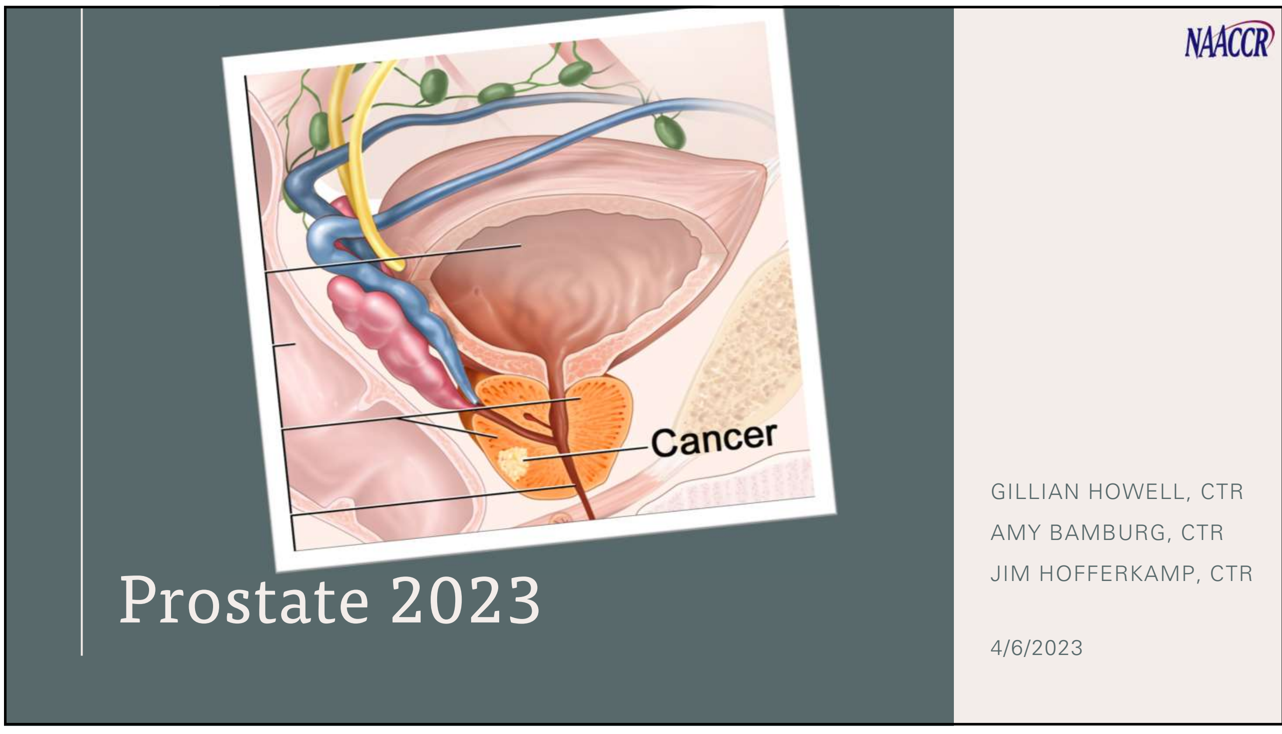

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Q&A

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

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Guest Presenter

- Gillian Howell, PhD, CTR
  - NE Methodist Tumor Registry
- Amy Bamburg, RHIA, CTR
  - Manager NE Methodist Tumor Registry

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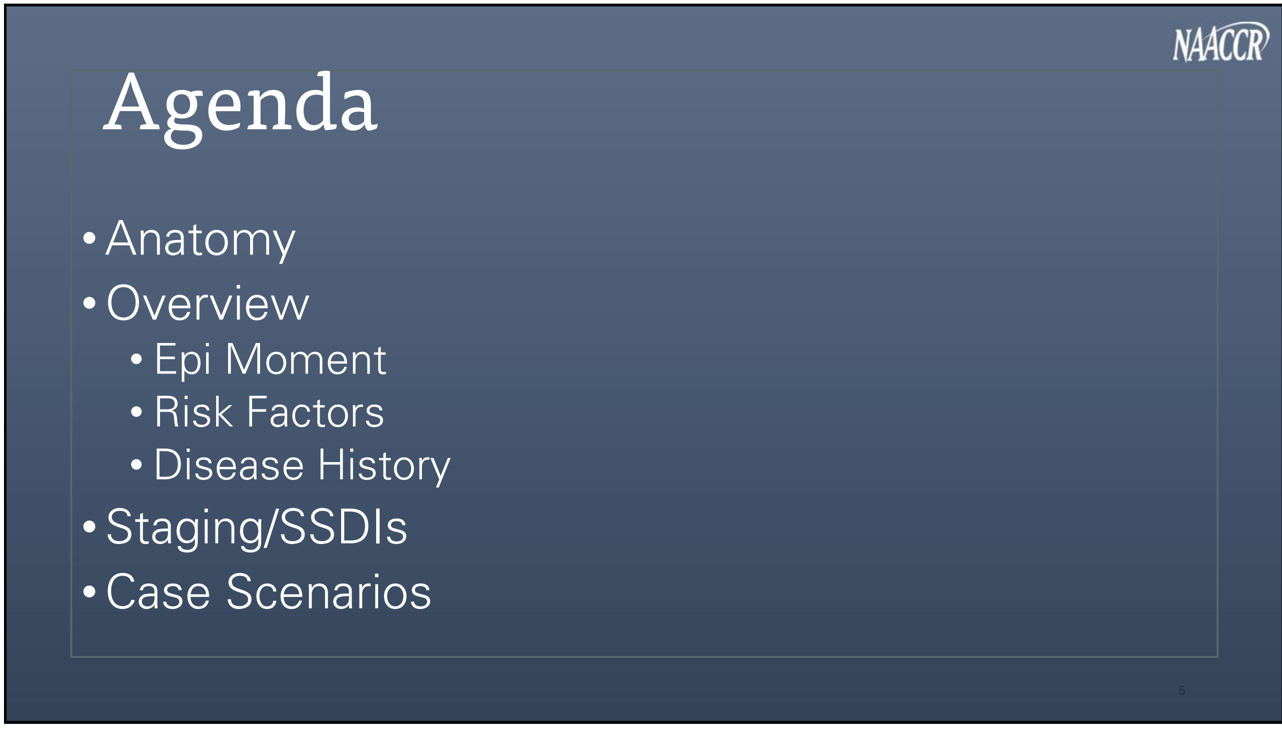

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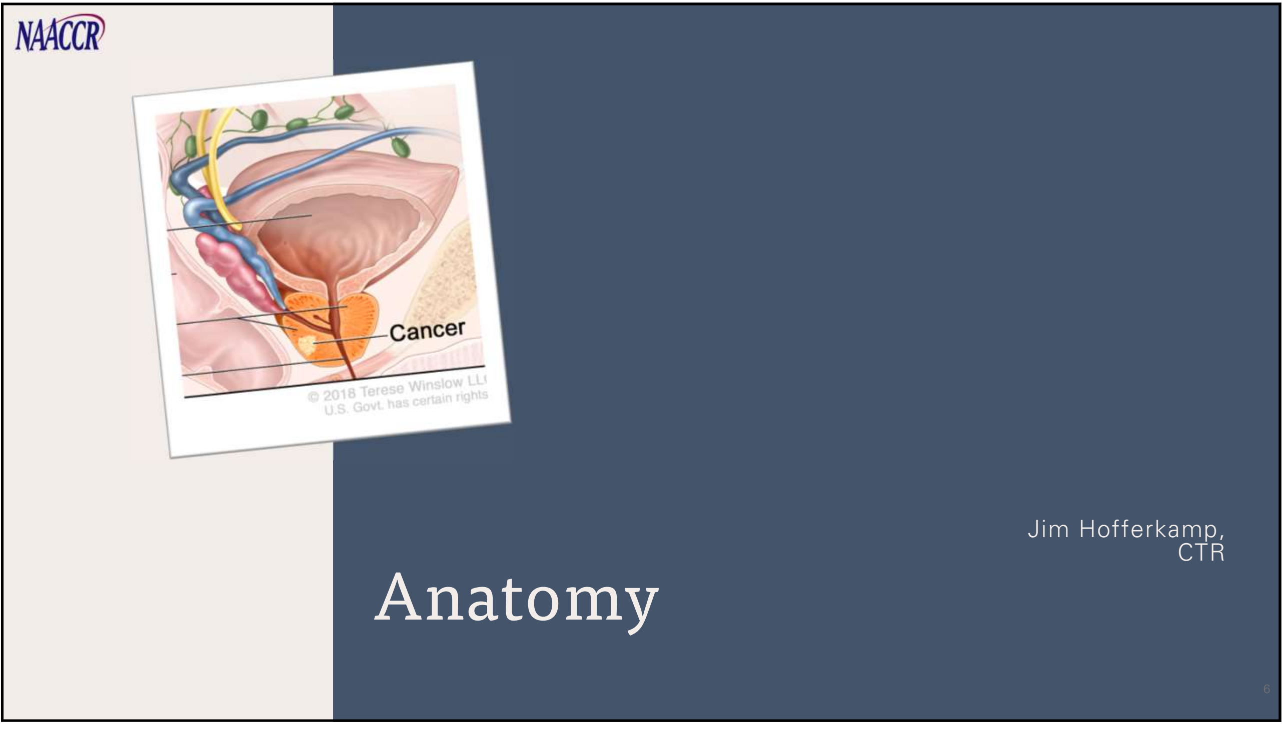

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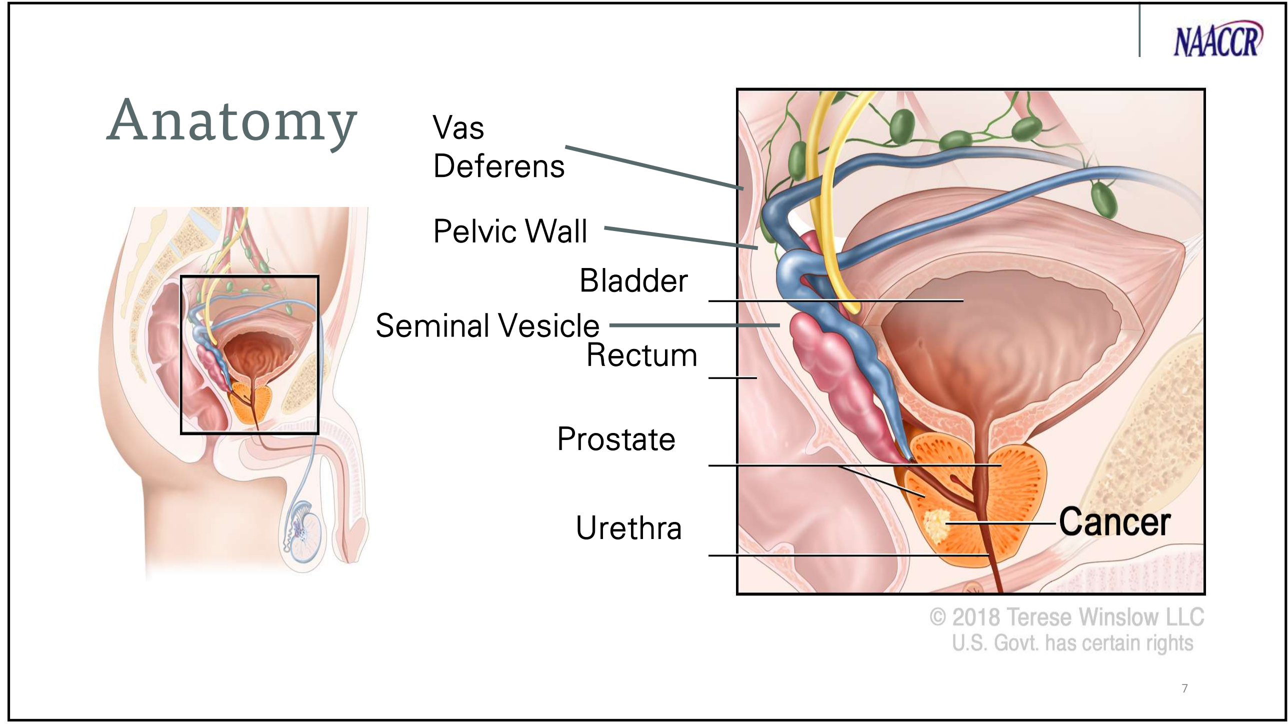

