

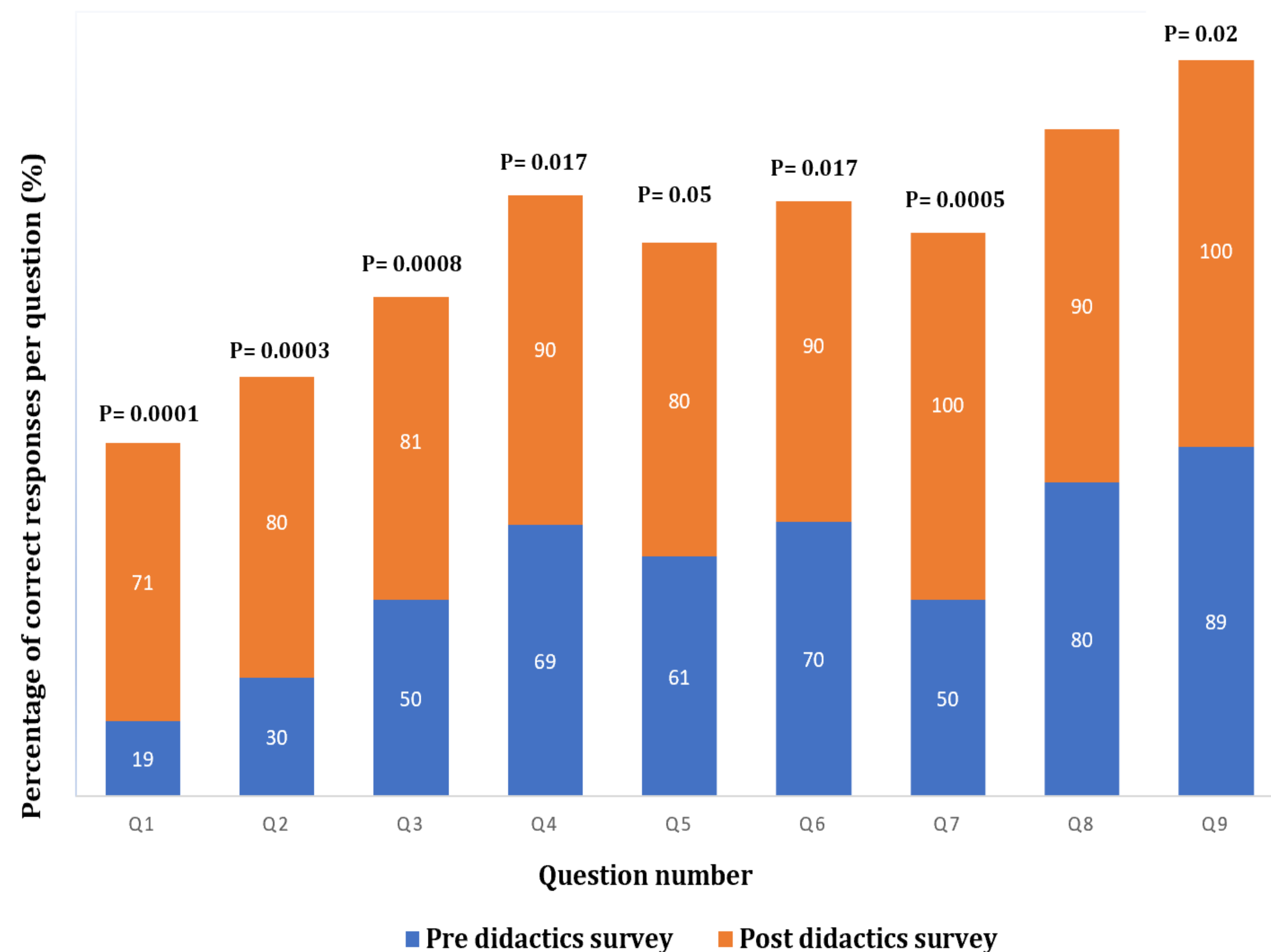
BACKGROUND

- Fluid resuscitation is the cornerstone of management of pancreatitis to prevent progression to pancreatic necrosis and multiorgan failure.
- Current ACG and AGA guidelines acknowledge the importance of intravenous fluids (IVFs) in the first 12-24 hours of presentation
- Despite strong evidence for fluid resuscitation in decreasing pancreatitis complications and improving overall mortality, patients are often under resuscitated in the first 24 hours.
- Often the first providers who encounter patients with acute pancreatitis are residents. In this study we aim to assess the understanding of acute pancreatitis management among internal medicine residents in a teaching hospital and the role of didactics in the education of residents.

