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Comprehensive  
Cancer  
Network®

**NCCN Clinical Practice Guidelines in Oncology™**

# **Prostate Cancer**

V.1.2010

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† Medical oncology  
£ Supportive Care including Palliative, Pain management,  
Pastoral care and Oncology social work  
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[NCCN Guidelines Panel Disclosure](#)

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### [Staging](#)

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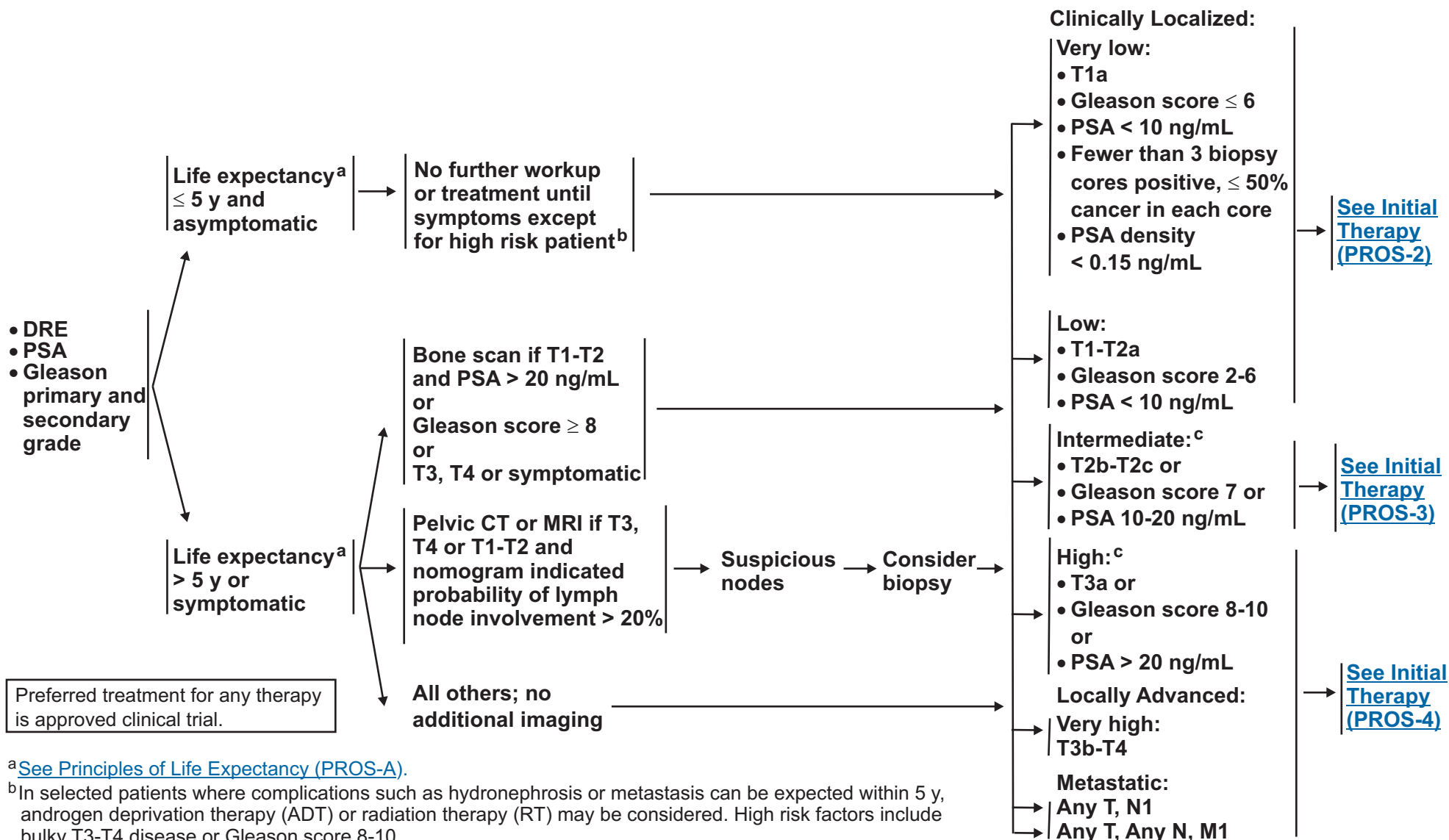
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INITIAL PROSTATE  
CANCER DIAGNOSIS

INITIAL CLINICAL  
ASSESSMENT

STAGING WORKUP  
(TNM staging refers to 2002 Classification)

RECURRENCE RISK



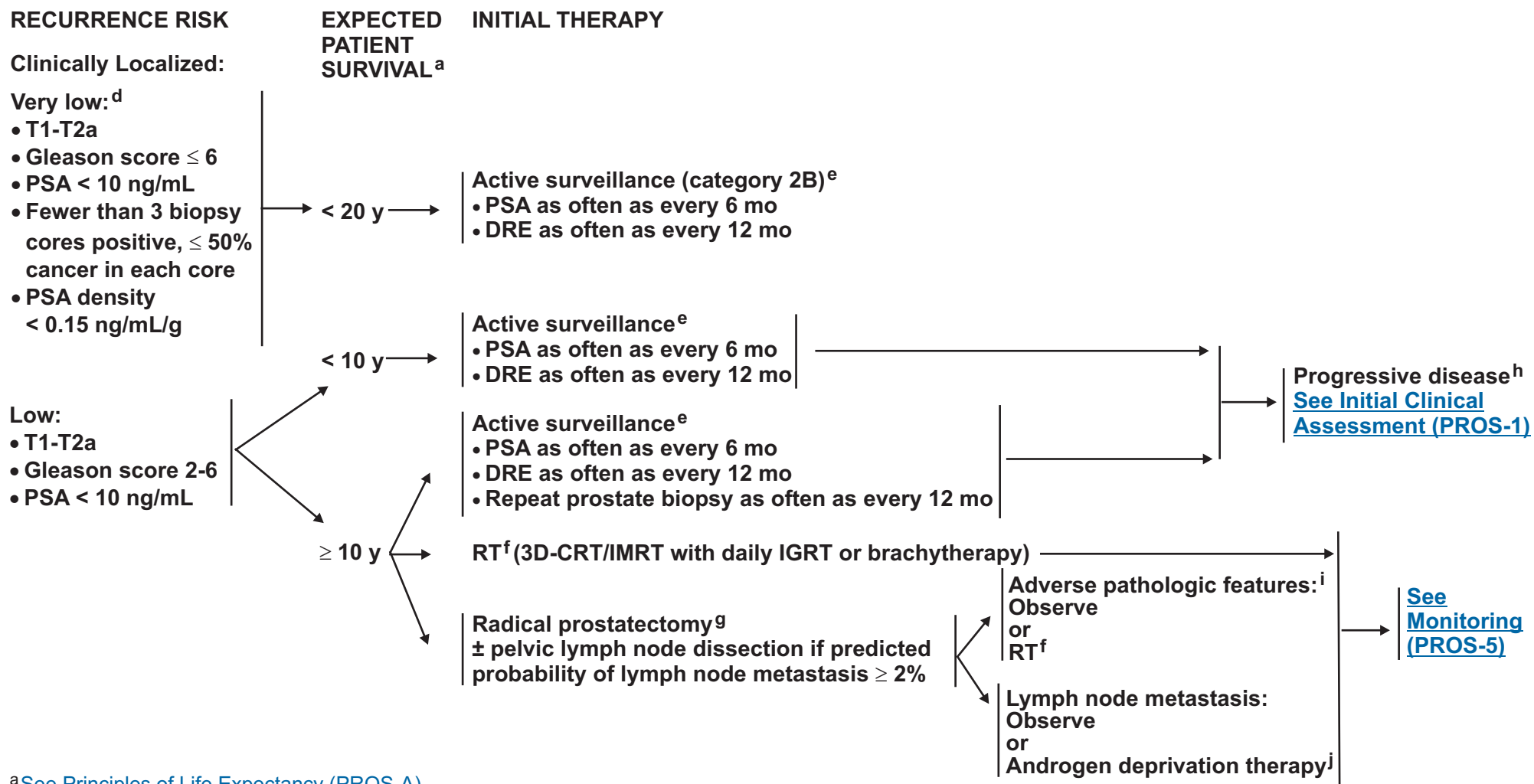
<sup>a</sup> See Principles of Life Expectancy (PROS-A).

