GI Malignancies – Changes in 8th Edition AJCC Staging Manual

By

Dr Raja Paramjeet Singh Banipal
Professor and Head
Department of Radiation Oncology
GGSMCH, Faridkot



Level of Evidence

I: The available evidence includes consistent results from multiple appropriate studies

II: The available evidence is obtained from at least one appropriate study with external validation

III: The available evidence is problematic

IV: The available evidence is nonexistent



Esophageal Cancer

Esophagogastric junctionOesophagus and Gastric Carcinomas

• A tumour the epicenter of which is within 2 cm of the **oesophagogastric junction** and also extends into the oesophagus is classified and staged using the oesophageal scheme. Cancers involving the oesophagogastric junction (OGJ) whose epicenter is within the proximal 2 cm of the cardia (Siewert types I/II) are to be staged as oesophageal

• Cancers whose epicenter is more than 2 cm distal from the OGJ will be staged using the Stomach Cancer TNM and Stage even if the OGJ is involved.



Esophageal Cancer

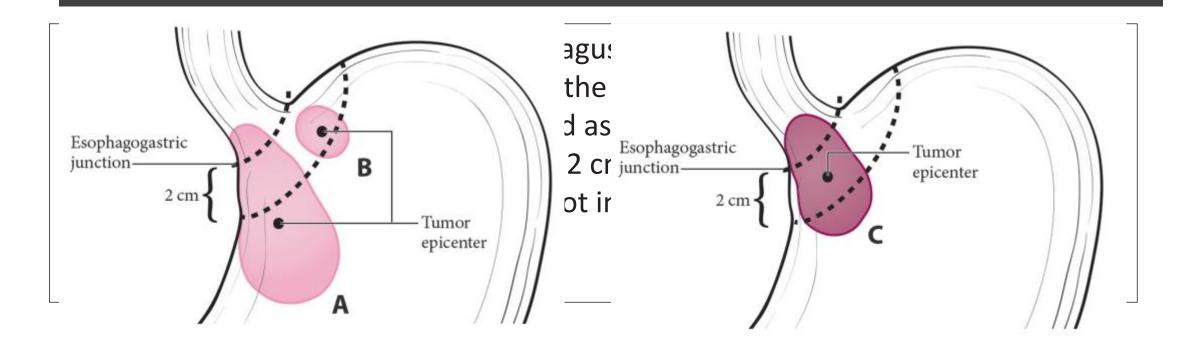
There are no changes in the definitions of the T, N and M categories.

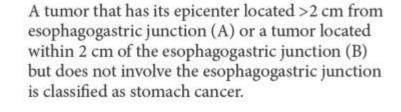
Note there are pathological prognostic groups available for squamous cell carcinoma and clinical and pathological prognostic groups available for adenocarcinoma

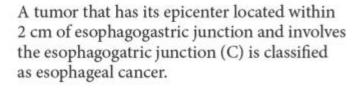
The AJCC also publish post preoperative therapy prognostic groups for adenocarcinoma and squamous cell carcinoma



Gastric Cancer









Gastric Cancer

cTNM: stage groupings for cTNM differ from those of pTNM. New cTNM groupings and their cooresponding prognostic information are presented in 8th edition

ypTNM: stage groupings are the same as those for pTNM; however, prognostic information is presented using only the four broad stage categories (Stages I–IV).



Gastric Cancer

pN3a and pN3b were combined into the same pathological tumor-node metastasis (pTNM) stages in the 7th American Joint Committee on Cancer (AJCC) edition.

Consequently, pN3a and pN3b were separated into different pTNM stages in the new 8th edition.



Gastric Cancer

Furthermore, pT4aN2, which was classified as stage IIIB in the 7th edition, is now classified as stage IIIA in the 8th edition.

Moreover, pT4bN0, which was classified as stage IIIB in the 7th edition, is now classified as stage IIIA in the 8th edition.

Finally, pT4bN2, which was classified as stage IIIC in the 7th edition, is now classified as stage IIIB in the 8th edition.



Gastric Cancer

(AJCC 7th Ed)

ANATOMIC S	TAGE/PROGNO	OSTIC GROUPS	
Stage 0	Tis	N0	M0
Stage IA	T1	N0	M0
Stage IB	T2	N0	M0
	T1	N1	M0
Stage IIA	T3	N0	M0
	T2	N1	M0
	T1	N2	M0
Stage IIB	T4a	N0	M0
	Т3	N1	M0
	T2	N2	M0
	T1	N3	M0
Stage IIIA	T4a	N1	M0
	T3	N2	M0
	T2	N3	M0
Stage IIIB	T4b	N0	M0
	T4b	N1	M0
	T4a	N2	M0
	Т3	N3	M0
Stage IIIC	T4b	N2	M0
	T4b	N3	M0
	T4a	N3	M0
Stage IV	Any T	Any N	M1



Gastric Cancer (AJCC 8th Ed) Prognostic Groups

Clinical (cTNM)

