Background Severe acute pancreatitis (SAP) has high mortality and its early identification is important for management and risk stratification. The bedside index for severity in acute pancreatitis (BISAP) is a simple scoring system within the first 24 hours of admission which predicts the severity of pancreatitis. There were no studies designed to validate this system according to the 2012 revised Atlanta classification in Vietnam and more data are needed before clinical practice.

Aims To evaluate the BISAP score in prognostication of acute pancreatitis (AP).

Methods A prospective observational study of 68 patients presenting with AP in Thai Nguyen National Hospital from May 2018 to February 2019 were included in the study. All the patients were calculated and stratified according to the BISAP score within the first 24 hours of admission. Computerized abdominal scans are used for diagnosis and evaluation of patients with AP. SAP was defined as the persistence of organ failure for more than 48 h. The capacity of the BISAP to predict severity, pancreatic necrosis and organ failure were evaluated using linear-by-linear association. The predictive accuracy of the BISAP score was measured as the area under the receiver operating characteristic curve (AUC).

Results SAP accounted for 20.58%. Pancreatic necrosis accounted for 21.23%. Organ failure accounted for 20.58%. A BISAP score of $\geq 3$ was a statistically significant cutoff value. Risks of SAP were increased among group of BISAP $\geq 3$ (OR: 51.56; 95% confidence interval (CI): 3.23 – 698.56). BISAP in predicting SAP (AUC: 0.823; 95% CI: 0.71 – 0.992) and organ failure (AUC: 0.871; 95% CI: 0.73 – 0.921). BISAP $\geq 3$ predicted SAP with sensitivity: 69.65%, specificity: 97.89%, positive predictive values: 82%, negative predictive values: 96.3%.

Conclusions The BISAP predicts severity and organ failure in AP very well. BISAP score may be a valuable tool for risk stratification and prognostic prediction in Vietnamese patients with AP.

Acute pancreatitis (AP); BISAP score (Bedside index of severity in acute pancreatitis score).

Background Gastrointestinal (GI) cytomegaloviral (CMV) infection is common among patients with immunocompromised (ICM) status. There have been some case reports in immunocompetent (ICT) patients, but the data are limited.

Methods A retrospective study of all patients diagnosed with CMV GI disease by demonstration of CMV viral inclusion or immunohistochemistry on tissue pathology from 2008 to 2017 in a tertiary referral center was performed. Immunocompromised patients included patients with AIDS, organ transplantation, or received chemotheraphy, systemic corticosteroids, or immunosuppressive agents. The baseline characteristics, presentation, comorbid conditions, treatment, and outcomes were compared between the patients with ICT and ICM status.

Results 173 patients comprising 56 ICT and 117 ICM patients were included. ICT patients were older than ICM patients with a mean age of 73 and 48.6 years, respectively ($p<.0001$). 50% of ICT patients developed the disease during hospitalization while it was 35.9% in the ICM patients ($p=0.07$). Duration of presenting symptoms was shorter in ICTs compared to ICMs with duration of 1 and 10 days, respectively ($p=0.002$). GI bleeding was the leading presentation in the ICT patients while diarrhea and abdominal pain were found more in the ICM patients. Extraintestinal CMV manifestation was not observed in ICT, but was found in 8 (6.8%) in the ICM ($p=0.05$). CMV viral load was negative in 40.7% of ICT patients compared to 12.9% in ICM patients ($p=0.002$). The ICM patients needed more ventilator support (37.5% in ICT and 18% in ICM, $p=0.005$) and inotropic agents (21.4% and 5.1% in ICT and ICM respectively, $p=0.001$). Gancyclovir was the main treatment in both groups. 15% of ICT patients required surgery whereas 7% in ICM patients ($p=0.087$). Mortality was significantly higher among the ICT patients with a rate of 42% compared to 23.6% in ICM patients ($p=0.018$).

Conclusions CMV GI disease in ICT patients was frequently developed in elderly and half-developed while hospitalization. Gastrointestinal bleeding was the most common presentation. The CMV disease in ICT patients was associated with more severe illnesses and a higher mortality rate. CMV viral load was not helpful in diagnosis.