

The Fifteen Stages of PROSTATE CANCER

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Invasion of the Prostate Snatchers

The Key to Prostate Cancer

Patients Are Expected to Take Charge of the Decision Making Process

- No full-time experts in treatment selection
- Doctors have conflicts of interest
- Extremely long natural history of prostate cancer makes predictions about outcome difficult
- Treatment impacts quality-of-life more than survival

An 8-Question Staging Quiz

pcri.org

Prostate Cancer Staging Guide

[SKY](#) | [TEAL](#) | [AZURE](#) | [INDIGO](#) | [ROYAL](#)


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Knowing Your Stage...

- Helps you speak the language of prostate cancer with your doctor
 - Gives perspective on the risk of dying
 - Allows you to avoid unessential information related to other stages
 - Guides you to the correct treatment
- 
- A person is standing in a dark, narrow hallway, looking out through a large, arched doorway. The light from the doorway illuminates the person's silhouette and the floor. The walls of the hallway are covered in faint, white, hand-drawn sketches of various objects and scenes, including houses, trees, and mechanical parts. The overall atmosphere is one of a journey or a path leading to a bright future.

The Five Stages of Blue

S

SKY: Low-Risk

T

TEAL: Intermediate-Risk

A

AZURE: High-Risk

I

INDIGO: PSA Relapse

R

ROYAL: Advanced

The Risk of Dying

	<u>Treatment Intensity</u>	<u>Risk of Mortality</u>
• Sky	None	<1%
• Teal	Moderate	5%
• Azure	Maximal	10%
• Indigo	Mod. to Max.	< 50%
• Royal	Maximal	> 50%

Note: These are *cumulative* statistics

The *Timing* of Mortality

American Cancer Society

		<u>Year Diagnosed</u>
• Five year	1%	2012
• Ten year	2%	2007
• Fifteen year	4%	2002
• More	7%	
• Never (from PC)	85%	

The stats are pessimistic: Half of those who are diagnosed in 2017, who are destined to succumb, will benefit from the medical technology of 2032+

Other Staging Systems are Incomplete

1. Clinical: Digital rectal exam only
2. Pathologic: Surgical or biopsy findings only
3. TNM: 1 & 2 *plus scans*
4. Risk Categories (Low, Mod, High-Risk): 1 & 2 *plus PSA*
5. Stages of Blue: 1, 2, 3, 4 and whether or not there has been previous therapy

"Clinical" Stage or DRE Stage

DRE = Digital Rectal Exam

Stage	Description	Stage of Blue
T1:	Tumor that cannot be felt at all by DRE	Sky
T2:	Tumor confined within the prostate T2a: Tumor in < 50% of one lobe	Teal
	T2b: Tumor in > 50% of one lobe but not both lobes	↓
	T2c: Tumor felt in both lobes	Azure
T3:	Tumor that extends through the prostate capsule T3a: Extracapsular extension T3b: Tumor that invades seminal vesicle(s)	↓
T4:	Tumor that invades rectum or bladder	↓

What's Wrong with Risk Categories?

(Low-Risk, Intermediate-Risk, High-Risk)

- Doesn't include:
 - Multiparametric-MRI findings
 - Percentage biopsy-core findings
 - PET scan information
- Doesn't address relapsed and advanced Dz.
- Doesn't suggest a treatment schema
- Assigning a stage requires a professional

The Six Components of The Stages of Blue

(Risk Categories = The three factors above dotted line)

- Digital rectal Normal vs. nodule vs. mass
- Gleason Score 6 vs. 7 vs. 8-10
- PSA <10 vs. 10-20 vs. over 20

- Biopsy Cores Few vs. mod. vs. many
- Previous therapy Yes vs. no
- Imaging Disease extent: nodes, bones