When T is	And N is	And M is	Then the stage group is
Tis	N0	M0	0
T1	N0	M0	I
T2	N0	M0	I
T1	N1, N2, or N3	M0	IIA
T2	N1, N2, or N3	M0	IIA
T3	N0	M0	IIB
T4a	N0	M0	IIB
T3	N1, N2, or N3	M0	III
T4a	N1, N2, or N3	M0	III
T4b	Any N	M0	IVA
Any T	Any N	M1	IVB



Gastric Cancer (AJCC 8th Ed) Prognostic Groups

Pathological (pTNM)

When T is	And N is	And M is	Then the stage group is
Tis	N0	M0	0
T1	N0	M0	IA
T1	N1	M0	IB
T2	N0	M0	IB
T1	N2	M0	IIA
T2	N1	M0	IIA
T3	N0	M0	IIA
T1	N3a	M0	IIB
T2	N2	M0	IIB
T3	N1	M0	IIB
T4a	N0	M0	IIB
T2	N3a	M0	IIIA
T3	N2	M0	IIIA
T4a	N1	M0	IIIA
T4a	N2	M0	IIIA ←
T4b	N0	M0	IIIA ←
T1	N3b	M0	IIIB
T2	N3b	M0	IIIB
Т3	N3a	M0	IIIB
T4a	N3a	M 0	IIIB
T4b	N1	M0	IIIB
T4b	N2	M 0	IIIB ←
T3	N3b	M0	IIIC
T4a	N3b	M0	IIIC
T4b	N3a	M0	IIIC
T4b	N3b	M0	IIIC
Any T	Any N	M1	IV



Small Intestine

Definition of Primary Tumor

• For T3 and T4, the description of extent of penetration into the retroperitoneum was omitted. It is not reliably reported in the pathology assessment and is not a validated prognostic factor.



Small Intestine

Pri	mary Tumor (T)
TX	Primary tumor cannot be assessed
TO	No evidence of primary tumor
Tis	Carcinoma in situ
T1a	Tumor invades lamina propria
T1t	Tumor invades submucosa*
T2	Tumor invades muscularis propria
T3	Tumor invades through the muscularis propria
	into the subserosa or into the nonperitonealized
	perimuscular tissue (mesentery or retroperito-
	neum) with extension 2 cm or less*
T4	Tumor perforates the visceral peritoneum or
	directly invades other organs or structures
	(includes other loops of small intestine, mesen-
	tery, or retroperitoneum more than 2 cm, and
	abdominal wall by way of serosa; for duodenum
	only, invasion of pancreas or bile duct)

T Category	T Criteria
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	High-grade dysplasia/carcinoma in situ
T1	Tumor invades the lamina propria or submucosa
T1a	Tumor invades the lamina propria
T1b	Tumor invades the submucosa
T2	Tumor invades the muscularis propria
Т3	Tumor invades through the muscularis propria into the subserosa, or extends into nonperitonealized perimuscular tissue (mesentery or retroperitoneum) without serosal penetration*
T4	Tumor perforates the visceral peritoneum or directly invades other organs or structures (e.g., other loops of small intestine, mesentery of adjacent loops of bowel, and abdominal wall by way of serosa; for duodenum only, invasion of pancreas or bile duct)



Small Intestine

 N1 was redefined as one or two positive nodes and N2 as more than two positive nodes. This change harmonizes N1 staging with the rest of the upper gastrointestinal tumors and provides improved stage-specific discrimination based on a new National Cancer Data Base query

AJCC 7 th Ed: Regional Lymph Nodes		
NX	Regional lymph nodes cannot be assessed	
NO	No regional lymph node metastasis	
N1	Metastasis in 1–3 regional lymph nodes	
N2	Metastasis in four or more regional lymph nodes	

AJCC 8 th Ed: Regional Lymph Nodes		
Nx	Regional lymph nodes cannot be assessed	
NO	No regional lymph node metastasis	
N1	Metastasis in one or two regional lymph nodes	
N2	Metastasis in three or more regional lymph nodes	

Small Intestine

• All histologies are assigned TNM, but prognostic stage grouping is only for adenocarcinoma



M Category	M Criteria
M0	No distant metastasis by imaging, etc.; no evidence of tumor in distant sites or organs (This category is not assigned by pathologists.)
M1	Metastasis to one or more distant sites or organs or peritoneal metastasis is identified
M1a	Metastasis to one site or organ is identified without peritoneal metastasis
M1b	Metastasis to two or more sites or organs is identified without peritoneal metastasis
M1c	Metastasis to the peritoneal surface is identified alone or with other site or organ metastases

Definition of Distant Metastasis (M)

 Introduced M1c, which details peritoneal carcinomatosis as a poor prognostic factor

Definition of Regional Lymph Nodes (N)

