Q&A
- Please submit all questions concerning webinar content through the Q&A panel.

Reminder:
- If you have participants watching this webinar at your site, please collect their names and emails.
- We will be distributing a Q&A document in about one week. This document will fully answer questions asked during the webinar and will contain any corrections that we may discover after the webinar.

FABULOUS PRIZES
OVERVIEW
Testis

COUNTS
- Estimated new cases and deaths from testicular cancer in the United States in 2014:
  - New cases: 8,820
  - Deaths: 380
- Most common solid tumor malignancy among men between 15 and 34 years of age.
- World wide incidence has doubled in last 40 years.

FIVE-YEAR RELATIVE* SURVIVAL RATES (%)
BY STAGE AT DIAGNOSIS, 2003-2009

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th>Regional</th>
<th>Distant</th>
<th>All Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testis</td>
<td>99</td>
<td>96</td>
<td>74</td>
<td>95</td>
</tr>
</tbody>
</table>

*Rates are adjusted for normal life expectancy and are based on cases diagnosed in the SEER 18 areas from 2003-2009, all followed through 2010.

ANATOMY

Tunica Albuginea
Tunica Vaginalis
Rete Testis
Head of epididymis
Vas
Ductus deferens
Mediastinum
Testis (cross section)
Tunica Vaginalis
Tunica Albuginea

REGIONAL LYMPH NODES
- Interaortocaval
- Paraaortic
- Para caval
- Para aortic
- Precaval
- Retroaortic
- Retro caval

Retroperitoneal lymph Nodes
REGIONAL LYMPH NODES

- Left testicle drains primarily to the paraaortic lymph nodes
- Right testicle drains primarily to the inter aortocaval lymph nodes

ICD-O 3 SITES

<table>
<thead>
<tr>
<th>ICD-O 3</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>C62.0</td>
<td>Undescended tests</td>
</tr>
<tr>
<td>C62.1</td>
<td>Descended tests</td>
</tr>
<tr>
<td>C62.9</td>
<td>Testis, NOS</td>
</tr>
</tbody>
</table>
PATHOLOGY
• Over 95% of testicular cancers are germ-cell tumors
  • Seminomas 40%
  • Non-Seminoma 60%

GERM CELL TUMORS (GCT)
• Seminoma, NOS (9061)
  • Classic (9061)
  • Anaplastic (9062)
  • Spermatocytic (9063)
• Non-seminoma
  • Embryonal carcinoma (9070/3)
  • Malignant teratoma (9080/3)
    • Teratocarcinoma (9081/3)
    • Mixed embryonal carcinoma and teratoma
    • Malignant teratoma, undifferentiated (9082/3)
    • Malignant teratoma, intermediate (9083/3)
  • Extra-embryonic elements
    • Choriocarcinoma
    • Yolk sac tumor
• Non-seminoma is the more clinically aggressive tumor
MATURE TERATOMA

- ICD-O 3 histology for Mature Teratoma is 9080/0
- A mature teratoma occurring in adults (post puberty) is reportable.
  - Code to 9080/3
- A mature teratoma (nos) occurring in child is not reportable.
  - Code to 9080/0
- If physician indicates the mature teratoma is malignant the case is reportable and should be coded to 9080/3

MIXED CELL

- Seminoma mixed with non-seminoma should be considered non-seminoma for treatment decisions

NON-GERM CELL TUMORS

- Leydig cell tumor (8650/3)
- Sertoli cell tumor (8640/3)
- Lymphoma
- Rhabdomyosarcoma
- Melanoma
SERUM TUMOR MARKERS
- Used to help diagnose disease
- Stage disease
- Determine prognosis
- Monitor for relapse
- Levels should be determined
  - Before orchiectomy
  - After orchiectomy
  - Throughout follow-up

ALPHA-FETOPROTEIN (AFP)
- Elevated AFP values are found in non-seminomatous malignancies and mixed tumors of the tests.
- Rarely occur in pure seminomas
- Can be used to help identify specific cell types and to monitor response to treatment.
- Half life is 5-7 days