The Guts of the Five Stages of Blue

	Local Therapy	Gleason Score	Digital Rectal	PSA	MRI, CDU CT Scans	Bone Scan
Sky	No	<6	Small nodule or no nodule	<10	No ECE	No Need
Teal	No	7	Larger nodule on one side	10-20	No ECE	Clear
Azure	No	8-10	Bilateral nodule, ECE or SV	>20	ECE, SV, Pelvic Node	Clear
Indigo	Yes	Any	Any	Rising	Pelvic Node	Clear
Royal¹	Any	Any	Any	>100	Other Node	Positive

1. Any rising PSA with a low testosterone bumps to Royal
ECE = Extra-capsular Extension SV = Seminal Vesicle



This is the only comforting slide in the whole presentation

The Characteristics of *SKY*

"Low-Risk"



- No previous therapy
- Small nodule or no nodule
- Gleason 6
- PSA under 10
- State-of-the art multiparametric-MRI (MP-MRI) showing no high-grade disease

Three Types of *Sky*

The background of the slide features a blurred green and blue scene with a tree branch on the left and two colorful birds in flight in the center. The birds have orange, yellow, and blue plumage. The title 'Three Types of Sky' is written in a large, yellow, stylized font at the top.

- 1. Low-Sky** = Two or fewer biopsy cores with cancer, no core more than 50% replaced and PSA density under 0.15 (PSA density is PSA divided by prostate size in cc)
- 2. Basic-Sky** = Same as *Low-Sky* except can have up to 50% of core biopsies positive, but no core more than 50% replaced with cancer
- 3. High-Sky** = More than 50% cores positive, or a palpable nodule (T2a) or PSA density > 0.15

Treatment for *Sky*

1. *Low-Sky* = Active Surveillance

2. *Basic-Sky* = Active Surveillance

3. *High-Sky* = Active Surveillance

The *TEAL* Stage

"Intermediate Risk"

- No previous treatment
- Grade 7, and / or
- PSA 10 to 20 and / or
- Larger, *unilateral* nodule (T2b)
- MP-MRI: no unexpected high-grade disease
- Bone scan clear

Three Types of *TEAL*

4. *Low-Teal*

- Gleason 3 + 4 = 7, with < 20% grade 4
- Only 2 biopsy cores positive, each with < 50% cancer
- Only one *Teal* factor; all other factors are *Sky*

5. *Basic-Teal*

- Like *Low-Teal* but up to 50% of cores positive

6. *High-Teal*

- Gleason 4 + 3 = 7
- Over 50% of core biopsies positive
- Two or more *Teal* factors

Treatment for *TEAL*

4. *Low-Teal* = Active Surveillance

5. *Basic-Teal* = Monotherapy with Seeds or IMRT or Proton or SBRT or Surgery or hormonal therapy

6. *High-Teal* = Combo therapy with Seeds + IMRT + Hormones for 4-6 months



The *Azure* Stage

"High-Risk"

- No previous treatment
- Gleason 8,9, 10 and / or
- PSA over 20 (and < 100) and / or
- MP-MRI with ECE, SVI or Node Mets
- Bone scan clear

Three Types of *Azure*

- 7. Low-*Azure*** = Small 4+4=8 tumor, PSA under 10, only a couple cores positive and favorable multiparametric-MRI findings
- 8. Basic-*Azure*** = Neither Low or High (most men in *Azure* are in the Basic subtype)
- 9. High-*Azure*** = Gleason score of 9 or 10 and / or seminal vesicle invasion and / or pelvic lymph node metastases and / or PSA above 40

Treatment for Azure



7. Low-Azure

- Similar to *High-Teal*: Seeds + IMRT + hormone therapy for four to six months

8. Basic-Azure

- Seeds + IMRT to prostate and pelvic nodes + hormone therapy for 18 months

9. High-Azure

- Same as *Basic-Azure* with the additional consideration for adding Zytiga, Xtandi or Taxotere



