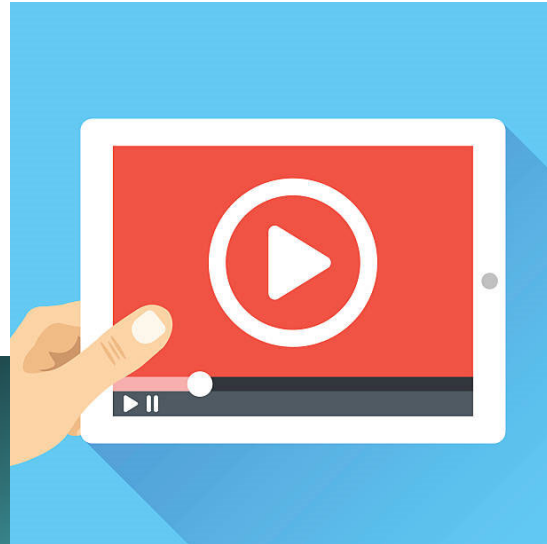


KIDNEY C649**EOD STAGE
SSDI
TREATMENT**

Presented by Lori Somers, RN
 SHRI VIDEO TRAINING SERIES | Iowa Cancer Registry
 Recorded 3/2023

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EOD Data v2.1 NAACCR 2022
 SEER*RSA

[EOD Home](#) > [Schema List](#) > [Kidney Parenchyma](#)

Kidney Parenchyma

Primary Site	Histology
C649	8000-8700, 8720-8790

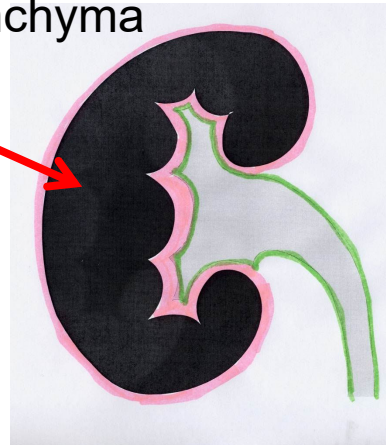
**EOD PRIMARY TUMOR
 EOD REGIONAL LYMPH NODES
 EOD METASTASIS**

2

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KIDNEY (Renal Cell CA)

Kidney Parenchyma
(Body)



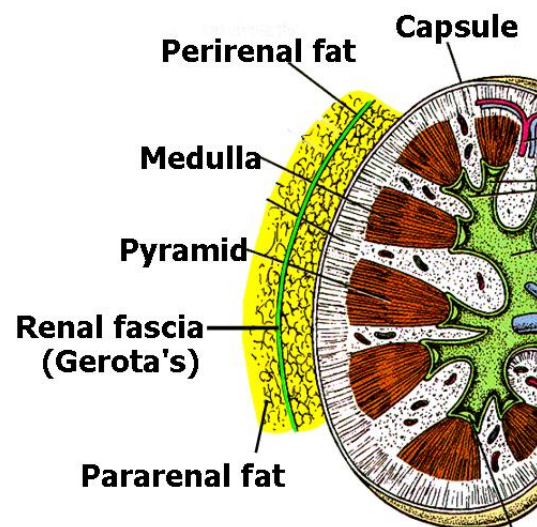
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Kidney EOD Primary Tumor

