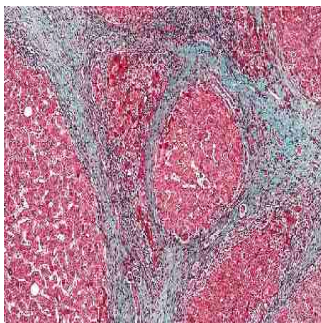## Nursing Data Help Predict Cirrhosis Patient's Survival

Standard assessments that nurses already use to care for patients can provide data that significantly improve the ability to predict survival following a liver transplant and may help improve patient outcomes. This finding is based on a study from Liver Center at Beth Israel Deaconess Medical Center (BIDMC) and published in the journal *Hepatology*.

"Liver specialists currently use blood tests to assess risk, and while these are powerful tools, they only capture a small portion of the patient's risk. There's a sense that there are things outside of those blood tests that are meaningful," says lead author Elliot Tapper, MD, Clinical Fellow in Gastroenterology and Hepatology at BIDMC and Harvard Medical School. "We hypothesised that frailty, or decreased functional reserve, may be one of those factors, and it turns out that our nurses have been calculating that frailty all along, and we just haven't noticed."

Dr. Tapper and colleagues analysed data from 734 patients admitted a collective 1,348 times to BIDMC's liver unit between 2010 and 2013. They had access to the patients' MELD (model for end-stage liver disease) scores, an algorithm based on blood tests that is used for transplant planning. The higher the MELD score, the more likely the patient will die without a liver transplant.

In addition, the research team had access to data collected by nurses and used for general care of the patients but not specifically related to liver disease, including assessments used to determine a patient's risk for skin ulcers or whether the patient needs help transferring out of bed or getting to the bathroom.

As Dr. Tapper notes, "These data points help determine a patient's level of frailty and inform very important nursing activities, but until now no one has actually looked at whether those metrics speak to a patient's overall risk."

After combining traditional assessment tools like MELD with the data from the nurses' assessments, the researchers were able to predict the 90-day mortality rate with 83 percent accuracy and the rate at which patients were discharged to a rehabilitation facility at 85 percent accuracy.

"This is a very significant improvement in our power to provide prognosis, be it 90-day survival, discharge to a rehabilitation hospital or length of stay in the hospital based on a simple inexpensive clinical tool that is readily available in all hospitals across the country," according to senior author Michelle Lai, MD, MPH, a liver specialist in the Division of Gastroenterology and Hepatology at BIDMC and Assistant Professor of Medicine at Harvard Medical School.

In harnessing the information in the nursing assessments, the research team has landed on something that can be acted on.

"Many of the things identified in the nursing assessments are modifiable," Dr. Tapper explains. "By intensifying their nutritional support, utilising physical therapy, by identifying the patients who will benefit from rehabilitation, we may be able to improve their frailty and therefore their ability to survive, for example, the liver transplant or at least to stay healthier after discharge, at home and away from the hospital."

Source: Beth Israel Deaconess Medical Center
Image Credit: Wikimedia Commons

Published on : Sat, 11 Apr 2015