Clarified the definition of tumor deposits



Colon and Rectum

Definition of tumour deposit clarified

Tumour deposits (satellites) are discrete macroscopic or microscopic nodules of cancer in the pericolorectal adipose tissue's lymph drainage area of a primary carcinoma that are discontinuous from the primary and without histological evidence of residual lymph node or identifiable vascular or neural structures. If a vessel wall is identifiable on H&E, elastic or other stains, it should be classified as venous invasion (V1/2) or lymphatic invasion (L1). Similarly, if neural structures are identifiable, the lesion should be classified as perineural invasion (Pn1). The presence of tumour deposits does not change the primary tumour T category, but changes the node status (N) to N1c if all regional lymph nodes are negative on pathological examination

N Category	N Criteria
NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
N1	One to three regional lymph nodes are positive (tumor in lymph nodes measuring ≥0.2 mm), or any number of tumor deposits are present and all identifiable lymph nodes are negative
N1a	One regional lymph node is positive
N1b	Two or three regional lymph nodes are positive
N1c	No regional lymph nodes are positive, but there are tumor deposits in the • subserosa • mesentery • or nonperitonealized pericolic, or perirectal/ mesorectal tissues.
N2	Four or more regional nodes are positive
N2a	Four to six regional lymph nodes are positive
N2b	Seven or more regional lymph nodes are positive

Colon and Rectum

Stage Unchanged	except for Stage IVA,
IVB, IVC as below	

Stage IV Any T Any N M1

Stage IVA Any T Any N M1a

Stage IVB Any T Any N M1b

Stage IVC Any T Any N M1c



Colon and Rectum

Additional Factors Recommended for Clinical Care

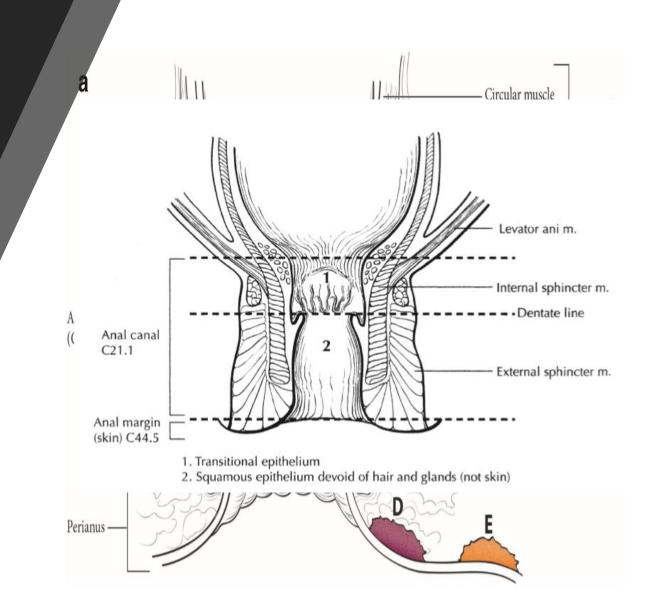
Lymphovascular invasion: reintroduced the L and V elements to better identify lymphatic and vessel invasion

Microsatellite instability (MSI): clarified the importance of MSI as a prognostic and predictive factor

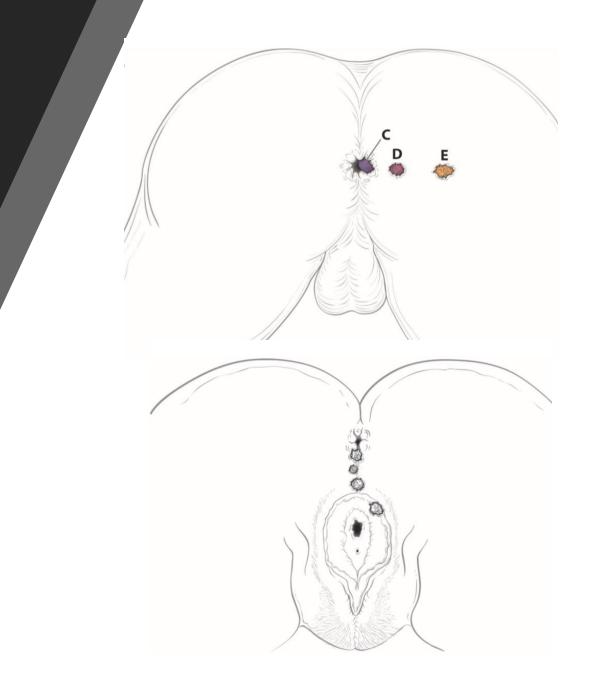
Identified KRAS, NRAS, and BRAF mutations as critical prognostic factors that are also predictive



