

New insights into pancreatitis

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The new *Gut* paper, 'Critical thresholds: key to unlocking the door to the prevention and specific treatments for [acute pancreatitis](#)' (2021) by SG Barreto, A Habtezion, A Gukovskaya, A Lugea, C Jeon, D Yadav, P Hegyi, V Venglovecz, R Sutton and SJ Pandol has been published in *Gut* (BMJ) [DOI: 10.1136/gutjnl-2020-322163](https://doi.org/10.1136/gutjnl-2020-322163)

Article co-authors include experts from Cedars Sinai Medical Center, Stanford University School of Medicine, UCLA, West Los Angeles VA Healthcare Center, University of Pittsburgh Medical Center (US), University of Szeged, University of Pécs (Hungary) and University of Liverpool (UK).

In another international collaborative study, experts have compared costs related to the complex pancreatic operation called the Whipple's operation (or pancreatoduodenectomy) performed on 1406 patients from three hospitals in three continents (US, Italy and India) to demonstrate that it is possible to identify the drivers of costs of surgery.

These findings validate the significance of the previously described first threshold—the point when the damage to the acinar cells of the pancreas is sufficient to trigger the infamous inflammatory cascade (Barreto and Saccone, 2010)—while highlighting the importance of a second threshold, namely the point when a person develops clinical symptoms of the disease sufficient to warrant going to hospital.

"This transcontinental collaboration of pancreatologists drew on their vast clinical and research experience spanning decades investigating the pathophysiology and treatments for AP—one of the most common causes for emergency presentations all over the world," says corresponding author Dr. Stephen Pandol MD, from the Cedars Sinai Medical Center in California.

"This study presents the most updated and comprehensive pathogenesis of AP along with various promising avenues for further research," adds first author Dr. Savio Barreto, from Flinders University's College of Medicine and Public Health.

"The information generated from understanding these drivers can be used to forecast the [costs](#) associated with any surgery," says Dr. Barreto, a surgeon and researcher based at Flinders University in South Australia.

"The study not only achieved its goal of identifying cost drivers in surgery, but more importantly identified variations in these drivers (for the same procedure) across the three cohorts," he says.

"In this study, the authors developed a cost forecasting tool (an 'APP') to provide patients, at the time of informed financial consent, as well as funding agencies, with a more realistic cost estimate for a given operation. The APP warrants future validation."

The incidence of pancreatic cancer is increasing around the world. Surgery is an important contributor to health care expenditure around the world.

The term 'catastrophic expenditure' has been introduced to reflect the financial hardship of care afflicting nearly 25% of patients and their families faced the prospect of surgery. This has prompted the World Bank and The Lancet Commission on Global Surgery to set the ambitious goal of eliminating impoverishment due to the cost of [surgery](#).

The problem of excessive billing needs to be tackled by introducing cost transparency, preoperative informed financial consent, price regulation and negotiated rates between health care providers and insurer.

Each year pancreatic cancer is diagnosed in 250,000 patients worldwide (more than 40,000 in the US), and because only a limited number of patients are diagnosed early enough for successful surgical intervention, 225,000 die. To date, chemotherapy and radiotherapy are only partially and transiently effective.

More information: Savio George Barreto et al, Forecasting surgical costs: Towards informed financial consent and financial risk reduction, *Pancreatology* (2020). [DOI: 10.1016/j.pan.2020.12.014](#)

Provided by Flinders University

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