The *INDIGO* Stage

- A cancer recurrence after therapy:
 - Positive margin after surgery
 - Rising PSA (from cancer)
 - Biopsy positive prostate or nodes
 - Scan positive nodes
- No metastases beyond the pelvic nodes

Three Types of *Indigo*

- 10.** *Low-Indigo* = Recurrence in the prostate or prostate fossa only
- 11.** *Basic-Indigo* = There is a significant risk of microscopic pelvic lymph node metastases, but node mets are unproven
- 12.** *High-Indigo* = Scans or biopsy show unequivocal pelvic node metastases

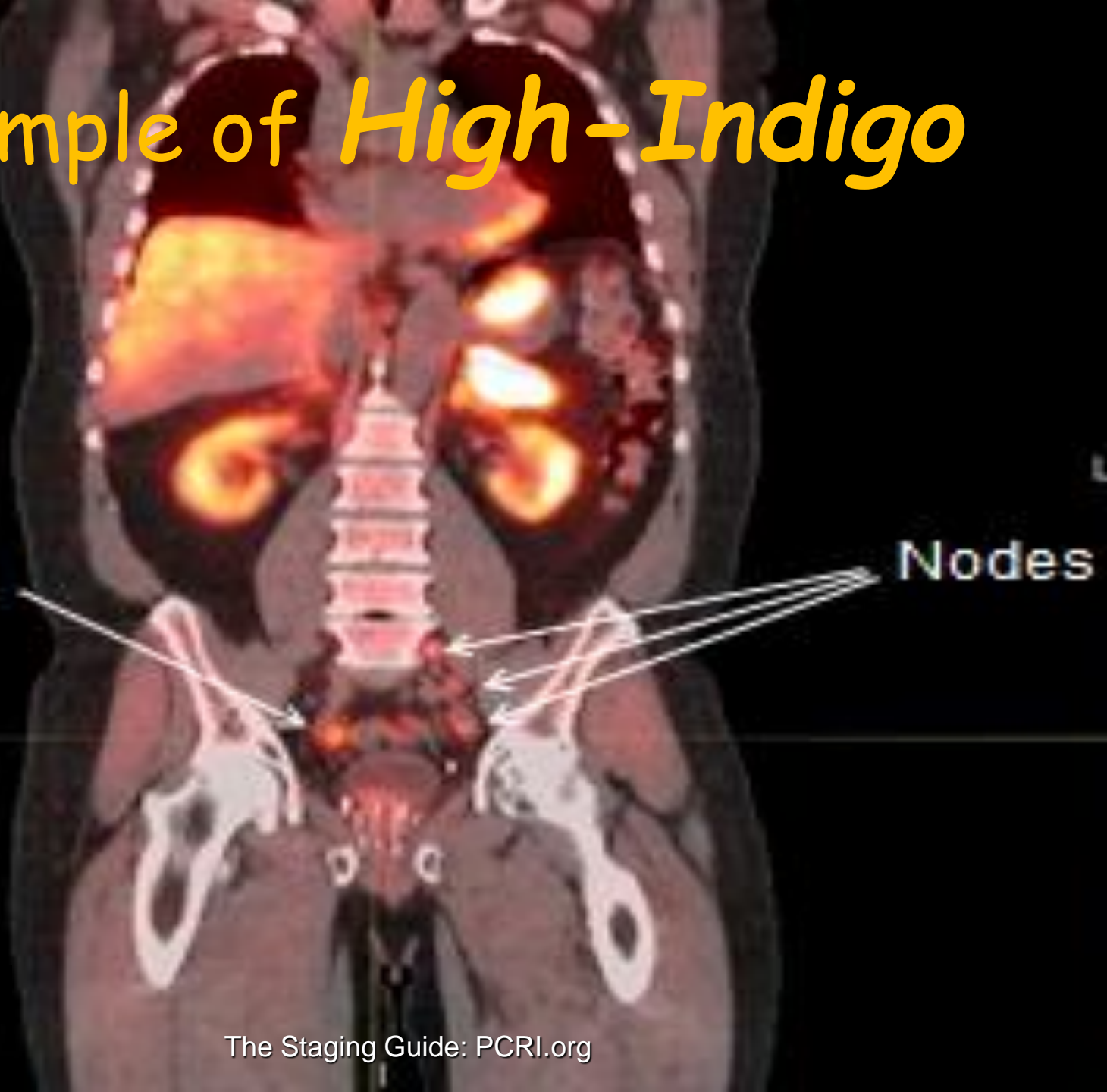
Treatment for *INDIGO*

- 10.** *Low-Indigo* = IMRT to prostate fossa after previous surgery or cryotherapy after previous XRT
- 11.** *Basic Indigo* = Same as *Low-Indigo* but with the addition of hormones for 6 to 12 months & pelvic node XRT.
- 12.** *High-Indigo* = Same as *Basic-Indigo* with the addition of Zytiga, Xtandi and /or Taxotere

Example of *High-Indigo*

Node

Nodes



The *ROYAL* Stage

- Hormone resistance, which is:
 - A rising PSA
 - Testosterone < 50
- Metastases beyond pelvic nodes

Three types of **ROYAL**

- 13.** *Low-Royal* = Hormone resistant, but scans show no metastases anywhere
- 14.** *Basic-Royal* = Less than 6 metastases with at least one beyond the pelvic nodes
- 15.** *High-Royal* = More than 5 metastases with at least one beyond the pelvic nodes

Treatment for *Royal*

- 13.** *Low-Royal* = Use PET scans. Find the metastases! Once you find the cancer treat it like *Basic-Royal*
- 14.** *Basic-Royal* = Provenge followed by Zytiga or Xtandi with IMRT or SBRT to all metastatic sites. (If hormone sensitive, consider early Taxotere)
- 15.** *High-Royal* = Next slide

Treatment Principles: *High-ROYAL*

- Consider aggressive, early combination therapy with Provenge, Zytiga or Xtandi.
- Monitor PSA and scans closely. Goal is to achieve an undetectable PSA
- Change to Xofigo or Taxotere at the first sign of cancer progression

A polar bear is standing on a large, white block of ice that is floating in the dark blue ocean. The bear is facing slightly to the left of the camera, looking upwards. The background is a vast expanse of water with some smaller ice floes visible in the distance.