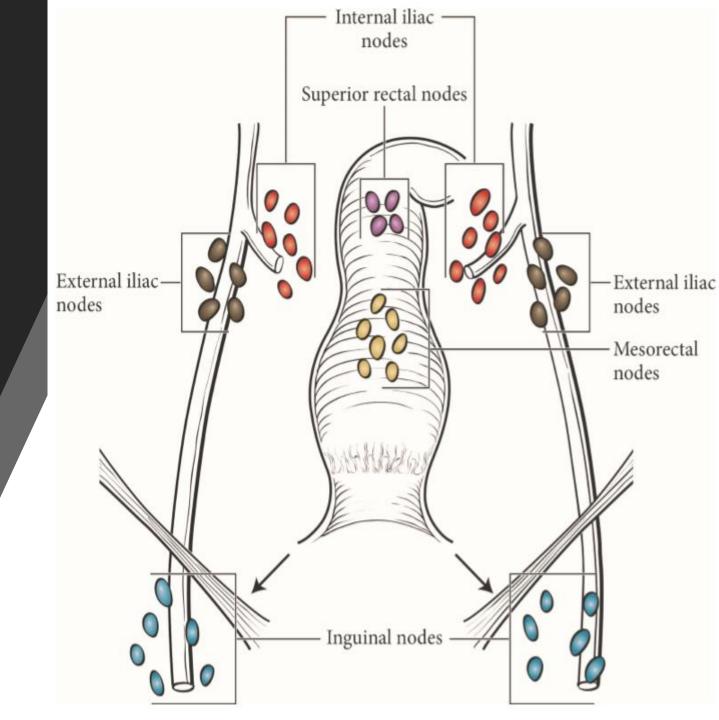
- Landmarks that define anal and perianal tumors have been clarified
- The anal canal begins where the rectum enters the puborectalis sling at the apex of the anal sphincter complex (palpable as the anorectal ring on digital rectal examination and approximately 1 to 2 cm proximal to the dentate line) and ends with the squamous mucosa blending with the perianal skin, which coincides roughly with the palpable intersphincteric groove or the outermost boundary of the internal sphincter muscle, easily visualized on endoanal ultrasound



Lesions that clearly arise from the vulva and extend onto the perineum and potentially involve the anus should be classifed as vulvar. Similarly, lesions that clearly arise from the distal anal mucosa and extend onto the perineum should be classifed as perianal. Lesions localized to the perineum that are not clearly arising from either the vulva or the anus should be categorized based on the clinician's clinical impression. Thus, we recommend the following terminology: perineum favor vulva and perineum favor perianus



New Terminology referring to regional lymph nodes draining the region





N2 and N3 categories were removed, and new categories of N1a, N1b, and N1c are defined.

 Stage groups were revised to accommodate the new N categories.

1	Region	nal Lymph Nodes (N)
1	XV	Regional lymph nodes cannot be assessed
1	V0	No regional lymph node metastasis
1	N1	Metastasis in perirectal lymph node(s) (Figure 15.8)
1	N2	Metastasis in unilateral internal iliac and/or ingui-
		nal lymph node(s) (Figure 15.9A, B)
1	N3	Metastasis in perirectal and inguinal lymph nodes
		and/or bilateral internal iliac and/or inguinal
		lymph nodes (Figure 15.10A–C)

N Category	N Criteria	
NX	Regional lymph nodes cannot be assessed	
N0	No regional lymph node metastasis	
N1	Metastasis in inguinal, mesorectal, internal iliac, or external iliac nodes	
N1a	Metastasis in inguinal, mesorectal, or internal iliac lymph nodes	
N1b	Metastasis in external iliac lymph nodes	
N1c	Metastasis in external iliac with any N1a nodes	



Definition of Primary Tumor (T)

T1 is now divided into two subcatgories:
T1a, solitary tumor ≤2 cm; and T1b, solitary tumor without vascular invasion, >2 cm



AJCC 7 TH EDITION	
T1	Solitary tumor without vascular invasion

AJCC 8 TH EDITION	
T1a	Solitary tumor less than or equal to 2 cm in greatest dimension with or without vascular invasion
T1b	Solitary tumor more than 2 cm in greatest dimension without vascular invasion

Definition of Primary Tumor (T)

T2 now includes solitary tumor with vascular invasion >2 cm, or multiple tumors, none >5 cm

AJCC 7 TH EDITION	
T2	Solitary tumor with vascular invasion or multiple tumors none more than 5 cm

AJCC 8 TH EDITION	
T2	Solitary tumor >2 cm with vascular invasion, or multiple tumors, none >5 cm



Definition of
Primary Tumor (T)
T3a is now
recategorized
as T3

AJCC 7 TH EDITION	
T3a	Multiple tumors more than 5 cm
T3b	Single tumor or multiple tumors of any size involving a major branch of the portal vein or hepatic vein

AJCC 8 TH EDITION	
T3	Multiple tumors, at least one of which is >5 cm



Definition of Primary
Tumor (T)

T3b: Tumors

involving a major

branch of the

portal vein or

hepatic vein

formerly were

categorized as T3b

and are now

categorized as T4.

AJCC 7 TH EDITION	
T3b	Single tumor or multiple tumors of any size involving a major branch of the portal vein or hepatic vein
T4	Tumor(s) with direct invasion of adjacent organs other than the gallbladder or with perforation of visceral peritoneum

AJCC 8 TH EDITION	
T4	Single tumor or multiple tumors of any size involving a major branch of the portal vein or hepatic vein, or tumor(s) with direct invasion of adjacent organs other than the gallbladder or with perforation of visceral peritoneum



Definition of Primary
Tumor (T)

T3b: Tumors

involving a major

branch of the

portal vein or

hepatic vein

formerly were

categorized as T3b

and are now

categorized as T4.