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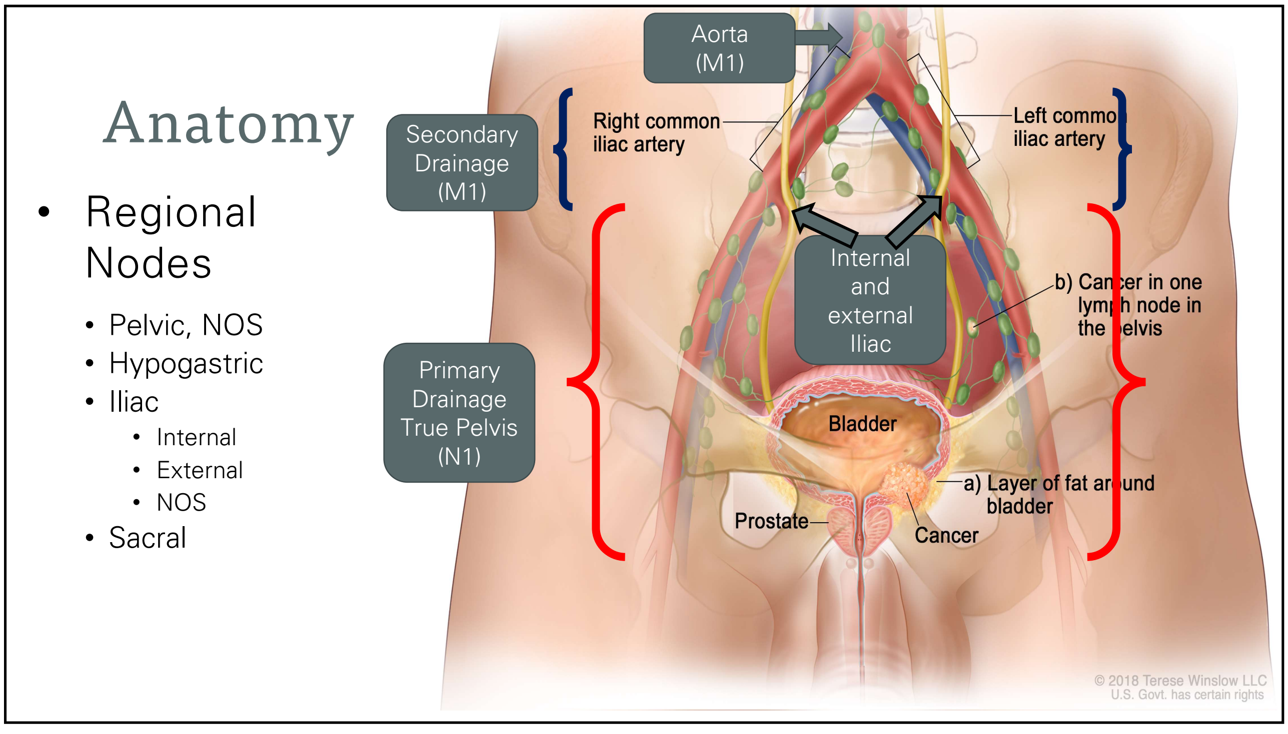

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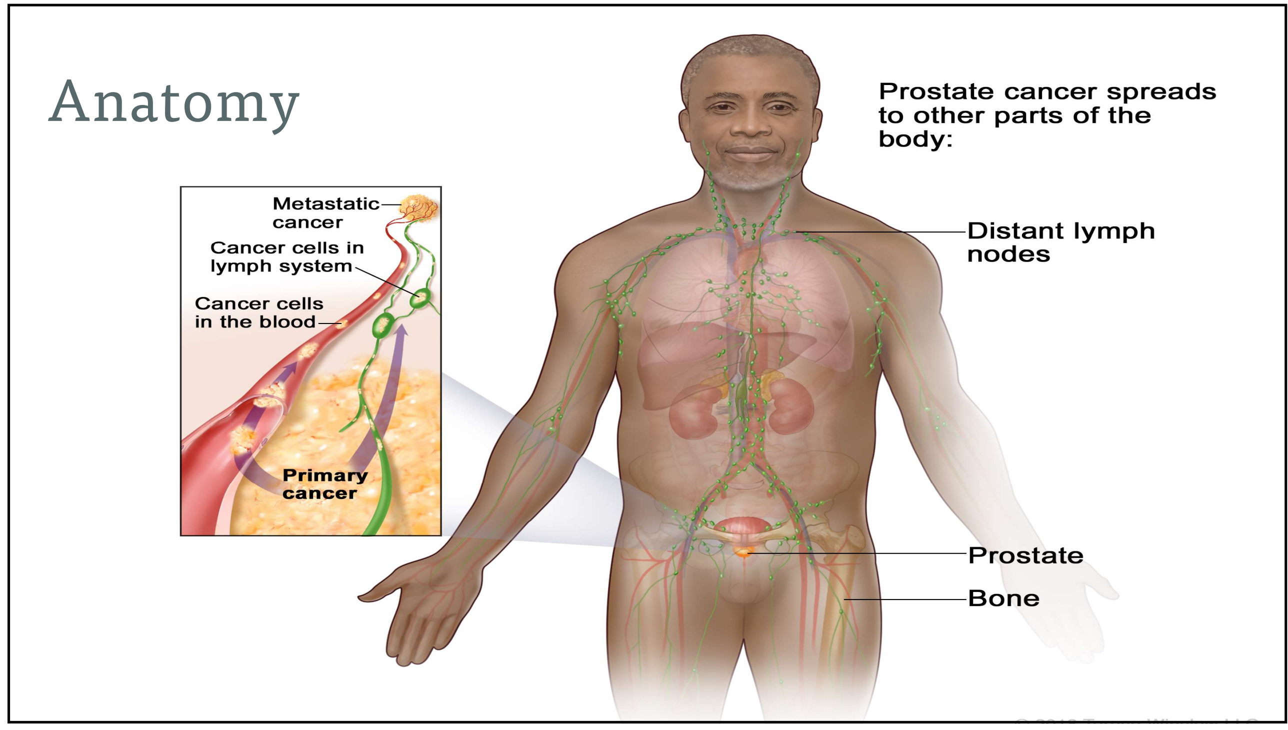

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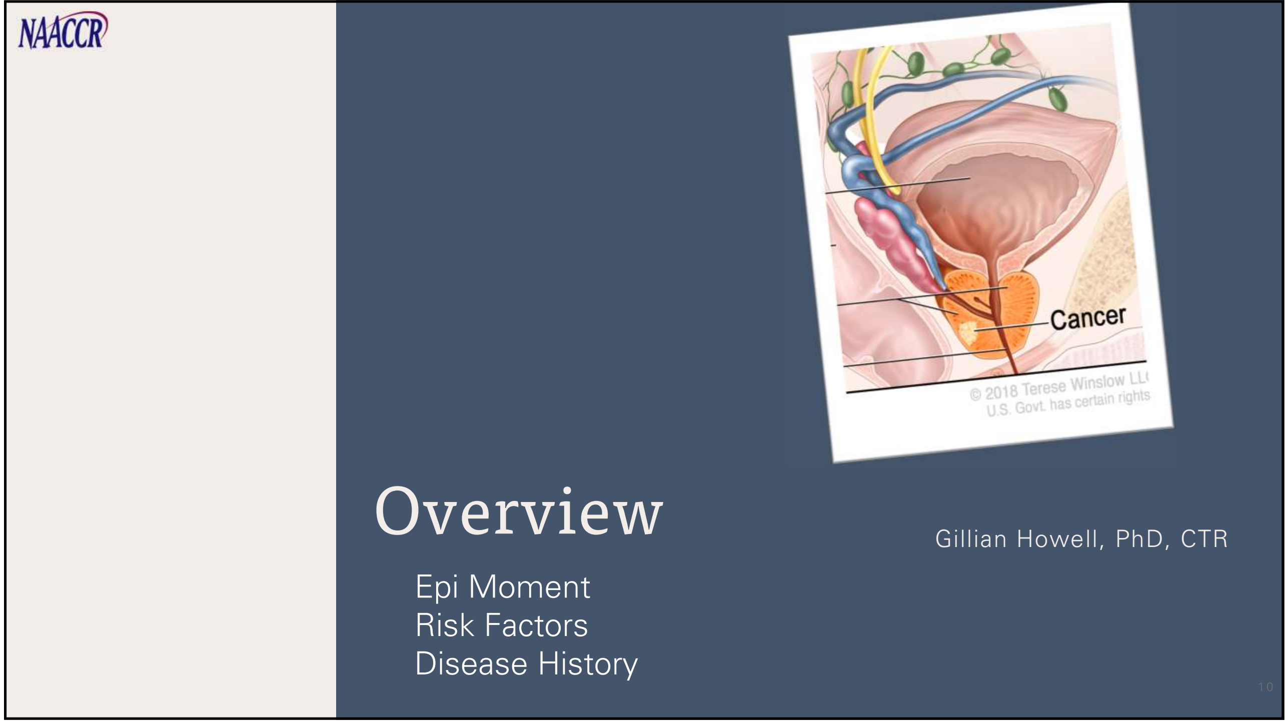

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PROSTATE CANCER INCIDENCE AND DEATHS

SEER SURVIVAL STATISTICS

Rank	Common Types of Cancer	Estimated New Cases 2022	Estimated Deaths 2022
1.	Breast Cancer (Female)	287,850	43,250
2.	Prostate Cancer	268,490	34,500
3.	Lung and Bronchus Cancer	236,740	130,180
4.	Colorectal Cancer	151,030	52,580
5.	Melanoma of the Skin	99,780	7,650
6.	Bladder Cancer	81,180	17,100
7.	Non-Hodgkin Lymphoma	80,470	20,250
8.	Kidney and Renal Pelvis Cancer	79,000	13,920
9.	Uterine Cancer	65,950	12,550
10.	Pancreatic Cancer	62,210	49,830

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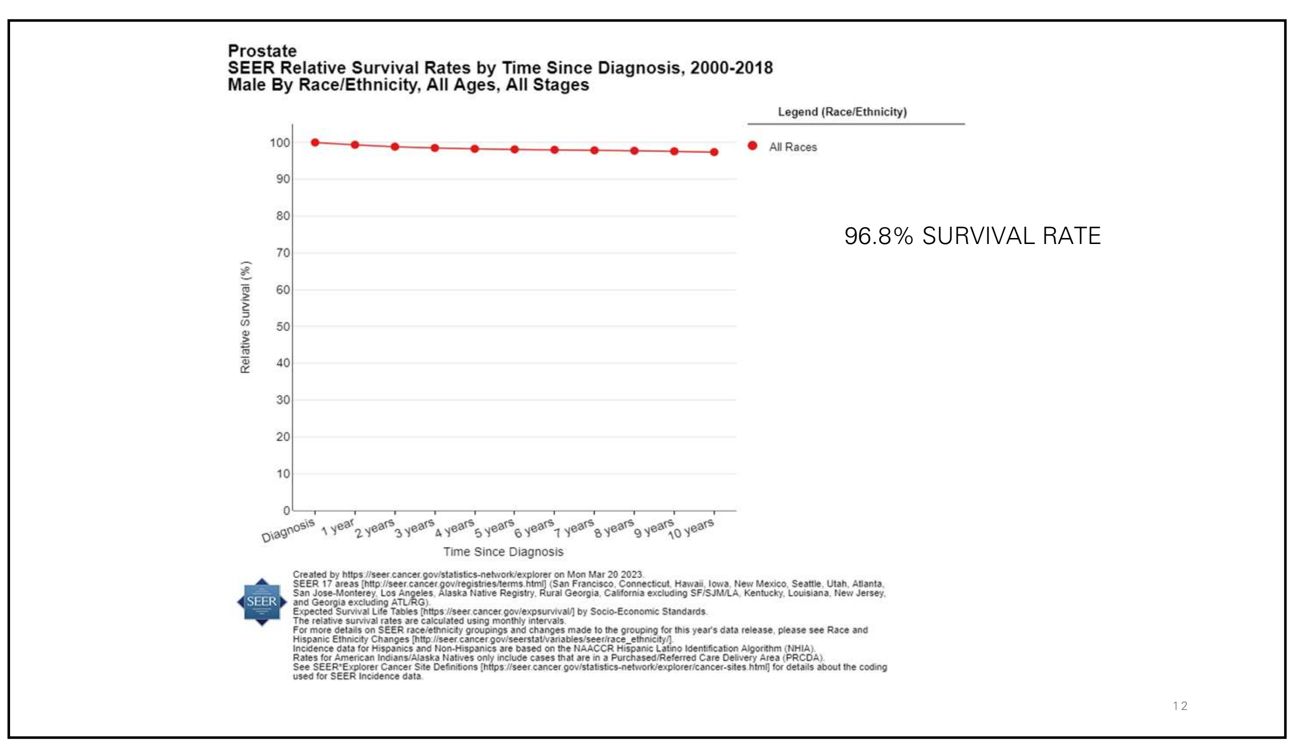