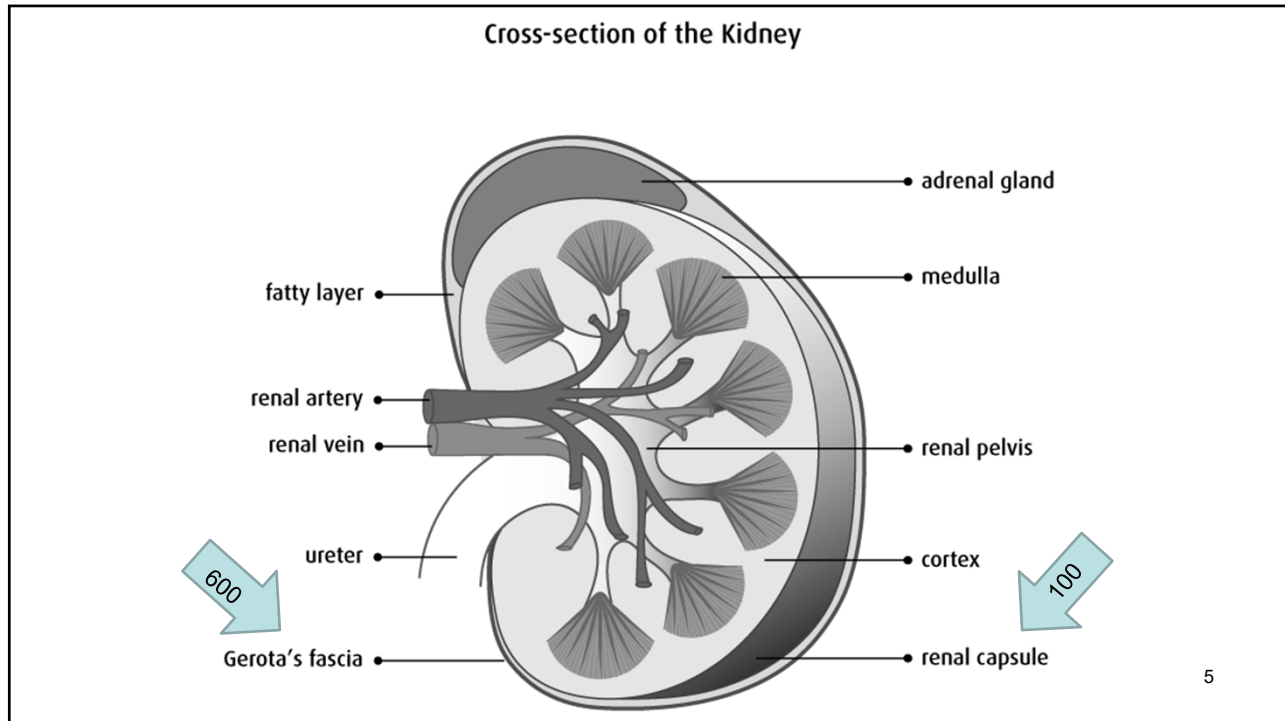
4

Note 1: Gerota's fascia is a fibrous tissue sheath surrounding the kidney and suprarenal or adrenal gland. The perirenal fat, renal capsule and renal parenchyma lie below the fascia.