AJCC 7 TH EDITION	
T3b	Single tumor or multiple tumors of any size involving a major branch of the portal vein or hepatic vein
T4	Tumor(s) with direct invasion of adjacent organs other than the gallbladder or with perforation of visceral peritoneum

AJCC 8 TH EDITION	
T4	Single tumor or multiple tumors of any size involving a major branch of the portal vein or hepatic vein, or tumor(s) with direct invasion of adjacent organs other than the gallbladder or with perforation of visceral peritoneum

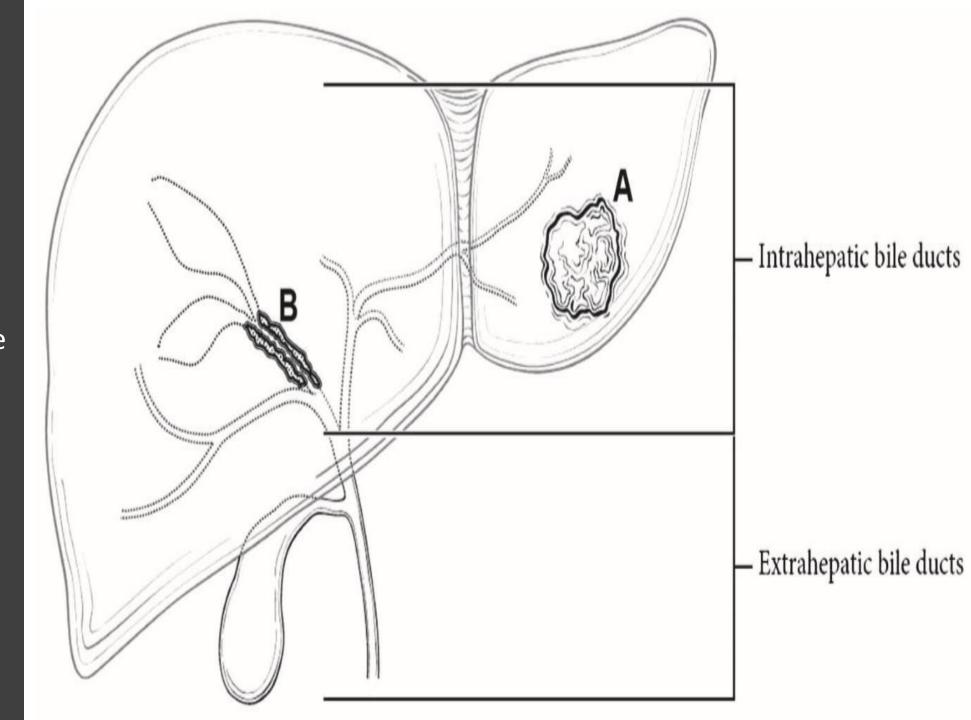


Intrahepatic Bile Ducts

Definition of Primary Tumor (T)

The T1 category
was revised to
account for the
prognostic
impact of
tumor size
(T1a: ≤5 cm vs.
T1b: >5 cm).





Intrahepatic Bile Ducts

Definition of Primary
Tumor (T)

The T2 category is modified to reflect the equivalent prognostic value of vascular invasion and tumor multifocality

AJCC 7 TH EDITION	
T2a	Solitary tumor with vascular invasion
T2b	Multiple tumors, with or without vascular invasion

AJCC 8 TH EDITION	
T2	Solitary tumor with intrahepatic vascular invasion or multiple tumors, with or without vascular invasion



Intrahepatic Bile Ducts

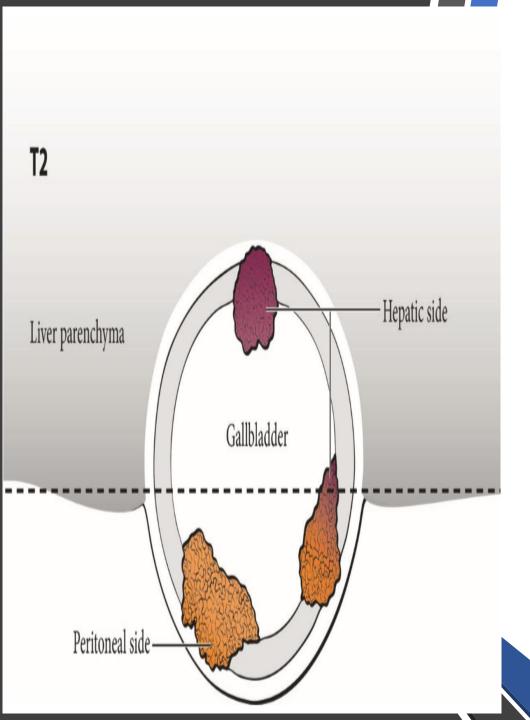
Definition of Primary Tumor (T) The AJCC Cancer Staging Manual, 7th Edition T4 category describing the tumor growth pattern was eliminated from staging but is still recommended for

data collection.

