



## Abstracts from the NCRI Cancer Conference

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# Analysis of longitudinal liver function predicts outcome in sorafenib-treated patients with advanced Hepatocellular Carcinoma

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## Abstract

### Background

Sorafenib, the only effective 1<sup>st</sup> line systemic therapy for advanced hepatocellular carcinoma (HCC), is frequently given to patients with chronic liver disease and is metabolised by the liver. Patients continue on treatment dependent upon radiological tumour response and burden of side effects (SE). We hypothesised that analysis of longitudinal data may help predict whether continued treatment is futile.

### Method

Longitudinal clinical data and laboratory parameters for 28 analytes were collected retrospectively from electronic patient records at Addenbrooke's Hospital, Cambridge, UK for sequential patients who had received sorafenib therapy between December 2013 and September 2017. The project was approved by the institutional audit office.

Outcomes were measured as overall survival, progression-free survival, and weight change. Progression was determined by review of protocolised CT/MRI scans.

## Results

A total of 59 patients receiving a median daily dose of sorafenib of 400 mg for a median duration of 2.6 months were included. The gender distribution was 68% male and 32% female, with varying background liver disease. 53% of patients stopped sorafenib because of SE compared with 46% who stopped because of radiological progression.

The median overall survival was 11.4 months, compared to the median of 8.5 months from a recent UK audit<sup>1</sup>. There was no statistically significant difference between overall survival comparing male and female patients (13.3 versus 15.7 months;  $p = 0.13$ ).

Analysis of the data shows that liver function deteriorates within a short window of time approximately 200 days prior to death: a number of variables, including albumin, prothrombin time, bilirubin, sodium, urea, and haemoglobin, show inflection points in longitudinal trends. An in-depth analysis is ongoing.

## Conclusion

Based on data from this small, single-centre study, we conclude that a larger multi-centre study analysing longitudinal data may allow the development of 'stopping rules' on the grounds of poor prognosis for patients receiving sorafenib for HCC.

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