中 山 醫 學 大 學 附 設 醫 院

攝 護 腺 癌 診 療 指 引

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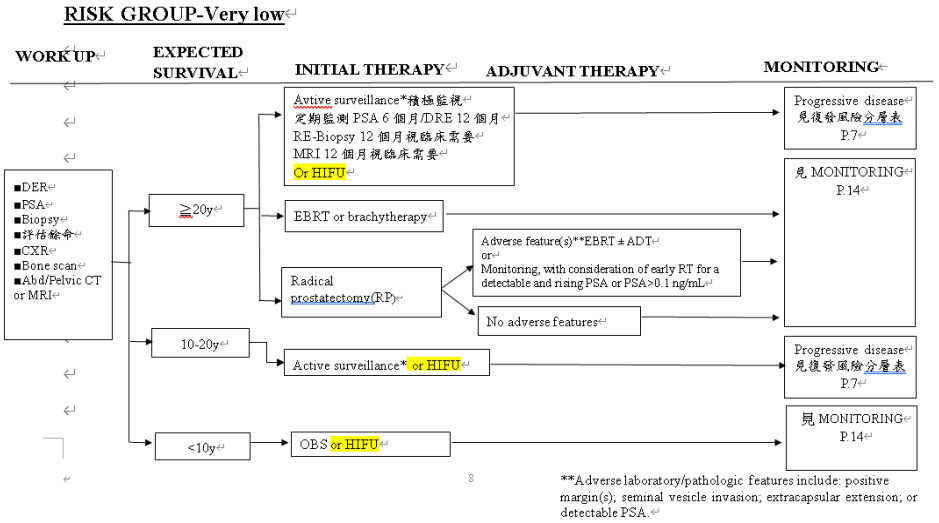
2012/12/07 Version 4.0
2011/12/02 Version 3.1
2011/01/21 Version 3.0
2010/05/28 Version 2.0
2009/12/16 Version 1.0

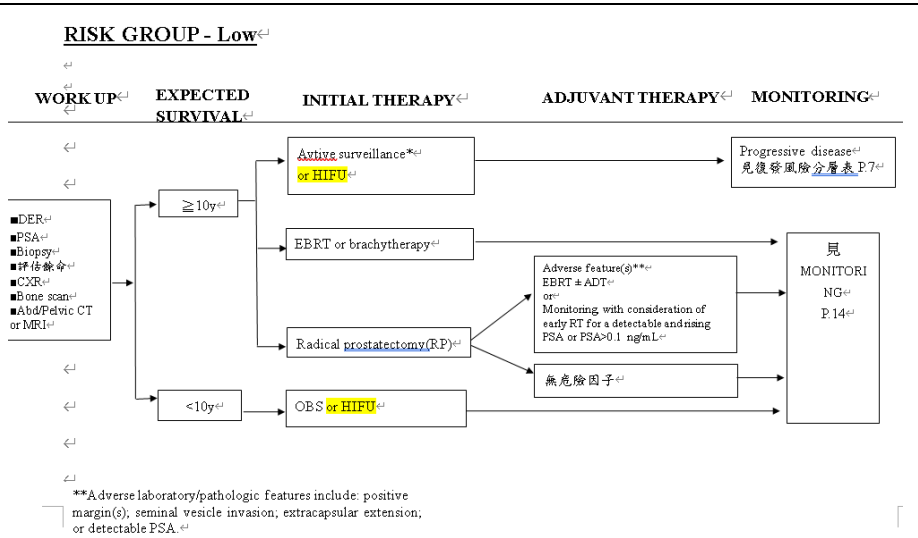
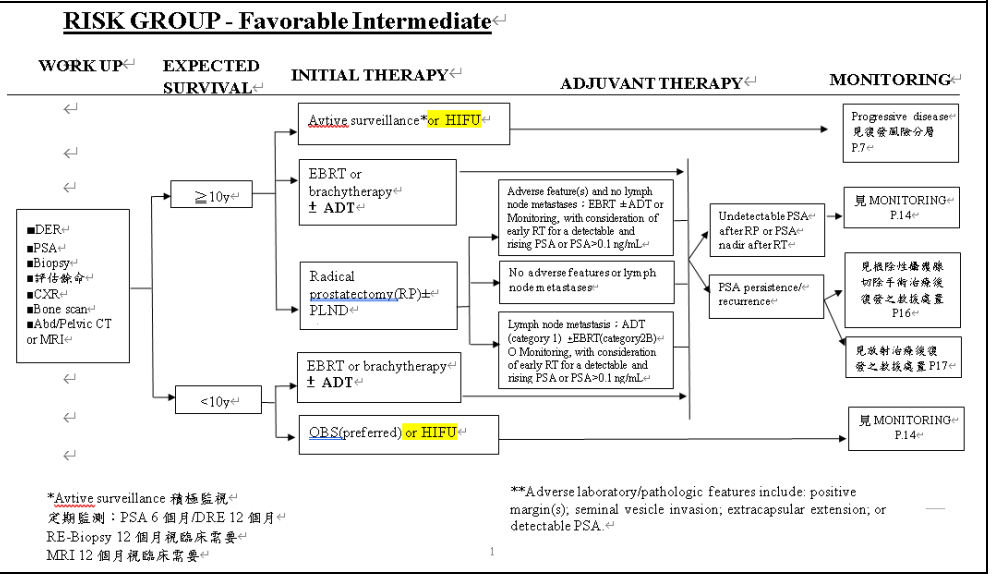
臨床指引參考台灣國家衛生研究院、與美國 NCCN 版本
再依據中山醫學大學附設醫院泌尿道癌小組經驗作編修

