levels of malondialdehyde (MDA)-TBA adduct, a naturally occurring product of lipid peroxidation.

**Results** 22 subjects were recruited: 10 AH (6 males; median MELD 12; DF 45.6); 5 ALD (2 males; median MELD 18) and 7 HVs (3 males). MDA was significantly higher in AH vs HVs (median 36.1µM vs 14.8µM; p<0.01) and in ALD vs HVs (median 28.6µM vs 14.8µM; p = 0.03) but similar between AH and ALD patients. In AH patients, there was no strong correlation between MDA levels with MELD or DF (r=0.14 and 0.57, respectively; both p>0.05) (figure 1).

**Conclusion** Oxidative stress as measured by lipid peroxidation is increased in patients with ALD and AH when compared to HVs.

**P79 AUTOMATED CELL COUNT FOR THE DIAGNOSIS OF SPONTANEOUS BACTERIAL PERITONITIS: IS IT USEFUL IN CLINICAL PRACTICE?**

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10.1136/gutjnl-2020-BASL.89

**Introduction** Spontaneous bacterial peritonitis (SBP) is both a common and severe complication of ascites. It carries a mortality rate of 11–19.1%, thus early diagnosis and treatment is imperative in this vulnerable group.

The incidence of SBP ranges from 10–30% in hospital inpatients with cirrhotic liver disease. However, asymptomatic outpatients carry a much lower rate. A recent UK-wide report observing both inpatients and outpatients found a total SBP rate of 3.13%, though underreporting may have affected this.

The gold standard for diagnosing SBP is an ascitic fluid manual cell count (>250 mm³ polymorphonuclear leukocytes). Our trust does not have access to same day manual counts and therefore relies on automated cell count for initial diagnosis. Our trust was identified to have a higher than expected rate of SBP compared to the UK average (11.01% vs. 3.13%). Further to this, a local audit of ascitic samples identified 18.9% were positive for SBP, a significant outlier in the national trends. We reviewed our practice to establish the validity of automated cell count as a diagnostic method and establish its usefulness in the diagnosis of SBP.

**Method** We obtained a list of patients who had a fluid sample analysis between April 2018-April 2019 (n=300). Non-ascitic or non-processed samples were excluded. Samples were included for analysis if both an automated and manual cell count (gold standard) were sent. 211 patients met the inclusion criteria and results were reviewed using the electronic patient record. 103 (48.9%) were excluded for having automated count only and a further 10 (4.7%) for having one sample not suitable for analysis. 98-paired samples (46.4%) met inclusion criteria for analysis.

**Results** 20 automated samples were positive for SBP, of which 3 were positive on the corresponding manual count (positive predictive value (PPV) 15%). It must be noted that the negative predictive value (NPV) was 100% (n=78). Of 103 automated only samples, there were 37 positive results. With a PPV of 15% we would expect a further 5.5 cases. Therefore, potentially 31.5 cases of SBP were over diagnosed due to our reliance on the automated result.

**Discussion** A PPV of 15% suggests the automated count has little value in clinical practice. Its benefit lies in its strong NPV to rule out SBP, but reliance on this method results in inflated SBP rates and overtreatment with potentially harmful antibiotics.

**REFERENCE**

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**P80 DIVERGENT GUIDELINES REGARDING METHOTREXATE PRESCRIBING IN THE UK: TIME FOR HEPATOLOGISTS TO PROVIDE DIRECTION?**

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10.1136/gutjnl-2020-BASL.90

**Introduction** Low dose methotrexate (MTX), an effective treatment for immune-mediated diseases, has been used by multiple specialities since the 1960s. Historically, MTX-induced hepatotoxicity dictated its potential use; only being advocated in patients with ‘life-ruining’ disease and regular liver biopsies were mandatory. Guidelines have been divergent across various specialties since 1987, and this persists today.

**Aim** To compare current guidelines regarding MTX prescribing, monitoring and action in the face of presumed hepatotoxicity.

**Methods** The archives of professional bodies and associations in rheumatology, dermatology and gastroenterology were searched for guidance pertaining to the use of methotrexate, dating back to 1950, within the UK, Europe and America.

**Results** A total of 17 guidelines related to MTX monitoring were published between 1972 and 2019 by dermatologists, rheumatologists and gastroenterologists. Guidelines differed across specialties to this day in regard to baseline investigations, monitoring and action required on liver blood test abnormality. The most recent of these are demonstrated in table 1.

**Discussion** Divergent guidelines regarding low dose MTX, particularly in relation to its apparent hepatotoxicity, have persisted for decades. Liver blood tests are a poor indicator of liver dysfunction and the advent of non-invasive measures of liver fibrosis provide a potential alternative. Hepatologists have stopped short of clear advice and guidance in this area.
We have developed an algorithm for patients commencing MTX and receiving this drug long-term, which we hope will provide some consistency.

**REFERENCES**