<sup>b</sup> In selected patients where complications such as hydronephrosis or metastasis can be expected within 5 y, androgen deprivation therapy (ADT) or radiation therapy (RT) may be considered. High risk factors include bulky T3-T4 disease or Gleason score 8-10.

<sup>c</sup> Patients with multiple adverse factors may be shifted into the next higher risk group.

**Note:** All recommendations are category 2A unless otherwise indicated.

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<sup>a</sup> [See Principles of Life Expectancy \(PROS-A\)](#).

<sup>d</sup> The Panel remains concerned about the problems of over-treatment related to the increased diagnosis of early prostate cancer from PSA testing (see NCCN Prostate Early Detection Guidelines v1.2010). Active surveillance is preferred for this subset of patients.

<sup>e</sup> Active surveillance involves actively monitoring the course of disease with the expectation to intervene if the cancer progresses [See Principles of Active Surveillance \(PROS-B\)](#).

<sup>f</sup> [See Principles of Radiation Therapy \(PROS-C\)](#).

<sup>g</sup> [See Principles of Surgery \(PROS-D\)](#).

<sup>h</sup> Criteria for progression are not well defined and require physician judgement; however, a change in risk group strongly implies disease progression.

<sup>i</sup> Adverse pathologic features include: positive margins, seminal vesicle invasion, extracapsular extension or detectable PSA.

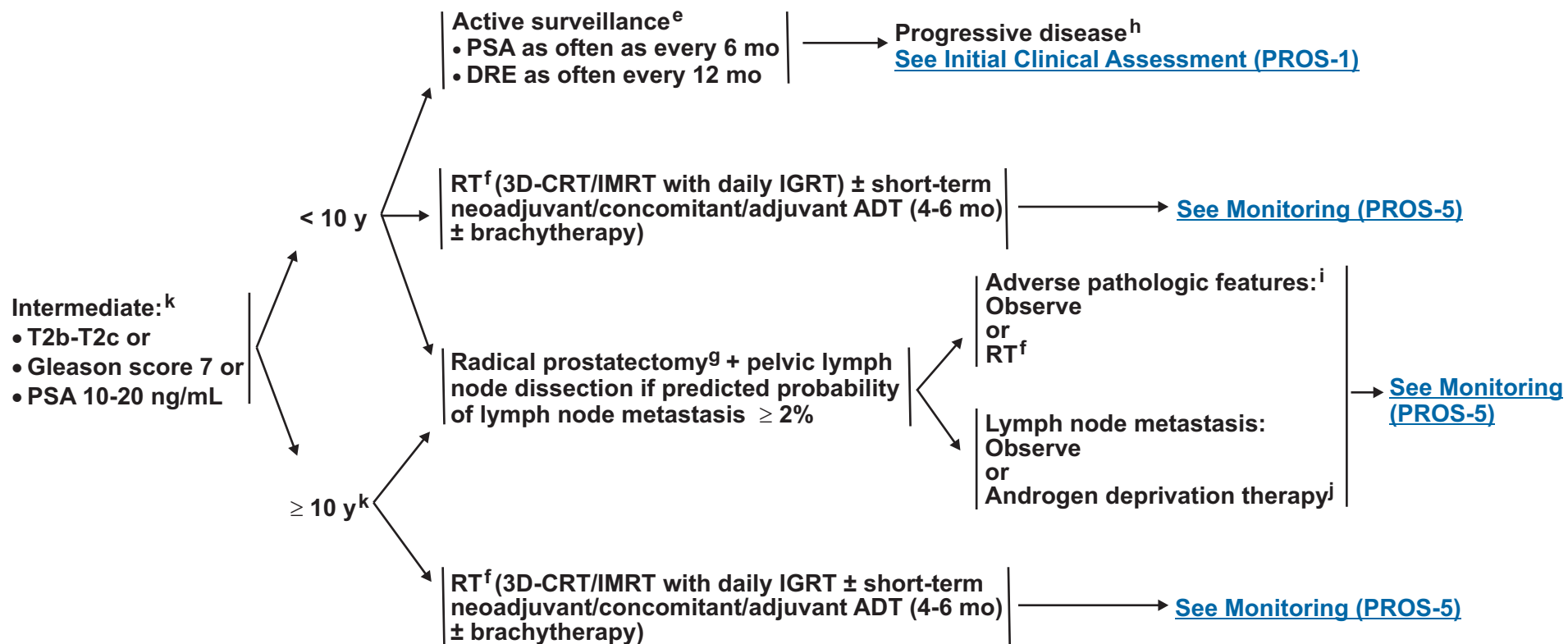
<sup>j</sup> [See Principles of Androgen Deprivation Therapy \(PROS-E\)](#).

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RECURRENCE RISK  
Clinically Localized:

EXPECTED  
PATIENT  
SURVIVAL<sup>a</sup> INITIAL THERAPY



<sup>a</sup> [See Principles of Life Expectancy \(PROS-A\)](#).

<sup>c</sup> Patients with multiple adverse factors may be shifted into the next higher risk group.

<sup>e</sup> Active surveillance involves actively monitoring the course of disease with the expectation to intervene if the cancer progresses. [See Principles of Active Surveillance \(PROS-B\)](#).

<sup>f</sup> [See Principles of Radiation Therapy \(PROS-C\)](#).

<sup>g</sup> [See Principles of Surgery \(PROS-D\)](#).