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5-YEAR RELATIVE SURVIVAL BY STAGE AT DIAGNOSIS

Stage	Percent of Cases	5-Year Relative Survival
Localized Confined to Primary Site	73%	100.0%
Regional Spread to Regional Lymph Nodes	14%	100.0%
Distant Cancer Has Metastasized	7%	32.3%
Unknown Unstaged	6%	85.8%

SEER SURVIVA
STATISTICS

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Risk Factors

- INCREASING AGE, MECHANISM UNKNOWN
- RACE: HIGHER INCIDENCE AND MORE AGGRESSIVE CANCERS IN BLACK MEN
- OBESITY: INCREASED AGGRESSIVENESS AND HIGHER RECURRENCE RATE
- LOW FAT, PLANT BASED DIET. FISH ASSOC'D DECREASED INCIDENCE (PACIFIC ISLANDERS MUCH LOWER INCIDENCE)

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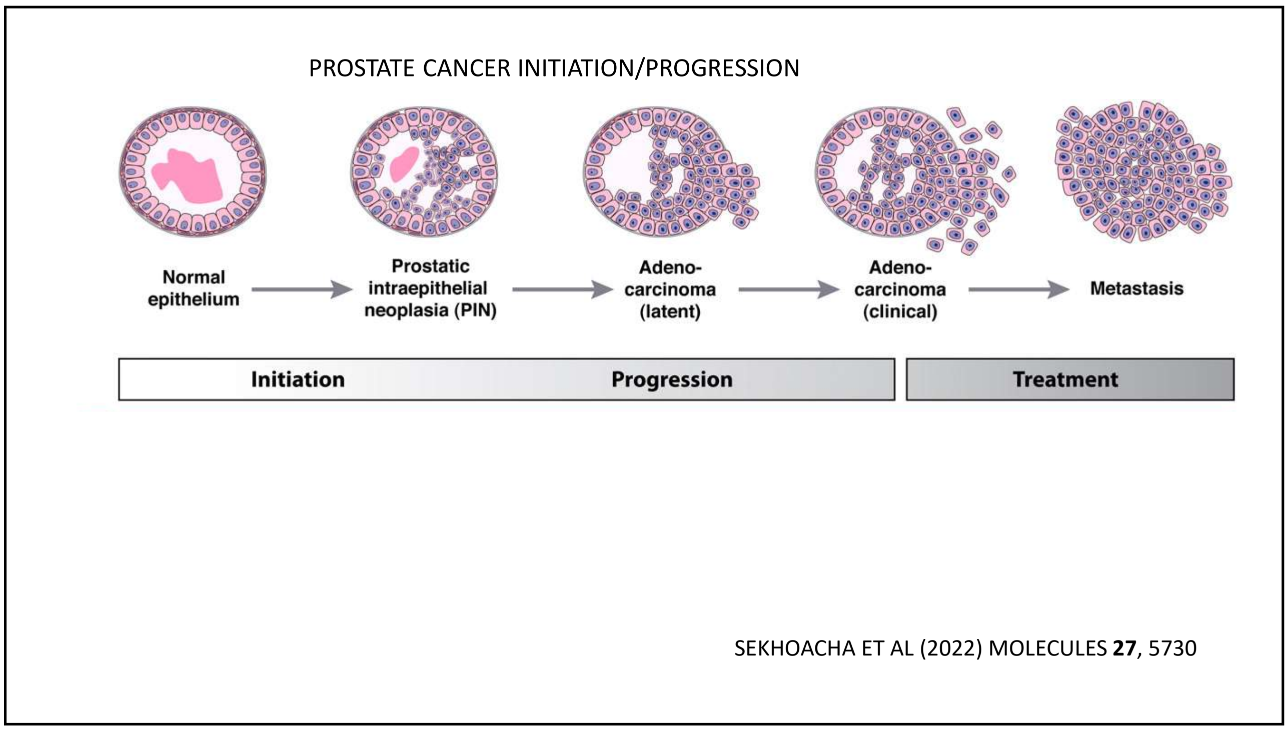

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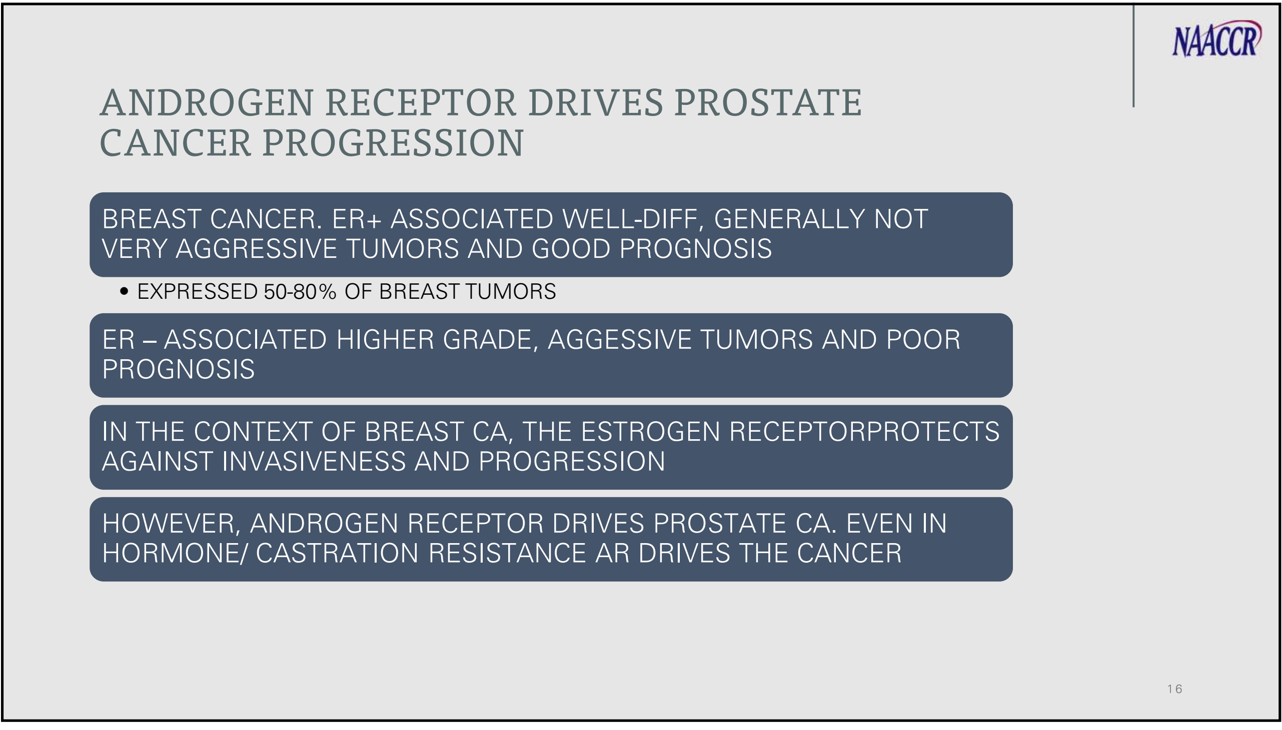

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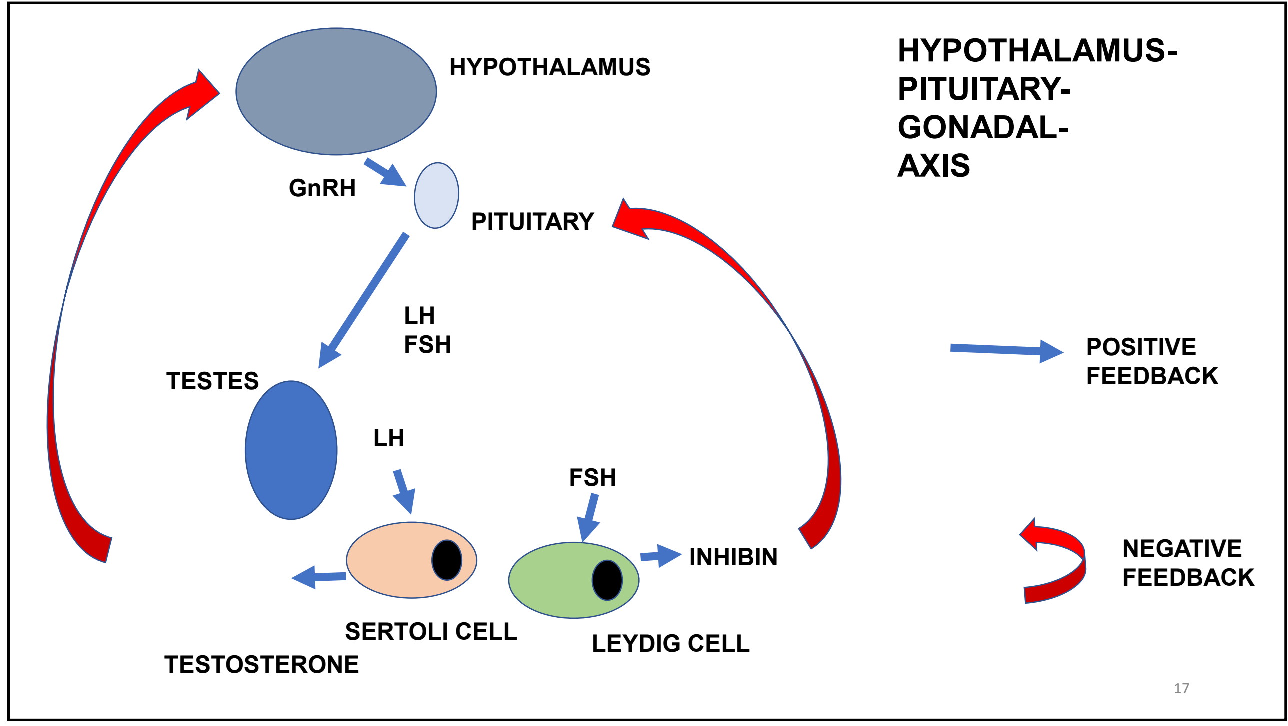

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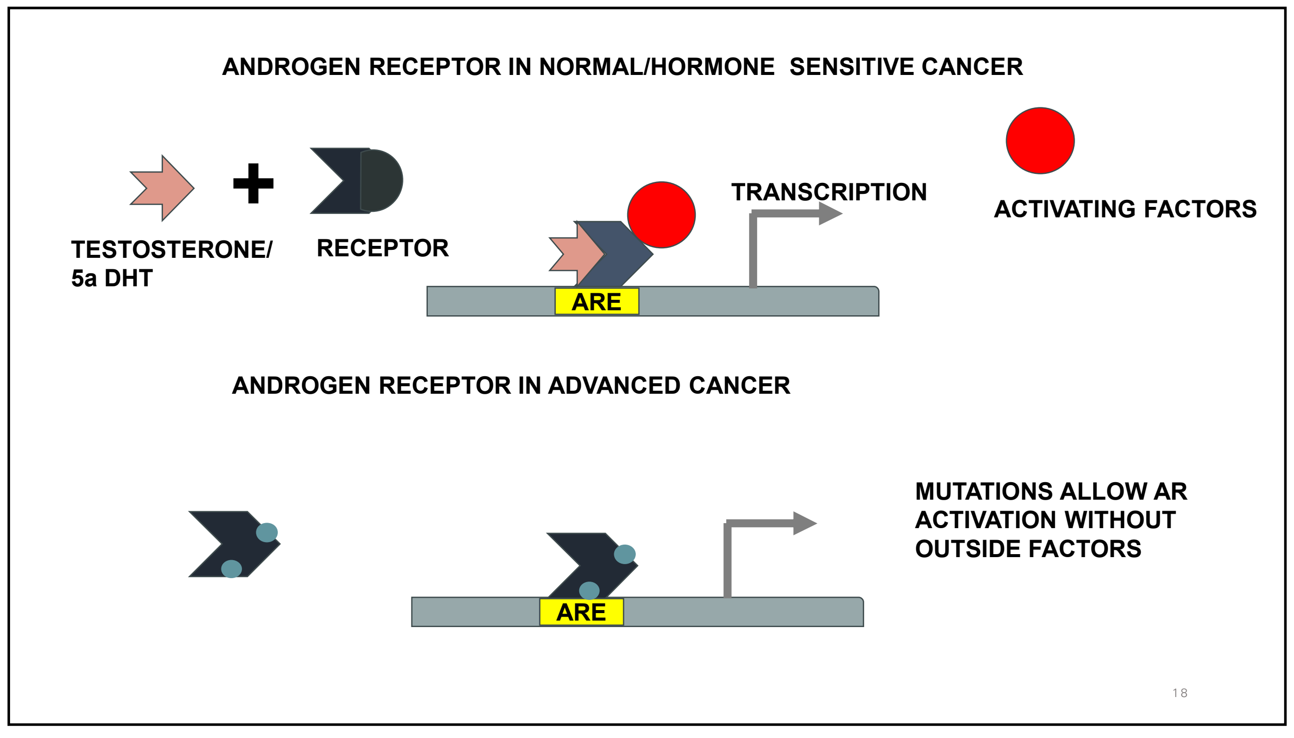

