Enhanced donor screening for faecal microbial transplantation during COVID-19

We read with interest the recent article by Ianiro et al. which is a guidance document on faecal microbial transplantation (FMT) during the COVID-19 pandemic. This guidance document advocated stool testing for SARS-CoV-2 and nasopharyngeal sampling was recommended. The pandemic has imposed new challenges to healthcare systems around the world. Since SARS-CoV-2 RNA can be found in the stool of infected individuals, this has raised safety concerns for administering FMTs. The US Food and Drug Administration has recommended that only FMT products generated from stools donated before 1 December 2019 should be used until further guidance on SARS-CoV-2 testing protocols are available. However, the supply of prestored samples has dwindled and the efficacy of FMT after prolonged storage are questionable. Currently many FMT centres are closed with no available FMT treatment for recurrent Clostridioides difficile Infection (rCDI) or other patients. We aim to share our Health Canada-approved strategy in performing FMTs during the pandemic in our rCDI clinic and our ongoing oncology clinical trials with the hope that more centres can safely restart their FMT programmes. We will focus on the three-stage FMT donor screening pertaining to COVID-19 as other components of the programme remain the same.

Donors are administered a questionnaire, over the phone, before each sample drop-off. The screening questionnaire includes COVID-19 symptoms, whether they have previously tested positive for COVID-19, have travelled outside of Canada in the last 14 days, had close unprotected contact with a confirmed case of COVID-19 or worked in any facility with a declared COVID-19 outbreak. If the answer is yes to any of these questions, then they are excluded and referred for SARS-CoV-2 testing (figure 1). If testing is negative and they become asymptomatic, they are eligible for rescreening after 14 days. If the donors passed the questionnaire, they would visit the clinic and drop off their stool samples. During each visit donors provide a nasopharyngeal swab for COVID-19 testing (reverse transcription Polymerase chain reaction (RT PCR) and a portion of the stool sample is tested for SARS-CoV-2 RT PCR. Stool donations are then processed and quarantined (~80°C) until PCR results are available. Donors are advised to quarantine if there is a positive result and the Ontario Public Health is notified and stool samples disposed of following a biological hazard protocol. Stool samples are processed into capsules. We chose FMT delivery via capsules as the preferred method as it is non-invasive and does not generate aerosols. Enema is administered to patients unable to swallow capsules, with staff wearing gowns, surgical masks, gloves and face shield in a dedicated room. All patients are followed up by telephone for 30 days post-FMT. All donors and
Figure 1  Enhanced FMT donor screening algorithm following the COVID-19 pandemic. FMT, faecal microbial transplantation; RT PCR, reverse transcription Polymerase chain reaction.

recipients provide written informed consent.

We have administered FMTs to 35 patients (9 enemas and 26 by capsules) starting August 2020 with no cases of COVID-19 reported in the recipients following FMT (figure 1). No donors tested positive for SARS-CoV-2. No donors or recipients have yet been vaccinated for COVID-19. We will continue the same protocol irrespective of donor or recipient vaccination status. Ianiro et al8 have also published their experience on maintaining the FMT service during the pandemic.5

To our knowledge this is the largest cohort of patients undergoing FMT reported since the onset of the pandemic and the first reported to include stool SARS-CoV-2 testing. Our data demonstrate that FMT can be safely performed despite pandemic restrictions.

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