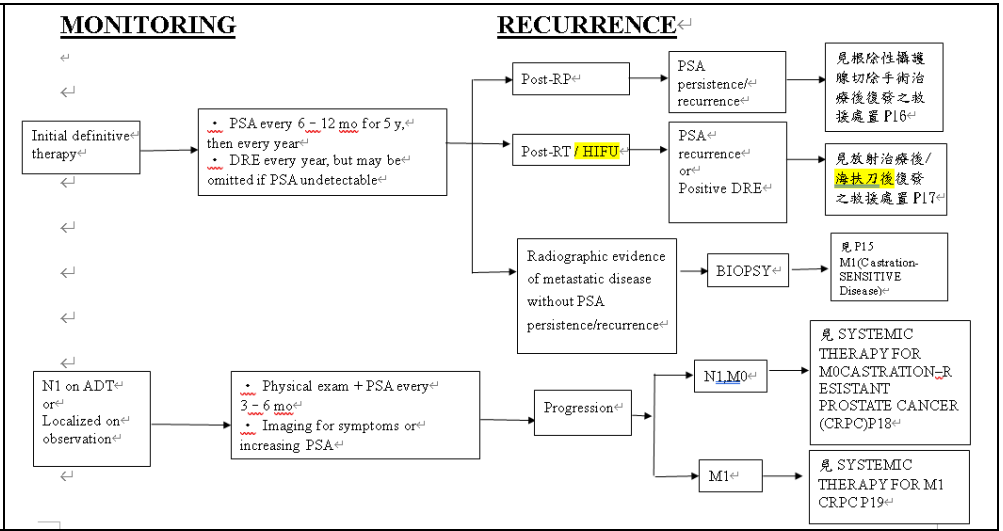
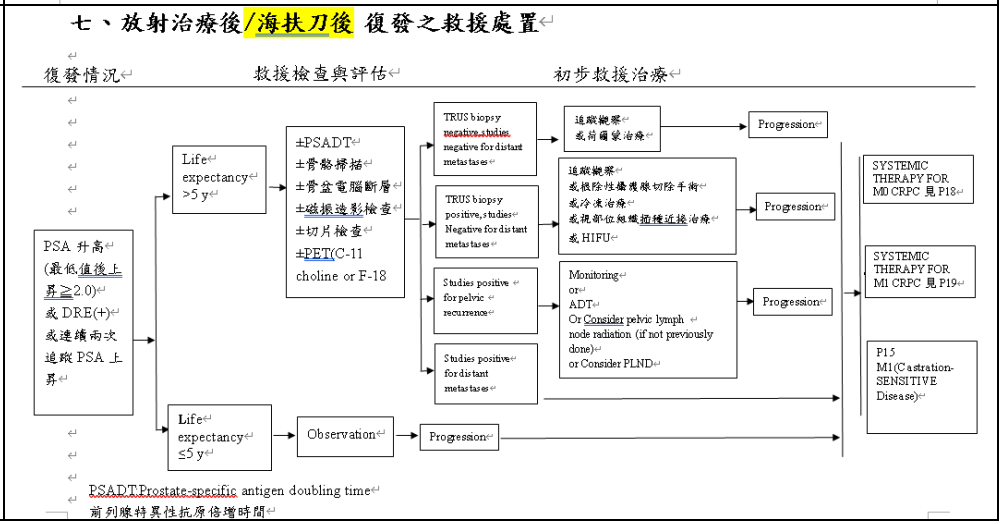
泌尿道癌醫療小組