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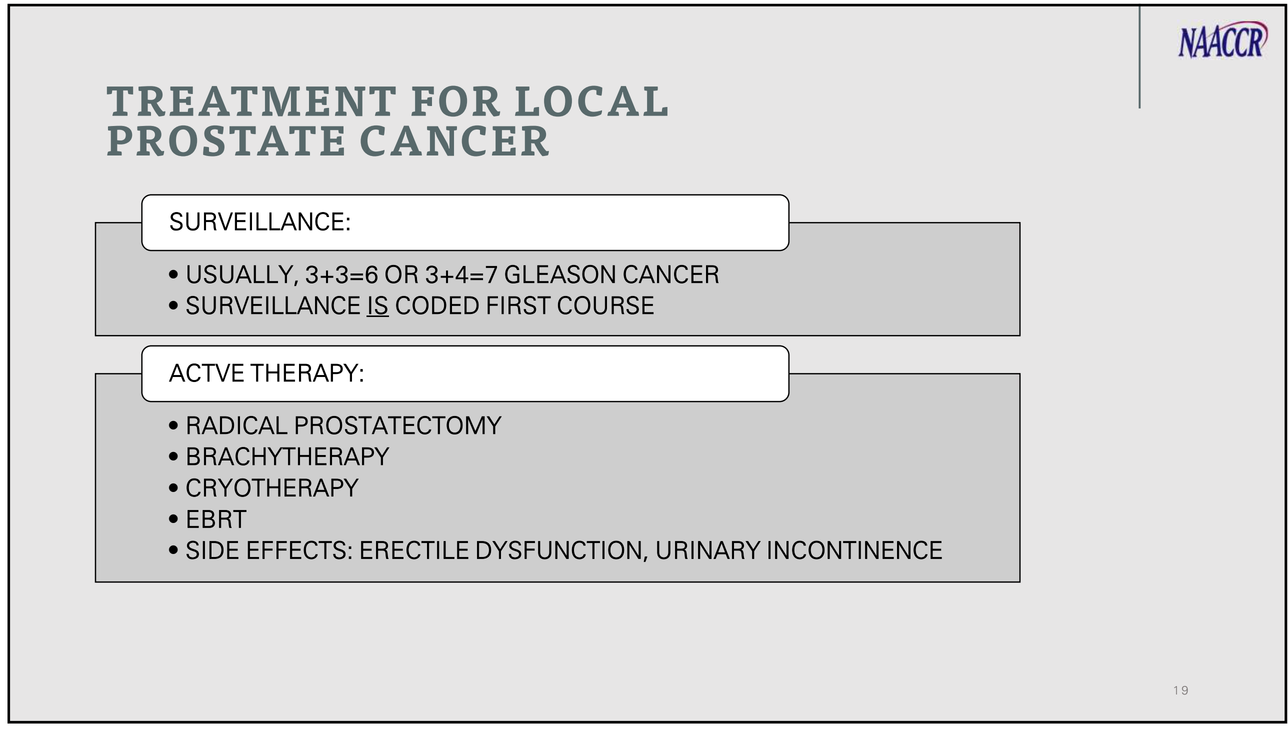

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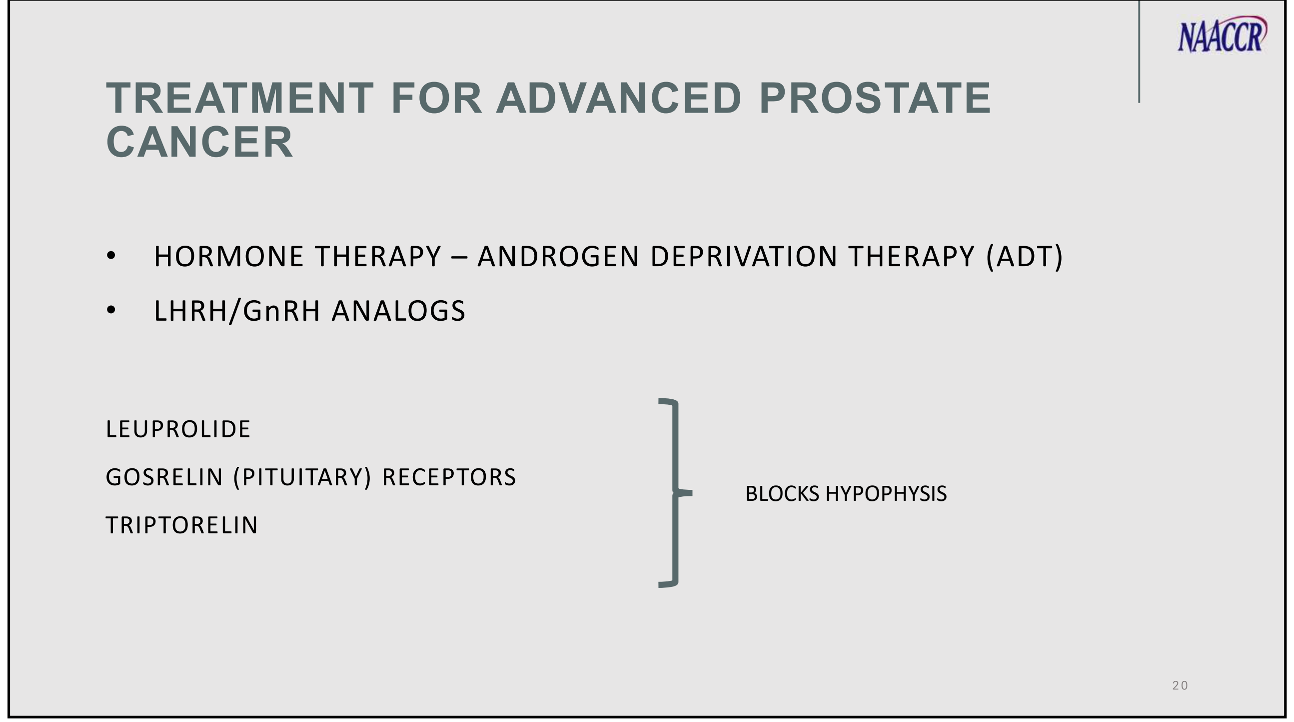

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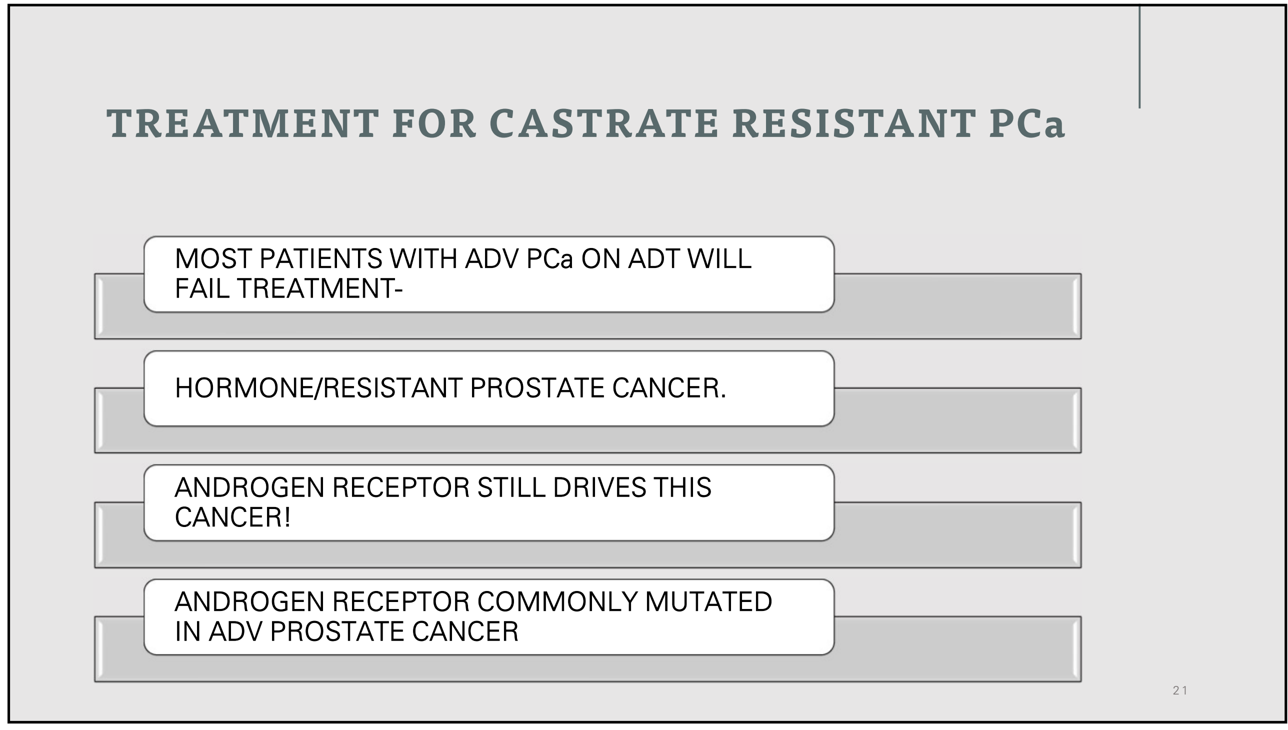

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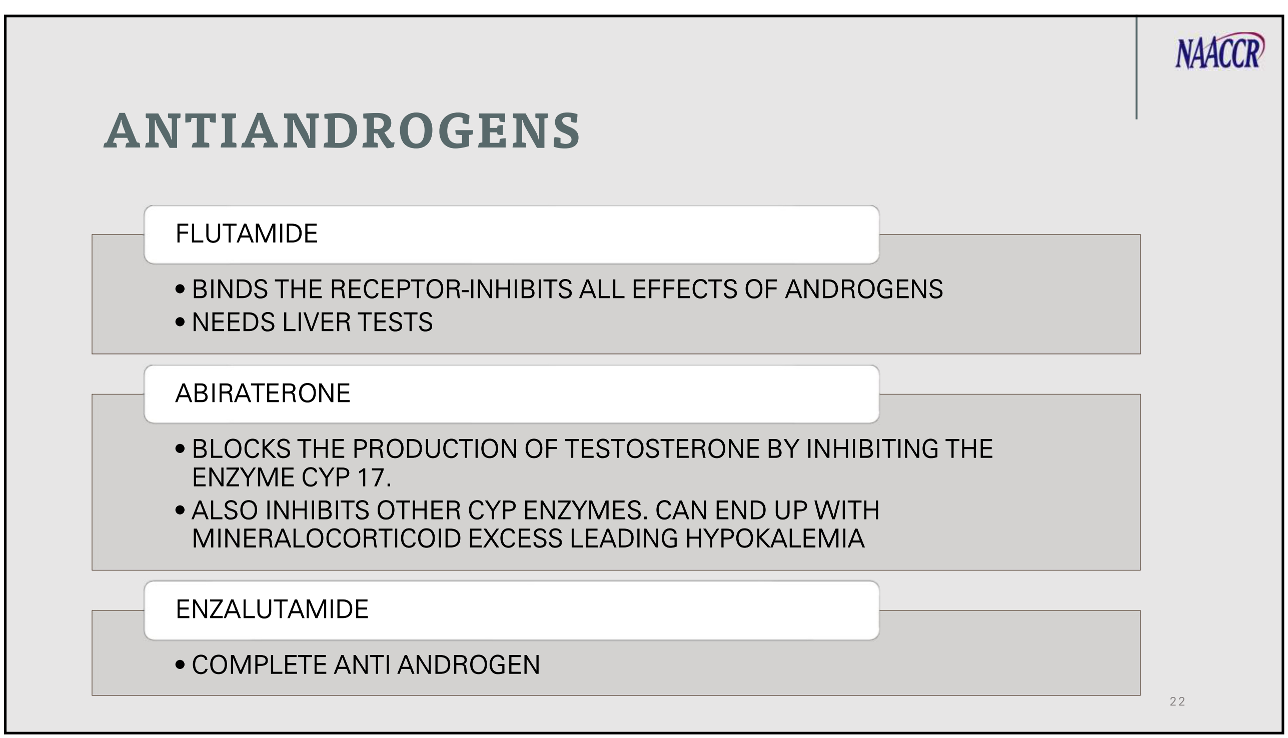