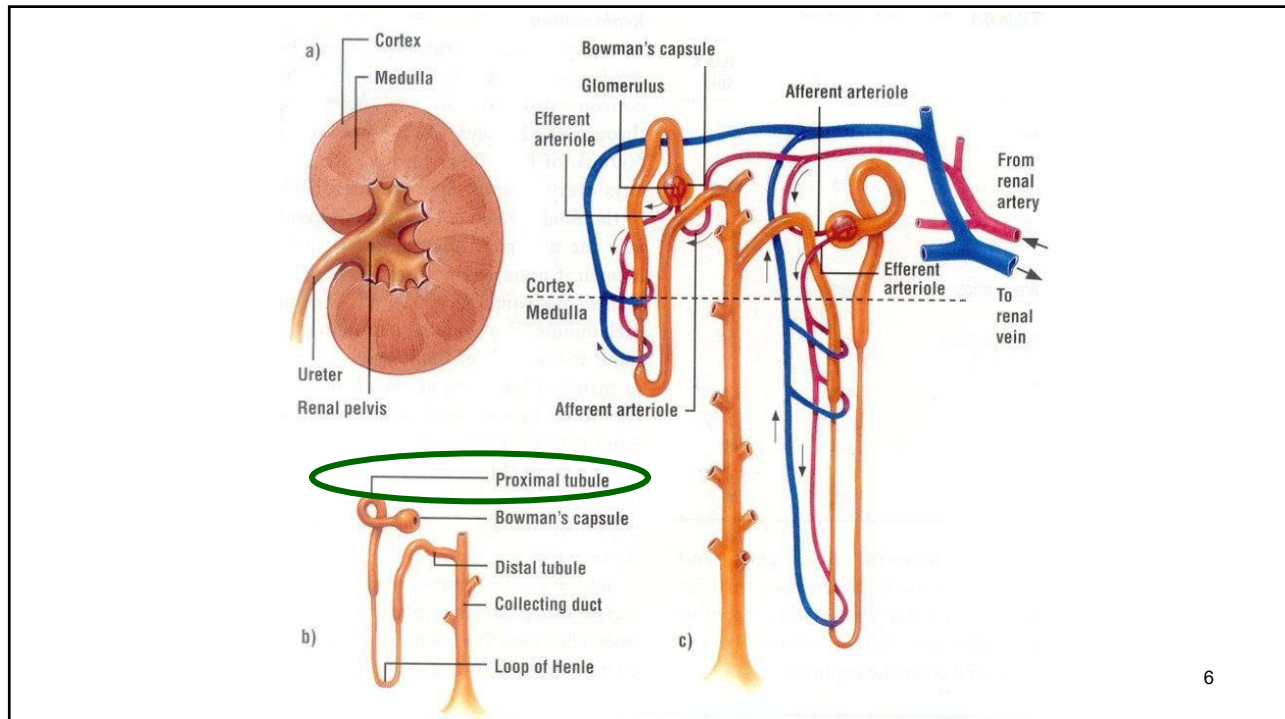


Source: Snell, Clinical Anatomy for Medical Students

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Kidney EOD Pri Tumor

Code	Description
000	In situ, intraepithelial, noninvasive
100	Any size tumor, invasion of RENAL Capsule, confined to kidney NOS
200	Blood vessel(s) major
300	Inferior vena cava below diaphragm
400	IVC above diaphragm or invades wall of diaphragm
500	Tumor extends into major veins (excluding ipsilateral adrenal gland)
600	Extension beyond Gerota's fascia to... [T4]
700	Aorta Liver Ribs Spleen...
800	No evid pri tumor
999	Unknown

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Kidney EOD Reg Nodes

Note 1: Only regional nodes in this field

Note 2: Regional nodes include bilateral and contralateral involvement of named nodes

Note 3: Code 800 if regional nodes involved, no indication which ones

Code	Description
000	No regional LN involvement
300	Aortic, NOS [see list] Caval, NOS [see list] Renal Hilar Retroperitoneal, NOS
800	Regional lymph node(s), NOS Lymph Nodes, NOS
999	Unknown

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Regional Lymph Nodes

Code	Description
000	No regional lymph node involvement
300	Aortic, NOS <ul style="list-style-type: none"> > Lateral (lumbar) > Para-aortic > Periaortic > Preaortic > Retroaortic Caval, NOS <ul style="list-style-type: none"> > Interaortocaval > Paracaval > Pericaval > Precaval > Retrocaval Renal hilar Retroperitoneal, NOS

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Kidney EOD Mets

Code	Description
00	No distant mets, **unknown if distant mets
10	Distant lymph nodes, NOS
70	Extension to: Adrenal gland Contralat kidney Contralat ureter Liver Spleen Carcinomatosis Distant mets with our without distant nodes Distant mets NOS
99	DC Only

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Kidney Grade

- Grade Clinical
- Grade Pathological
- Grade Post Therapy Clin (yc)
- Grade Post Therapy Path (yp)

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Kidney Grade Table 18

Code	Grade Description
1	G1: Nucleoli absent or inconspicuous and basophilic at 400x magnification Stated as WHO/ISUP Grade 1
2	G2: Nucleoli conspicuous and eosinophilic at 400x magnification, visible but not prominent at 100x magnification Stated as WHO/ISUP Grade 2
3	G3: Nucleoli conspicuous and eosinophilic at 100x magnification Stated as WHO/ISUP Grade 3
4	G4: Marked nuclear pleomorphism and/or multinucleate giant cells and/or rhabdoid and/or sarcomatoid differentiation Stated as WHO/ISUP Grade 4
A	Well differentiated
B	Moderately differentiated
C	Poorly differentiated
D	Undifferentiated, anaplastic
Code	Grade Description
9	Grade cannot be assessed (GX); Unknown Only Fuhrman grade documented

ABCD options allow use of generic grade table, pg 32 in Grade manual.

https://www.naaccr.org/wp-content/uploads/2021/08/Grade-Manual_v-2.1-2022.pdf?v=1656366571

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Kidney SSDI

- #3864 Invasion Beyond capsule
- #3861 Ipsilateral Adrenal Gland Involvement
- #3886 Major Vein Involvement
- #3925 Sarcomatoid Features

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#3864 Invasion Beyond capsule

- **Note 1:** Physician statement (path confirms invasion beyond capsule) can be used to code this data item.
- **Note 2:** Information about invasion beyond the capsule is collected in primary tumor as an element in anatomic staging. **It is also collected** in this field as it may have an independent effect on prognosis.
 - *If surgical resection done, tumor is "confined to kidney" and staging is based on size, then there has been no invasion through the capsule (no invasion into perinephric fat) Code 0.*
- **Note 3:** Perinephric/sinus fat invasion should be **confirmed microscopically** and is invasion into fat by tumor cells, with or without desmoplastic reaction, and vascular invasion into perinephric/sinus soft tissue.
 - *Synonyms include renal hilum, renal sinus fat, medial invasion*
- **Note 4:** Record invasion beyond capsule from path report.
- **Note 5:** Do not use imaging findings to code this data item.
- **Note 6:** Code 9 if surgical resection of the primary site is performed and there is **no mention** of invasion beyond capsule.