AJCC 7 TH EDITION	
T3	Tumor perforating the visceral peritoneum or involving the local extra hepatic structures by direct invasion
T4	Tumor with periductal invasion

AJCC 8 TH EDITION	
T3	Tumor perforating the visceral peritoneum
T4	Tumor involving local extrahepatic structures by direct invasion





Λ I			$\gamma N I$
AJ	CC 7		MILL

T2

Tumor invades perimuscular connective tissue; no extension beyond serosa or into liver

AJCC 8TH EDITION

T2	Tumor invades the perimuscular connective tissue on the peritoneal side, without involvement of the serosa (visceral peritoneum) Or tumor invades the perimuscular connective tissue on the hepatic side, with no extension into the liver
T2a	Tumor invades the perimuscular connective tissue on the peritoneal side, without involvement of the serosa (visceral peritoneum)
T2b	Tumor invades the perimuscular connective tissue on the hepatic side, with no extension into the liver

Gall Bladder

Definition of Regional Lymph Node (N)

Changed from location-based definitions to number-based N category assessment. N categories have been revised to define N1 as one to three positive nodes and N2 as four or more positive nodes. The recommendation that six or more nodes be harvested and evaluated has been added.

AJCC 7 TH EDITION	
N1	Metastases to nodes along the cystic duct, common bile duct, hepatic artery, and/or portal vein
N2	Metastases to periaortic, pericaval, superior mesenteric artery, and/or celiac artery lymph nodes

AJCC 8 TH EDITION	
N1	Metastases to one to three regional lymph nodes
N2	Metastases to four or more regional lymph nodes



Perihilar Bile Ducts

Definition of Primary Tumor (T)

The definition of Tis has been expanded to include high-grade biliary intraepithelial neoplasia (Billn-3). Highgrade dysplasia (Billn-3), a noninvasive neoplastic process, is synonymous with carcinoma in situ at this site.

AJCC 7 TH EDITION	
Tis	Carcinoma in situ

AJCC 8 TH EDITION	
Tis	Carcinoma in situ/high-grade dysplasia



Perihilar Bile Ducts

Tumor (T)
Bilateral secondorder biliary radical
invasion (Bismuth–
Corlette type IV) has
been removed from
T4 category.

AJCC 7TH EDITION

T4

Tumor invades main portal vein or its branches bilaterally; or the common hepatic artery; or the second-order biliary radicals bilaterally; or unilateral second-order biliary radicals with contralateral portal vein or hepatic artery involvement

AJCC 8TH EDITION

T4

Tumor invades the main portal vein or its branches bilaterally, or the common hepatic artery; or unilateral second-order biliary radicals with contralateral portal vein or hepatic artery involvement



Perihilar Bile Ducts

Definition of Regional Lymph Node (N) N category was reclassified based on number of positive nodes to N1 (one to three positive nodes) and N2 (four or more positive nodes)



AJCC 7 TH EDITION	
N1	Regional lymph node metastasis (including nodes along the cystic duct, common bile duct, hepatic artery, and portal vein
N2	Metastasis to periaortic, pericaval, superior mesenteric artery, and/or celiac artery lymph nodes
AJCC 8 TH EDITION	
N1	One to three positive lymph nodes typically involving the hilar, cystic duct, common bile duct, hepatic artery, posterior pancreatoduodenal, and portal vein lymph nodes
N2	Four or more positive lymph nodes from the sites described for N1

Perihilar Bile Ducts

AJCC Prognostic Stage Groups The stage group for T4 tumors was changed from Stage IVA to Stage IIIB.

N1 category was changed from Stage IIIB to IIIC, and N2 category is classified as Stage IVA.



Perihilar Bile Ducts

(AJCC 7th Ed)

ANATOMIC STAGE/PROGNOSTIC GROUPS			
Stage 0	Tis	N0	M0
Stage I	T1	N0	M0
Stage II	T2a-b	N0	M0
Stage IIIA	T3	N0	M0
Stage IIIB	T1-3	N1 —	M0
Stage IVA	T4 —	N0-1	M0
Stage IVB	Any T Any T	N2 ← Any N	M0 M1



Perihilar Bile Ducts

(AJCC 8th Ed)

When T is	And N is	And M is	Then the stage group is
Tis	N0	M0	0
T1	N0	M0	I
T2a-b	N0	M0	II
T3	N0	M0	IIIA
T4	N0	M0	IIIB —
Any T	N1	M0	IIIC —
Any T	N2	M0	IVA —
Any T	Any N	M1	IVB