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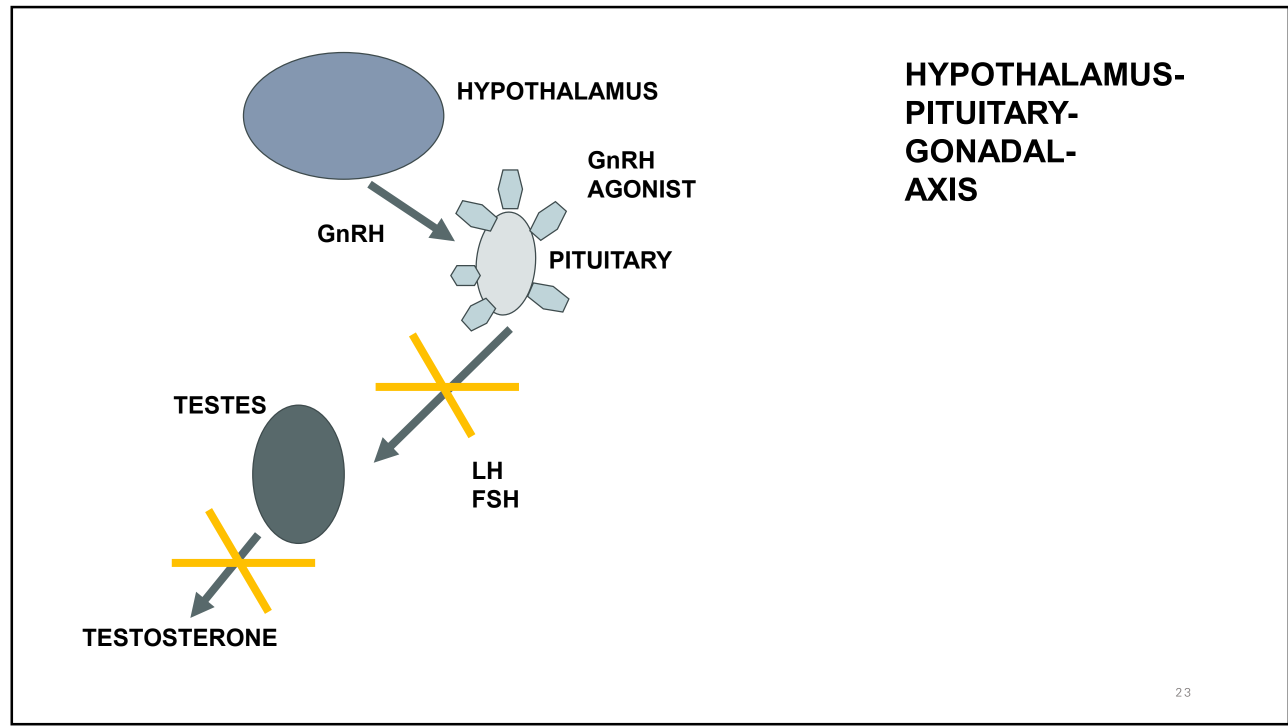

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IMMUNOTHERAPY

SIPULEUCEL-T (PROVENGE)

- ADV METASTATIC CASTRATE RESISTANT PROSTSTE CANCER
- WBCs
- PROSTATIC ACID PHOSPHATASE AND IMMUNE SYSTEM ACTIVATING FACTOR
- RETURN TO PT
- FEVER, NAUSEA, MUSCLE ACHES CHILLS

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CHEMOTHERAPY

DOCETAXEL

- FIRST LINE IN CASTRATION RESISTANT PCA
- PROBLEM RESISTANCE- MDR-1 PROTEIN

CARBAZITAXEL (JEVTANA)- SUPPRESSES DOCETAXEL RESISTANCE

- BAD SIDE EFFECTS

SUMMARY

- NONE OF THESE THERAPIES ARE CURATIVE
- PROGRESSION OVER TIME

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RADIOTHERAPY

XOFIGO

- RADIUM 223 CHLORIDE
- BONE METASTASES IN CASTRATE RESISTANT DISEASE

PLUVICTO

- LUTETIUM -177 PMSA THERAPY
- MEN WHO FAIL PROSTATECTOMY AND SALVAGE XRT

SUMMARY

- NONE OF THESE THERAPIES ARE CURATIVE
- PROGRESSION OVER TIME

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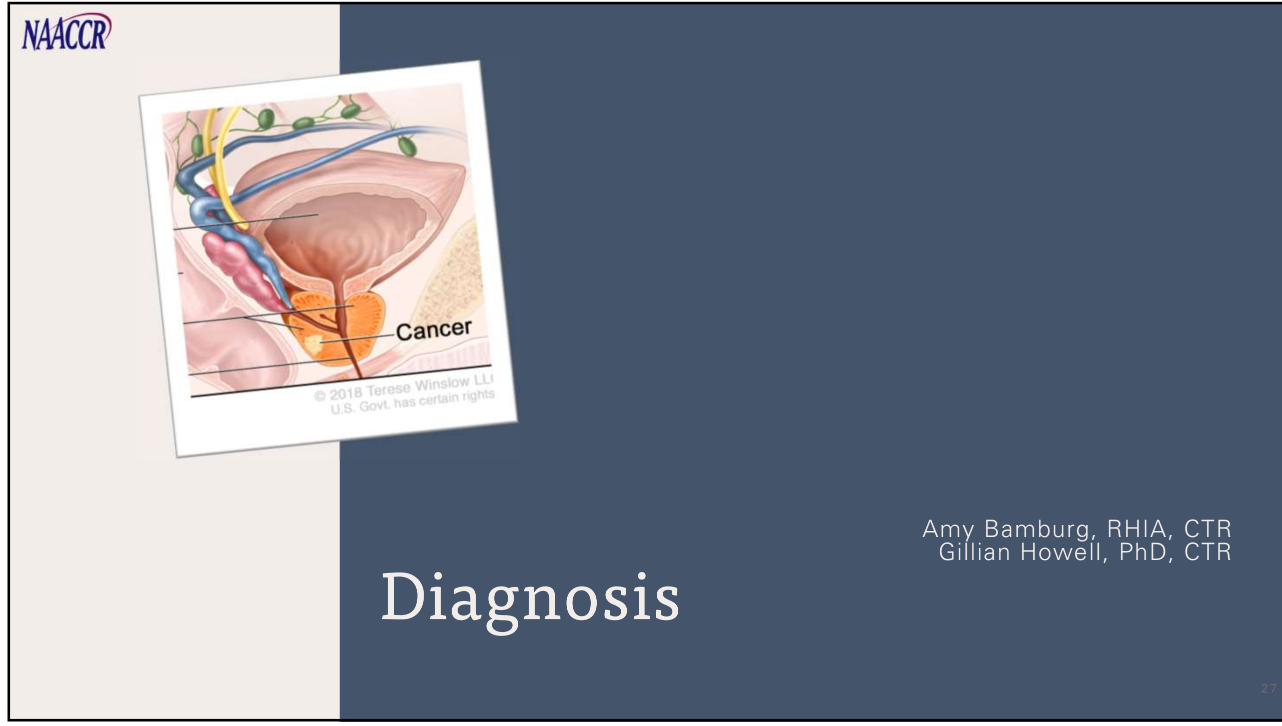

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Prostate

- 80%-85% arise from the peripheral zone
- RLN
  - Pelvic, NOS
  - Hypogastric
  - Obturator
  - Iliac (internal, external and NOS)
  - Sacral (lateral, presacral, promontory)
- Mets bone mets are most common

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Clinical Staging

- DRE (Digital Rectal Exam)
- PSA (Prostate Specific Antigen)
- TRUS w/ biopsy (Transrectal ultrasound)
- TURP (Transurethral Resection of Prostate)

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DRE

- REMAINS FIRST INITIAL ASSESSMENT
- FIRST INVESTIGATION OF ACCURACY: 1956
- >50%
- UTILITY IN DETECTING NON-PSA SECRETING TUMORS
- BUT MISSES A SUBSTANTIAL NO. CANCERS
- TENDS TO DETECT HIGHER PATHOLOGICAL STGE CANCERS THAN PSA TEST
- UTILITY DEPENDENT SKILL OF PRACTITIONER
- PRE-PSA ERA, 75% MEN DIED OF THEIR DISEASE

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DRE (Digital Rectal Exam)

- DRE must be performed in order to clinically stage a prostate cancer.
- Abnormal DRE must state nodules, hard spots, mass/es or soft spots noted/felt)
- Clinical T category should always reflect your DRE findings only not info off your bx or a scan (what the physician is feeling)

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DRE

- Clinically Inapparent
  - Not palpable
  - DRE does not mention tumor, mass or nodule-can infer as inapparent
- Clinically Apparent
  - Are palpable
  - Documentation as a tumor, mass or nodule

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Prostate Specific Antigen

- PSA FIRST DISCOVERED 1979
- SERINE PROTEASE- SECRETED INTO THE GLANDULAR DUCTS AND FUNCTIONS TO DEGRADE HIGH M.W. PROTEINS PRODUCED IN THE SEMINAL VESICLES TO PREVENT COAGULATION OF THE SEMEN.
- IN NORMAL PROSTATE,LEAKS INTO SERUM VIA THE PROSTATIC EXTRACELLULAR FLUID.
- HIGHER SERUM LEVELS DURING CANCER DUE TO DISRUPTION OF NORMAL PROSTATE STRUCTURE.

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PSA

- PSA SPECIFIC FOR ORGAN, NOT CANCER TYPE
- PSA NORMAL RANGE SOMEWHAT ARBITRARILY SET AT < 4NG/ML
- “GREY AREA” 4-10NG/ML
- VARIOUS METHODS TO TRY TO INPROVE SPECIFICITY OF PSA AS A DX TOOL AS PSA INCREASES WITH AGE
- LIMITS DEFINED BY AGE
- LIMITS DEFINED USING PROSTATE DENSITY
- PSA INCREASE VELOCITY (0.75 PER YEAR INCREASE)

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TRUS PROSTATE BX

- TRADITIONAL 8-12 CORE BX- PROVIDES A NON-TARGETED, SYSTEMATICALLY SPACED SAMPLING OF THE PROSTATE GLAND.
- RESULTS IN MISSED DIAGNOSES AND MISCLASSIFICATION OF GRADE SCORE.
- CONCERNS: OVERTREATMENT OF PTS WITH LOW GRADE SCORE (WAS SOMETHING MISSED) AND HIGH GRADE CANCER MAY BE MISSED ALTOGETHER
- ADDITION OF BXS TO LATERAL ZONE IMPROVED DETECTION BY 15%
- NOW INCLUDE SUSP AREAS SEEN ON IMAGING, eg MRI
- RISKS INCLUDE: UTI, RECTAL BLEEDING. CONTRAINDICATED WHEN PT ON BLOODTHINNERS

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TURP

- Transurethral resection of the prostate is coded to a surgery, but does not qualify for a surgical resection. Clinically staged and clinically graded
- TURP clinical T based on non-palpable DRE and % of tumor resected

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PROSTATE IMAGING

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CT SCANS

- NOT ACCURATE DETECTING LOW GRADE TUMORS
- IMAGING MODALITY OF CHOICE TO DETECT ENLARGED PELVIC AND RETROPERITONEAL LYMPH NODES, HYDRONEPHROSIS AND OSTEOBLASTIC METASTASES. CAN BE USED TO GUIDE BIOPSY SOLITARY BONE LESIONS.
- LIMITED SOFT TISSUE RESOLUTION COMPARED MRI
- CANNOT DIFFERENTIATE THE PROSTATE CAPSULE FROM STRUCTURES- LIMITED FOR LOCAL STAGING
- DETECTION OF LYMPH NODES SIZE DEPENDENT- CANNOT SEE MICROMETS IN NORMAL SIZED LYMPH NODES. BENIGN LNS CAN BE FALSELY CALLED POSITIVE

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STANDARD PET CT

- STANDARD PET USES FDG. DEPENDENT ON GLYCOLYSIS
- PROSTATE CANCER CELLS DO NOT HAVE HIGH GLYCOLYSIS AND LESIONS ARE A MIX OF NORMAL AND CANCEROUS CELLS
- NEARBY URINARY BLADDER INTERFERES DETECTION PRIMARY CA.
- DETECTS BONE LESIONS

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MRI

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- NOW BEING USED IN FUSION WITH TRUS TO TARGET LESIONS.
- MULTIPARAMETRIC:-
- T1 SIGNAL: PROSTATE CONTOUR, NEUROVASC BUNDLE ENCASESMENT, POST BX HEMORRHAGE
- T2 SIGNAL:PROSTATE CANCER GIVES OFF LOW SIGNAL IN HIGH SIGNAL PERIPHERAL ZONE
- DYNAMIC CONTRAST: VASCULARITY VASCULAR PERMEABILITY- TUMOR PERMEABLE AND LEAKS CONTRAST OVER TIME
- DEVELOPMENT OF PIRADS. STANDARDIZE MRI FINDINGS- ALLOWS RADIOLOGISTS TO COMMUNICATE. NOW V2.1