BETA-HUMAN CHORIONIC GONADOTROPIN (BETA-HCG)
- Increased levels of Beta-HCG are typically present in both seminomas and non-seminomas.
- Elevated levels after remission indicates a potential relapse.
- Half life is 1-3 days
**LACTATE DEHYDROGENASE (LDH)**

- An elevated LDH has a prognostic value in men with advanced testicular cancer.
- The LDH may reflect the growth rate and tumor burden in men with advanced disease.
- Increased LDH has been reported in approximately 80% of advanced seminomas and 60% of non-seminomas.
- Half life of LDH is 1-3 days.

Prognostic features and markers for testicular cancer management
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878444/

**LYMPH VASCULAR INVASION (LVI)**

- Indicates the presence or absence of tumor cells in lymphatic channels (not lymph nodes) or blood vessels within the primary tumor as noted microscopically by the pathologist.
- Used to determine the T value.
  - May be the difference between a T1 and T2.
  - Lymphvascular invasion is a strong risk factor for recurrence.

**MULTIPLE PRIMARY AND HISTOLOGY RULES**

Other Rules
HISTOLOGY RULES

• Rule H11
  • Code the histology when only one histologic type is identified

• Rule H13
  • Code the most specific histologic term

HISTOLOGY RULES

• Rule H16
  • Code the appropriate combination/mixed code (Table 2) when there are multiple specific histologies or when there is a non-specific histology with multiple specific histologies

• Rule H17
  • Code the histology with the numerically higher ICD-O-3 code.

MULTIPLE PRIMARY AND HISTOLOGY RULES

<table>
<thead>
<tr>
<th>Required Histology</th>
<th>Combined With</th>
<th>Combined Term</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teratoma</td>
<td>Embryonal Carcinoma</td>
<td>Teratocarcinoma</td>
<td>9081</td>
</tr>
<tr>
<td>Teratoma and one or more histologies in column 2</td>
<td>Seminoma Yolk sac tumor</td>
<td>Mixed germ cell tumor</td>
<td>9085</td>
</tr>
<tr>
<td>Choriocarcinoma</td>
<td>Teratoma Seminoma Embryonal</td>
<td>Choriocarcinoma with other germ cell elements</td>
<td>9101</td>
</tr>
</tbody>
</table>
POP QUIZ

• What histology would be assigned to a single tumor consisting of...
  • Seminoma and embryonal carcinoma
  • Malignant teratoma and embryonal carcinoma
  • Seminoma, yolk sac tumor, and teratoma

QUESTIONS?

STAGING: TESTIS
AJCC CANCER STAGE: TESTIS

- ICD-O-3 Topography Codes
  - C62.0, C62.1, C62.9

- ICD-O-3 Histology Code Ranges
  - 8000-8576
  - 8590-8970
  - 8940-8950
  - 8980-8981
  - 9060-9090
  - 9100-9105

AJCC CANCER STAGE: TESTIS CLASSIFICATION

- Clinical staging
  - Clinical exam and histologic assessment
  - Radiographic assessment of chest, abdomen, & pelvis to determine N & M status
AJCC CANCER STAGE: TESTIS

Classification

- Pathologic staging
  - Histologic evaluation of orchiectomy specimen to determine pT
  - Assessment of presence or absence of lymph-vascular invasion (LVI)
  - Specimen from a defined node-bearing area to classify pN
  - Record diameter of largest involved node, number of nodes involved, & extranodal extension if present
  - Post-orchiectomy serum tumor markers

T Category

- TX: Primary tumor cannot be assessed
- T0: No evidence of primary tumor
- Tis: Intratubular germ cell neoplasia (carcinoma in situ)
- T1: Tumor limited to the testis & epididymis without vascular/lymphatic invasion; tumor may invade into the tunica albuginea but not the tunica vaginalis
AJCC CANCER STAGE: TESTIS