Don't Wait Till It's Too Late

When Provenge was administered to men before the PSA rose above 22, the average improvement in survival was 13 months compared to only 4 months when treatment was delayed.

Fear Cause Brain Freeze

- Prostate Cancer
- Racists
- Radiation
- Gang members
- Chemotherapy
- Nazis
- Impotence



Knowledge Combats Fear, But There Are Daunting Barriers:

- Prostate cancer is intricate and can be hard to understand
 - There is endless information on the internet
 - Much is outdated—old internet info never dies
 - Technology is evolving quickly
- Facetime with doctors comes at a premium
- Doctors are trained in only one type of therapy

What Exactly Are We Afraid of?

- Early mortality
- Loss of quality of life (pain and suffering)
- Being overwhelmed by too much information
- Mismanaging and screwing up:
 - It's painful when something bad happens
 - It's worse when you don't know what to do
 - It's even worse if the problems could have been prevented with better management

What Should We Be Afraid of:

- Fear itself: Frightened people make bad choices
- Too much respect for authority: This is a high stakes game with your longevity and quality of life at stake. Don't just do what you are told
- Laziness or intimidation toward the study process
- Impatience; treatment side effects are potentially irreversible. Usually there is plenty of time to educate yourself before embarking on therapy.

Requirements for Optimal Learning

- Set aside quality time
- Believe in yourself; you can do it
- Understand that learning is a process
- Limit your focus to only what you need
- Feed on accurate, up-to-date information
- Focus on facts, not fearful feelings

Focus Alleviates Pressure

- Identify your stage and substage by using the Staging Guide available at pcri.org
- Become very familiar with the common therapies used for your particular stage
- Consult one or more doctors after you have done your homework. You are expected to voice your preferences.