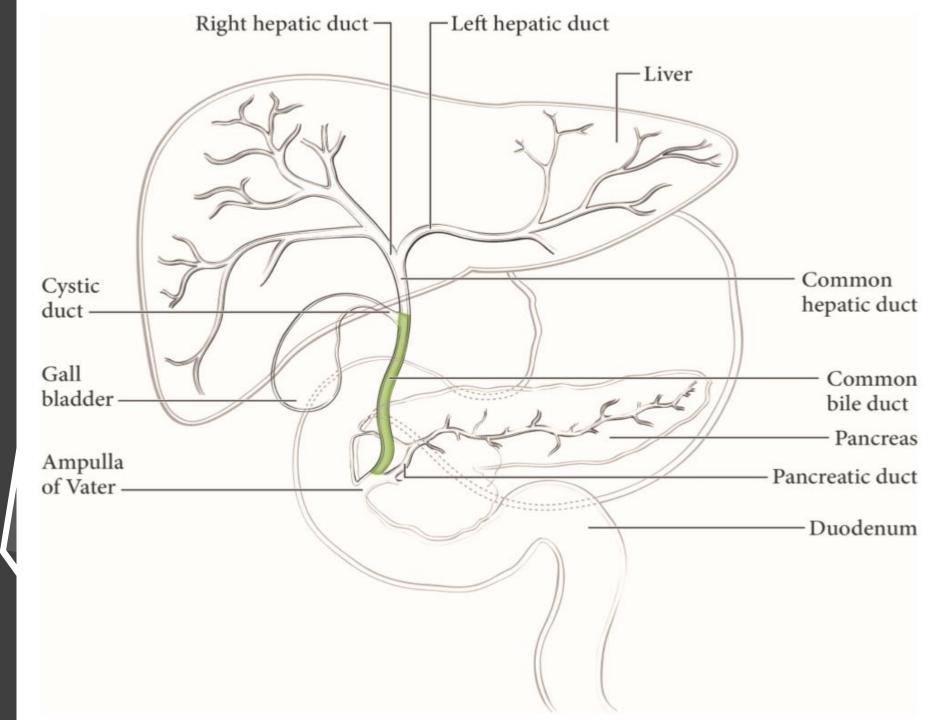


Distal Bile Duct

Definition of Primary Tumor (T)

The definition of Tis has been expanded to include high-grade biliary intraepithelial neoplasia (Billn-3). Highgrade dysplasia (Billn-3), a noninvasive neoplastic process, is synonymous with carcinoma in situ at this site.





Distal Bile Duct

Definition of Primary Tumor (T)

Definitions of T1, T2, and T3 have been revised based on measured depth of invasion (<5 mm, 5–12 mm, >12 mm). The descriptive extent of invasion also should still be reported. Depth of tumor invasion is better than the descriptive extent of tumor invasion at predicting patient outcome.



AJCC 7 TH EDITION	
T1	Tumor confined to the bile duct histologically
T2	Tumor invades beyond the wall of the bile duct
T3	Tumor invades the gallbladder, pancreas, duodenum, or other adjacent organs without involvement of the celiac axis, or the superior mesenteric artery
AJCC 8 TH EDITION	
T1	Tumor invades the bile duct wall with a depth less than 5 mm
T2	Tumor invades the bile duct wall with a depth of 5–12 mm
T3	Tumor invades the bile duct wall with a depth greater than 12 mm

Distal Bile Duct

Definition of Regional Lymph Node (N)

N categories have been expanded (N1, one to three positive lymph nodes; N2, four or more positive lymph nodes). The number of involved lymph nodes appears to be useful in predicting patient outcomes

AJCC 7 TH EDITION	
NO	No regional lymph node metastasis
N1	Regional lymph node metastasis

AJCC 8 TH EDITION	
NO	No regional lymph node metastasis
N1	Metastasis in one to three regional lymph nodes
N2	Metastasis in four or more regional lymph nodes



Definition of Primary Tumor (T)

T1 tumors have been subdivided into T1a and T1b. T1a: tumor limited to ampulla of Vater or sphincter of Oddi T1b: tumor invades beyond the sphincter of Oddi (perisphincteric invasion) and/or into the duodenal submucosa



AJCC 7 TH EDITION	
T1	Tumor limited to ampulla of Vater or sphincter of Oddi

AJCC 8 TH EDITION	
T1	Tumor limited to ampulla of Vater or sphincter of Oddi or tumor invades beyond the sphincter of Oddi (perisphincteric invasion) and/or into the duodenal submucosa
T1a	Tumor limited to ampulla of Vater or sphincter of Oddi
T1b	Tumor invades beyond the sphincter of Oddi (perisphincteric invasion) and/or into the duodenal submucos

Ampulla of Vater Definition of Primary Tumor (T) The T2 definition has been revised to define T2 as invasion

into the muscularis

propria of the

duodenum

AJCC 7 TH EDITION	
T2	Tumor invades duodenal wall

AJCC 8 TH EDITION	
T2	Tumor invades into the muscularis propria of the duodenum



Definition of Primary Tumor (T)

