## Lactulose treatment of hepatic encephalopathy in Palliative patients with cancer and not cirrhosis

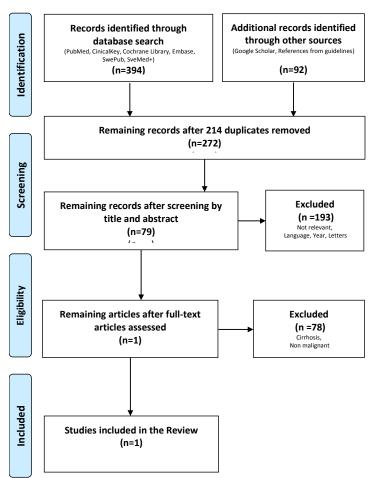
**Background:** As a palliative care physician I meet cancer patients with hepatic encephalopathy (HE) without cirrhosis. They seldom have lactulose treatment, sometimes just high ammonium and absence of both cirrhosis and acute liver failure.

**Aim:** To review evidence for treating HE with lactulose in patients with cancer but not cirrhosis. Are there any other factors that are more important to focus the treatment on when the cause is cancer?

**Methods:** This is a literature review. Searches were conducted in PubMed, CinicalKey, Cochrane Library, EMBASE, Google scholar, SwePub and SveMed+. Restrictions to English language, humans and date range from 2000-2019. The following MESH search terms "hepatic encephalopathy", disaccharides, lactulose, "neoplasms metastasis" and "liver failure" were used. Inclusion criteria for papers were reviews and clinical studies.

**Results:** Only one narrative review which describes lactulose treatment in patients with HE and malignancy without cirrhosis, was found. Most of the articles and the systematic reviews are based on patients who are diagnosed with cirrhosis.

Short discussion: In the references I found two case reports that show that lactulose treatment can be successful but sometimes is not. In the latter case, they suggest it depends on the cause of portosystemic shunting from hypertension or thrombosis and not massive hepatic burden. The risk of HE and hyperammonemia depends also on various factors common in palliative care patients, such as infections, GI bleeding, electrolyte disorder etc.



**Conclusion:** There is a need for more studies investigating both the treatment, the etiology of HE and the diagnosis of Minimal hepatic encephalopathy in palliative care cancer patients. It is reasonable to assume that patients with incurable cancer may live longer with new treatment options and the risk of complications may increase.