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PIRADS: LIKELIHOOD OF CLINICALLY SIGNIFICANT DISEASE

- PIRADS 1 & 2: LOW
- PIRADS 3: EQUIVOCAL
- PIRADS 4: LIKELY
- PIRADS 5: HIGHLY LIKELY

SPERLING PROSTATE CTR
UNDERSTANDING THE
PIRADS SCORE

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PIRADS: RETROSPECTIVE STUDY PIRADS CALSSIFIACTION AND PROSTATECTOMY FINDINGS

- PIRADS 1 & 2: LOW
- PIRADS 3: EQUIVOCAL
- PIRADS 4: LIKELY
- PIRADS 5: HIGHLY LIKELY

- PIRADS 2: 18 BXS. 16 NEG. 2 SMALL VOL GLEASON 6 CANCERS
- PIARDS 3: 75 BXS. 88% NEG OR SM VOL G6, 12% >/= G3+4
- 133 BXS: 24% NEG; 25% G6 AND 51% >/= G3+4
- PIRADS 5: 117 BXS. 7% NEG, 13% G6 AND 80% >/= G3+4

BASTIAN-JORDAN, M (2017) J MED IMAGING & RAD ONC: **62,** 183-187

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PMSA PET

- PMSA – A GLYCOPROTEIN PRESENT ON PROSTATE CANCER CELLS. HIGHER ON AGGRESSIVE PROSTATE CANCER CELLS. LINKED TO ONCOGENIC PATHWAY AKT. DETECTION EVEN IF LOW PSA
- AUSTRALIAN STUDY (300 MEN)
- METASTASIS DETECTION: 27% IMPOVEMENT OVER PET (92% VS 65%)
- LESS LIKELY TO PRODUCE INCONCLUSIVE/EQUIVOCAL RESULTS (7% VS 23%)

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PMSA PET CONT

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- PMSA – STAGING PRIMARY PROSTATE CA
- RESTAGING AFTER BIOCHEMICAL RECURRENCE
- DETECTED SOME OTHER CANCERS- RCC, GLIOBLASTOMA, LUNG HEPATOCELLULAR CARCINOMA, THYROID CANCER
- BENIGN: TB, THYROID/ADRENAL ADENOMAS. PAGETS DISEASE, SCHWANNOMA, SPLENIC SARCOIDOSIS

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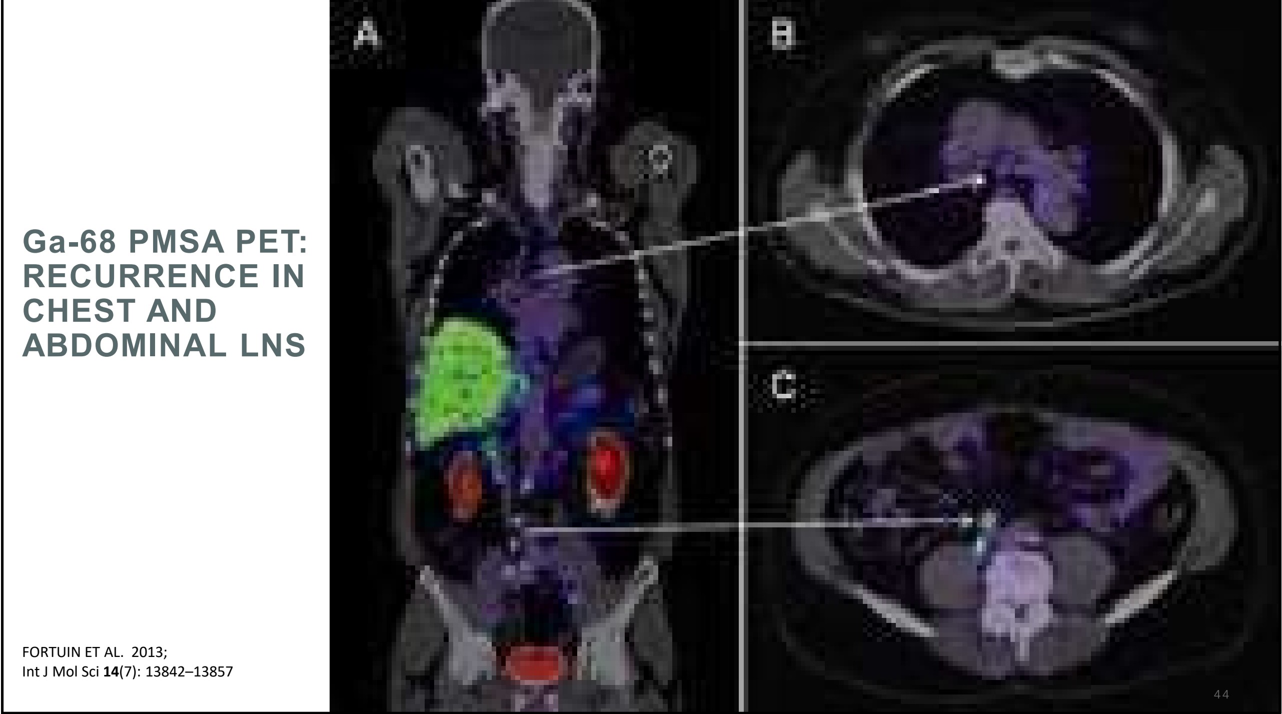

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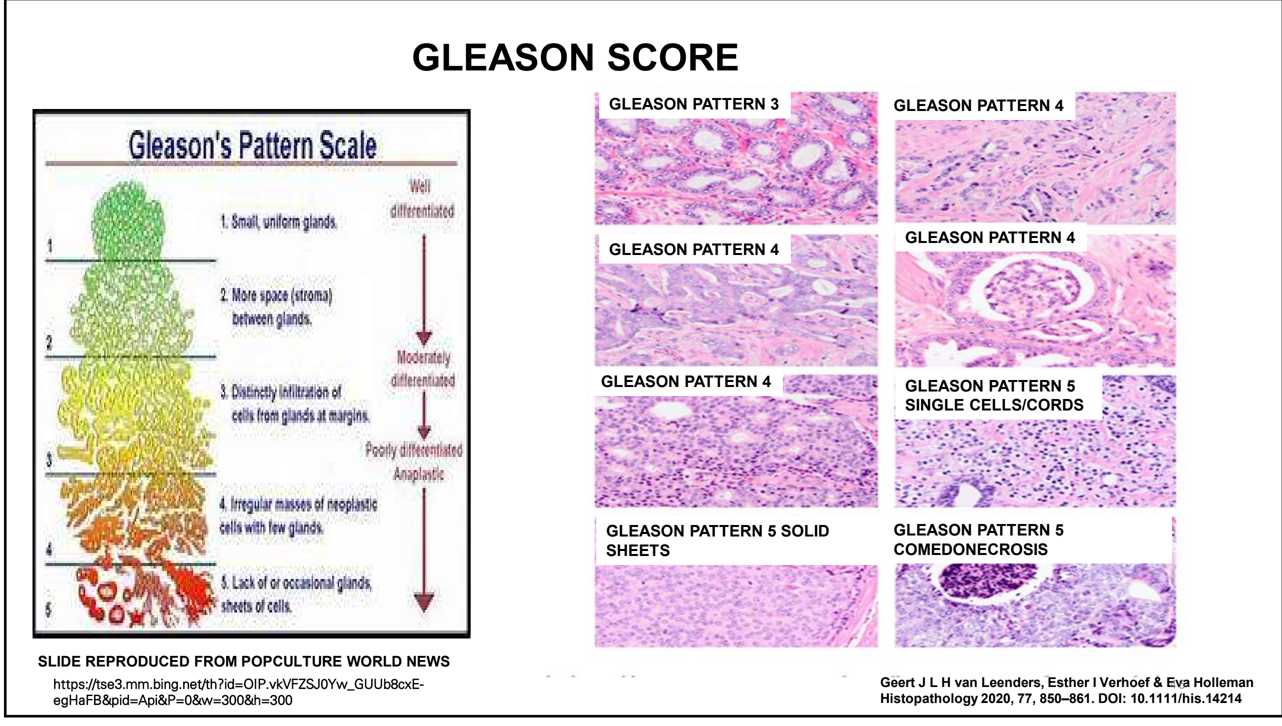

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Solid Tumor Rules (Other)

- Adenocarcinoma of the prostate is always a single primary
- Only 1 adenocarcinoma of the prostate per patient in their lifetime
- Acinar adenocarcinoma is synonymous with adenocarcinoma=1 primary (8140)

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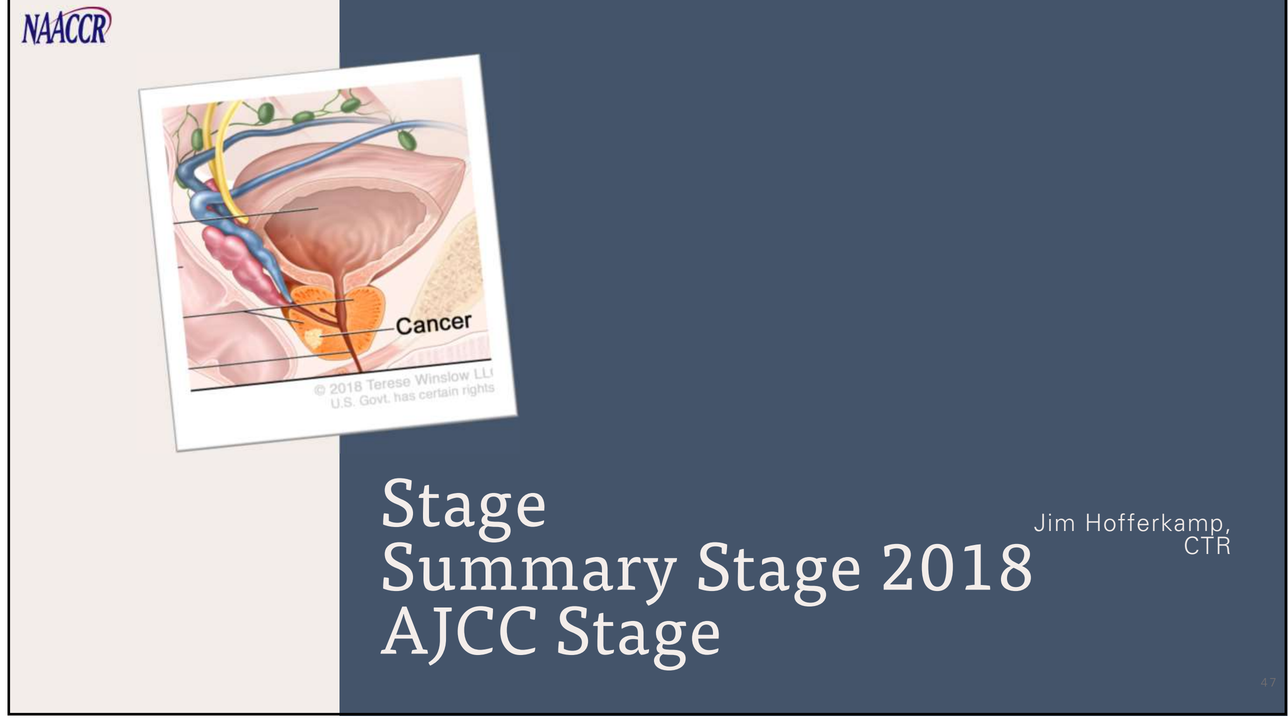

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SS2018 General Notes

- Transitional cell (urothelial)carcinoma of the Prostatic Urethra is under Urethra chapter (C680) no the prostate chapter
- TURP is the only procedure you have =localized 1
- Imaging to determine clinical extension -NO
- Information from the DRE
- Frozen pelvis
- Assign appropriate code if incidental finding

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SS2018

- 0=In situ
- 1=Localized
- 2=Regional by direct extension
- 3=RLN involved only
- 4=Both 2+3
- 7=Distant sites/distant LN's
- 9=Unknown

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SS2018 Prostate Case

PE: nodules on the RT

CT:3 cm mass suspicious for prostate CA and enlarged LN's suspicious for mets

PET: uptake in the RT extending to rectum wall, low level of activity in LN's suggestive of benign disease

OP: mass on the RT side of the prostate removed and submitted

Path: Prostatic adenoca no SVI, no EPE, no other organs involved and confined to the prostate with 1/5 LN+

SS2018 ____________

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AJCC 8th Edition

Prostate chapter 58

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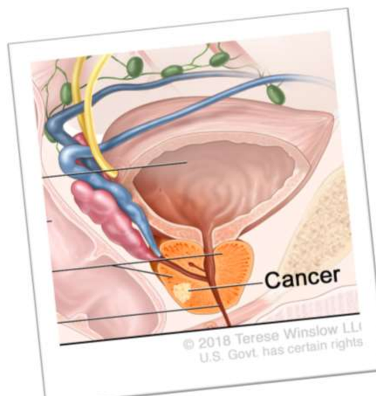

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Clinical Staging

- LN imaging info can be used for staging your cN and laterality does not affect your N code
- Neither imaging nor tumor laterality information from the prostate bx should be used for cT
- Clinical staging cTX-cT4
- Bx done for elevated PSA w/nonpalpable DRE always cT1c (no matter how much tissue is involved)
- cT1a and cT1b TURP w/nonpalpable DRE

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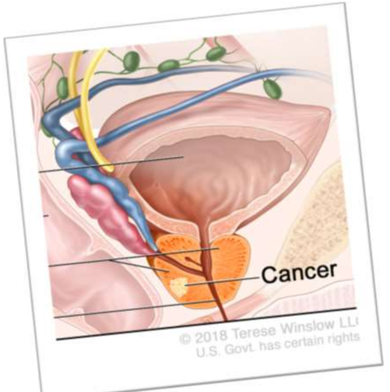
T Definitions (cT)

- Was a TURP done?
  - If yes, how much of the specimen was malignant?
- Was a DRE done?
  - If yes, is the tumor palpable?