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pcri.org

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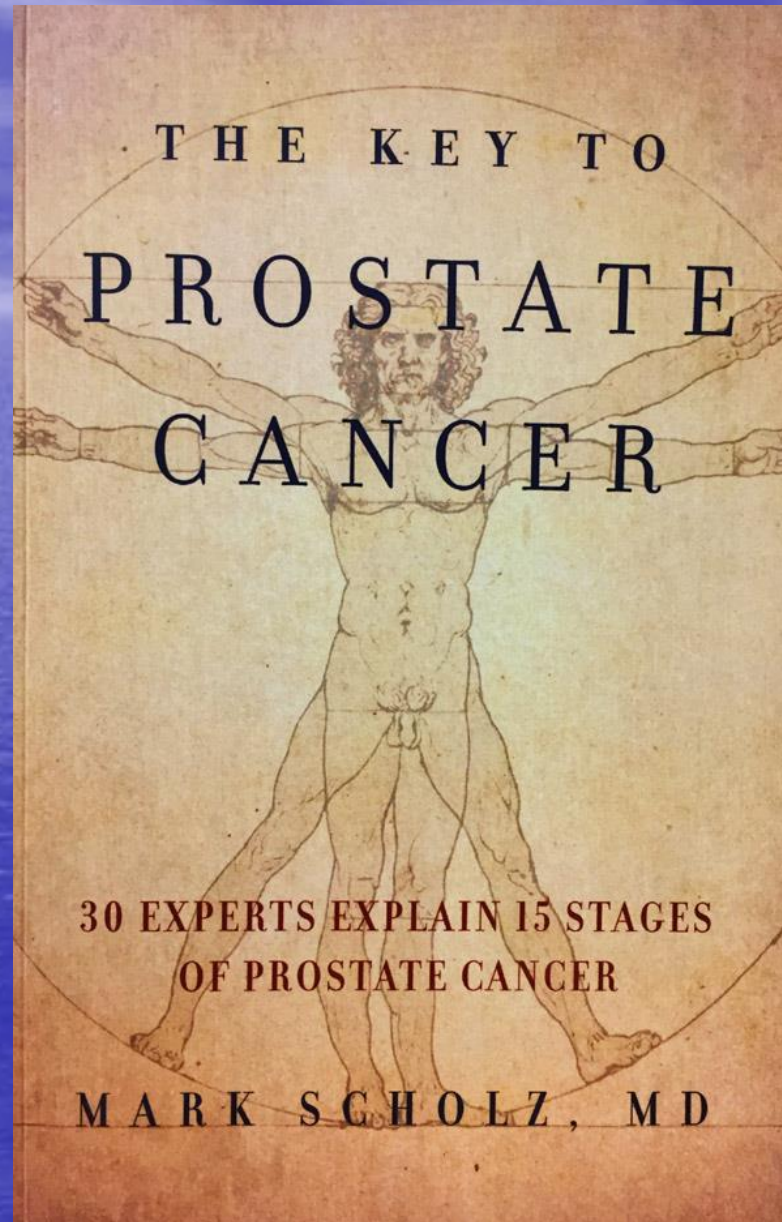
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The Staging Guide: PCRI.org

