability to evaluate potential deceased donors. However, NZLTU will continue to assess patients with acute liver failure for emergency liver transplantation.

We understand that the decision to decline or delay treatment may cause considerable distress for patients, their families and their referring physicians. I can assure you that NZLTU and ACH will endeavour to limit disruption to HCC management and transplantation and will resume normal service as soon as the pandemic resolves. Throughout this difficult time, there will always be a duty hepatologist, surgeon and transplant coordinator available to discuss individual cases.

On behalf of all NZLTU Staff,

Yours sincerely,

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Auckland City Hospital