**T Category**
- T2: Tumor limited to the testis & epididymis with vascular/lymphatic invasion, or tumor extending through the tunica albuginea with involvement of the tunica vaginalis
- T3: Tumor invades the spermatic cord with or without vascular/lymphatic invasion
- T4: Tumor invades the scrotum with or without vascular/lymphatic invasion

**N Category: Clinical**
- NX: Regional lymph nodes cannot be assessed
- N0: No regional lymph node metastasis
- N1: Metastasis with a lymph node mass 2 cm or less in greatest dimension; or multiple lymph nodes, none more than 2 cm in greatest dimension
- N2: Metastasis with a lymph node mass more than 2 cm but not more than 5 cm in greatest dimension; or multiple lymph nodes, any one mass greater than 2 cm but not more than 5 cm in greatest dimension
- N3: Metastasis with a lymph node mass more than 5 cm in greatest dimension

**N Category: Pathologic (pN)**
- NX: Regional lymph nodes cannot be assessed
- N0: No regional lymph node metastasis
- N1: Metastasis with a lymph node mass 2 cm or less in greatest dimension and less than or equal to 5 nodes positive, none more than 2 cm in greatest dimension
- N2: Metastasis with a lymph node mass more than 2 cm but not more than 5 cm in greatest dimension; or more than 5 nodes positive, none more than 5 cm; or evidence of extranodal extension of tumor
- N3: Metastasis with a lymph node mass more than 5 cm in greatest dimension
AJCC CANCER STAGE: TESTIS

- **M Category**
  - M0: No distant metastasis
  - M1: Distant metastasis
    - M1a: Non-regional nodal or pulmonary metastasis
    - M1b: Distant metastasis other than to non-regional lymph nodes and lung

AJCC CANCER STAGE: TESTIS

- **Serum tumor markers**
  - SX: Marker studies not available or not performed
  - S0: Marker study levels within normal limits
  - S1: LDH < 1.5 X N* and hCG (mlu/ml) < 5,000 and AFP (ng/ml) < 1,000
  - S2: LDH 1.5-10 X N or hCG (mlu/ml) 5,000-50,000 or AFP (ng/ml) 1,000-10,000
  - S3: LDH > 10 X N or hCG (mlu/ml) > 50,000 or AFP (ng/ml) > 10,000

* N = upper limit of normal

AJCC CANCER STAGE: TESTIS

<table>
<thead>
<tr>
<th>Group</th>
<th>T</th>
<th>N</th>
<th>M</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 0</td>
<td>pTis</td>
<td>N0</td>
<td>M0</td>
<td>S0</td>
</tr>
<tr>
<td>Stage I</td>
<td>pT1-4</td>
<td>N0</td>
<td>M0</td>
<td>SX</td>
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<tr>
<td>Stage IA</td>
<td>pT1</td>
<td>N0</td>
<td>M0</td>
<td>S0</td>
</tr>
<tr>
<td>Stage IB</td>
<td>pT2</td>
<td>N0</td>
<td>M0</td>
<td>S0</td>
</tr>
<tr>
<td></td>
<td>pT3</td>
<td>N0</td>
<td>M0</td>
<td>S0</td>
</tr>
<tr>
<td></td>
<td>pT4</td>
<td>N0</td>
<td>M0</td>
<td>S0</td>
</tr>
<tr>
<td>Stage IS</td>
<td>Any pTX</td>
<td>N0</td>
<td>M0</td>
<td>S1-3</td>
</tr>
</tbody>
</table>

* N = upper limit of normal
AJCC CANCER STAGE: TESTIS

<table>
<thead>
<tr>
<th>Group</th>
<th>T N M S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage II</td>
<td>Any pTx N1-3 M0 S0 SX</td>
</tr>
<tr>
<td>Stage IIA</td>
<td>Any pTx Any pTx N1 N1 M0 M0 S0 S1</td>
</tr>
<tr>
<td>Stage IIB</td>
<td>Any pTx Any pTx N2 N2 M0 M0 S0 S1</td>
</tr>
<tr>
<td>Stage IIC</td>
<td>Any pTx Any pTx N3 N3 M0 M0 S0 S1</td>
</tr>
</tbody>
</table>

