Palliative procedures for patients with malignant gastroduodenal obstruction must be readily available, have a rapid onset of action, and be well tolerated by a patient with terminal cancer. Laparoscopic gastroenterostomy and insertion of self-expanding stents are emerging as the current methods of choice. An increasing number of dedicated enteral stents with different properties are now available. These can be placed under fluoroscopic guidance alone or with the help of an endoscope. Endoscopic placement has several advantages but requires good collaboration between the endoscopists and the radiology department. Appropriate imaging and workup of each case at multidisciplinary meetings is required. Coexisting biliary obstruction may be dealt with endoscopically, but frequently requires percutaneous biliary stent placement prior to duodenal stenting. Reintervention is required in up to 25% of patients, usually due to stent occlusion by further tumor growth. This article suggests strategies for patient assessment, procedure planning, and stent insertion.