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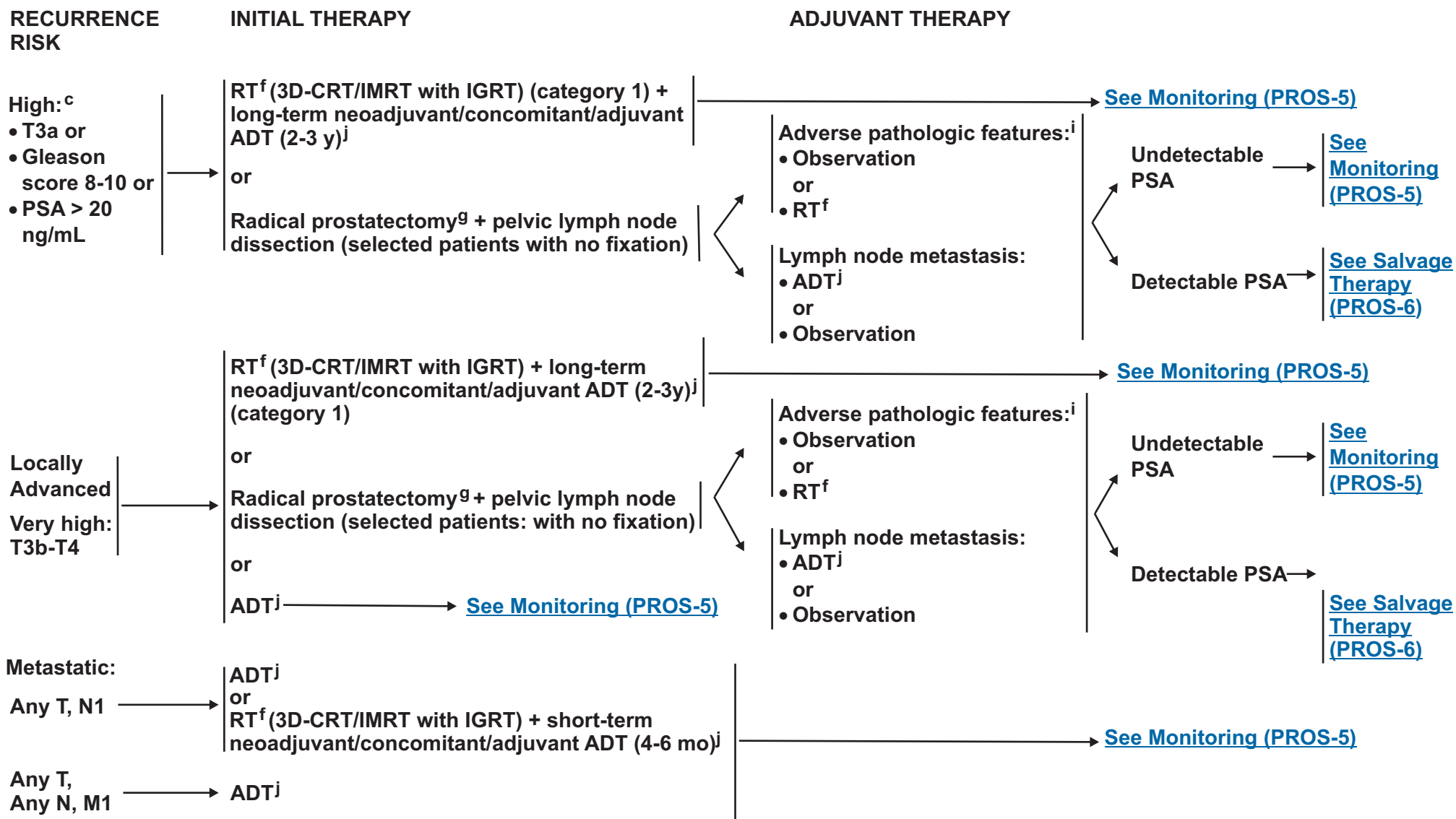
<sup>j</sup> [See Principles of Androgen Deprivation Therapy \(PROS-E\)](#).

<sup>k</sup> Active surveillance of intermediate and high risk clinically localized cancers is not recommended in patients with life expectancy > 10 years (category 1).

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<sup>c</sup>Patients with multiple adverse factors may be shifted into the next higher risk group

<sup>f</sup>[See Principles of Radiation Therapy \(PROS-C\)](#).

<sup>g</sup>[See Principles of Surgery \(PROS-D\)](#).

<sup>i</sup>Adverse pathologic features include: positive margins, seminal vesicle invasion, extracapsular extension or detectable PSA.

<sup>j</sup>[See Principles of Androgen Deprivation Therapy \(PROS-E\)](#).

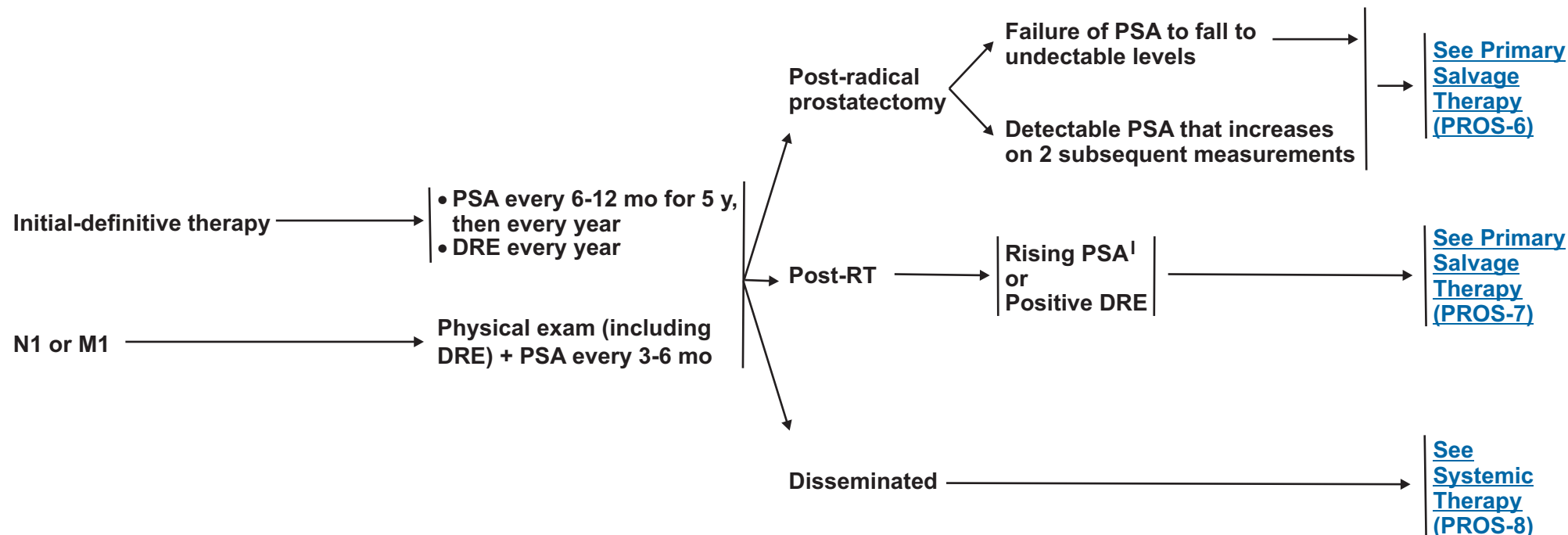
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INITIAL MANAGEMENT  
OR PATHOLOGY