AJCC CANCER STAGE: TESTIS

<table>
<thead>
<tr>
<th>Group</th>
<th>T N M S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage III</td>
<td>Any pTx Any N M1 S0 SX</td>
</tr>
<tr>
<td>Stage IIIA</td>
<td>Any pTx Any pTx Any N Any N M1a M1a S0 S1</td>
</tr>
<tr>
<td>Stage IIIB</td>
<td>Any pTx Any pTx N1-3 Any N Any N M0 M0 M1a M1b S2 S2</td>
</tr>
<tr>
<td>Stage IIIC</td>
<td>Any pTx Any pTx Any pTx N1-3 Any N Any N M0 M0 M1a M1a M1b Any S S3 S3</td>
</tr>
</tbody>
</table>

POP QUIZ

• Pre-operative imaging: Enlarged left testis; no lymphadenopathy; no distant metastasis
• Pre-operative labs: AFP within normal limits; LDH within normal limits; hCG elevated
• Left radical orchiectomy: 8 cm testicular tumor, seminoma, confined to the testis; lymph vascular invasion present
• Post-operative labs: AFP, LDH, and hCG within normal limits
**POP QUIZ**

- What is the AJCC clinical stage?
  - cTX cN0 cM0 clinical stage group 99

- What is the AJCC pathologic stage?
  - pT2 pNX cM0 S0 pathologic stage group 99

**Summary Stage 2000**

http://seer.cancer.gov/tools/ssm/

**TESTIS**

**SUMMARY STAGE 2000: TESTIS**

- 0 In situ
  - Noninvasive; intraepithelial

- 1 Localized only
  - Invasive tumor with/without vascular invasion limited to: body of testis; rete testis; tunica albuginea
  - Surface implants
  - Tunica NOS
  - Tunica vaginalis involved
  - Localized NOS
SUMMARY STAGE 2000: TESTIS

2 Regional by direct extension only
- Extension to: dartos muscle, ipsilateral; epididymis with/without vascular/lymphatic invasion; scrotum, ipsilateral; spermatic cord, ipsilateral; vas deferens

3 Regional lymph node(s) involved only
- Contralateral or bilateral nodes
  - Aortic, external iliac, pericaval, pelvic, retroperitoneal, spermatic vein
  - Regional lymph nodes NOS

4 Regional by BOTH direct extension AND regional lymph node(s) involved
- Codes 2 + 3

5 Regional NOS

7 Distant site(s)/lymph node(s) involved
- Distant lymph node(s)
  - Inguinal; other distant lymph node(s)
- Extension to
  - Contralateral scrotum; penis
  - Ulceration of scrotum
  - Further contiguous extension
  - Metastasis
    - Adrenal gland; kidney; retroperitoneum; testis, bilateral

9 Unknown if extension or metastasis
**POP QUIZ**

- Pre-operative imaging: Enlarged left testis; no lymphadenopathy; no distant metastasis
- Pre-operative labs: AFP within normal limits; LDH within normal limits; hCG elevated
- Left radical orchiectomy: 8 cm testicular tumor, seminoma, confined to the testis; lymph vascular invasion present
- Post-operative labs: AFP, LDH, and hCG within normal limits

---

**POP QUIZ**

- What is the Summary Stage 2000?
  - a. Localized only
  - b. Regional by direct extension only
  - c. Regional lymph node(s) involved only
  - d. Regional by BOTH direct extension AND regional lymph node(s) involved
  - e. Regional NOS
  - f. Distant site(s)/lymph node(s) involved
CS EXTENSION: TESTIS
- Code 000: In situ, intraepithelial, noninvasive; intratubular germ cell neoplasia
- Codes 160-330 & 460-550
  - T category based on CS Extension, SSF4 (Radical Orchiectomy Performed), & Lymph-vascular Invasion (LVI)
  - Derives T1, T2, T3
- Codes 600-810
  - Scrotal involvement

