



SHRI VIDEO TRAINING SERIES
2018 DX
Recorded 2/2020

KIDNEY STAGE, SSDI & TREATMENT

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IOWA CANCER REGISTRY

EOD Data v1.7

SEER*RSA

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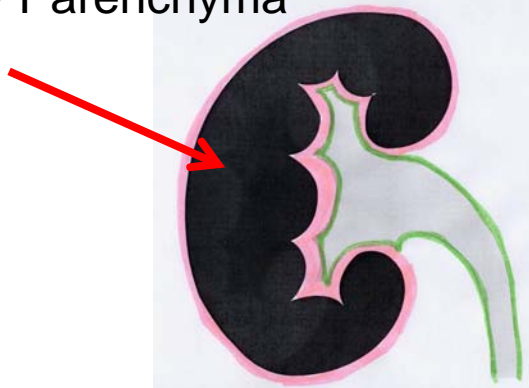
Kidney Parenchyma

Primary Site	Histology
C649	8000-8700, 8720-8790, 9700-9701

EOD PRIMARY TUMOR
EOD REGIONAL LYMPH NODES
EOD METASTASIS

KIDNEY (Renal Cell CA)

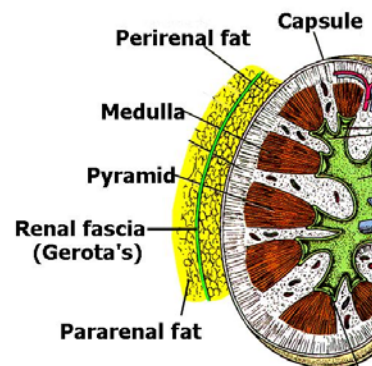
Kidney Parenchyma
(Body)



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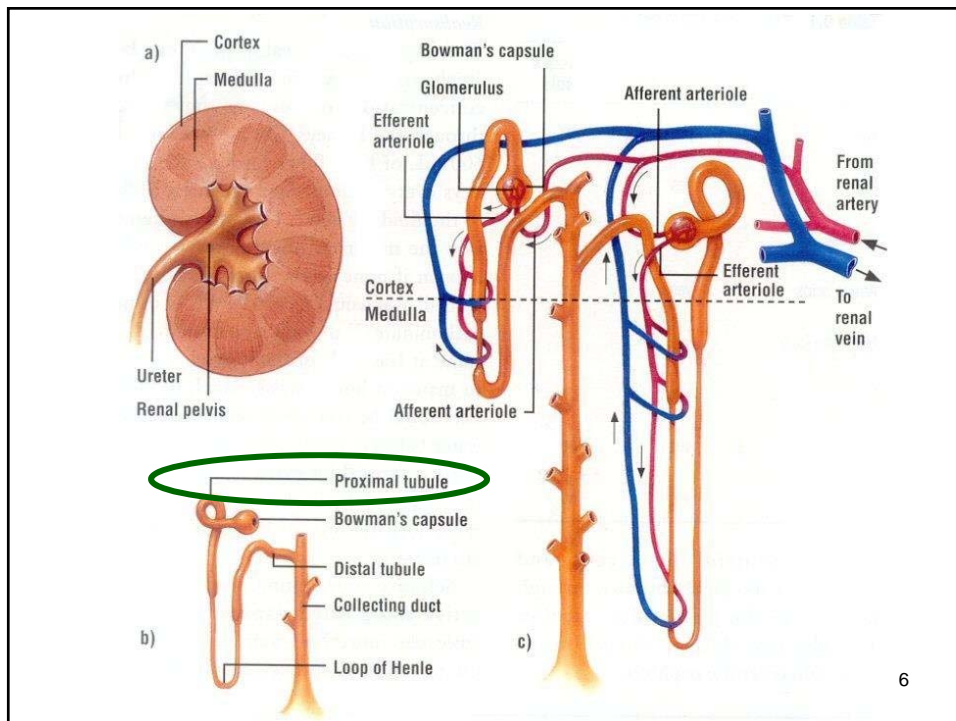
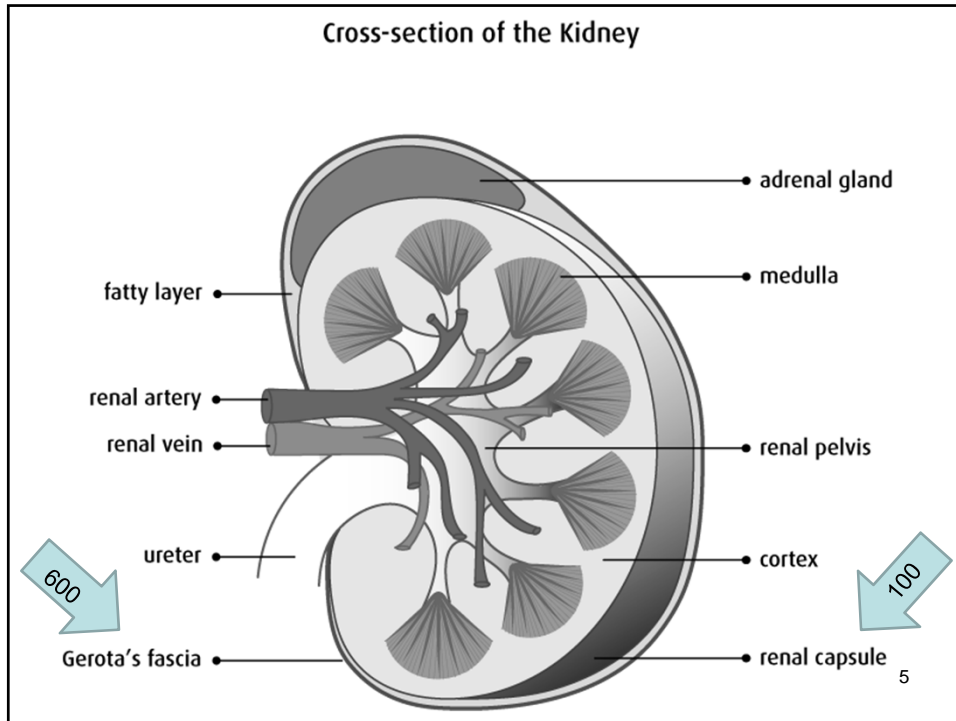
Kidney EOD Pri Tumor

