



# Retrospective analysis of prophylactic pancreatic stent dislodgement after 2 weeks

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## Aim

To assess the rate of spontaneous passage of pancreatic duct stents placed for prophylaxis against pancreatitis after 2 weeks.

## Background

Placement of a small pancreatic duct stent at ERCP to prevent pancreatitis is beneficial in high risk patients. Prolonged stenting of the pancreatic duct is associated with duct changes that can be clinically significant. More than 90% of stents placed for pancreatitis prophylaxis will spontaneously dislodge after 30 days. There are reports of pancreatic duct strictures occurring in stents placed for < 4 weeks. It is our practice to remove pancreatic stents after 2 weeks to prevent pancreatic duct injury.

## Indications for Prophylactic PD Stent

Supported by expert consensus or study outcomes

Minor orifice pancreatic sphincterotomy  
Major orifice pancreatic sphincterotomy  
Ampullectomy  
Patients with SOD undergoing sphincterotomy (biliary, pancreatic, or dual)  
Patients with suspected SOD with intact papillas and normal manometry results

### Possible Indications

Multiple or complete pancreatic duct injection(s)  
Trauma to the papilla  
Sphincter balloon dilation  
History of post-ERCP pancreatitis  
Precut sphincterotomy

## Methods

We routinely use a 5F stent for prophylaxis in high risk cases. A stent log was created to track

all stents placed and follow them to dislodgement or removal.

We retrospectively reviewed our log to assess the rate of dislodgment of stents between July 2007 and March 2010. Patients were given a prescription to obtain an abdominal X-Ray 10-14 days after the procedure. If the X-Ray showed the stent in place, the stent was removed using EGD.

## Results

During the time period, there were 283 pancreatic stents placed. 171 (60.4%) were placed for pancreatitis prophylaxis. 85/171 (49.7%) stents were confirmed dislodged by x-ray. However, 42.7% (73/171) stents required an EGD for removal. There is no follow-up information on 13/171 (7.6%) patients despite multiple attempts to contact them. At the time of EGD, 16/73 (21.9%)

stents had fallen out between the time of X-Ray and EGD. 43/73 (58.9%) required endoscopic removal. Fourteen of 73 (19.2%) had their EGD done outside of our institution. Assuming all 14 required stent extraction by EGD, a total of 57/171 (33.3%) stents placed for pancreatitis prophylaxis required EGD for removal after 2 weeks.

## Conclusion

A large percentage of stents placed for pancreatitis prophylaxis remained in place after two weeks. More stents may be dislodged after 4 weeks, reducing the need for a second procedure. This needs to be weighed against the risk of pancreatic duct injury. The use of a smaller caliber stents (3F, 4F) or those without internal phalanges may result in more spontaneous passage within 2 weeks.