PCRI.ORG

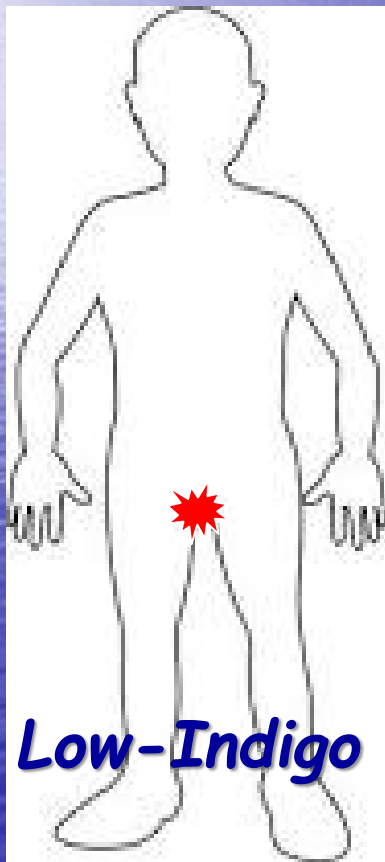
Epstein Score Clarifies Risk

Epstein Score (1 to 5)	Implications
1 = Gleason 3 + 3 or less	Harmless
2 = Gleason 3 + 4	Barely consequential
3 = Gleason 4 + 3	Consequential
4 = Gleason 4 + 4	Worrisome
5 = Gleason 4 + 5 or more	Twice as worrisome