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
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

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
99	DC Only

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Kidney Grade

- Grade Clinical
- Grade Pathological
- Grade Post Therapy
- Fuhrman grade is no longer used for coding Kidney cancers. Code to 9.
- Use the WHO/ISUP grade.

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Grade Table 18

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

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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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Forum

Jennifer RUHL: The 3 Kidney SSDIs: Invasion Beyond Capsule, Major Vein Involvement and Ipsilateral Adrenal Gland Involvement. The question I received was: " For the SSDI for Kidney-Invasion beyond capsule-If there is no surgery and you code 0-confined to kidney, there is a software edit that won't allow you to code 0. It's listed in the NAACCR edit detail report."

These three data items are based on surgical resection only. Per Note 5: Do not use imaging findings to code this data item.

So, if there is no surgery, then these data items must be coded to 9 for unknown, even if based on imaging the tumor is confined to the kidney.

For the next update of the SSDI manual (September 2020), we will update the notes to read:

If surgical resection is done and the tumor is "confined to kidney" and staging is based on size, then there has been no invasion through capsule, major vein involvement, ipsilateral adrenal gland involvement.

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#3864 Invasion Beyond capsule

- **Note 1:** Physician statement (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.
 - ****Update:** If 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.
 - ****Update:** 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 or unknown. No surgical resection of pri site performed.

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#3861 Ipsilateral Adrenal Gland Involvement

- **Note 1:** Physician statement 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 metastasis, as elements in anatomic staging.
 - ***Update: If 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 _{r8} No surgical resection of pri site performed.

#3886 Major Vein Involvement

- **Note 1:** Physician statement 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.
***Update: tumor "confined to kidney"=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.¹⁹

#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
Renal cell carcinoma NOS 8312 <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. <i>Note 2:</i> Sarcomatoid is listed in the CAP Kidney protocol under the header "features."	RCC Sarcomatoid carcinoma Sarcomatoid renal cell carcinoma Succinate dehydrogenase-deficient renal cell carcinoma (SDHD) Unclassified renal cell carcinoma	Acquired cystic disease-associated renal cell carcinoma/tubulocystic renal cell carcinoma 8316* Chromophobe renal cell carcinoma (ChRCC) 8317 Clear cell papillary renal cell carcinoma 8323/3 <i>Note:</i> The 2016 WHO 4 th 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 was not implemented in the 2018 ICD-O update. Clear cell renal cell carcinoma (ccRCC) 8310 Collecting duct carcinoma 8319 Hereditary leiomyomatosis and renal cell carcinoma-associated renal cell carcinoma 8311* MiT family translocation renal cell carcinomas 8311* <i>Note:</i> Hereditary leiomyomatosis and renal cell carcinoma-associated renal cell carcinoma and MiT family translocation 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. Mucinous tubular and spindle cell carcinoma 8480* Papillary renal cell carcinoma (PRCC) 8260 Renal medullary carcinoma 8510* <i>Note:</i> This is a new term (previously called renal spindle cell carcinoma).

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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 chose 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

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Signs and Symptoms

- **Hematuria, pain, flank mass**
- **40% present with systemic symptoms**
 - weight loss, abdominal pain, anorexia, fever
 - unusual sites of metastases
- **Paraneoplastic syndromes**
 - abnormal hormone production causing hypercalcemia, pseudohyperparathyroidism, hypertension, gynecomastia

Small Kidney tumors can be incidentally found on Scans

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.

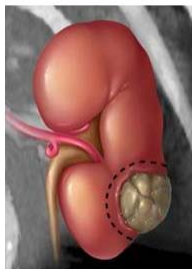
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Kidney Surgery Codes

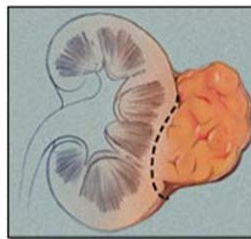
- Code 30: Partial or subtotal nephrectomy
- Code 40: Complete/total/simple nephrectomy
- Code 50: Radical nephrectomy
- Code 70: Any nephrectomy in continuity (en bloc) with the resection of other organs (such as colon, bladder)

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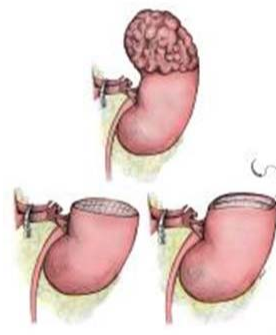
Partial Nephrectomy ("Nephron-sparing")



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 01 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

- **Dx 2018 EOD & SS**
 - Kidney 1-5
- **Dx 2018 Grade**
 - Kidney 1-5
- **Dx 2018 Solid Tumor Rules**
 - Kidney 1-5
- **DX 2018 SSDI**
 - Kidney 1-5

homework

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Questions?
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