MONITORING

RECURRENCE



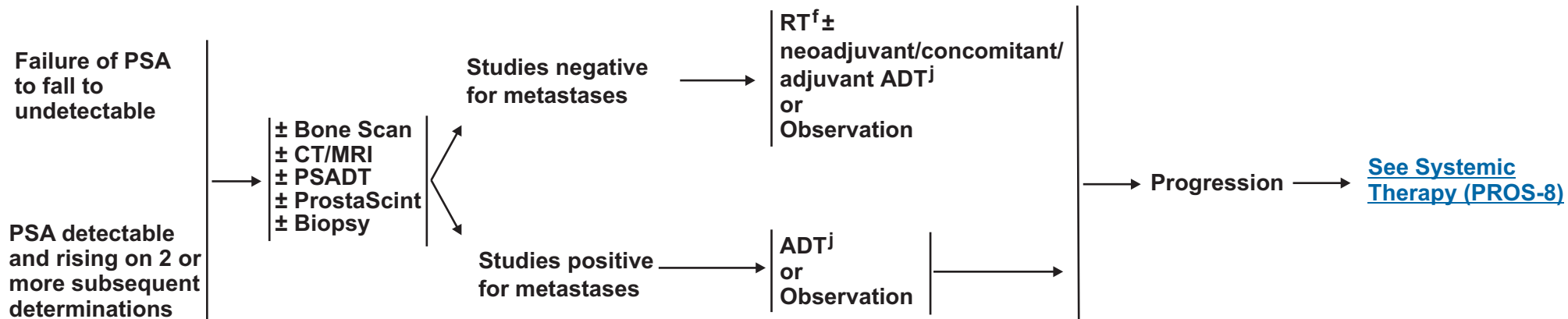
<sup>1</sup>RTOG-ASTRO (Radiation Therapy Oncology Group - American Society for Therapeutic Radiology and Oncology) Phoenix Consensus - (1) PSA rise by 2 ng/ml or more above the nadir PSA is the standard definition for biochemical failure after EBRT with or without HT; (2) the date of failure is determined "at call" (not backdated). They recommended that investigators be allowed to use the ASTRO Consensus Definition after EBRT alone (with no hormonal therapy) with strict adherence to guidelines as to "adequate follow-up" to avoid the artifacts resulting from short follow-up. For example, if the median follow-up is 5 years, control rates at 3 years should be cited. Retaining a strict version of the ASTRO definition allows comparison with a large existing body of literature.

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POST-RADICAL PROSTATECTOMY RECURRENCE

SALVAGE WORKUP

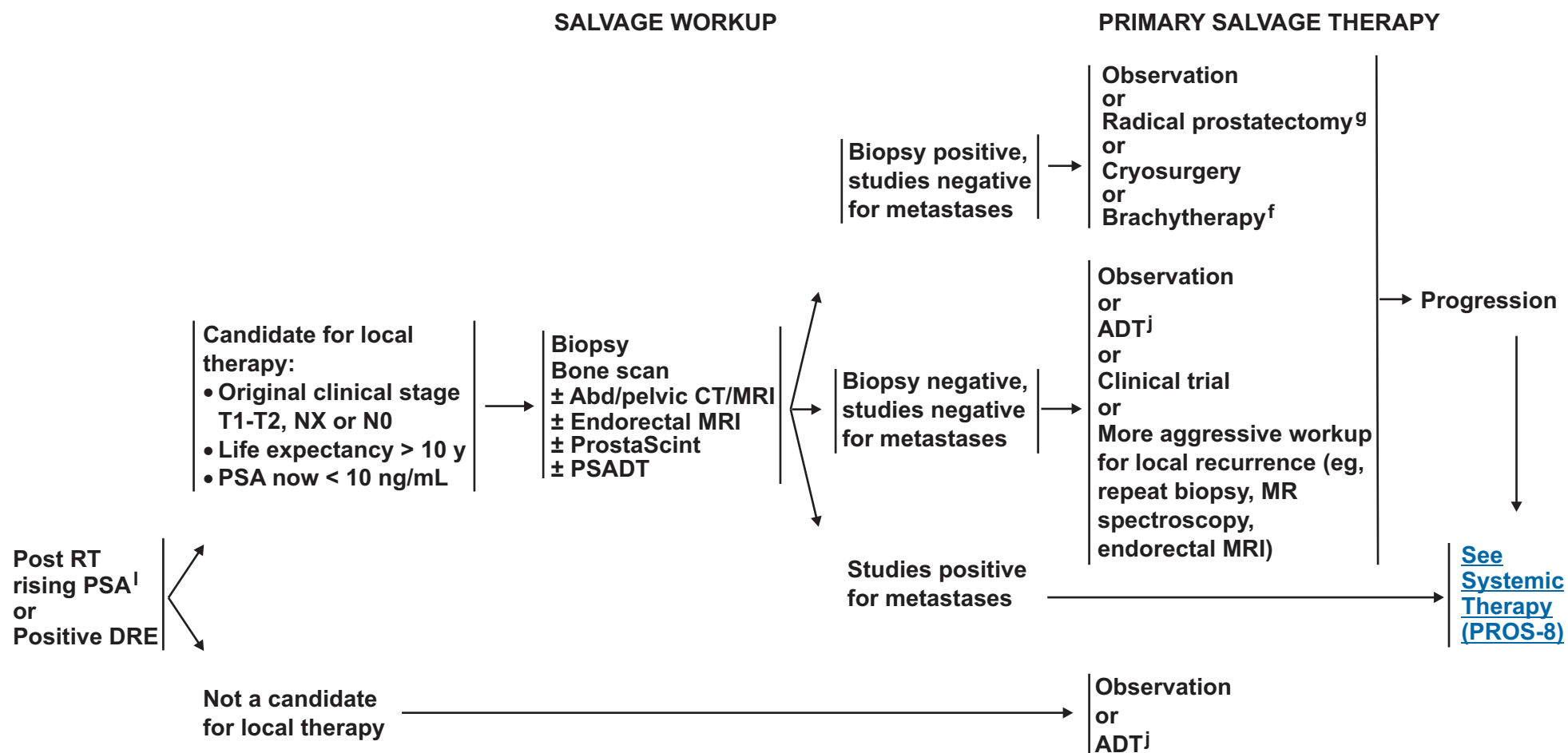
PRIMARY SALVAGE THERAPY



<sup>f</sup> See Principles of Radiation Therapy (PROS-C).

<sup>j</sup> See Principles of Androgen Deprivation Therapy (PROS-E).

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<sup>f</sup>See [Principles of Radiation Therapy \(PROS-C\)](#).

<sup>9</sup>See [Principles of Surgery \(PROS-D\)](#).

<sup>j</sup>See [Principles of Androgen Deprivation Therapy \(PROS-E\)](#).