癌症委員會主任委員	癌症委員會執行長	癌症中心主任	團隊負責人

修訂內容

頁數	原文	修訂/新增
第 1 頁	本攝護腺癌診斷及治療指引的建立，除了依據已發表的實證醫學證據及專家意見外，並參考國家衛生研究院攝護腺癌臨床指引、美國 National Comprehensive Cancer Network (NCCN) 的Practice Guide-lines in Prostate Cancer ~~V1~~.2023版、及中山醫學大學附設醫院攝護腺癌治療經驗進行編修。	本攝護腺癌診斷及治療指引的建立，除了依據已發表的實證醫學證據及專家意見外，並參考國家衛生研究院攝護腺癌臨床指引、美國 National Comprehensive Cancer Network (NCCN) 的Practice Guide-lines in Prostate Cancer V4.2023版、及中山醫學大學附設醫院攝護腺癌治療經驗進行編修。
第 8 頁	新增 HIFU 治療選項	

第 9 頁	新增 HIFU 治療選項	
第 10 頁	新增 HIFU 治療選項	

第 14 頁		 MONITORING RECURRENCE Initial definitive therapy • PSA every 6 – 12 mo for 5 y, then every year • DRE every year, but may be omitted if PSA undetectable Post-RP PSA persistence/ recurrence 見根除性攝護腺切除手術治療後復發之救援處置 P16 Post-RT / HIFU PSA recurrence or Positive DRE 見放射治療後/海扶刀後復發之救援處置 P17 Radiographic evidence of metastatic disease without PSA persistence/recurrence BIOPSY 見 P15 M1(Castration-SENSITIVE Disease) N1 on ADT or Localized on observation • Physical exam + PSA every 3 – 6 mo • Imaging for symptoms or increasing PSA Progression N1,M0 見 SYSTEMIC THERAPY FOR M0CASTRATION–RESISTANT PROSTATE CANCER (CRPC)P18 M1 見 SYSTEMIC THERAPY FOR M1 CRPC P19
第 17 頁		 七、放射治療後/海扶刀後 復發之救援處置 復發情況 救援檢查與評估 初步救援治療 PSA 升高 (最低值後上昇≧2.0) 或 DRE(+) 或連續兩次追蹤 PSA 上昇 Life expectancy >5 y ±PSADT ±骨骼掃描 ±骨盆電腦斷層 ±磁振造影檢查 ±切片檢查 ±PET(C-11 choline or F-18 TRUS biopsy negative,studies negative for distant metastases 追蹤觀察 或荷爾蒙治療 Progression TRUS biopsy positive,studies Negative for distant metastases 追蹤觀察 或根除性攝護腺切除手術 或冷凍治療 或視部位組織插種近接治療 或 HIFU Progression Studies positive for pelvic recurrence Monitoring or ADT Or Consider pelvic lymph node radiation (if not previously done) or Consider PLND Progression Studies positive for distant metastases SYSTEMIC THERAPY FOR M0 CRPC 見 P18 SYSTEMIC THERAPY FOR M1 CRPC 見 P19 P15 M1(Castration-SENSITIVE Disease) Life expectancy ≤5 y Observation Progression PSADTProstate-specific antigen doubling time 前列腺特異性抗原倍增時間

第 20 頁		**SYSTEMIC THERAPY FOR M1 CRPC: ADENOCARCINOMA** **No prior docetaxel/no prior novel hormone therapy** ● Preferred regimens ➢ Abiraterone (category 1) ➢ Docetaxel (category 1) ➢ Enzalutamide (category 1) ● Useful in certain circumstances ➢ Sipuleucel-T (category 1) ➢ Radium-223 for symptomatic bone metastases (category 1) ➢ Niraparib/abiraterone for BRCA mutation (category 1) ➢ Olaparib/abiraterone for BRCA mutation (category 1) ➢ Talazoparib/enzalutamide for HRRm (category 1) ● Other recommended regimens ➢ Other secondary hormone therapy **Prior novel hormone therapy/No prior docetaxel** ➢ Preferred regimens ➢ Docetaxel (category 1) ➢ Useful in certain circumstances ➢ Olaparib for HRRm (category 1) ➢ Cabazitaxel/carboplatin ➢ Radium-223 for symptomatic bone metastases (category 1) ➢ Rucaparib for BRCAm ➢ Sipuleucel-T ➢ Niraparib/abiraterone for BRCA mutation ➢ Talazoparib/enzalutamide for HRRm ➢ Other recommended regimens ➢ Abiraterone ➢ Abiraterone + dexamethasone ➢ Enzalutamide ➢ Other secondary hormone therapy **Prior docetaxel/no prior novel hormone therapy** Preferred regimens □Abiraterone (category 1) □Cabazitaxel □Enzalutamide (category 1) Useful in certain circumstances □Mitoxantrone for palliation in symptomatic patients who cannot tolerate other therapies □Cabazitaxel/carboplatin □Radium-223 for symptomatic bone metastases (category 1) □Sipuleucel-T □Niraparib/abiraterone for BRCA mutation □Olaparib/abiraterone for BRCA mutation □Talazoparib/enzalutamide for HRRm **Prior docetaxel and prior novel hormone therapy** • Useful in certain circumstances □Lutetium Lu 177 vipivotide tetraxetan (Lu-177–PSMA-617) for PSMA-positive metastases (category 1) (All systemic therapies are category 2B if visceral metastases are present) □Preferred regimens □Cabazitaxel (category 1) □Docetaxel rechallenge Useful in certain circumstances □Olaparib for HRRm (category 1) □Cabazitaxel/carboplatin □Pembrolizumab for MSI-H or dMMR or TMB ≥10 mut/Mb □Mitoxantrone for palliation in symptomatic patients who cannot tolerate other therapies