CS LYMPH NODES: TESTIS
- Code 100: Aortic; retroperitoneal; spermatic vein
- Code 200: Pericaval
- Code 300: Pelvic, external iliac WITH previous scrotal or inguinal surgery
- Code 350: 300 + 200
- Code 400: Inguinal WITH previous scrotal or inguinal surgery
- Codes 100-500: N Category based on SSF5 (Size of Metastasis in Lymph Nodes), Regional Nodes Positive, & CS Lymph Nodes Eval

CS METS AT DX: TESTIS
- Code 11: Pelvic, external iliac WITHOUT previous scrotal or inguinal surgery
- Code 12: Inguinal WITHOUT previous scrotal or inguinal surgery
- Code 13: Specified distant lymph nodes other than codes 11 or 12; distant lymph node(s) NOS
- Code 20: Distant metastasis to lung
- Code 25: 20 + (11, 12, or 13)
- Code 40: Metastasis to other distant sites with or without metastasis to lung and/or distant lymph node(s); carcinomatosis
- Code 60: Distant metastasis NOS
POP QUIZ
• Pre-operative imaging: Enlarged left testis; no lymphadenopathy; no distant metastasis
• Pre-operative labs: AFP within normal limits; LDH within normal limits; hCG elevated
• Left radical orchiectomy: 8 cm testicular tumor, seminoma, confined to the testis; lymph vascular invasion present
• Post-operative labs: AFP, LDH, and hCG within normal limits

POP QUIZ
• What is the code for CS Extension?
  a. 160: Body of testis; rete testis; tunica albuginea
  b. 200: Tunica vaginalis involved; surface implants
  c. 300: Localized NOS
  d. 999: Unknown

POP QUIZ
• What is the code for CS Lymph Nodes?
  a. 000: No regional lymph node involvement
  b. 500: Regional lymph nodes NOS
  c. 800: Lymph nodes NOS
  d. 999: Unknown
**POP QUIZ**

- What is the code for CS Mets at DX?
  - a. 00: No distant metastasis
  - b. 11: Distant lymph nodes without previous scrotal or inguinal surgery
  - c. 60: Distant metastasis NOS
  - d. 99: Unknown

---

**SSF4: RADICAL ORCHIECTOMY PERFORMED**

- T category based on CS Extension, SSF4, & Lymph-vascular Invasion (LVI)
- Documents if radical orchiectomy was performed (010), not performed (000), or unknown (999)

---

**SSF5: SIZE OF METASTASIS IN LYMPH NODES**

- N Category based on SSF5, Regional Nodes Positive, & CS Lymph Nodes Eval
- Codes incorporate size range for metastasis in regional lymph node mass and absence or presence of extranodal extension
- If extranodal extension is not mentioned in path, assume it is not present
PRE-ORCHIECTOMY SERUM TUMOR MARKERS

- SSF6: Pre-Orchiectomy Alpha Fetoprotein (AFP) Lab Value
- SSF7: Pre-Orchiectomy Alpha Fetoprotein (AFP) Range
- SSF8: Pre-Orchiectomy Human Chorionic Gonadotropin (hCG) Lab Value
- SSF9: Pre-Orchiectomy Human Chorionic Gonadotropin (hCG) Range
- SSF10: Pre-Orchiectomy Lactate Dehydrogenase (LDH) Range

PRE-ORCHIECTOMY LAB VALUE

- Assign code 000 for exactly 0.0
- Use code 995 if patient is treated prior to orchiectomy and record lab value in post-orchiectomy SSF
- Use code 996 if no orchiectomy; record lab value in post-orchiectomy SSF
- Use code 997 if test done but actual lab value not stated

PRE-ORCHIECTOMY RANGE

- Use codes 991-993 if test unavailable but physician statement of result is available
- Use code 995 if patient is treated prior to orchiectomy and record range in post-orchiectomy SSF
- Use code 996 if no orchiectomy; record range in post-orchiectomy SSF
**POST-ORCHIECTOMY SERUM TUMOR MARKERS**