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#3864 Invasion Beyond Capsule

Code	Description
0	Invasion beyond capsule not identified "Confined to Kidney" nos = no invasion into perinephric fat
1	Perinephric (beyond renal capsule) fat or tissue
2	Renal Sinus Incl renal hilum; renal sinus fat, medial invas
3	Gerota's fascia
4	Any combo of codes 1-3
5	Invasion beyond capsule, NOS Default code
9	Not documented in record, invasion beyond capsule not assessed, no mention, or unknown. No surgical resection of pri site performed.

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#3861 Ipsilateral Adrenal Gland Involvement

- **Note 1:** Physician statement of involvement can be used to code this data item.
- **Note 2:** Information about contiguous ipsilateral adrenal gland involvement is collected in primary tumor, and noncontiguous ipsilateral adrenal gland involvement is collected in distant mets, as elements in anatomic staging.
 - *If surgical resection done, and tumor is "confined to kidney" and staging is based on size, then there is no involvement of the adrenal gland.*
- **Note 3:** Record ipsilateral adrenal gland involvement from pathology report.
- **Note 4:** Do not use imaging findings to code this data item.
- **Note 5:** Code 9 if surgical resection of the primary site is performed and there is **no mention** of ipsilateral adrenal gland involvement.

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#3861 Ipsilateral Adrenal Gland Involvement

Code	Description
0	Ipsilateral adrenal gland involvement not present/not identified "confined to kidney" = no involv adrenal gland
1	Adrenal gland involvement by direct involvement (contiguous involvement)
2	Adrenal gland involvement by separate nodule (noncontiguous involvement)
3	Combo of code 1-2
4	Ipsilateral adrenal gland involvement, unkn if direct or separate nodule
9	Not documented in record. Ipsilateral adrenal gland not resected, not assessed or unknown if assessed. No surgical resection of pri site performed.

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#3886 Major Vein Involvement

- **Note 1:** Physician statement of involvement can be used to code this data item. The major veins include the renal vein or its segmental branches, and the inferior vena cava.
- **Note 2:** Information about major vein involvement beyond the kidney is collected in primary tumor as an element in anatomic staging. **It is also collected in this field** as it may have an independent effect on prognosis.
 - If resection done and tumor 'confined to kidney' and staging based on size, then there is no involvement of major veins
- **Note 3:** Record the involvement of **specific named veins as documented in the pathology report**. Do not code invasion of small unnamed vein(s) of the type collected as lymph-vascular invasion. Lymph-vascular invasion is usually only seen microscopically.
- **Note 4:** Do not use imaging findings to code this data item.
- **Note 5:** Code 9 if surgical resection of the primary site is performed and there is **no mention** of major vein involvement.

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#3886 Major Vein Involvement

Code	Description
0	Major vein involvement not present/not identified "confined to kidney" = no involv major veins
1	Renal vein or its segmental branches
2	Inferior vena cava (IVC)
3	Major vein invasion, NOS
4	Any combo of codes 1-3
9	Not documented in record. Vein involvement not assessed or unknown if assessed. No surgical resection of pri site performed.

Key words: thrombus in renal vein, thrombus in vena cava in gross description

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#3925 Sarcomatoid Features

- **Note 1:** Physician statement of Sarcomatoid Features can be used to code this data item.
- **Note 2:** Sarcomatoid morphology may be manifested by any renal cell carcinoma. The presence of **sarcomatoid component** in a renal cell carcinoma may be prognostically important.
- **Note 3:** Sarcomatoid features mostly seen with RCC (all variants); however if seen in other histologies, code it.
- **Note 4:** Record **presence or absence** of sarcomatoid features documented anywhere in **path report**.
- **Note 5:** Do not using imaging findings
- **Note 6:** Code XX9 if surgical resection of the primary site is performed and there is no mention of sarcomatoid features.

