Philip A. Berry
Sam J. Thomson

**Comment on O'Brien et al.:
prevalence and outcome
of cirrhosis patients admitted
to UK intensive care:
a comparison against dialysis-
dependent chronic renal failure
patients**

Accepted: 18 June 2012
Published online: 14 July 2012
© Copyright jointly held by Springer and
ESICM 2012

An author's reply to this comment is available
at: doi:[10.1007/s00134-012-2632-y](https://doi.org/10.1007/s00134-012-2632-y).

Dear Editor,
We read with interest O'Brien et al.'s [1] multicentre analysis of survival for patients with cirrhosis in ICU, but would advise caution in application of the conclusions to clinical practice.

Firstly, we question the comparisons made between end-stage renal failure and cirrhosis. The liver's position at the apex of multiple synthetic, detoxifying, metabolic, vascular, immunological and hormonal processes predisposes to a number of complications not found in renal failure, in which the deficit often remains isolated from other systems.

Secondly, antecedent complications, nutritional status and prior response profile to ward-based treatments are important additional factors. These data were not available for analysis in this study. Although the authors highlight this weakness,

we believe a more optimistic prognosis pertains for patients with better nutritional reserve, for instance, and it is important that such variables are borne in mind by physicians who decide on admission to ICU.

Thirdly, sepsis appears as a strong discriminator of outcome, in line with other studies in this field. Sepsis is potentially reversible, and although it frequently leads to multiple organ failure in the immunologically dysregulated cirrhotic population, response to antimicrobial therapy cannot be predicted. We would counsel caution in using the presence of infection as a 'show-stopper' when considering admission to ICU.

Although the authors state 'Patients without sepsis [or with single organ failure] have acceptable survival rates and it would seem entirely appropriate to manage such patients on ICU', this concession will only apply to the minority. For most, sepsis is the reason they became unwell.

Lastly, in an era that will see more acute presentations of cirrhosis, and in ever younger individuals, it is important to maximise access to therapeutic opportunities. The authors state 'We would therefore advocate attempts at early identification of patients with a likely poor prognosis to enable discussion with the patients and relatives about setting appropriate limits of care...' This could be interpreted as a recommendation not to admit to ICU if multiple organ dysfunction is documented in the emergency department or on the ward. We would caution against such a broad-brush approach, as routine denial of organ support at this stage would almost inevitably facilitate a

mortal outcome without any opportunity for escalated therapy.

The therapeutic nihilism that has developed around critically ill cirrhosis patients is understandable, given the high mortality rates reported elsewhere in the literature and the tangible feelings of futility expressed by many intensivists. However, we maintain that, by encouraging more aggressive intervention earlier in the course of the acute illness, outcomes for these patients can be improved and they should not be regarded as an insurmountable challenge. Indeed, this study demonstrates an improvement in outcome across two eras (1995–2003 and 2004–2008); only by maintaining an aggressive policy will further improvements be seen.

Reference

1. O'Brien AJ, Welch CA, Singer M, Harrison DA (2012) Prevalence and outcome of cirrhosis patients admitted to UK intensive care: a comparison against dialysis-dependent chronic renal failure patients. *Intensive Care Med* 38:991–1000. doi:[10.1007/s00134-012-2523-2](https://doi.org/10.1007/s00134-012-2523-2)

P. A. Berry (✉)
Department of Gastroenterology,
Hepatology and Nutrition,
Frimley Park Hospital NHS Foundation
Trust, Camberly, UK
e-mail: philaberry@hotmail.com
Tel.: +07985059279

S. J. Thomson
Western Sussex Hospitals NHS Trust -
Gastroenterology & Hepatology,
Worthing, UK