- SSF13: Post-Orchiectomy Alpha Fetoprotein (AFP) Range
- SSF15: Post-Orchiectomy Human Chorionic Gonadotropin (hCG) Range
- SSF16: Post-Orchiectomy Lactate Dehydrogenase (LDH) Range

**POST-ORCHIECTOMY RANGE**

- If initial post-orchiectomy test remains elevated, review subsequent tests until plateau occurs and code that test
- Use code 990 if post-orchiectomy test is unknown but pre-orchiectomy test was normal
- Use codes 991-993 if post-orchiectomy test is unavailable but physician's statement of result is documented
- If patient is treated prior to orchiectomy or orchiectomy is not performed, record initial lab value in post-orchiectomy SSF

**POP QUIZ**

- Pre-operative imaging: Enlarged left testis; no lymphadenopathy; no distant metastasis
- Pre-operative labs: AFP within normal limits; LDH within normal limits; hCG elevated
- Left radical orchiectomy: 8 cm testicular tumor, seminoma, confined to the testis; lymph vascular invasion present
- Post-operative labs: AFP, LDH, and hCG within normal limits
POP QUIZ

• What is the code for SSF4?
  a. 000: Radical orchiectomy not performed
  b. 010: Radical orchiectomy performed
  c. 988: Not applicable
  d. 999: Unknown

POP QUIZ

• What is the code for SSF5?
  a. 000: No lymph node metastasis
  b. 010: Lymph node metastasis mass 2 cm or less without pathologic extranodal extension
  c. 020: Lymph node metastasis mass more than 2 cm but not more than 5 cm OR pathologic extranodal extension
  d. 030: Lymph node metastasis mass more than 5 cm

POP QUIZ

• What is the code for SSF6?
  a. 000: 0 ng/ml
  b. 997: Test ordered, results not in chart
  c. 998: Test not done
  d. 999: Unknown

• What is the code for SSF7?
  a. 000: Within normal limits
  b. 010: Range 1 (S1) above normal & less than 1,000 ng/ml
  c. 992: Pre-orchiectomy AFP unknown but pre-orchiectomy serum tumor markers NOS stated to be normal
  d. 997: Test ordered, results not in chart
POP QUIZ

- What is the code for SSF8?
  a. 000: mIU/ml  
  b. 997: Test ordered, results not in chart  
  c. 998: Test not done  
  d. 999: Unknown

- What is the code for SSF9?
  a. 000: Within normal limits  
  b. 991: Pre-orchiectomy human chorionic gonadotropin (hCG) stated to be elevated  
  c. 992: Pre-orchiectomy hCG unknown but pre-orchiectomy serum tumor markers NOS stated to be normal  
  d. 997: Test ordered, results not in chart

- What is the code for SSF10?
  a. 000: Within normal limits  
  b. 991: Pre-orchiectomy LDH stated to be elevated  
  c. 992: Pre-orchiectomy LDH unknown but pre-orchiectomy serum tumor markers NOS stated to be normal  
  d. 997: Test ordered, results not in chart

- What is the code for SSF13?
  a. 000: Within normal limits  
  b. 990: Post-orchiectomy AFP unknown but pre-orchiectomy AFP was normal  
  c. 992: Post-orchiectomy AFP unknown but post-orchiectomy serum tumor markers NOS stated to be normal  
  d. 999: Unknown
POP QUIZ

What is the code for SSF15?

a. 000: Within normal limits
b. 990: Post-orchiectomy hCG unknown but pre-orchiectomy hCG was normal
c. 992: Post-orchiectomy hCG unknown but post-orchiectomy serum tumor markers NOS stated to be normal
d. 999: Unknown

POP QUIZ

What is the code for SSF16?

a. 000: Within normal limits
b. 990: Post-orchiectomy LDH unknown but pre-orchiectomy LDH was normal
c. 992: Post-orchiectomy LDH unknown but post-orchiectomy serum tumor markers NOS stated to be normal
d. 999: Unknown

TREATMENT
**DIAGNOSIS**

- Physical exam
- Ultrasound (diagnostic)
- Other Imaging (staging)
- PET Scan for Seminoma
- Tumor Markers
- Biopsy not usually done

**TREATMENT**

- More than 90% of patients with germ cell tumors are cured.
- That includes 70-80% of patients with advanced tumors who are treated with chemotherapy.

