MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: FROM BRAIN FOG TO HEART DAMAGE: REHAB AFTER COVID
REPORT: **MB #4786**

INTUBATION: Roughly one in four patients admitted to ICUs in the U.S. each year have acute respiratory failure requiring mechanical ventilation. Intubation is the process of inserting a tube, called an endotracheal tube (ET), through the mouth and then into the airway. This is done so that a patient can be placed on a ventilator to assist with breathing during anesthesia, sedation, or severe illness. The tube is then connected to a ventilator, which pushes air into the lungs to deliver a breath to the patient. Among other procedures, Intubation is also performed for respiratory failure. There are many reasons why a patient may be too ill to breathe on their own. They may have an injury to the lungs, they might have severe pneumonia, or have a breathing problem such as COPD. There are some potential issues that can arise when a patient remains on a ventilator for an extended period. Common risks include trauma to the teeth, mouth, tongue, and/or larynx, accidental intubation in the esophagus (food tube) instead of the trachea (air tube), trauma to the trachea, bleeding, inability to be weaned from the ventilator, requiring tracheostomy, aspirating (inhaling) vomit, saliva or other fluids while intubated, pneumonia, sore throat, hoarseness, and erosion of soft tissue.
(Sources: https://www.verywellhealth.com/what-is-intubation-and-why-is-it-done-3157102, https://pulmccm.org/randomized-controlled-trials/rehab-physical-therapy-icu-actually-help/)

REHABILITATION AFTER BEING INTUBATED: After being on mechanical ventilation patients experience enormous catabolic stress, extended periods of inactivity, and usually go without their usual caloric intake. Many are rendered profoundly debilitated by the experience, and weakness and loss of muscle mass represents a second dangerous illness, putting them at risk for infections, falls, and poor resiliency to other illnesses. "Early mobilization" is a term for rehabbing patients after being intubated. Trained physical therapists and nurses walk intubated patients down the hall with portable ventilators or ambu bags and a physical therapist works with the ventilated patients in their beds. Benefits of early rehabilitation after MV include improved exercise capacity, functional status at hospital discharge, decreased duration of MV, and shorter ICU and hospital stay.
(Sources: https://pulmccm.org/randomized-controlled-trials/rehab-physical-therapy-icu-actually-help/, http://rc.rcjournal.com/content/57/10/1663)

REHABBING COVID-19 ICU PATIENTS: For COVID-19 patients leaving the ICU, recovering from the virus is just the beginning. Patients who receive ICU-level care may develop ICU-related weakness, which can damage the nerves and muscles in the body. They may have weakness in their lower legs and/or hands and fingers, which makes walking difficult, as well as activities of daily living, like getting dressed and showering. Also, a good number of COVID ICU patients are dealing with delirium, which is a period of acute confusion when patients are unable to pay attention consistently and often have trouble forming memories. Anecdotally, the delirium has appeared worse for many patients with COVID-19. Inpatients being treated for COVID-19 should be mobilized as soon as it is safe, meaning skilled-care providers should help them move and walk. Outpatients with physical or cognitive issues need to be seeing a physical medicine and rehabilitation physician. They may also need physical, occupational or speech therapy. Many will also need psychologic care to help them cope with their life after COVID-19. There is also a psychological adjustment as COVID ICU care can contribute to anxiety, depression, and post traumatic type response. Virtual care is the biggest change in how rehabilitation care is delivered in the COVID-19 era and it seems like it is here to stay.

(Source: https://labblog.uofmhealth.org/body-work/rehabilitation-care-needed-for-many-covid-19-patients)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

JESSICA BERRY

JESSICA.BERRY@UCHEALTH.ORG

If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com