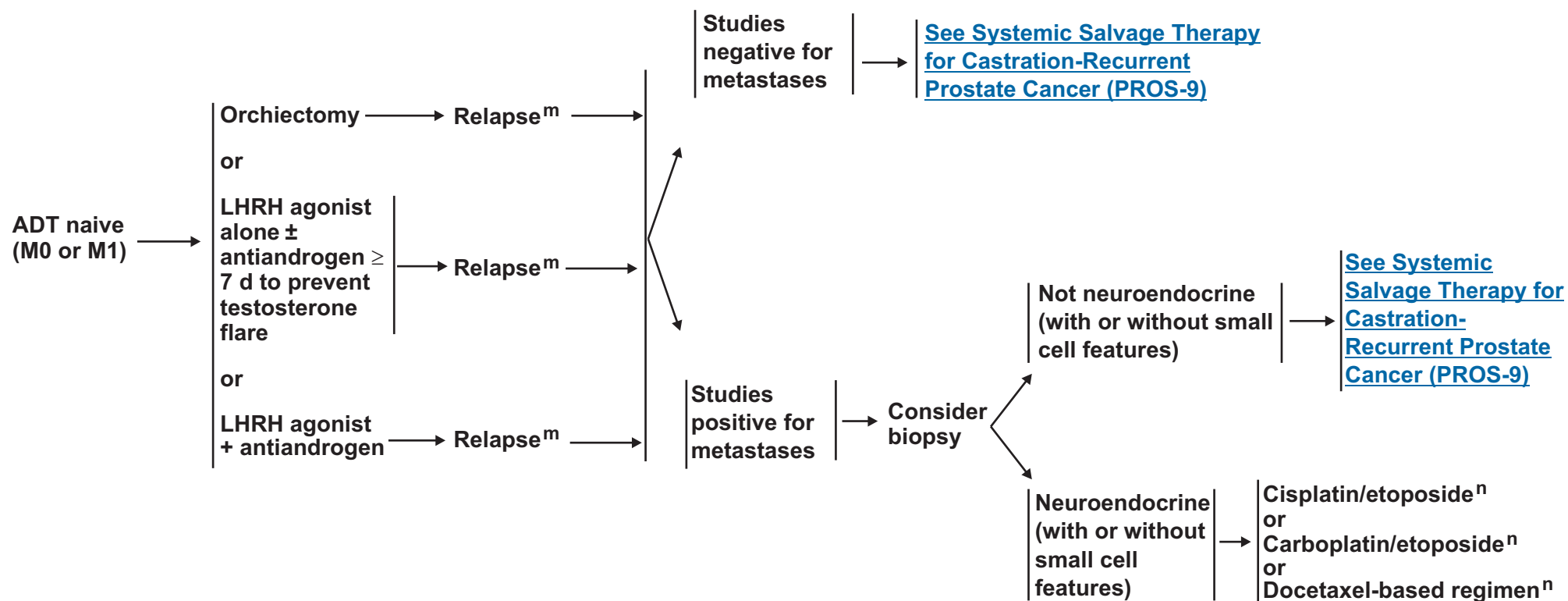
<sup>l</sup>RTOG-ASTRO (Radiation Therapy Oncology Group - American Society for Therapeutic Radiology and Oncology) Phoenix Consensus - (1) PSA rise by 2 ng/ml or more above the nadir PSA is the standard definition for biochemical failure after EBRT with or without HT; (2) the date of failure is determined "at call" (not backdated). They recommended that investigators be allowed to use the ASTRO Consensus Definition after EBRT alone (with no hormonal therapy) with strict adherence to guidelines as to "adequate follow-up" to avoid the artifacts resulting from short follow-up. For example, if the median follow-up is 5 years, control rates at 3 years should be cited. Retaining a strict version of the ASTRO definition allows comparison with a large existing body of literature.

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SYSTEMIC THERAPY

SYSTEMIC SALVAGE THERAPY

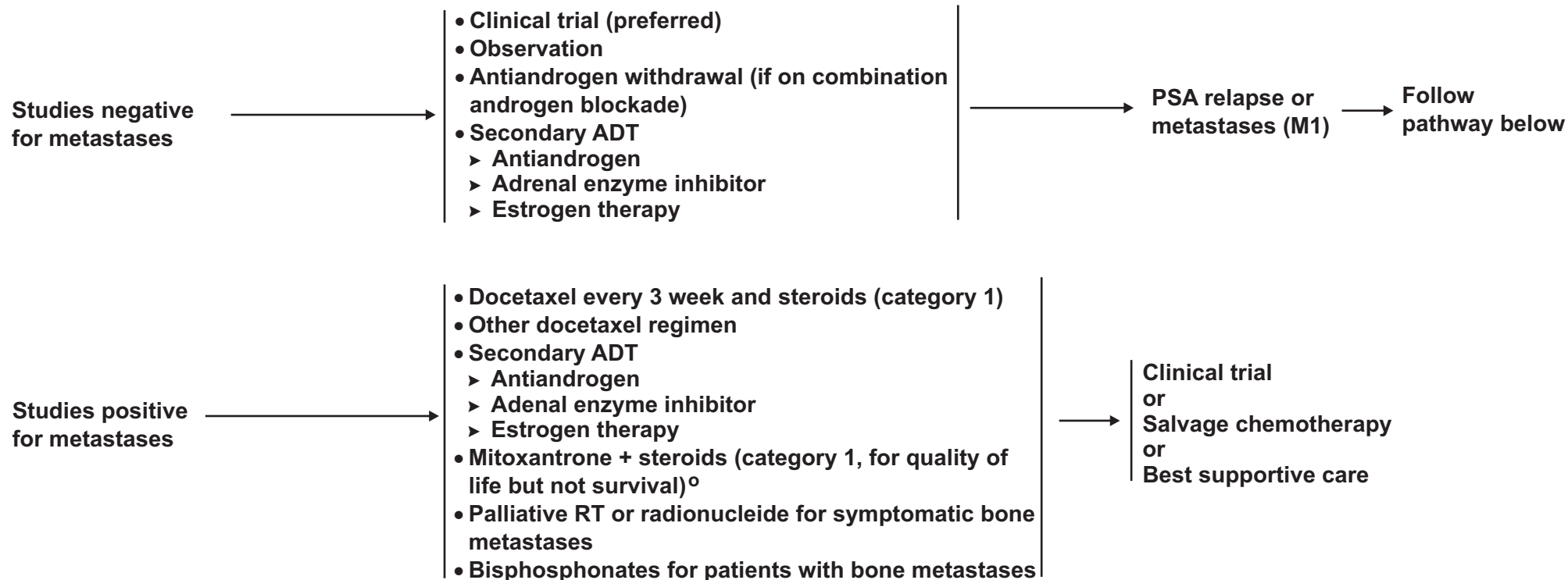


<sup>m</sup>Assure castrate level of testosterone.

<sup>n</sup> [See Principles of Chemotherapy \(PROS-F\)](#).

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SYSTEMIC SALVAGE THERAPY FOR CASTRATION-RECURRENT PROSTATE CANCER



<sup>o</sup>For patients who cannot tolerate docetaxel-based regimens.

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**PRINCIPLES OF LIFE EXPECTANCY ESTIMATION**

- Life expectancy estimation is critical to informed decision-making in prostate cancer early detection and treatment.
- Estimation of life expectancy is possible for groups of men but challenging for individuals.
- Life expectancy can be estimated using the Social Security Administration tables ([www.ssa.gov/OACT/STATS/table4c6.html](http://www.ssa.gov/OACT/STATS/table4c6.html))
- Life expectancy can then be adjusted using the clinicians assessment of overall health as follows:
  - Best quartile of health - add 50%
  - Worst quartile of health - subtract 50%
  - Middle two quartiles of health - no adjustment
- Example of 5-year increments of age are reproduced from [NCCN Senior Adult Oncology Guidelines](#) for life expectancy estimation.