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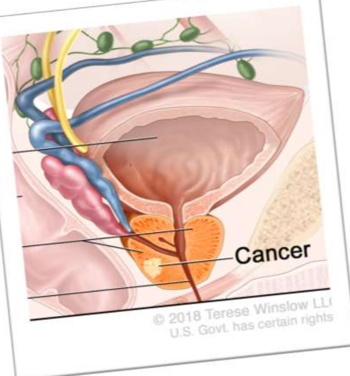
T Definitions (cT)

- If the tumor was palpable, how much tumor could be felt in the prostate?
  - How many lobes are involved?
  - Can extraprostatic extension be detected?



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Assigning a cTX

- Information is unknown by physician
- Physician is unable to palpate the prostate
- DRE not performed by physician
- Patient refuses a DRE

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Assigning a cT blank

- Registrar does not know if DRE was performed
- Patient presents to reporting facility and notes state DRE performed but results not stated

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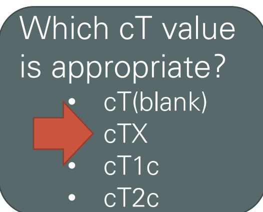
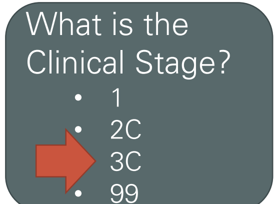
Pop Quiz 1

- Patient presents with elevated PSA. On DRE the physician documents that it is difficult to palpate the prostate due to body habitus. No palpable lymph nodes on PE. Prostate bx is performed with findings of Gleason 4+5=9 GG5 in multiple lobes.





Cancer

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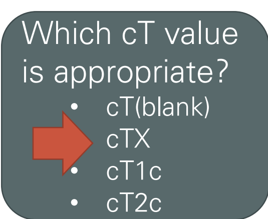
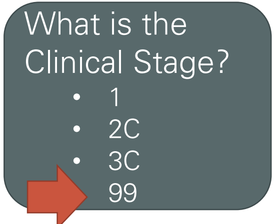
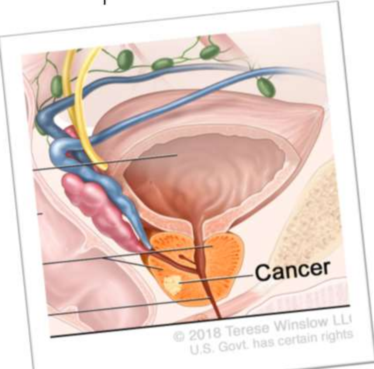
Pop Quiz 2

- Patient presents with elevated PSA. On DRE the physician documents that it is difficult to palpate the prostate due to body habitus. No palpable lymph nodes on PE. Prostate bx is performed with finding of Gleason 3+3=6 GG1 in multiple lobes.







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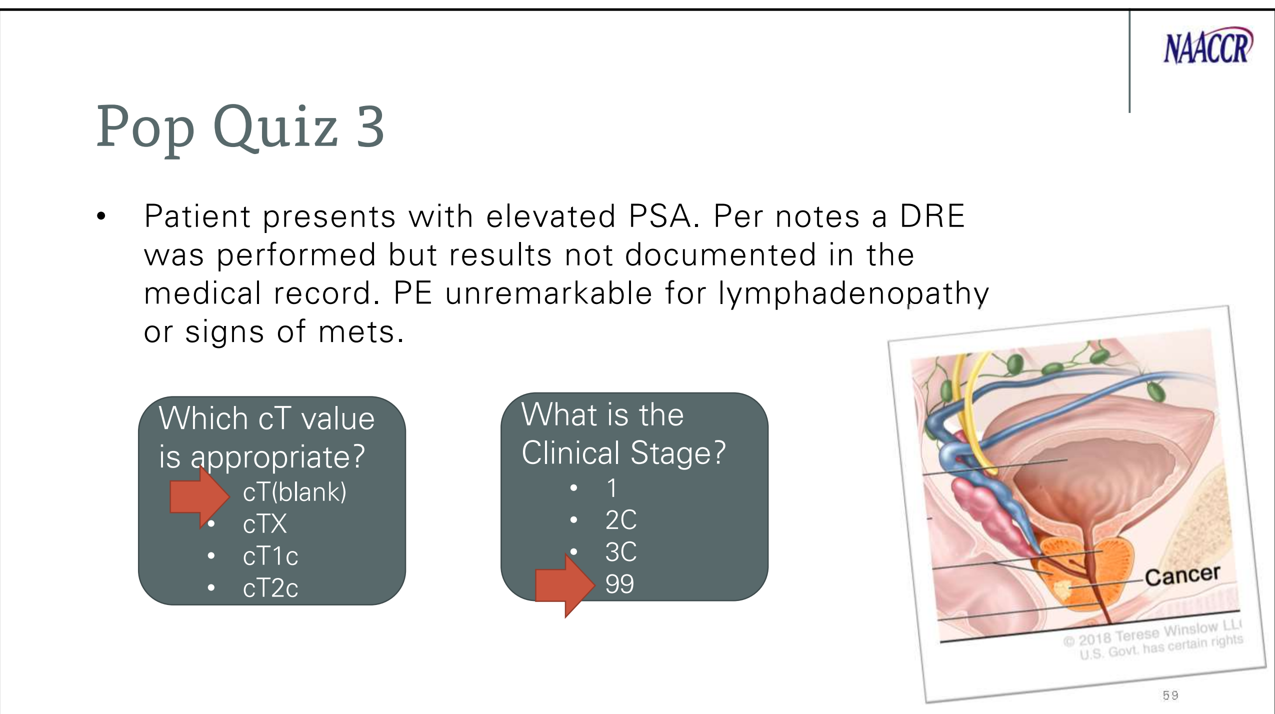

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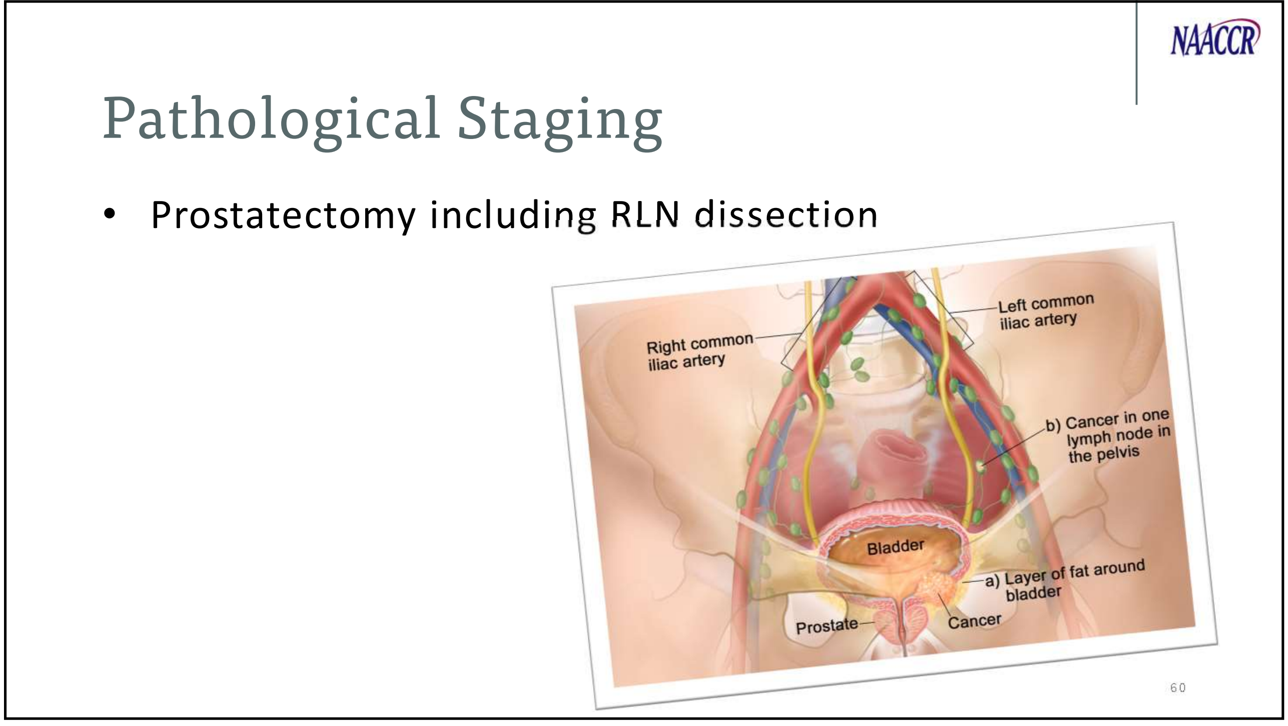

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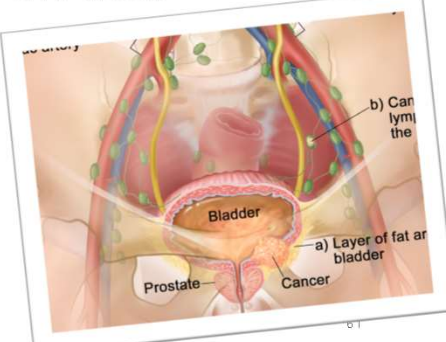
T Definitions (pT)

- Is the cancer confined to the prostate?
- If no,
  - Has it extended beyond the prostate in *one area*?
  - Has it invaded into the bladder neck?
  - Has it invaded the seminal vesicles?
  - Is it "fixed"?
  - Has it invaded other structures?



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Pop Quiz 4

- PE:DRE revealed palpable nodules on the rt
- CT: 3 cm mass susp for prostate cancer
- PET: uptake in rt PZ ext to rectum wall
- OP:RALP and bilateral pelvic LN dissection
- PATH: prostatic adenoca fixed to the rectum

What is pT? pT4

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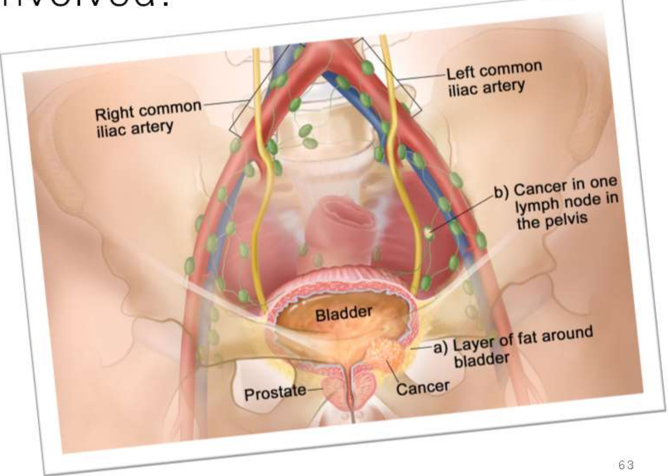
N Definitions (cN or pN)

- Are regional nodes involved?



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Pop Quiz 5

CT: Multiple enlarged bilateral pelvic LNs are susp for mets disease.