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#3925 Sarcomatoid Features

Or 'differentiation'

Code	Description
000	Sarcomatoid features not present/not identified Must have statement: absence of sarcomatoid features to code 000.
001-100	Sarcomatoid features 1-100%
R01	Sarcomatoid features stated as <10%
R02	Sarcomatoid features stated as range 10-30% present
R03	Sarcomatoid features stated as a range 31-50% present
R04	Sarcomatoid features stated as > 80%
XX6	Sarcomatoid features present, % unkn
XX7	Not applicable, not a renal cell carcinoma morphology
XX9	Not documented in record. Sarcomatoid features not assessed, unknown if assessed. No surgical resection of pri site performed.

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RCC Sarcomatoid features

NOS/Specific Histo Term	Synonym	Subtypes/Variants
<p>Renal cell carcinoma NOS 8312</p> <p><i>Note 1:</i> WHO, IARC, and CAP agree that sarcomatoid carcinoma is a pattern of differentiation, not a specific subtype, of renal cell carcinoma.</p> <p><i>Note 2:</i> Sarcomatoid is listed in the CAP Kidney protocol under the header "features."</p> <p><i>Note 3:</i> Continue coding sarcomatoid renal cell carcinoma as 8312 until otherwise indicated.</p>	<p>RCC</p> <p>Sarcomatoid carcinoma</p> <p>Sarcomatoid renal cell carcinoma</p> <p>Succinate dehydrogenase-deficient renal cell carcinoma (SDHD)</p> <p>Unclassified renal cell carcinoma</p>	<p>Acquired cystic disease-associated renal cell carcinoma/tubulocystic renal cell carcinoma 8316*</p> <p>Chromophobe renal cell carcinoma (ChRCC) 8317</p> <p>Clear cell papillary renal cell carcinoma 8323/3</p> <p><i>Note:</i> The 2016 WHO 4th Edition Classification of Tumors of the Urinary System and Male Genital Organs has reclassified this histology as a /1 because it is low nuclear grade and is now thought to be a neoplasia. This change has NOT yet been implemented and it remains reportable.</p> <p>Clear cell renal cell carcinoma (ccRCC) 8310</p> <p>Collecting duct carcinoma 8319</p> <p>Hereditary leiomyomatosis and renal cell carcinoma-associated renal cell carcinoma 8311*</p> <p>MiT family translocation renal cell carcinomas 8311*</p> <p>Succinate dehydrogenase-deficient renal cell carcinoma (SDHS) 8311* (reportable beginning 1/1/2022)</p> <p><i>Note:</i> Hereditary leiomyomatosis and renal cell carcinoma-associated renal cell carcinoma, MiT family translocation renal cell carcinomas, and succinate dehydrogenase-deficient renal cell carcinomas have the same ICD-O code but are distinctly different histologies. Because they are different, they are on different lines in column 3 (see M rules).</p> <p>Mucinous tubular and spindle cell carcinoma 8480*</p> <p>Papillary renal cell carcinoma (PRCC) 8260</p>

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Forum

SSDI Kidney Sarcomatoid features vs Sarcomatoid differentiation

Question: For coding the Sarcomatoid features SSDI, is a description of sarcomatoid differentiation usable?

Pathology from radical nephrectomy reads: Final Diagnosis: Renal cell carcinoma, clear cell type with sarcomatoid and rhabdoid differentiation. Note: Approximately 40% of the submitted tumor shows sarcomatoid and rhabdoid differentiation. Synoptic report lists sarcomatoid features as present.

A: Yes, the differentiation description can be used. Code 40.

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Forum

Kidney SSDI Sarcomatoid features

Question: I have a path report which states sarcomatoid features 50-60%. This does not fit the ranges available to choose from in the SSDI. Which code should be used in this situation?

Should this circumstance/situation be added as a coding guideline or instruction?

A: Code R04, which is 51%-80%. Since the percentage is probably greater than 50%, this would be the better range to choose from than R03, which is 31%-50%. The ranges set up in this data item were recommended by AJCC.

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TREATMENT

Kidney Schema C649

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Kidney Treatment

- **Surgery** is the treatment of choice for most stages of renal cancer; open or robotic
- **Nephrectomy** could be either partial, simple or radical, with or without lymph node dissection.
- **Radical resection** of the kidney includes kidney, adrenal gland, perirenal fat, gerota's fascia, with or without regional lymph node dissection.