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### PRINCIPLES OF ACTIVE SURVEILLANCE

- The NCCN Prostate Cancer Guideline Panel and the NCCN Prostate Cancer Early Detection Panel (see NCCN Prostate Early Detection Guidelines v1.2010) remains concerned about over-diagnosis and over-treatment of prostate cancer. The Panel recommends that patients and their physicians consider active surveillance based on careful consideration of the patient's prostate cancer risk profile, age and health by the patient and all his physicians (urologist, radiation oncologist, medical oncologist, primary care physician).
- Active surveillance is usually appropriate for men with very low risk prostate when life expectancy < 20 y or men with low risk prostate cancer when life expectancy < 10 y. [See Recurrence Risk Criteria \(PROS-2\)](#)
- Active surveillance involves actively monitoring the course of disease with the expectation to intervene if the cancer progresses
- Patients with clinically localized cancers who are candidates for definitive treatment and choose active surveillance should have regular follow up. Follow up should be more rigorous in younger men than older men. Follow up should include:
  - PSA as often as every 3 mo but at least every 6 mo
  - DRE as often as every 6 mo but at least every 12 mo
  - Needle biopsy of the prostate may be repeated within 6 mo of diagnosis if initial biopsy was < 10 cores or assessment discordant (eg, palpable tumor contralateral to side of positive biopsy)
  - Needle biopsy may be performed within 18 mo if initial biopsy ≥ 10 cores
- Cancer progression may have occurred if:
  - Primary Gleason grade 4 or 5 cancer is found upon repeat prostate biopsy
  - Prostate cancer is found in a greater number of prostate biopsies or occupies a greater extent of prostate biopsies
  - PSA doubling time < 3 y
- A repeat prostate biopsy is indicated for signs of disease progression by exam or PSA
- Advantages of active surveillance:
  - Avoid possible side effects of definitive therapy that may be unnecessary
  - Quality of life/normal activities retained
  - Risk of unnecessary treatment of small, indolent cancers reduced
- Disadvantages of active surveillance:
  - Chance of missed opportunity for cure
  - Risk of progression and/or metastases
  - Subsequent treatment may be more complex with increased side effects
  - Nerve sparing may be more difficult, which may reduce chance of potency preservation after surgery
  - Increased anxiety
  - Requires frequent medical exams and periodic biopsies
  - Uncertain long-term natural history of prostate cancer

Note: All recommendations are category 2A unless otherwise indicated.

Clinical Trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.



**PRINCIPLES OF RADIATION THERAPY****External Beam Radiotherapy:**

- 3D conformal and IMRT (intensity modulated radiation therapy) techniques should be employed. Image guided radiation therapy (IGRT) is required if dose  $\geq$  78 Gy.
- Doses of 75.6-79 Gy in conventional 36-41 fractions to the prostate ( $\pm$  seminal vesicles for part of the therapy) are appropriate for patients with low-risk cancers. For patients with intermediate- or high-risk disease, doses between 78-80+ Gy provide improved PSA-assessed disease control.
- Patients with high-risk cancers are candidates for pelvic lymph node irradiation and the addition of neoadjuvant/concomitant/adjuvant ADT for a total of 2-3 y (category 1).
- Patients with intermediate risk cancer may be considered for pelvic lymph node irradiation and 4-6 mo-neoadjuvant/concomitant/adjuvant ADT.
- Patients with low risk cancer should not receive pelvic lymph node irradiation or ADT.
- The accuracy of treatment should be improved by attention to daily prostate localization, with techniques such as IGRT using CT, ultrasound implanted fiducials, electromagnetic targeting/tracking, or an endorectal balloon to improve oncologic cure rates and reduce side effects.
- Evidence supports offering adjuvant/salvage RT in all men with adverse pathologic features or detectable PSA and no evidence of disseminated disease.

**Brachytherapy:**

- Permanent brachytherapy as monotherapy is indicated for patients with low-risk cancers. For intermediate-risk cancers consider combining brachytherapy with EBRT (40-50 Gy)  $\pm$  4-6 mo neoadjuvant/comcomittant/adjuvant ADT. Patients with high-risk cancers are generally considered poor candidates for permanent brachytherapy; however, with the addition of EBRT and ADT, it may be effective in some patients.
- Patients with a very large prostate or very small prostate, symptoms of bladder outlet obstruction (high IPSS), or a previous transurethral resection of the prostate (TURP) are more difficult to implant and may suffer increased risk of side effects. Neoadjuvant androgen deprivation therapy may be used to shrink the prostate to an acceptable size.
- Post-implant dosimetry should be performed to document the quality of the implant.
- The recommended prescribed doses for monotherapy are 145 Gy for 125-Iodine and 125 Gy for 103-Palladium. The corresponding boost dose after 40-50 Gy EBRT are 110 Gy and 100 Gy, respectively. In addition, high dose rate (HDR) brachytherapy can be used in combination instead of lower dose.

**Palliative Radiotherapy:**

- 800 cGy as a single dose should be used instead of 3000 cGy in 10 fractions for non-vertebral metastases.
- Widespread bone metastases can be palliated using strontium 89 or samarium 153.

Note: All recommendations are category 2A unless otherwise indicated.

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### PRINCIPLES OF SURGERY

#### **Pelvic Lymph Node Dissection (PLND):**

- An extended PLND will discover metastases approximately twice as often as a limited PLND. Extended PLND provides more complete staging and may cure some men with microscopic metastases therefore, an extended PLND is preferred when PLND is performed.
- An extended PLND includes removal of all node-bearing tissue from an area bounded by the external iliac vein anteriorly, the pelvic sidewall laterally, the bladder wall medially, the floor of the pelvis posteriorly, Cooper's ligament distally, and the internal iliac artery proximally.
- A PLND can be excluded in patients with < 2% predicated probability of nodal metastases by nomograms, although some patients with lymph node metastases will be missed.
- PLND can be performed using an open, laparoscopic or robotic technique.

#### **Radical Prostatectomy:**

- RP is appropriate therapy for any patient with clinically localized prostate cancer that can be completely excised surgically, who has a life expectancy of 10 years or more and no serious co-morbid conditions that would contraindicate an elective operation.
- High volume surgeons in high volume centers generally provide better outcomes.
- Laparoscopic and robot-assisted radical prostatectomy are used commonly. In experienced hands, the results of these approaches appear comparable to open surgical approaches.
- Blood loss can be substantial with radical prostatectomy but can be reduced by careful control of periprostatic vessels.
- Urinary incontinence can be reduced by preservation of urethral length beyond the apex of the prostate and avoiding damage to the distal sphincter mechanism. Bladder neck preservation may decrease the risk of incontinence. Anastomotic strictures increase the risk of long-term incontinence.
- Recovery of erectile function is directly related to age at radical prostatectomy, preoperative erectile function and the degree of preservation of the cavernous nerves. Replacement of resected nerves with nerve grafts has not been shown beneficial. Early restoration of erections may improve late recovery.
- Salvage radical prostatectomy is an option for highly selected patients with local recurrence after EBRT, brachytherapy, or cryotherapy in the absence of metastases, but the morbidity (incontinence, loss of erection, anastomotic stricture) is high.

