

攝護腺癌診療指引

泌尿道癌多專科團隊

2010 年 01 月初訂

2010 年 12 月修訂

2011 年 12 月修訂

2012 年 09 月修訂

2013 年 07 月修訂

2014 年 12 月修訂

2015 年 12 月修訂

2016 年 12 月 20 日修訂

2017 年 12 月 26 日修訂

Reference:

NCCN Clinical Practice Guideline in Oncology for Prostate Cancer, Version 2, 2017

Physician's Cancer Chemotherapy Drug Manual 2017

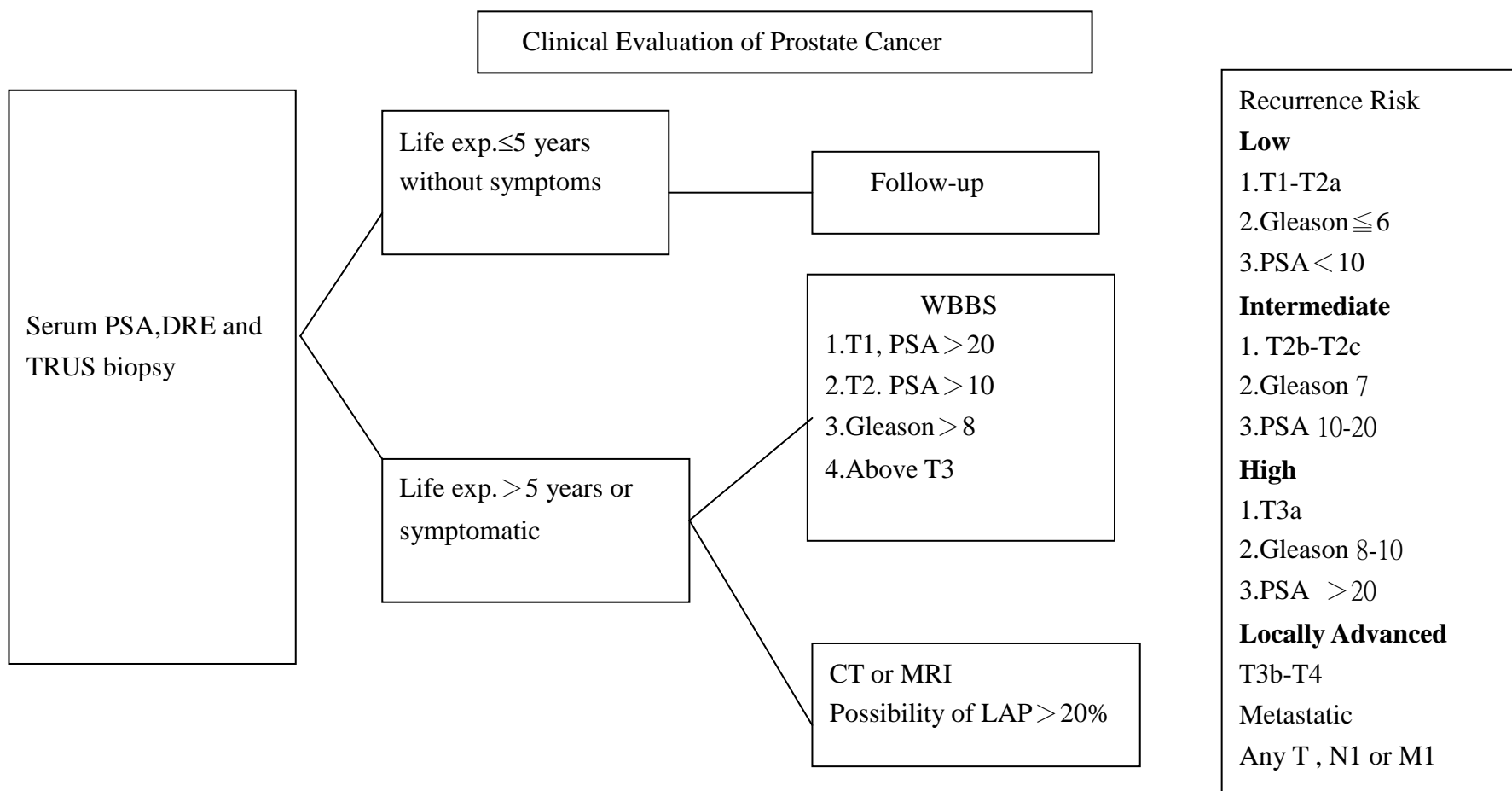
國家衛生研究院:攝護腺(前列腺)癌臨床診療指引 10, 2010.