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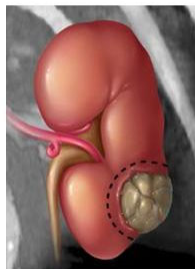
Kidney Surgery Codes

- Code 30: Partial or subtotal nephrectomy (kidney or renal pelvis)
- Code 40: Complete/total/simple nephrectomy – for kidney parenchyma
- Code 50: Radical nephrectomy
 - May include removal of portion of vena cava, adrenal, Gerota’s fascia, perinephric fat and/or ureter
- Code 70: Any nephrectomy in continuity (en bloc) with the resection of other organs (such as colon, bladder)

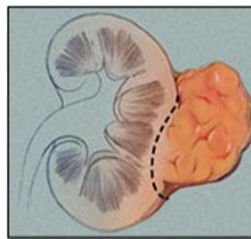
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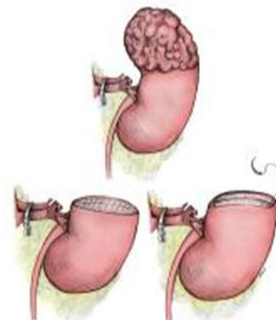
Partial Nephrectomy (“Nephron-sparing”)



http://www.ctisus.org/gallery/renal_partial_nephrectomy.html



712designs.com



<http://www.emedicine.com/MED/topic3044.htm>

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Kidney tumor ablation

- Ablated with intense heat or cold “thermal ablation”
 - Percutaneous radiofrequency ablation
 - Electrodes deliver energy to tumor (heat)
 - Percutaneous cryoablation
 - Cryoprobes freeze the tumor

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Kidney Surgery Codes

No specimen sent to pathology from this surgical event 10–15.

10 Local tumor destruction, NOS

- 11 Photodynamic therapy (PDT)
- 12 Electrocautery; fulguration (includes use of hot forceps for tumor destruction)
- 13 Cryosurgery
- 14 Laser
- 15 Thermal ablation

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Targeted Therapy

- Form of systemic therapy
- Blocks signals
 - 3 main types of targeted therapy
 - VEGF [Inlyta, Avastin, Sutent, Nexavar]
 - mTOR [Afinitor, Torisel]
 - EGFR [Tarceva]
 - Monoclonal Ab, Kinase inhibitors, Tyrosine kinase inhib
- <https://www.nccn.org/patients/guidelines/content/PDF/kidney-patient.pdf>

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Radiation Therapy

- Kidney tumors are largely radio-resistant
- SBRT not used to treat primary kidney cancer
- Radiation therapy is sometimes used palliatively to control bleeding or pain from the primary
- Radiotherapy is also very useful in palliating bone and central nervous system metastases.

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Chemotherapy:

- Not standard treatment for kidney cancer

Immunotherapy:

- Interleukin-2
- Monoclonal Antibody like Avelumab, Pembrolizumab

TIP:

- If it ends in - mab it is a monoclonal Ab
- If it ends in – tinib, it is a TKI
- If it ends in – limus, it is an mTOR

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TUMOR Embolization: usually palliative therapy

- **Arterial Embolization for Kidney Cancer:**
Code 1 under “other therapy” when tumor embolization is performed using alcohol as the embolizing agent.

When surgery to remove the cancer is not possible, a treatment called arterial embolization may be used to shrink the tumor and help relieve kidney cancer symptoms.

In arterial embolization, the doctor will insert a narrow tube (catheter) into a blood vessel in the leg. The tube is passed up to the main blood vessel (renal artery) that supplies blood to the kidney. The doctor will then inject a substance into the blood vessel to block the flow of blood into the kidney. The blockage will prevent the tumor from getting oxygen and other substances that it needs to grow.

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Chemo-embolization

- Chemo drugs are delivered through a catheter along with a blood vessel occluding agent right at the site of the tumor.
- High dose of chemo can be delivered this way
- Code this under CHEMO Treatment

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Radio-embolization

- Probably not used for Kidney CA
- Embolization combined with injecting small radioactive beads or coils into an organ or tumor.
- Code under radiation therapy treatment

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Treatment by stage

Stage T1a

- Partial nephrectomy, thermal ablation, active surveillance or radical nephrectomy

Stage T1b

- Partial nephrectomy, radical nephrectomy or active surveillance

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Treatment by stage

Stage T2a or T2b

- Radical or partial nephrectomy

Stage T3a, T3b, T3c

- Radical nephrectomy or partial nephrectomy in some cases

Stage IV


- Cytoreductive nephrectomy in some cases, systemic therapy

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SEER*Educate

Training | Coding CEs
-Dx 2021-2023 EOD, SS, Grade, SSDI
Kidney Parenchyma Case 1-5



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Questions?
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