

Management of Patients with Decompensated Cirrhosis in the First 24 Hours

"The bundle that deLIVERs"

Chin Han Tan¹, Phillip Mahon¹, Amrita Gurung², Rajesh Veetil²



BACKGROUND

Decompensated liver cirrhosis is a complex multisystem disorder which requires immediate and appropriate medical attention due to its high morbidity and mortality rate. Therefore, early intervention for these patients is crucial.

British Society of Gastroenterology (BSG) and British Association for the Study of Liver (BASL) developed a cirrhosis care bundle, aiming to improve overall outcome and mortality. The bundle lays out the guidance to ensure appropriate investigations and interventions are carried out early for these patients.

We conducted a closed loop audit in Causeway hospital aiming to encourage the use of BASL bundle, thereby improving the outcomes of these patients.

METHODS

Two retrospective studies were carried out comparing the initial investigations and managements for patients presenting with decompensated cirrhosis from January to December 2019 and again from June 2020 to May 2021. Comparisons were made based on the pre and post implementation of the cirrhosis bundle. Data were collected by reviewing notes and using ECR.

Variables compared:

- ❖ VTE assessment
- ❖ Investigations
- ❖ Alcohol
- ❖ Infection Screen
- ❖ AKI
- ❖ GI Bleed
- ❖ Encephalopathy
- ❖ Early GI review
- ❖ Use of BASL bundle
- ❖ Length of admission
- ❖ Inpatient mortality

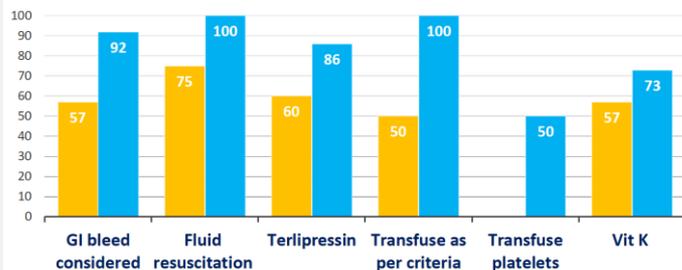
INTERVENTIONS

Implementation Of Cirrhosis Bundle

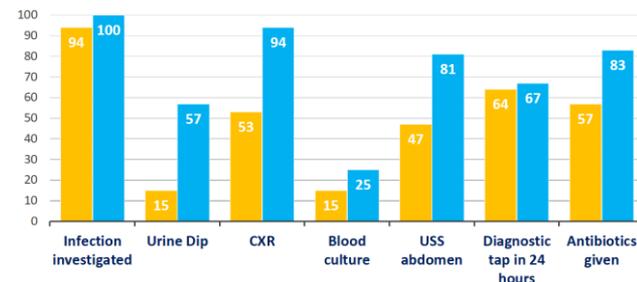
BASL bundle implemented on 6th of June 2020. Printed out copies were made available in the emergency department as well as uploaded on the junior doctors shared drive for easy access

Education And Awareness:

Series of teaching sessions has been conducted on decompensated cirrhosis and use of BASL bundle. Teaching on cirrhosis bundle has been conducted as part of junior doctors induction during each changeover.

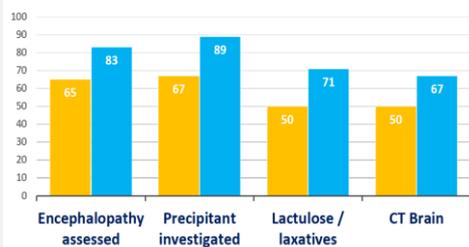


GASTROINTESTINAL (GI) BLEED

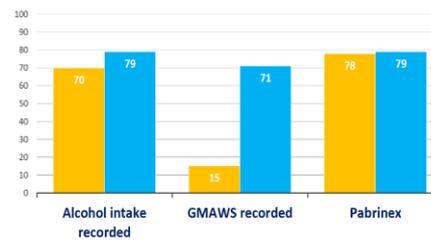


INFECTION / SEPSIS

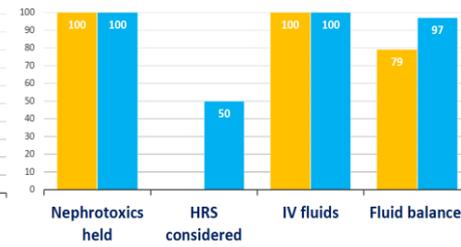
■ PRE-INTERVENTION ■ POST-INTERVENTION



HEPATIC ENCEPHALOPATHY



ALCOHOL WITHDRAWAL



ACUTE KIDNEY INJURY

RESULTS

The mean age of patients were 57.7 and 57.2 respectively for the first and the second cycle. There has been noticeable improvement in overall investigations, management and mortality of the patients presenting with decompensated liver disease to Causeway hospital, as evident in the above presented graphs. This QIP has also achieved great success as over more than half of the admissions in second cycle used BASL bundle thereby reducing the length of stay from 15 to 12(excluding elective admissions and those who self discharged). Trust saving was calculated by the average cost of a hospital bed per night (£640).

CONCLUSION AND RECOMMENDATION:

The increased use of the BASL bundle has led to better management by non-specialist doctors and improved overall patient care and outcomes. To further promote the BASL bundle, we will present our findings in Causeway Hospital IQI meetings and suggest for the BASL bundle to be incorporated into the admission booklet. We will continue to audit BASL bundle usage and aim for it to be used in >80% of admissions with decompensated liver disease.

REFERENCE:

- <https://www.bsg.org.uk/clinical-resource/bsg-basl-decompensated-cirrhosis-care-bundle-first-24-hours>
- Juniper, M., Smith, N., Kelly, K. and Mason, M., 2013. *Measuring the Units. A review of patients who died with alcohol-related liver disease.* NCEPOD. Available from: https://www.ncepod.org.uk/2013report1/downloads/MeasuringTheUnits_FullReport.pdf.

KEY DATA

- 📄 BASL bundle usage increased from 0% to 53%.
- 🏠 Average length of hospital stay reduced from 15 to 12 days.
- 🏥 Mortality rate improved from 16% to 9%.
- £ This has saved £1920 per admission for NHSCT.

Please scan the QR code to access cirrhosis bundle