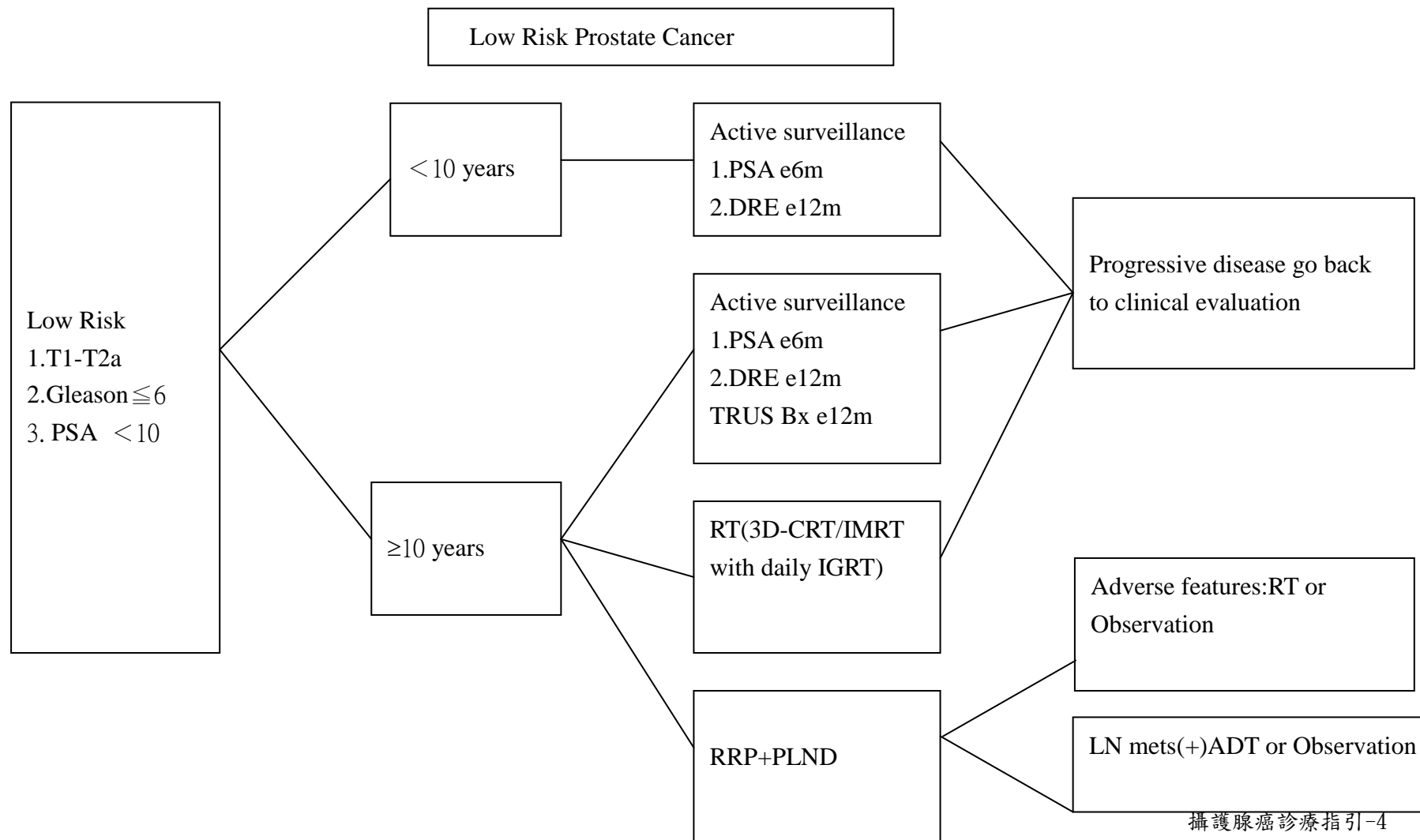
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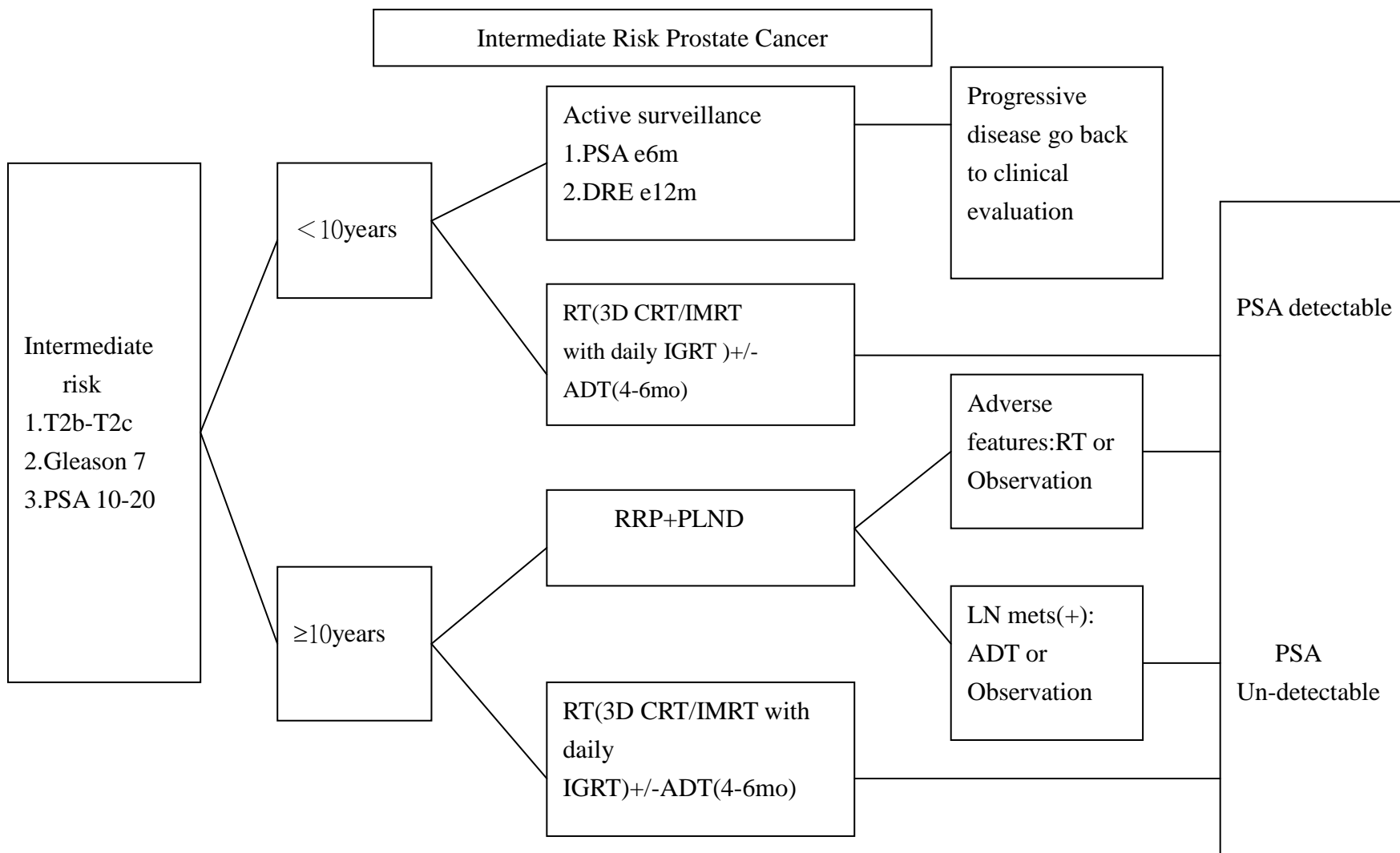
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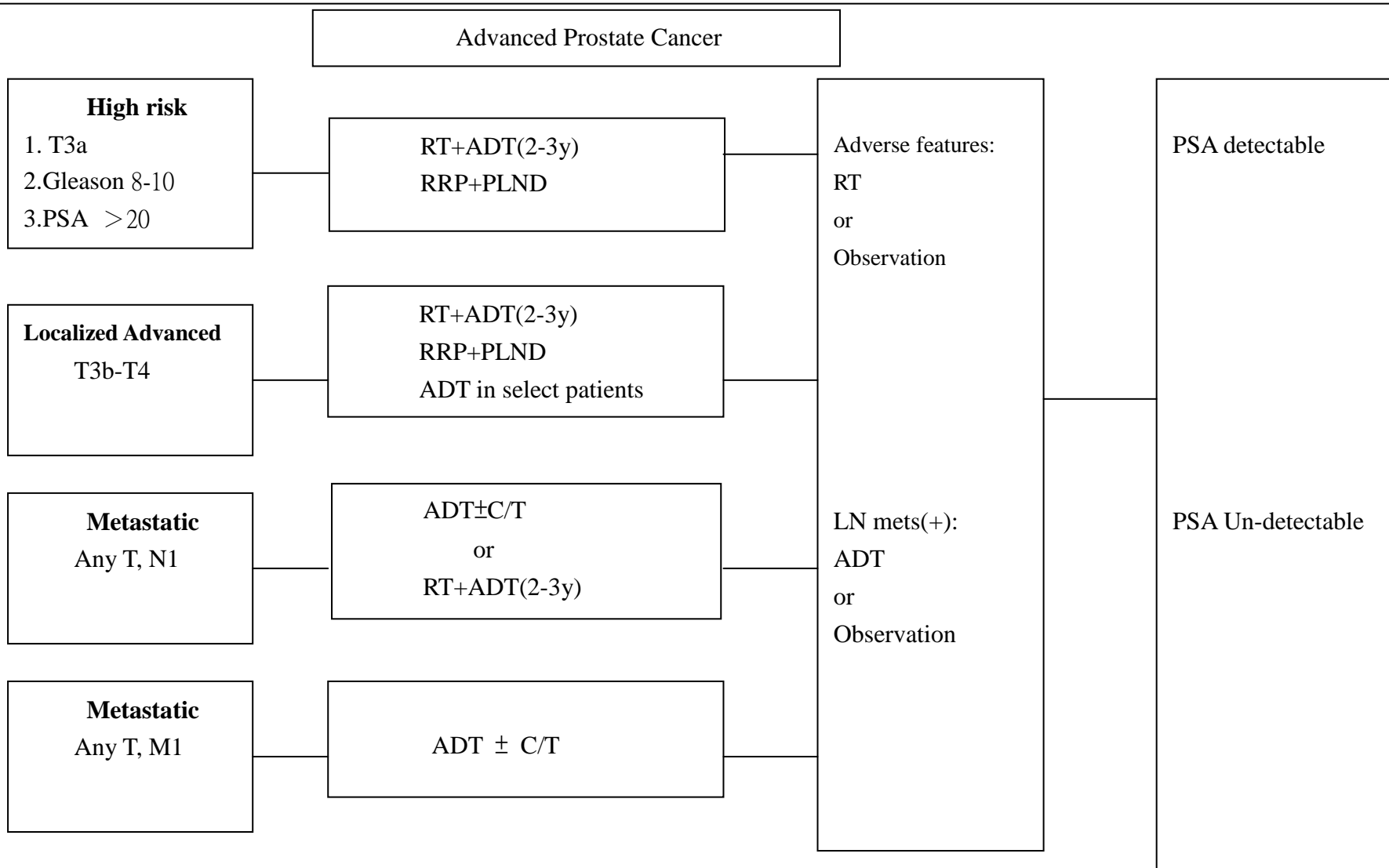
- **Clinical Evaluation of Prostate Cancer**
- **Low Risk Prostate Cancer**
- **Intermediate Risk Prostate Cancer**
- **Advanced Prostate Cancer**
- **Post-RRP Recurrence**
- **Post-RT Recurrence**
- **Advanced Disease: Systemic Therapy**
- **Advanced Disease: Additional Systemic Therapy for Castration-Refractory Prostate Cancer (CRPC)**
- **攝護腺癌放射線治療準則**