T3 tumors have been subdivided into T3a and T3b. T3a: tumor directly invades the pancreas (up to 0.5 cm) T3b: tumor extends more than 0.5 cm into the pancreas or extends into peripancreatic or periduodenal tissue or duodenal serosa, but without involvement of the celiac axis or superior mesenteric artery

AJCC 7 TH EDITION	
ТЗ	Tumor invades pancreas

AJCC 8 TH EDITION	
T3a	Tumor directly invades pancreas (up to 0.5 cm)
T3b	Tumor extends more than 0.5 cm into the pancreas, or extends into peripancreatic tissue or periduodenal tissue or duodenal serosa without involvement of the celiac axis or superior mesenteric artery

Definition of Primary Tumor (T)

The T4 definition has been revised to be consistent with the staging system for exocrine pancreas: tumor with vascular involvement of the superior mesenteric artery, celiac axis, and/or common hepatic artery (consistent with pancreas staging)

AJCC 7 TH EDITION	
T4	Tumor invades peripancreatic soft tissues or other adjacent organs or structures other than pancreas

AJCC 8 TH EDITION	
T4	Tumor involves the celiac axis, superior mesenteric artery, and/or common hepatic artery, irrespective of size



Definition of Primary Tumor (T)

The T4 definition has been revised to be consistent with the staging system for exocrine pancreas: tumor with vascular involvement of the superior mesenteric artery, celiac axis, and/or common hepatic artery (consistent with pancreas staging)

AJCC 7 TH EDITION	
T4	Tumor invades peripancreatic soft tissues or other adjacent organs or structures other than pancreas

AJCC 8 TH EDITION	
T4	Tumor involves the celiac axis, superior mesenteric artery, and/or common hepatic artery, irrespective of size



Definition of
Regional Lymph
Node (N)
N1 is defined as one
to three positive
regional lymph
nodes

AJCC 7 TH EDITION	
NO	No regional lymph node metastasis
N1	Regional lymph node metastasis

AJCC 8 TH EDITION	
NO	No regional lymph node metastasis
N1	Metastasis to one to three regional lymph nodes



Definition of
Regional Lymph
Node (N)
N2 is defined as
metastasis to four or
more regional lymph
nodes

AJCC 7 TH EDITION	
NO NO	No regional lymph node metastasis
N1	Regional lymph node metastasis

AJCC 8 TH EDITION	
NO	No regional lymph node metastasis
N1	Metastasis to one to three regional lymph nodes
N2	Metastasis to four or more regional lymph nodes



Exocrine Pancreas

Definition of Primary Tumor (T)

T1 are subcategorized into T1a, T1b, and T1c based on size.

Rationale: Size-based categorization of small invasive tumors that have been characterized as "minimally invasive" and have better outcome.

S. S	anta anta	विश्वि भागा,	A STATE OF THE STA
- GER	ASSESSOR - 15		4

AJCC 7 TH EDITION	
T1	Tumor limited to the pancreas, 2 cm or less in greatest dimension

AJCC 8 TH EDITION	
T1	Tumor ≤2 cm in greatest dimension
T1a	Tumor ≤0.5 cm in greatest dimension
T1b	Tumor >0.5 cm and <1 cm in greatest dimension
T1c	Tumor 1–2 cm in greatest dimension

Exocrine Pancreas Pefinition of Prim

Definition of Primary Tumor (T)

T2 and T3 categories are now based on size of invasive tumor; extrapancreatic extension is no longer part of the definition.

Rationale: Size-based definitions are more objective as it is difficult to determine extrapancreatic extension.
These definitions show better correlation with survival

AJCC 7 TH EDITION	
T2	Tumor limited to the pancreas, more than 2 cm in greatest dimension
ТЗ	Tumor extends beyond the pancreas but without involvement of the celiac axis or the superior mesenteric artery

AJCC 8 TH EDITION	
T2	Tumor >2 cm and ≤4 cm in greatest dimension
ТЗ	Tumor >4 cm in greatest dimension



Exocrine Pancreas

Definition of Primary Tumor (T)

T4 categorization is now based on involvement of arteries; resectability has been removed from the definition.

Rationale: Resectability is subjective, and the T category is better defined by extent of invasion

AJCC 7 TH EDITION	
------------------------------	--

T4

Tumor involves the celiac axis or the superior mesenteric artery (unresectable primary tumor)

AJCC 8TH EDITION

T4

Tumor involves celiac axis, superior mesenteric artery, and/or common hepatic artery, regardless of size



Exocrine Pancreas

Definition of Regional Lymph Node (N)

Node-positive disease N1 has been subdivided into N1 and N2, based on number of positive lymph nodes.

Rationale: Better prognostic stratification is provided based on number of positive lymph nodes.

AJCC 7 TH EDITION	
NO NO	No regional lymph node metastasis
N1	Regional lymph node metastasis

AJCC 8 TH EDITION	
NO	No regional lymph node metastasis
N1	Metastasis in one to three regional lymph nodes
N2	Metastasis in four or more regional lymph nodes



THANK YOU