Methods

- All the residents in the internal medicine residency program were included. Residents were sent an online survey of 9 questions related to management of acute pancreatitis to assess their understanding of the same 1 week prior to didactics.
- A 20 min lecture was given by gastroenterology fellow on management of acute pancreatitis and the residents were asked to take the same survey again. Responses were assessed before and after didactics. Questions of the survey are in figure 1.

RESIDENTS RESPONSES TO ONLINE QUESTIONNAIRE



Results

- A total of 46 residents took pre didactics survey and 41 took post didactics survey. Among the survey takers 30% are PGY1s, 30% are PGY2 and 40% are PGY3 residents. Residents' responses to individual questions are as in figure 2.
- An absolute increase of $\geq 50\%$ correct responses were noted with questions related to bolus and maintenance IVFs post didactic session (OR: 9.9; CI: 3.7-26.7 and OR: 9.4; CI: 3.5-25.5 respectively).
- Post educational interventions there is a 100% relative increase in residents choosing enteral nutrition over parenteral nutrition (OR: 9.2; CI: 2.8-30.2) and are four-fold more likely to initiate diet within first 24 hours of hospitalization (CI: 1.2-13.5).
- Over all there is approximately 30% improvement in the residents understanding of acute pancreatitis management post educational intervention.

Acute pancreatitis management Survey Questionnaire

- What is the IVFs rate for INITIAL 30-60 min of acute pancreatitis management?
 - 15-20 cc/kg/hr**
 - 3-5 cc/kg/hr
 - 20-30 cc/kg/hr
 - 5-10 cc/kg/hr
- What is the rate of MAINTAINANCE IVFs for 12-24 hours in patients with acute pancreatitis?
 - 3-5 cc/kg/hr**
 - 5-10 cc/kg/hr
 - 10-15 cc/kg/hr
- Based on current evidence-based medicine which of the following are appropriate in acute pancreatitis management?
 - Goal directed judicious IVFs**
 - Aggressive IV hydration
- Based on current evidence, what type of fluids are ideal for patients with acute pancreatitis?
 - Ringer lactate**
 - Albumin
 - Normal saline
 - Type of fluid doesn't matter as long as patient receives appropriate IVF hydration within first 24 hours
- What parameters needs to be monitored to direct IVFs rate and predicts mortality?
 - Lactate
 - BUN**
 - SCr
 - WBC
- Based on current evidence-based medicine when can the oral intake be initiated in a patient with acute pancreatitis
 - Within first 24 hours**
 - Bowel rest till the abdominal pain is completely better
 - Can wait up to 1 week
- Based on current evidence-based medicine, In patients with acute necrotizing pancreatitis which of the following is true.
 - Total parenteral nutrition is equivalent to enteral nutrition
 - Nasogastric or nasojunal is not inferior to peripheral parenteral nutrition
 - Oral feeding is superior to all other forms of nutrition**
- What is the appropriate time for cholecystectomy in patients with acute biliary pancreatitis?
 - Same hospital stay**
 - Within 6 weeks
 - Within 1 week
 - Timing doesn't matter
- What type of diet can be initiated in acute pancreatitis?
 - Clear liquids
 - Low fat
 - Full liquids
 - Type of diet doesn't matter as long as patient tolerates**

Discussion

- Our study demonstrates the importance of ongoing educational interventions to improve residents' knowledge on management of most common GI conditions.
- In our study a single 20 min educational intervention improved residents' management choices by 30%.
- The impact of repeated didactics sessions needs to be further studied. Gastroenterology fellows as teachers can achieve this goal.