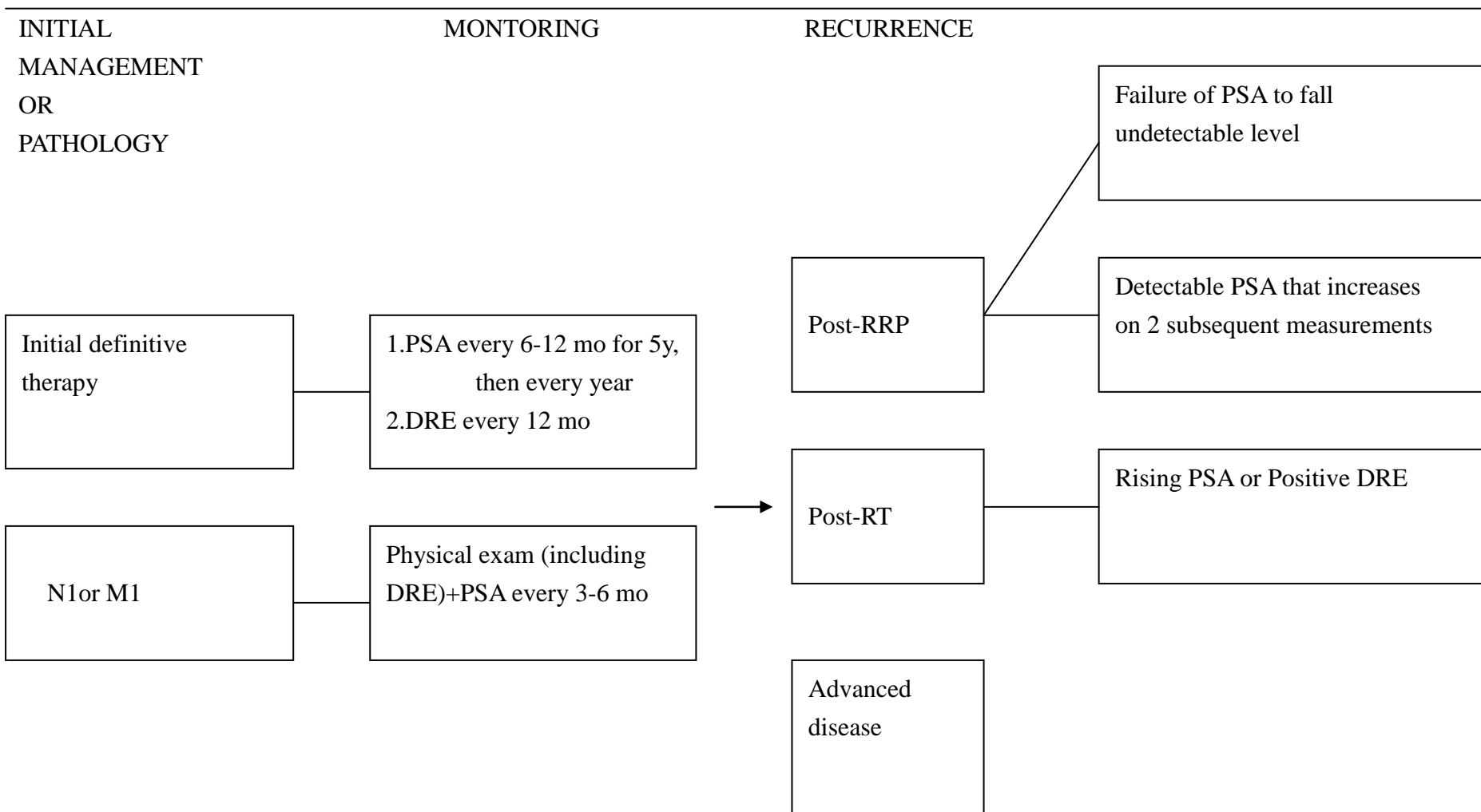
● Prostate Cancer AJCC 8th TNM Stage

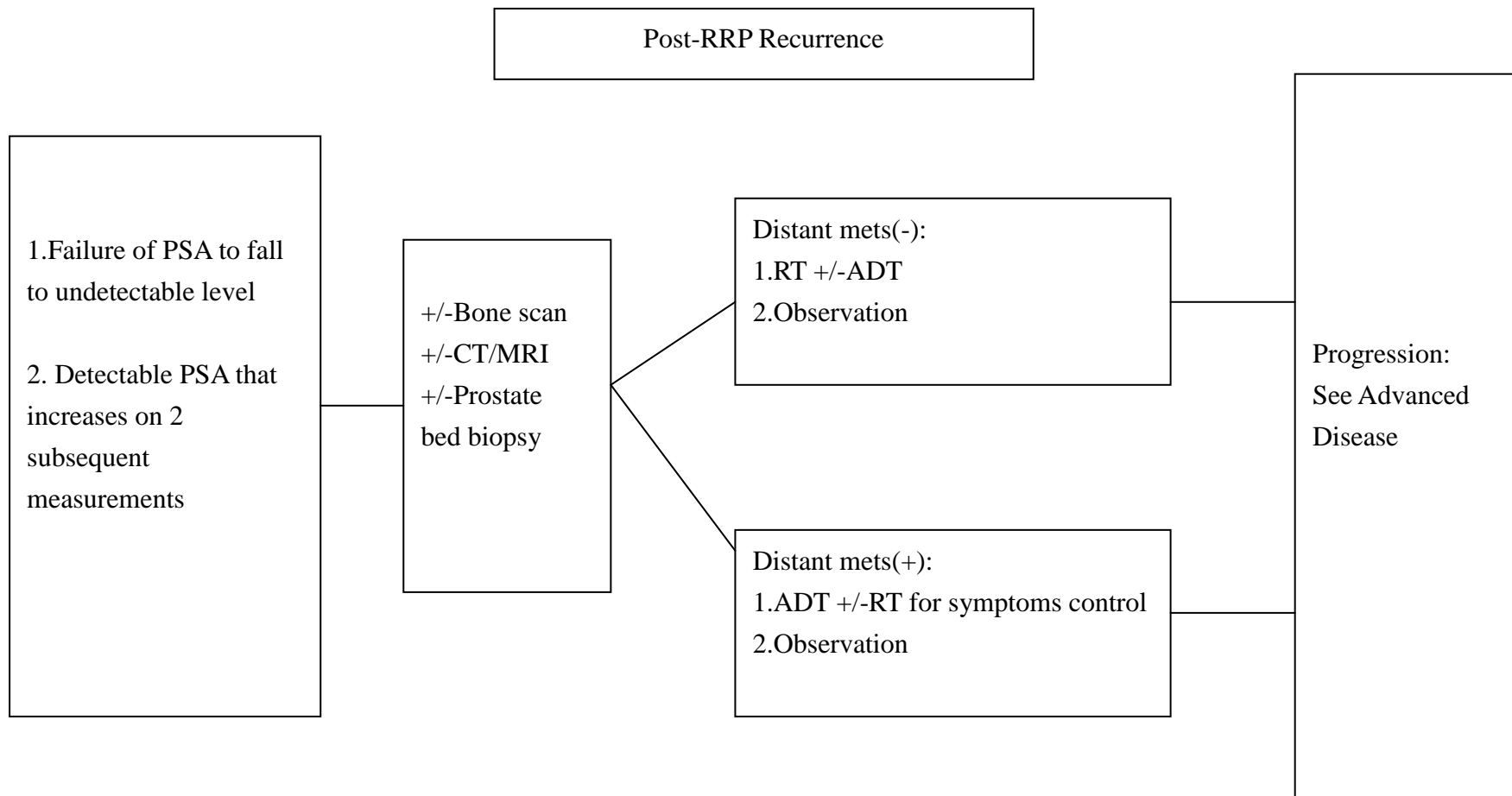


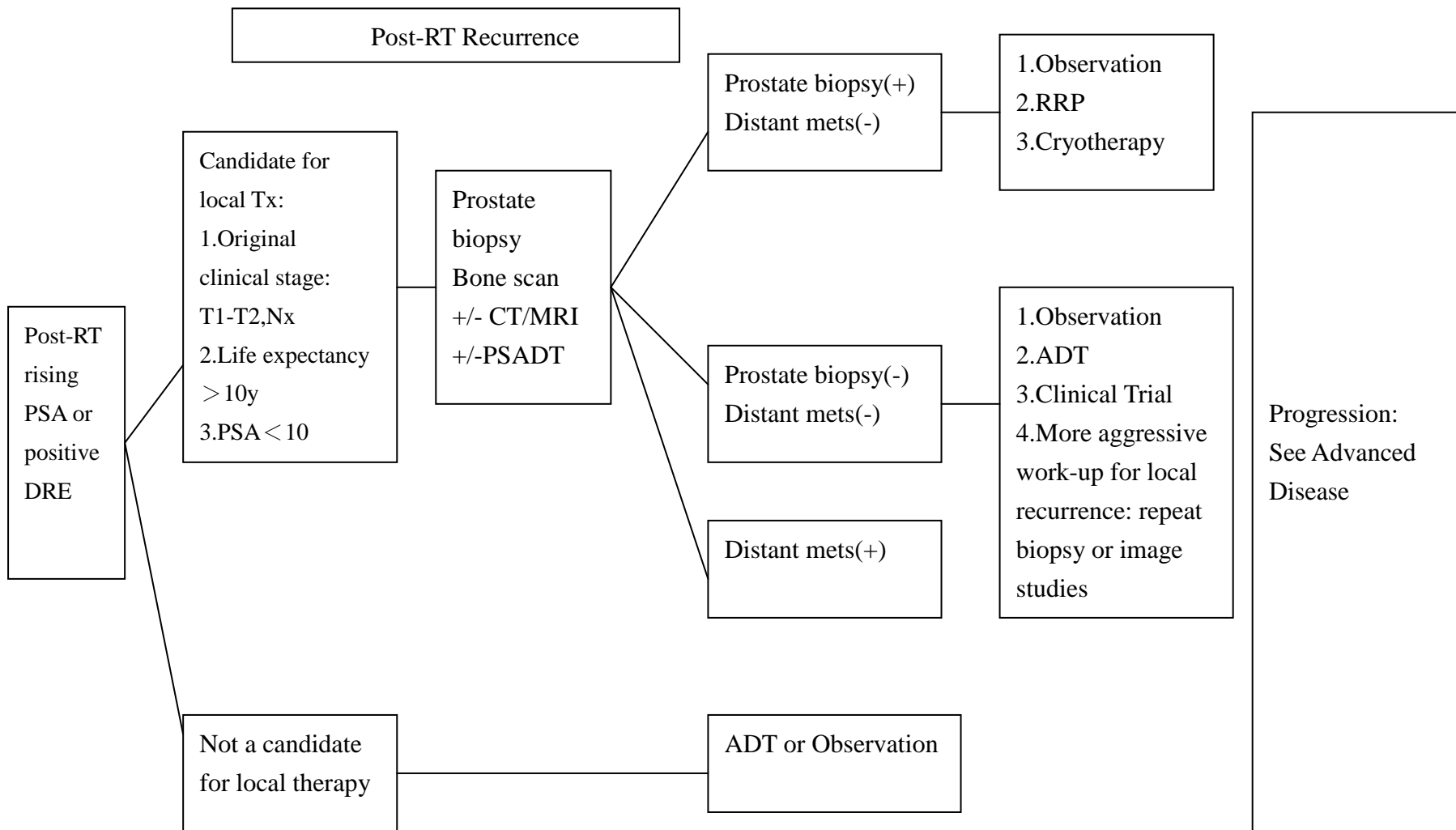


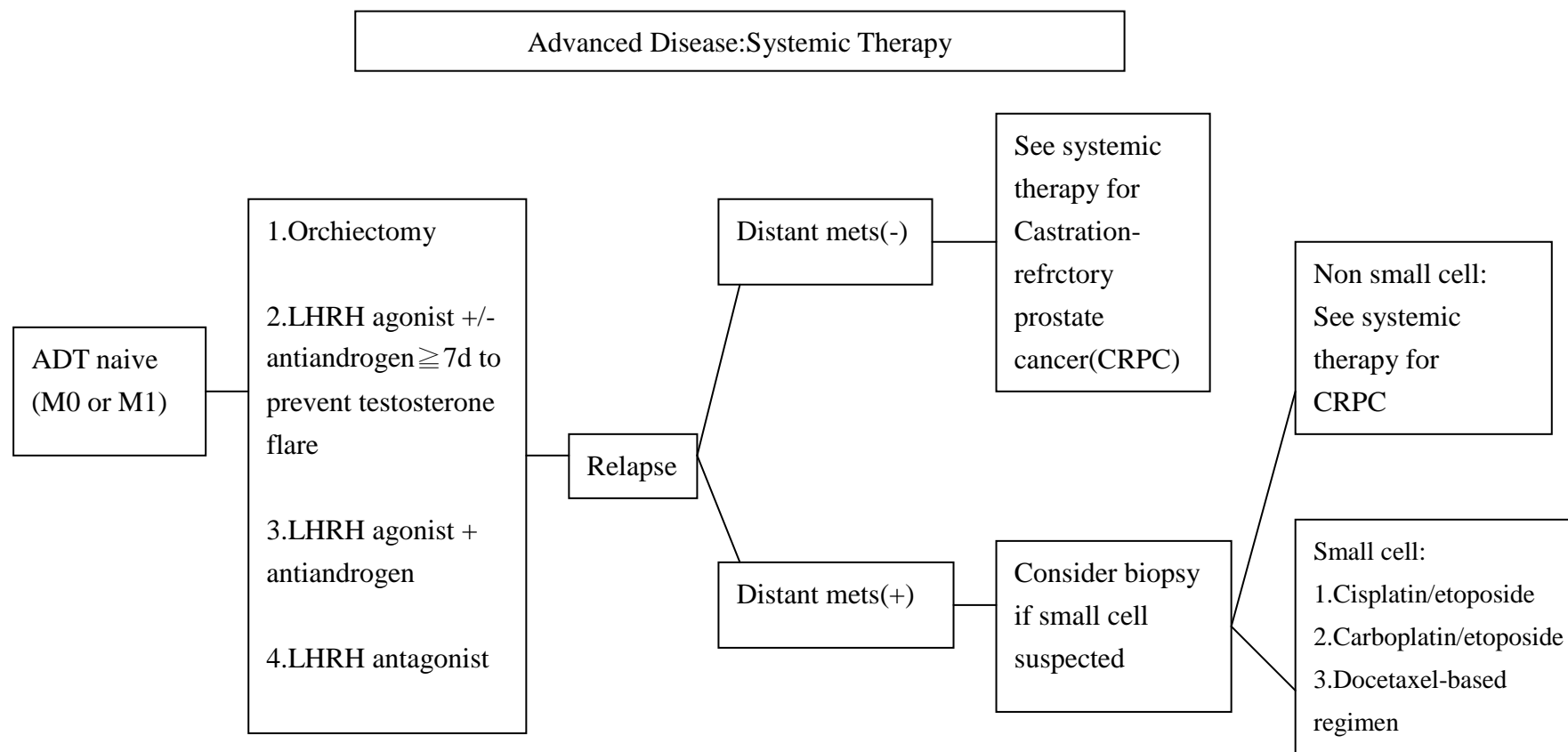


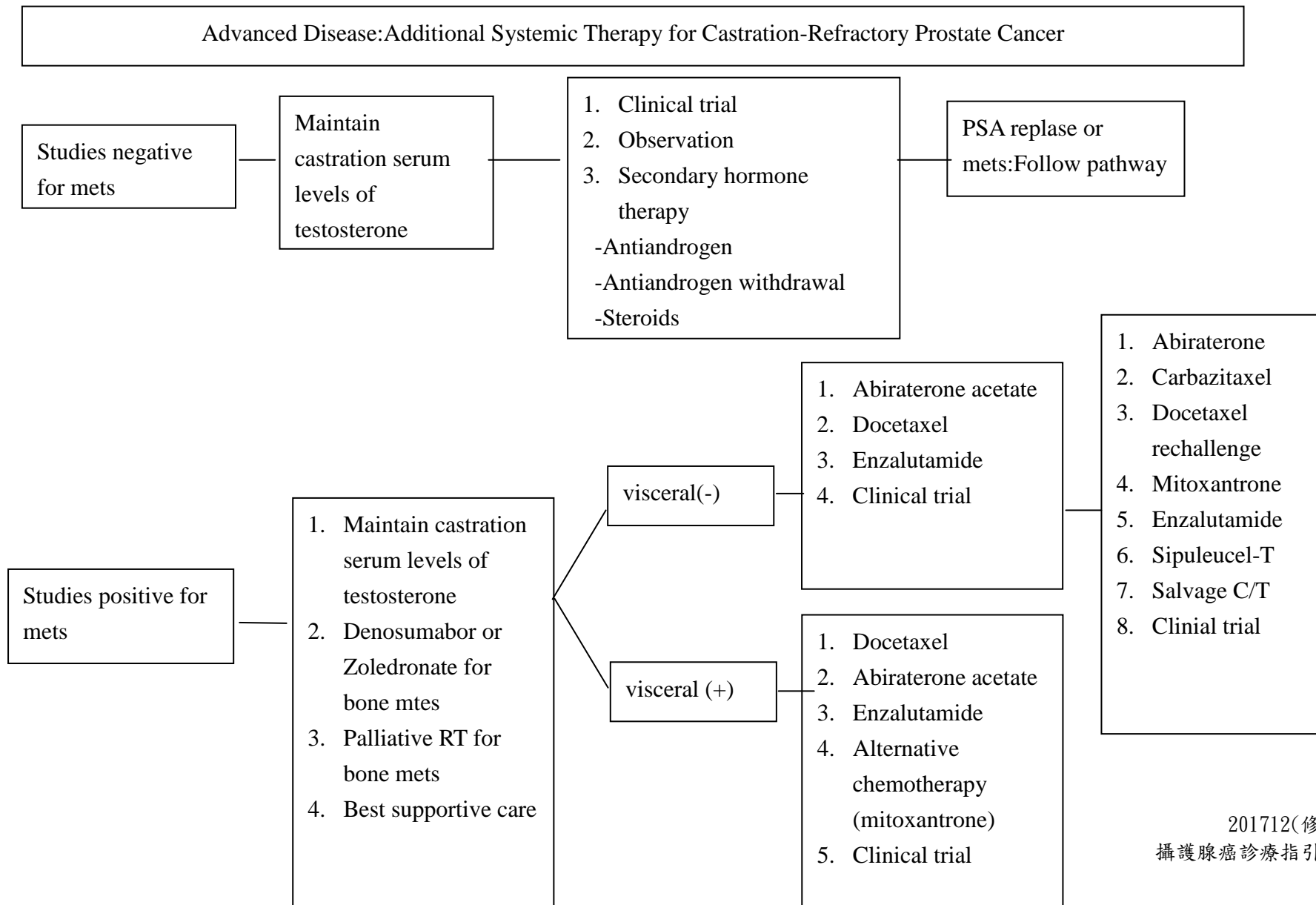












攝護腺癌放射線治療

攝護腺癌的治療指引以泌尿道癌多專科團隊訂定的治療準則為依據。以下僅就放射治療的適應症、治療技術、治療劑量、以及正常組織的劑量限制來說明攝護腺癌放射治療政策及執行情序。

● 治療政策

Indication:

Post OP RT

Positive margin or pT3

PSA > 0.2 ng/ml, or PSA increase on 2 subsequent follow

Definitive RT

Low Risk: Optional, if life expectancy > 10 years

Intermediate: Indicated if life expectancy > 10 years, may consider hormone therapy

High Risk: Indicated, Hormone therapy is indicated.

● 執行情序(procedures)：

Simulation:

CT simulation is performed in the supine position with arms on the chest. The bladder should be comfortably full to displace the bowel away from the prostate.

Patient should be immobilized with customized immobilization device

Radiation Technique

CTV: Prostate, Seminal Vesicle, Pelvic LN up to L5/S1

PTV : Expansion 5-10 mm from CTV.

Dose: pelvic LN is 1.8 Gy/fx to 45 Gy. Involved LN 72 Gy. Prophylactic dose to the seminal vesicles is 54 Gy. Documented seminal vesicle disease receives full-dose.

Prostate : 72–78 Gy.

Post OP

Prostate bed: 64-66Gy, maybe boosted to higher if local residual disease is documented

Dose Limiting Structures

Bladder: V75 <25%, V40 <50%.

Rectum: V75 <15%, V50 <50%,

Femoral heads: V50 <5%

參考資料:

1. Decision Making in Radiation Oncology, V1-2, L.W. Brady, H.-P. et al, 2011
2. Handbook of Evidence-Based Radiation Oncology, Eric K. Hansen et al, 2010

Principle of Systemic therapy

- **Men with high-volume, ADT-naive, metastatic disease (reference ECOG 3805 trial)**
→consider ADT + Docetaxel ($75\text{mg}/\text{m}^2$) Q3W for 6 cycles

- **Men with mCRCP**

Preferred first line :

1. Docetaxel $75\text{mg}/\text{m}^2 \pm$ prednisone Q3W or Docetaxel $50\text{mg}/\text{m}^2 \pm$ prednisone Q2W
2. Abiraterone 1000mg po QDAC
3. Enzalutamide 160mg po QD

PS:2,3 僅能擇一在 Docetaxel 前申請健保給付

Alternative second line :

1. Mitoxantrone $12\text{mg}/\text{m}^2 \pm$ prednisone Q3W for palliative symptoms
2. Progressive disease after docetaxel → cabazitaxel $25\text{mg}/\text{m}^2 \pm$ prednisone Q3W(自費)

- **Bone mets**

1. Denosumab 120mg SC Q4W
2. Zoledronate 4mg Q4W

參考資料:

1. Docetaxel plus Prednisone or Mitoxantrone plus Prednisone for Advanced Prostate Cancer NEJM 350;15 October 7, 2004, 1502-1512 By Ian F. Tannock, M.D., et. al
2. Fizazi K, Bosserman L, Gao G, Skacel T, Markus R. Denosumab treatment of prostate cancer with bone metastases and increased urine

N-telopeptide levels after therapy with intravenous bisphosphonates: results of a randomized phase II trial. J

Urol. 2009;182:509–15. discussion 15-6. Urol. 2009;182:509–15. discussion 15-6.