PET: Low level activity in enlarged pelvic LNs suggests benign etiology (reactive LNs

Pathology: Lt pelvic LN bx negative for carcinoma; Bil pelvic LN excision: 0 of 11 Lt and 0 of 12 Rt (pN0 per pathologist staging

What is cN?	cN1
What is pN?	pN0

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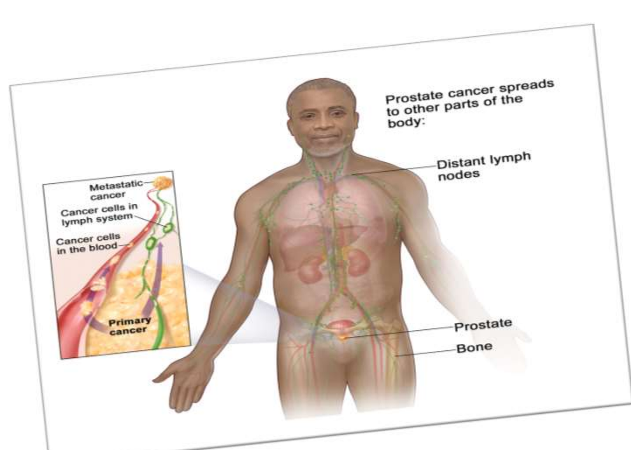
M Definitions

- Is there distant mets?
- If yes,
  - Is it to distant lymph nodes?
  - Is it to the bones?
  - Is it somewhere else?



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Grade

- Code grade from the primary tumor only
- Insitu vs invasive grading
- If clinical grade is higher than path grade bring down your clinical grade
- Systemic treatment and radiation can alter a tumors grade
- Can't determine whether clinical or pathological grade????
- Grade must never be blank
- TURP is always clinically graded not a surgical resection

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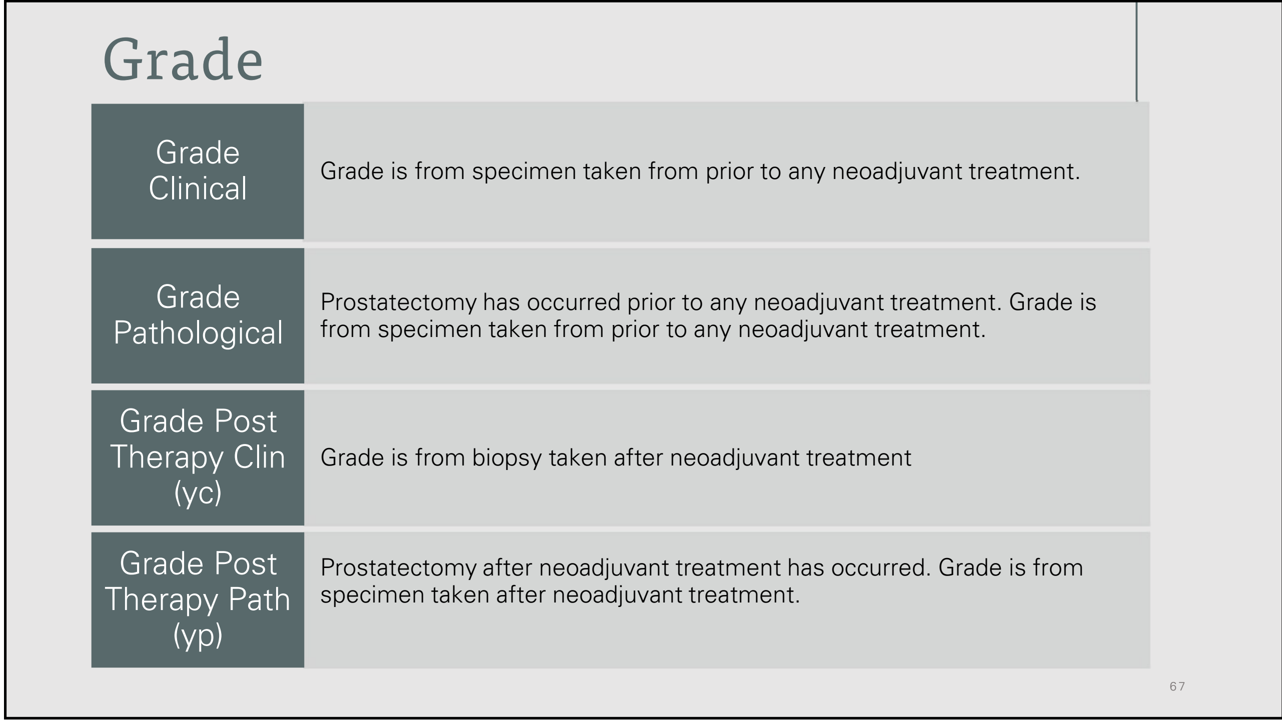

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Grade Groups-Grade ID 17

1 G Gp 1: Gleason score ≤ 6
2 G Gp 2: Gleason score 7, pattern 3+4
3 G Gp 3: Gleason score 7, pattern 4+3
4 G Gp 4: Gleason score 8
5 G Gp 5: Gleason score 9 or 10

A Well differentiated
B Moderately differentiated
C Poorly differentiated
D Undifferentiated, anaplastic
E: Stated as “Gleason score 7” w/ no patterns OR any Gleason patterns combo = 7 not documented in Gp 2 or Gp 3
9 Grade not assigned (GX), unknown

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Example

- 11-15-21: Prostate Bx:
  - Left lobe prostate-Gleason grade 4+3=7
  - Right lobe prostate-Negative
- 1-22-22 Robotic Radical Prostatectomy with BPNL removed
  - Acinar adenoca
  - Gleason 3+3=6
  - Not extraprostatic extension, negative nodes

Grade	Grade Value
Grade Clinical	3
Grade Pathological	3
Grade yc	
Grade yp	

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Example

- 7-30-21: Patient presents with urine retention. Here for TURP.
- 7-30-21: TURP Pathology
  - Histologic Type: Adenocarcinoma
  - Histologic Grade: 3+5=8 (Grade Group 4)
    - 25% of sample involved

Grade	Grade Value
Grade Clinical	4
Grade Pathological	9
Grade yc	
Grade yp	

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SSDI-PSA

- Dr statement can be used if no other info
- Record to nearest tenth in ng/ml (or ug/L) within 3 months
- For uncertain value, code stated closest value
  - Ex: PSA < 5 = 4.9
- IF Dr documents in med record of adjusted PSA, record adjusted

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PSA coding

Code	Description
0.1	≤ 0.1 ng/ml
0.2 – 999.9	0.2 – 999.9 ng/ml (Exact value to nearest tenth)
XXX.1	≥ 1,000 ng/ml
XXX.7	Test ordered, results not in chart
XXX.9	Not documented in med record; PSA not assessed or unk

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PSA

PSA Lab Results	Code
7.2	7.2
10	10.0
8.56	8.6
110.35	110.4
1,200	XXX.1

Reminders:
* Must have tenth position (past decimal point)
* Round up to nearest tenth

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SSDI-Gleason Pattern Clinical

- Dr statement can be used if no other info
- Use core bx OR TURP
  - If both done, use higher score pattern
- Code prior to neoadj tx
- Multiple needle core bx code most aggressive
- If 2 numbers, then assume pattern
- If 1 number and it's ≤ 5, code as primary pattern w/secondary pattern unk
- If 1 number > 5, assume score, no pattern
- If path records #/10, assume # = score, no pattern

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SSDI-Gleason Score Clinical

- Dr statement can be used if no other info
- Use core bx OR TURP
  - If both done, use higher score
  - If different score on multi cores, use highest
- Code prior to neoadj tx
- Use same path as Gleason Pattern Clin
- If 2 numbers, then assume pattern and add
- If 1 number and it's ≤ 5, then pattern, code X9
- If 1 number > 5, assume score
- If path records #/10, assume # = score, no pattern

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SSDI-Gleason Pattern Pathological

- Dr statement can be used if no other info
- Use prostatectomy or autopsy
- If neoadj tx, code pattern X9
- If 2 numbers, then assume pattern
- If 1 number and it's ≤ 5, code as primary pattern w/secondary pattern unk
- If 1 number > 5, assume score, no pattern
- If path records #/10, assume # = score, no pattern

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SSDI-Gleason Score Pathological

- Dr statement can be used if no other info
- Use prostatectomy or autopsy
- If neoadj tx, score X9
- Use same path as Gleason Pattern Path
- If 2 numbers, then assume pattern and add
- If 1 number and it's ≤ 5, then pattern, code X9
- If 1 number > 5, assume score
- If path records #/10, assume # = score, no pattern

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SSDI-Gleason Tertiary Pattern

Dr statement can be used if no other info

Use prostatectomy or autopsy path

If neoadj tx given code X9

CAP prostate protocol doesn't include patterns 1 & 2 for tertiary

10: TP 1

20: TP 2

30: TP 3

40: TP 4

50: TP 5

X7: No prostatectomy/ autopsy performed

X8: N/A, info not collected

X9: Not documented in med record; tertiary not assessed or unk

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SSDI-Number of Cores Positive

- Dr statement can be used if no other info
- Record number + core bx from first core bx
- If path report contains summary of + & exam, use it
  - If no summary, add all + cores

01-99: 1-99 cores + (code exact number)
X1: ≥ 100 cores +
X6: Bx cores +, number ?
X7: No core bx performed
X8: N/A; info not collected
X9: Not documented in med record; # cores + not assessed or unk

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SSDI-Number of Cores Examined

- Dr statement can be used if no other info
- Record number + core bx from first core bx
- If path report contains summary of + & exam, use it
  - If no summary, add all + cores

01-99: 1-99 cores exam (code exact number)
X1: ≥ 100 cores exam
X6: Bx cores exam, number ?
X7: No core bx performed
X8: N/A; info not collected
X9: Not documented in med record; # cores exam not assessed or unk

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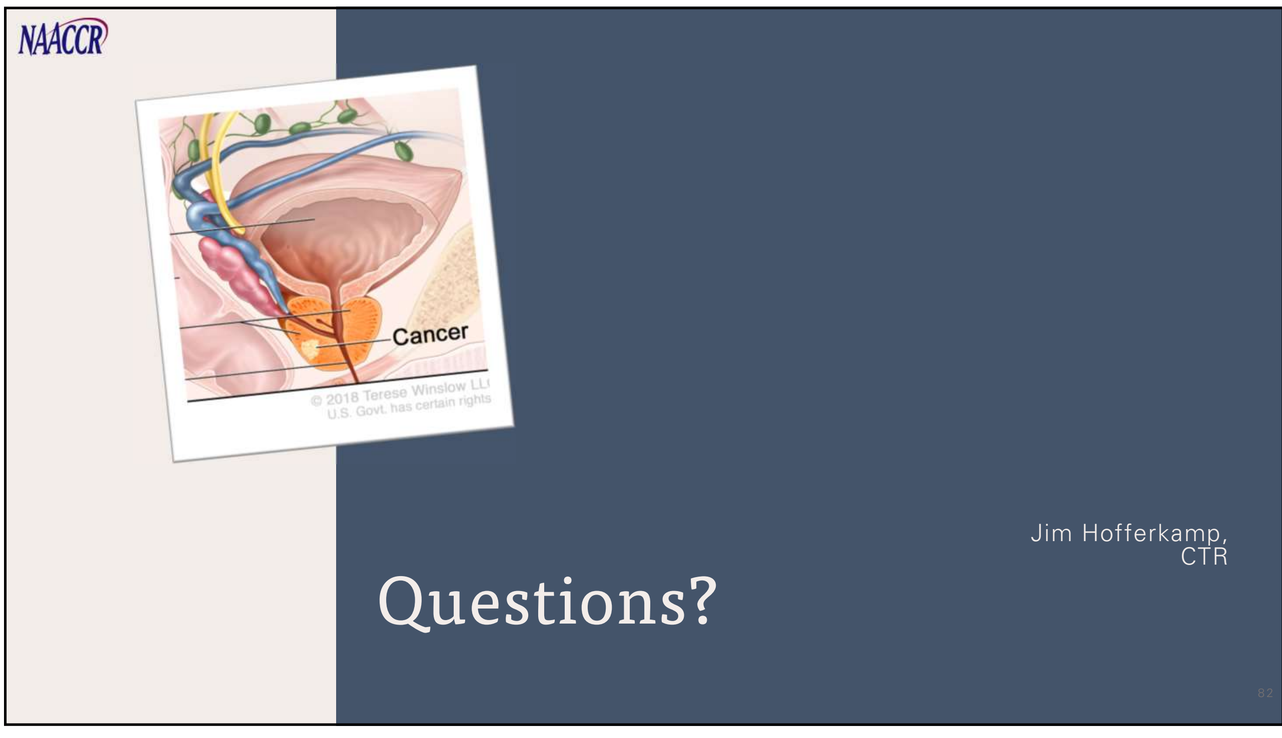

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CE Certificate Quiz/Survey

CE Phrase

- phrase

Link

- linhttps://survey.alchemer.com/s3/7032808/Prostate-2023

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Coming UP…

Lower GI 2023 Part 1

- Guest Host: Denise Harrison
- 5/4/2023

Lower GI 2023 Part 2

- Guest Host: Denise Harrison
- 6/1/2023

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