**Note:** All recommendations are category 2A unless otherwise indicated.

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**PRINCIPLES OF ANDROGEN DEPRIVATION THERAPY ADT (page 1 of 2)****ADT for Clinically Localized Disease**

- Neoadjuvant ADT for radical prostatectomy is strongly discouraged.
- Giving ADT before, during and/or after radiation prolongs survival in selected radiation managed patients.
- Studies of short-term (4-6 mo) and long-term (2-3 y) neoadjuvant ADT all have used complete androgen blockade. Whether the addition of an antiandrogen is necessary will require further studies.
- Adjuvant ADT given after completion of primary treatment is not a standard treatment at this time with the exception of selected high risk patients treated with radiation therapy ([See PROS-3](#)). Low volume, high grade prostate cancer may warrant adjuvant ADT for 4-6 mo but 2-3 y may be considered.
- In the largest randomized trial to date using antiandrogen bicalutamide alone at high dose (150 mgs), there were indications of a delay in recurrence of disease but no improvement in survival. Longer follow-up is needed
- In one randomized trial, immediate and continuous use of ADT in men with positive nodes following radical prostatectomy resulted in significantly improved overall survival compared to men who received delayed ADT. Therefore, such patients should be considered for immediate ADT.
- The side effects of continuous ADT increase with the duration of treatment.

**Timing of ADT for Advanced Disease (PSA recurrence or metastatic disease)**

- The timing of ADT for patients whose only evidence of cancer is a rising PSA is influenced by PSA velocity, patient anxiety, and the short and long-term side effects of ADT.
- A significant proportion of these patients will ultimately die of their disease; their prognosis is best approximated by the absolute level of PSA, the rate of change in the PSA level (PSA “doubling time”), and the initial stage, grade, and PSA level at the time of definitive therapy.
- Earlier ADT may be better than delayed ADT, although the definitions of early and late (what level of PSA) are controversial. Since the benefit of early ADT is not clear, treatment should be individualized until definitive studies are done. Patients with an elevated PSA (> 50 ng/mL) and/or a shorter PSA doubling time (or a rapid PSA velocity) and an otherwise long life expectancy should be encouraged to consider ADT earlier.
- Treatment should begin immediately in the presence of tumor-related symptoms or overt metastases (category 1). Earlier ADT will delay the appearance of symptoms and of metastases, but it is not clear whether earlier ADT will prolong survival. The complications of long-term ADT have not been adequately documented.

**Optimal ADT**

- LHRH agonist (medical castration) and bilateral orchiectomy (surgical castration) are equally effective.
- Combined androgen blockade (medical or surgical castration combined with an antiandrogen) provides no proven benefit over castration alone in patients with metastatic disease.
- Antiandrogen therapy should precede or be co-administered with LHRH agonist and be continued in combination for at least 7 days for patients with overt metastases who are at risk of developing symptoms associated with the flare in testosterone with initial LHRH agonist alone.

[Continued on next page](#)

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**PRINCIPLES OF ANDROGEN DEPRIVATION THERAPY ADT (page 2 of 2)**

- **Antiandrogen monotherapy appears to be less effective than medical or surgical castration and should not be recommended. The side effects are different but overall less tolerable.**
- **No clinical data support the use of triple androgen blockade (finasteride or dutasteride with combined androgen blockade).**
- **Intermittent ADT may reduce side effects without altering survival compared to continuous ADT but the long term efficacy of intermittent ADT remains unproven.**
- **Patients who do not achieve adequate suppression of serum testosterone (less than 50 ng/mL) with medical or surgical castration can be considered for additional hormonal manipulations (with estrogen, antiandrogens, or steroids), although the clinical benefit is not clear.**

**Secondary Hormonal Therapy**

- **The androgen receptor remains active in patients whose prostate cancer has recurred during ADT (castration-recurrent prostate cancer); thus, ADT should be continued.**
- **A variety of strategies can be employed if initial ADT has failed which may afford clinical benefit, including antiandrogen withdrawal, and administration of antiandrogens, ketoconazole, or estrogens; however, none of these has yet been demonstrated to prolong survival in randomized clinical trials.**

**Monitor/Surveillance**

- **ADT has a variety of adverse effects including osteoporosis, greater incidence of clinical fractures, obesity, insulin resistance, alterations in lipids, and greater risk for diabetes and cardiovascular disease. Patients and their medical providers should be advised about these risks prior to treatment.**
- **Screening and treatment for osteoporosis are advised according to guidelines for the general population from the National Osteoporosis Foundation ([www.nof.org](http://www.nof.org)). The National Osteoporosis Foundation guidelines include recommendations for (1) supplemental calcium (1200 mg daily) and vitamin D3 (800-1000 IU daily) for all men over age 50 y and (2) additional treatment for men when the 10 y probability of hip fracture is  $\geq 3\%$  or the 10 y probability of a major osteoporosis-related fracture is  $\geq 20\%$ . Fracture risk can be assessed using the recently released algorithm called FRAX<sup>®</sup> by the World Health Organization ([www.shef.ac.uk/FRAX/index.htm](http://www.shef.ac.uk/FRAX/index.htm)). ADT should be considered “secondary osteoporosis” using the FRAX<sup>®</sup> algorithm.**
- **Zoledronic acid (4 mg IV annually) and alendronate (70 mg PO weekly) increase bone mineral density, a surrogate for fracture risk, during ADT for prostate cancer. Treatment with either zoledronic acid or alendronate is recommended when the absolute fracture risk warrants drug therapy.**
- **Screening for and intervention to prevent/treat diabetes and cardiovascular disease are recommended in men receiving ADT. These medical conditions are common in older men and it remains uncertain whether strategies for screening, prevention, and treatment of diabetes and cardiovascular disease in men receiving ADT should differ from the general population.**

Note: All recommendations are category 2A unless otherwise indicated.