3. Abiraterone (如 Zytiga) (103/12/1、105/9/1) 1. 治療藥物或手術去勢抗性的轉移性前列腺癌 (ECOG 分數須 ≤ 2) 且已使用過 docetaxel 2 個療程以上且治療無效者。 2. 需與 prednisone 或 prednisolone 併用。 3. 須經事前審查核准後使用，每 3 個月需再次申請。 4. 本品與 enzalutamide 僅能擇一使用。(105/9/1)
4. Enzalutamide (如 Xtandi) (105/9/1) 1. 治療藥物或手術去勢抗性的轉移性前列腺癌 (ECOG 分數須 ≤ 2) 且已使用過 docetaxel 2 個療程以上且治療無效者。 2. 須經事前審查核准後使用，每 3 個月需再次申請。 3. 本品與 abiraterone 僅能擇一使用。

Principle of Hormone therapy

- **LHRH agonist**

1. Goserelin Acetate (Zoladex) 3.6mg Depot S.C QM or 10.8mg depot e3M.
2. Leuprolide Acetate (Leuplin) 3.75mg Depot S.C QM

- **Anti-androgen therapy**

1. Cyproterone Acetate (Androcur) 50-300 mg PO QD
2. Bicalutamide (Casodex) 50 mg PO QD

| STAGE CATEGORY DEFINITIONS | |
|----------------------------|---|
| PRIMARY TUMOR (T) | |
| cTX | Primary tumor cannot be assessed |
| cT0 | No evidence of primary tumor |
| cT1 | Clinically inapparent tumor that is not palpable |
| cT1a | Tumor incidental histologic finding in 5% or less of tissue resected |
| cT1b | Tumor incidental histologic finding in more than 5% of tissue resected |
| cT1c | Tumor identified by needle biopsy found in one or both sides, but not palpable |
| cT2 | Tumor is palpable and confined within prostate |
| cT2a | Tumor involves one-half of one lobe or less |
| cT2b | Tumor involves more than one-half of one side but not both sides |
| cT2c | Tumor involves both sides |
| cT3 | Extraprostatic tumor that is not fixed or does not invade adjacent structures |
| cT3a | Extracapsular extension (unilateral or bilateral) |
| cT3b | Tumor invades seminal vesicle(s) |
| cT4 | Tumor is fixed or invades adjacent structures other than seminal vesicles: such as external sphincter, rectum, bladder, levator muscles, and/or pelvic wall |
| pT2 | Organ confined |

| STAGE CATEGORY DEFINITIONS | |
|----------------------------|--|
| PRIMARY TUMOR (T) | |
| pT3 | Extraprostatic extension |
| pT3a | Extraprostatic extension (unilateral or bilateral) or microscopic invasion of bladder neck |
| pT3b | Tumor invades seminal vesicle(s) |
| pT4 | Tumor is fixed or invades adjacent structures other than seminal vesicles: such as external sphincter, rectum, bladder, levator muscles, and/or pelvic wall |
| | Note: There is no pathologic T1 classification. *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 classified not as T3 but as T2. ***Note: Positive surgical margin should be indicated by an R1 descriptor (residual microscopic disease). |

| REGIONAL LYMPH NODES (N) | |
|--------------------------|--|
| NX | Regional lymph nodes were not assessed |
| N0 | No regional lymph node metastasis |
| N1 | Metastasis in regional lymph node(s) |

| DISTANT METASTASIS (M) | |
|---|--|
| M0 | No distant metastasis |
| M1 | Distant metastasis |
| M1a | Non-regional lymph node(s) |
| M1b | Bone(s) |
| M1c | Other site(s) with or without bone disease |
| *Note: When more than one site of metastasis is present, the most advanced category is used. M1c is most advanced | |

| ANATOMIC STAGE • PROGNOSTIC GROUPS | | | | | |
|--|-------------------------|----------------|----------------|--------------------------------------|---|
| CLINICAL | | | | | |
| Stage GROUP | T | N | M | PSA | Gleason |
| I | cT1a-c cT2a pT2 | N0 N0 N0 | M0 M0 M0 | PSA<10 | Gleason ≤ 6 |
| IIA | cT1a-c cT2a T2b-c | N0 N0 N0 | M0 M0 M0 | PSA ≥ 10<20 PSA ≥ 10<20 PSA<20 | Gleason ≤ 6 Gleason ≤ 6 Gleason ≤ 6 |
| IIB | T1-2 | N0 | M0 | PSA<20 | Gleason 7 |
| IIC | T1-2 T1-2 | N0 N0 | M0 M0 | PSA<20 PSA<20 | Gleason 7 Gleason 8 |
| IIIA | T1-2 | N0 | M0 | PSA ≥ 20 | Gleason ≤ 6-8 |
| IIIB | T3-4 | N0 | M0 | Any PSA | Gleason ≤ 6-8 |
| IIIC | Any T | N0 | M0 | Any PSA | Gleason 9 or 10 |
| IVA | Any T | N1 | M0 | Any PSA | Any Gleason |
| IVB | Any T | N0 | M1 | Any PSA | Any Gleason |
| *When either PSA or Gleason is not available, grouping should be determined by T stage and/or either PSA or Gleason as available. | | | | | |