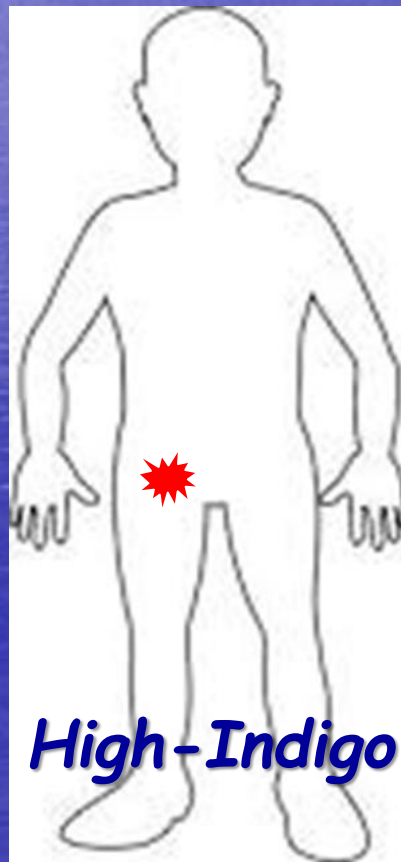
Extent of Disease Per Scans

INDIGO

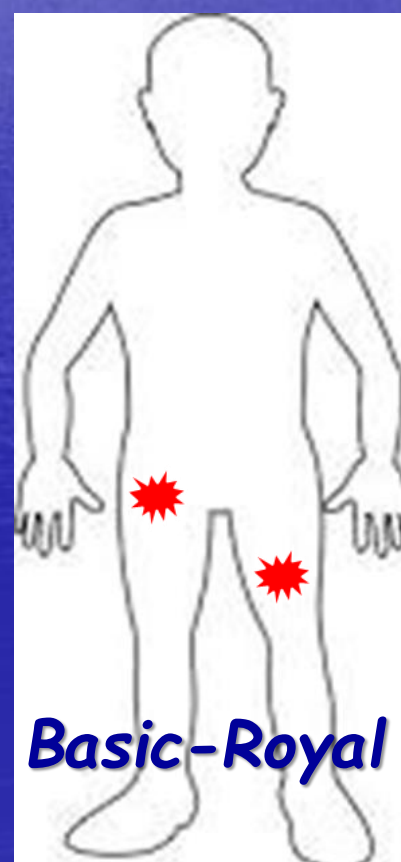
ROYAL



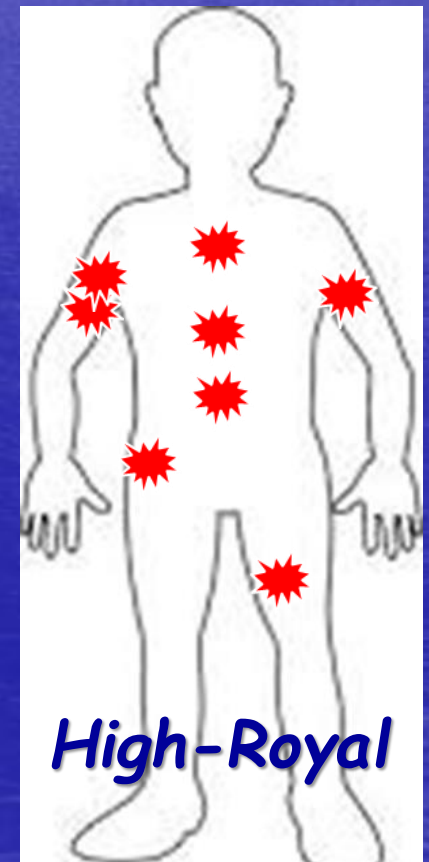
Low-Indigo



High-Indigo



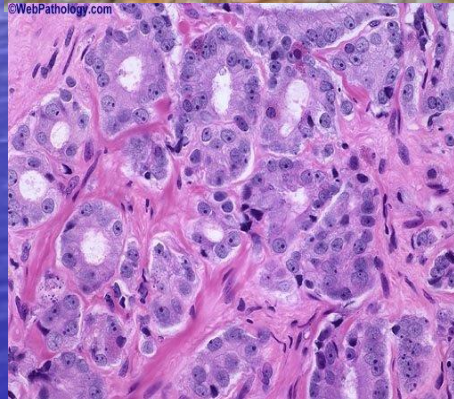
Basic-Royal



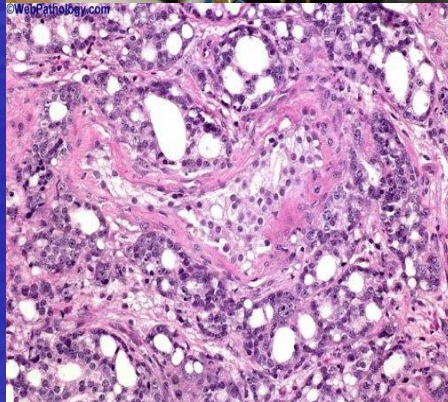
High-Royal

Dogs and Prostate Cancer

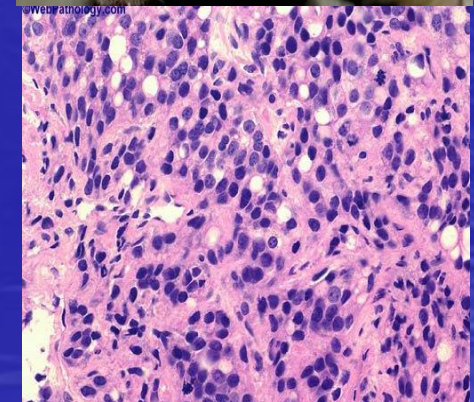
Epstein 1
Gleason 6



Epstein 2,3
Gleason 7

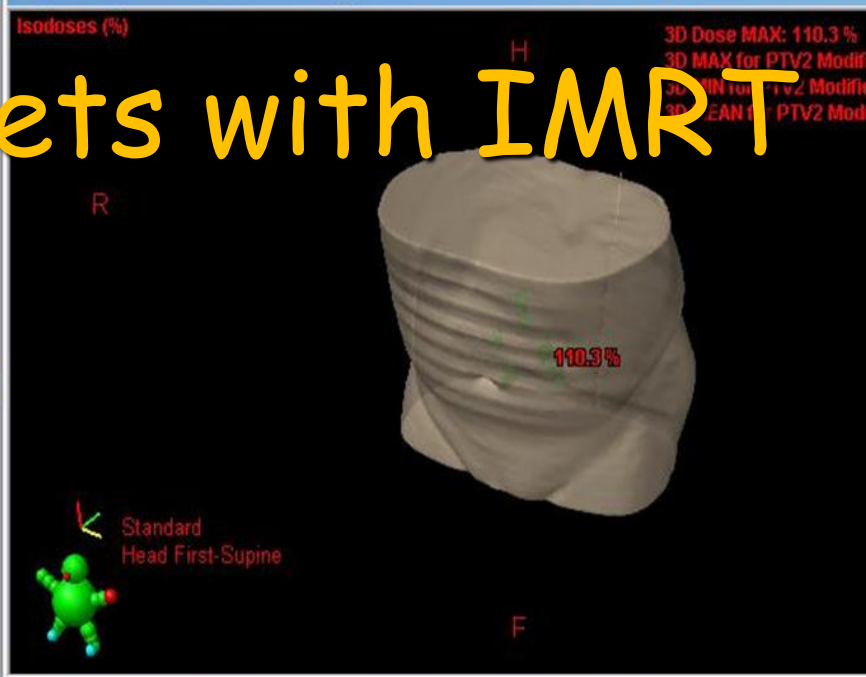
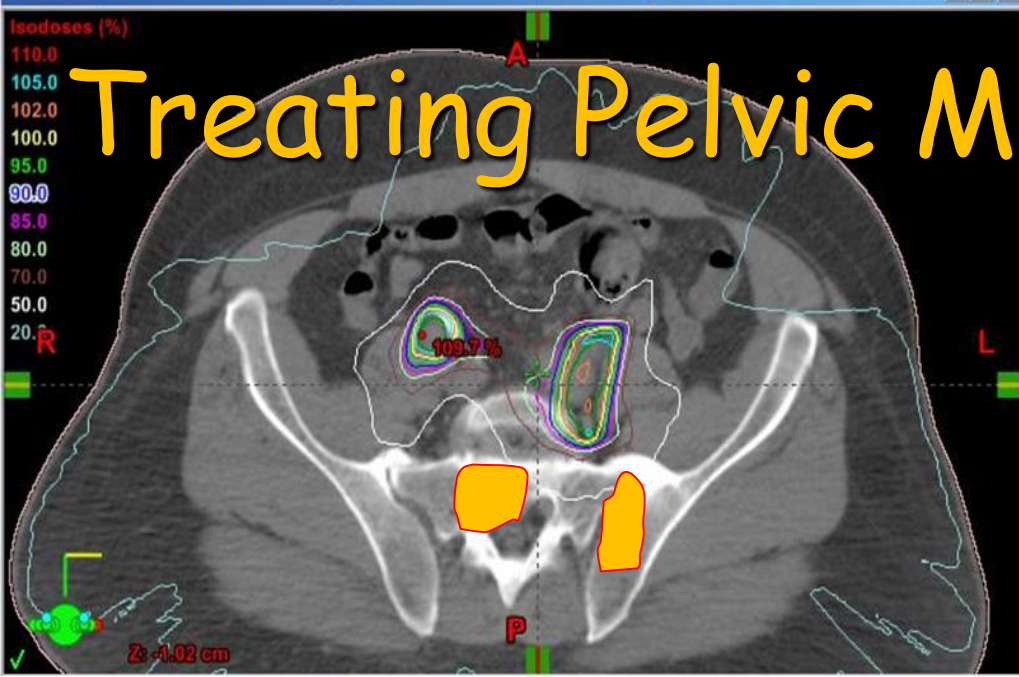


Epstein 4,5
Gleason 8-10



How to Subtype *Indigo*

- 10.** *Low-Indigo* = PSA < 0.5 after surgery or if < 5.0 after XRT; PSA-DT > 8 months and previous stage (prior to relapse) was *Basic-Teal* or less
- 11.** *Basic-Indigo* = Fails to meet criteria of either *Low-Indigo* or *High-Indigo*. Such patients have a higher likelihood of pelvic micro-mets.
- 12.** *High-Indigo* = Unequivocal pelvic node metastases have been documented with scans or by biopsy (without metastases anywhere else in the body)



Treating Pelvic Mets with IMRT