Clinical Trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

**PRINCIPLES OF CHEMOTHERAPY**

- Patients with advanced prostate cancer should be encouraged to participate in clinical trials and referred early to a medical oncologist.
- Systemic chemotherapy should be reserved for patients with castration-recurrent metastatic prostate cancer except when studied in clinical trials.
- Based upon Phase III data, every 3-week docetaxel and prednisone is the preferred first-line chemotherapy treatment. Alternative regimens include every 3-week docetaxel and estramustine, weekly docetaxel and prednisone and every 3-week mitoxantrone and prednisone.
- Docetaxel-based regimens have been shown to confer a survival benefit in two phase III studies:
  - ▶ SWOG 9916 compared docetaxel plus estramustine to mitoxantrone plus prednisone. Median survival for the docetaxel arm was 17 months vs. 15.6 months for the mitoxantrone arm (p=.01).<sup>1</sup>
  - ▶ TAX 327 compared two docetaxel schedules (weekly and every 3 weeks) to mitoxantrone and prednisone. Median survival for the every 3 week docetaxel arm was 19.2 months vs. 16.3 months for the mitoxantrone arm (p=.009).<sup>2</sup>
- Only regimens utilizing docetaxel on an every 3 week schedule demonstrated beneficial impact on survival. The duration of therapy should be based on the assessment of benefit and toxicities. In the pivotal trials establishing survival advantage of docetaxel-based chemotherapy, patients received up to 10 cycles of treatment if no progression and no prohibitive toxicities were noted.
- Rising PSA should not be used as the sole criteria for progression. Assessment of response should incorporate clinical and radiographic criteria.
- Patients who failed taxotere chemotherapy should be encouraged to participate in clinical trials. Mitoxantrone has limited activity in that setting and no chemotherapy regimen to date has demonstrated improved survival or quality of life. For patients who have not demonstrated definitive evidence of progression on prior docetaxel therapy, retreatment with this agent can be attempted.
- In men with castration-recurrent prostate cancer and bone metastases, zoledronic acid every 3-4 weeks is recommended to prevent disease-related skeletal complications, which include pathological fractures, spinal cord compression, and the need for surgery or radiation therapy to bone. Treatment should be initiated at reduced dose in men with impaired renal function (estimated creatinine clearance 30-60 mL/min) and is not recommended for men with baseline creatinine clearance < 30 mL/min.
- The optimal duration of zoledronic acid in men with castration-recurrent prostate cancer is undefined.
- Clinical trials are in progress to define the potential role of zoledronic acid in men with androgen-stimulated prostate cancer and bone metastases.

1 Petrylak DP, Tangen CM, Hussain MH, et al. Docetaxel and estramustine compared with mitoxantrone and prednisone for advanced refractory prostate cancer. N Engl J Med 2004; 351: 1513-1520.

2 Tannock IF, de Wit R, Berry WR, et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer. N Engl J Med 2004; vol. 351; 1502-1512.

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**Clinical Trials:** NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

## Staging

**Table 1**

**2002 American Joint Committee on Cancer (AJCC)  
TNM Staging System For Prostate Cancer**

**Primary Tumor (T)**

**Clinical**

<b>TX</b>	Primary tumor cannot be assessed
<b>T0</b>	No evidence of primary tumor
<b>T1</b>	Clinically inapparent tumor neither palpable nor visible by imaging
<b>T1a</b>	Tumor incidental histologic finding in 5% or less of tissue resected
<b>T1b</b>	Tumor incidental histologic finding in more than 5% of tissue resected
<b>T1c</b>	Tumor identified by needle biopsy (e.g., because of elevated PSA)
<b>T2</b>	Tumor confined within the prostate*
<b>T2a</b>	Tumor involves one-half of one lobe or less
<b>T2b</b>	Tumor involves more than one-half of one lobe but not both lobes
<b>T2c</b>	Tumor involves both lobes
<b>T3</b>	Tumor extends through the prostatic capsule **
<b>T3a</b>	Extracapsular extension (unilateral or bilateral)
<b>T3b</b>	Tumor invades the seminal vesicle(s)
<b>T4</b>	Tumor is fixed or invades adjacent structures other than seminal vesicles: bladder neck, external sphincter, rectum, levator muscles, and/or pelvic wall

\*Note: Tumor found in one or both lobes by needle biopsy, but not palpable or reliably visible by imaging, is classified as T1c.

\*\*Note: Invasion into the prostatic apex or into (but not beyond) the prostatic capsule is not classified as T3, but as T2.

**Pathologic(pT)**

<b>pT2*</b>	Organ confined
<b>pT2a</b>	Unilateral, involving one-half of one lobe or less
<b>pT2b</b>	Unilateral, involving more than one-half of one lobe but not both lobes
<b>pT2c</b>	Bilateral disease
<b>pT3</b>	Extraprostatic extension
<b>pT3a</b>	Extraprostatic extension**
<b>pT3b</b>	Seminal vesicle invasion
<b>pT4</b>	Invasion of bladder, rectum

\*Note: There is no pathologic T1 classification.

\*\*Note: Positive surgical margin should be indicated by an R1 descriptor (residual microscopic disease).

**Regional Lymph Nodes (N)**

**Clinical**

<b>NX</b>	Regional lymph nodes were not assessed
<b>N0</b>	No regional lymph node metastasis
<b>N1</b>	Metastasis in regional lymph node(s)

**Pathologic**

<b>PNX</b>	Regional nodes not sampled
<b>pN0</b>	No positive regional nodes
<b>pN1</b>	Metastases in regional nodes(s)

**Distant Metastasis (M)\***

<b>MX</b>	Distant metastasis cannot be assessed (not evaluated by any modality)
<b>M0</b>	No distant metastasis
<b>M1</b>	Distant metastasis
<b>M1a</b>	Non-regional lymph node(s)
<b>M1b</b>	Bone(s)
<b>M1c</b>	Other site(s) with or without bone disease

\*Note: When more than one site of metastasis is present, the most advanced category is used. pM1c is most advanced.

[Continue](#)

**Stage Grouping**

<b>Stage I</b>	T1a	N0	M0	G1
<b>Stage II</b>	T1a	N0	M0	G2, 3-4
	T1b	N0	M0	Any G
	T1c	N0	M0	Any G
	T1	N0	M0	Any G
	T2	N0	M0	Any G
<b>Stage III</b>	T3	N0	M0	Any G
<b>Stage IV</b>	T4	N0	M0	Any G
	Any T	N1	M0	Any G
	Any T	Any N	M1	Any G

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**Histopathologic Type**

This classification applies to adenocarcinomas and squamous carcinomas, but not to sarcoma or transitional cell carcinoma of the prostate. Adjectives used to describe adenocarcinomas can include *mucinous, small cell, papillary, ductal, and neuroendocrine*. Transitional cell carcinoma of the prostate is classified as a urethral tumor. There should be histologic confirmation of the disease.

**Histopathologic Grade (G)**

Gleason score is considered to be the optimal method of grading, because this method takes into account the inherent heterogeneity of prostate cancer, and because it has been clearly shown that this method is of great prognostic value. A primary and a secondary pattern (the range of each if 1 – 5) are assigned and then summed to yield a total score. Scores of 2 – 10 are thus possible. (If a single focus of disease is seen, it should be reported as both scores. For example, if a single focus of Gleason 3 disease is seen, it is reported as 3 + 3.)

- GX** Grade cannot be assessed
- G1** Well differentiated (slight anaplasia) (Gleason 2–4)
- G2** Moderately differentiated (moderate anaplasia) (Gleason 5–6)
- G3–4** Poorly differentiated or undifferentiated (marked anaplasia) (Gleason 7–10)

**Discussion** To view the most up-to-date discussion, [click here](#).

#### **NCCN Categories of Evidence and Consensus**

**Category 1:** The recommendation is based on high-level evidence (e.g. randomized controlled trials) and there is uniform NCCN consensus.

**Category 2A:** The recommendation is based on lower-level evidence and there is uniform NCCN consensus.

**Category 2B:** The recommendation is based on lower-level evidence and there is nonuniform NCCN consensus (but no major disagreement).

**Category 3:** The recommendation is based on any level of evidence but reflects major disagreement.

**All recommendations are category 2A unless otherwise noted.**