**SURGERY**

- 20 Local or partial excision of testicle
- 30 Excision of testicle WITHOUT cord
- 40 Excision of testicle WITH cord or cord not mentioned (radical orchiectomy)
- 80 Orchiectomy, NOS (unspecified whether partial or total testicle removed)
**Surgery**

- 30 Excision of testicle, WITHOUT cord
  - [SEER Note: Orchiectomy not including spermatic cord]

- 40 Excision of testicle WITH cord or cord not mentioned (radical orchiectomy)
  - [SEER Note: Orchiectomy with or without spermatic cord]

- 80 Orchiectomy, NOS (unspecified whether partial or total testicle removed)

**Serum Markers**

Serum markers should be assessed before orchiectomy to establish a benchmark and repeated after orchiectomy.

- S0 - Tumor marker levels within the reference range
- S1 - LDH <1.5 times the reference range AND hCG level <5000 mIU/mL AND AFP level <1000 ng/mL
- S2 - LDH level 1.5-10 times the reference range OR hCG level 5000-50,000 mIU/mL OR AFP level 1000-10,000 ng/mL
- S3 - LDH level >10 times the reference range OR hCG level >50,000 mIU/mL OR AFP level >10,000 ng/mL
**SEMINOMA**

- Seminoma-Orchiectomy followed by
  - Stages IA and IB
    - Patients with pT1 or pT2 Active surveillance if applicable
    - Radiotherapy or chemotherapy
  - Stage IS
    - Radiation
  - Stage IIA and IIB
    - Radiation
    - Chemotherapy may be an alternate treatment for some IIB patients
  - Stage IIC and III
    - Standard chemotherapy

**RADIATION**

- Infradiaphragmatic beam radiation
  - May include para-aortic nodes and/or ipsilateral iliac nodes

**NON SEMINOMA**

- Non seminoma-Orchiectomy followed by...
  - Stage IA
    - Surveillance or RPLND
  - Stage IB
    - RPLND or Chemotherapy
  - Stage IS
    - Chemotherapy
CHEMOTHERAPY

- Etoposide
- Cisplatin
- Bleomycin
- Mesna
- Ifosfamide

NON SEMINOMA

- Non seminoma-Orchiectomy followed by...
  - Stage IIA-depends on serum markers
    - Normal serum markers-RPLND followed by chemo or surveillance
    - Elevated serum markers-chemo followed by RPLND or surveillance

LYMPH NODE DISSECTION

- Retroperitoneal lymph node dissection (RPLND)

http://www.cancer.net/sites/cancer.net
NON SEMINOMA

- Non seminoma-Orchiectomy followed by...
  - Stage IIB-depends on imaging and serum markers
    - Negative serum markers metastasis limited to retroperitoneal lymph nodes treatment is similar to 2A or chemo followed by RPLND
    - If elevated serum markers and metastasis beyond the retroperitoneal lymphatics, then RPLND not recommended.
    - Stage IIC and IIIA
      - Chemotherapy only

NON SEMINOMA-ADVANCED STAGE

- Non seminoma-Orchiectomy followed by...
  - Stage IIIB (intermediate risk)-Chemotherapy
  - Stage IIIC (poor risk)-Chemotherapy

QUESTIONS?
COMING UP...
- Collecting Cancer Data: Uterus
  - 2/5/15
- Abstracting & Coding Boot Camp
  - 3/5/15

AND THE WINNERS ARE....

CE CERTIFICATE QUIZ/SURVEY
- Phrase
- Link