Appendix 1. Study rules for staging based on tumour–node–metastasis (TNM) classification by the Union for International Cancer Control (UICC) for exocrine pancreatic carcinomas

1. Classification should represent the time of diagnosis. Cutoff is ≤3 mo before the earliest pathologic diagnosis and ≤3 mo after the earliest pathologic diagnosis. For example, if we obtained a pathology report on a patient indicating that he/she received a diagnosis of pancreatic cancer on Apr. 1, 2007, then we would only take into account imaging reports within 3 mo of the pathologic diagnosis date.

2. Imaging reports may differ with respect to information and specific details. One report may indicate “the tumour was approximately 2 cm,” whereas another report may indicate “the tumour was 2.2 cm x 1.5 cm.” Since T1 or T2 is selected based on whether the tumour was ≤2 cm or > 2 cm, it is important to use the most reliable source of clinical information. The hierarchy is as follows (most reliable to least reliable): CT > MRI > ultrasonography.

3. Tumour that is deemed unresectable on imaging or intraoperatively (whether for arterial or venous involvement) will be staged as stage III (i.e., T4) (assuming no identifiable metastases).

4. Tumours that require resection of the portal vein or superior mesenteric vein are to be staged as T3.

5. Invasion of “peripancreatic soft tissue” is T3.

6. As per UICC, 6th ed., rules, tumour invading intrapancreatic bile duct is considered limited to pancreas (T1 or T2).

7. When pathology report does not clearly state that extrapancreatic common bile duct is involved, we assume it is intrapancreatic only and staged as T1 or T2. This is applied even when the pathologist gives a T3 stage in this setting because there appears to be inconsistency among the pathologists about how to call common bile duct involvement.

8. As per UICC, 6th ed., rules, regional lymph nodes are:
   a. for cancer of pancreatic head (posterior surface of pancreatic head, anterior surface of pancreatic head, intrapyloric, common hepatic artery, hepatoduodenal ligament, along superior mesenteric artery, celiac artery, splenic artery, inferior margin of pancreatic body-tail)
   b. for cancer of pancreatic body-tail (common hepatic artery, splenic hilum, splenic artery, inferior margin of pancreatic body-tail, along superior mesenteric artery, in hepatoduodenal ligament, posterior surface of pancreatic head, anterior surface of pancreatic head)

9. Tumour invading ampulla or adjacent duodenum as T3.

10. Involvement of hepatic artery or splenic artery equal “celiac axis” involvement (i.e., unresectable = T4).

11. When there is evidence of operative resection and no specific mention of metastases, M0 is given.

12. If pathology report clinical history text states “unresectable tumour,” accept that for staging T4.

13. If pathology report is of metastases, but no other information given on date of diagnosis of primary, cannot stage.


15. Lymphadenopathy from distal pancreas cancer causing obstructive jaundice is considered M1 disease.

CT = computed tomography; MRI = magnetic resonance imaging; UICC = UICC TNM classification of malignant tumours, 6th ed. [12]