目 錄

一、前言

本共識手冊內所提之各種診治意見，為原則性之建議，希望能為癌症患者及其家屬提供一個正確的指引；但對臨床醫師之醫療行為無絕對之法律性約束力！由於醫藥科技持續在進步，每位患者的病情亦不盡相同；醫師應就病人之病情做個別的考量，病人和家屬亦應與醫師溝通討論，以決定最適當之診治方式。

據衛生福利部的統計，攝護腺癌的發生率與死亡率近年來均呈逐年增加之現象；2021 年死亡排名佔全部癌症的第 5 位、男性癌症的第 6 位。本院登錄攝護腺惡性腫瘤 5 年個案數近為 417 例，發病年齡在 65 歲以上明顯增加，在 80 歲以上的組距佔最大族群。隨著老年化人口的來臨，攝護腺惡性腫瘤的篩檢顯得的格外重要。

隨著篩檢工具（攝護腺特定抗原 PSA 檢測）的準確率提高，病患健康意識的提昇，將來攝護腺癌的發生率必將持續增加，也因此本院積極整合泌尿外科、病理科、腫瘤內科、醫學影像部與放射腫瘤科以堅強的團隊，提供攝護腺癌有效的預防與全方位的治療。本院治療攝護腺惡性腫瘤具有相當優異成果，於民國 90 年成為中部第一所完成攝護腺組織插種近接治療單位，引進先進且精準的光子刀/亞瑟刀放射定位治療儀器；在微創(局部)治療部分，也陸續引進海福刀(HIFU)及冷凍療法(Cryotherapy)；在手術方面，引進達文西機械手臂系統，是中部地區治療攝護腺癌的重要醫院。本團隊目的是整合現有人力、資源、研究計劃、臨床試驗、空間設備針對攝護腺癌做完善的診斷及治療。

本攝護腺癌診斷及治療指引的建立，除了依據已發表的實證醫學證據及專家意見外，並參考國家衛生研究院攝護腺癌臨床指引、美國 National Comprehensive Cancer Network (NCCN) 的Practice Guide-lines in Prostate Cancer V4.2023版、及中山醫學大學附設醫院攝護腺癌治療經驗進行編修。

二、症狀、診斷和檢查

攝護腺癌在初期很少有症狀，多半都是在腫瘤較大且壓迫到膀胱或尿道時，才會出現像頻尿，解尿困難，排尿時有疼痛及燒灼的感覺，甚至解血尿。不過由於良性的攝護腺肥大也會有類似的症狀產生，所以有時也很難以這些症狀來判斷是否罹患攝護腺癌。攝護腺癌發生遠端轉移的時候，最常轉移到骨骼，此時多半會引起骨頭疼痛，或壓迫神經引起神經痛的症狀，嚴重的話，還會有病理性骨折的情形。

要診斷攝護腺癌，首先要詳細的詢問病史，並要進行完整的身體檢查及評估，這些檢查包括：

1. 肛門指檢：直腸就在攝護腺的後側，所以醫師可以用食指經肛門放入病人的直腸，來觸診攝護腺。正常的攝護腺應該是柔軟有彈性的，如同握拳時大姆指旁虎口的肌肉，而攝護腺癌觸摸起來卻是如結節般的硬塊，甚至硬如石頭。但如果遇到攝護腺肥大、攝護腺發炎、攝護腺結石、或做過經尿道攝護腺切除手術及切片的病人，則肛門指檢就不易判讀。
2. 攝護腺特異抗原**(prostate specific antigen**，簡稱**PSA)**：這是一種攝護腺產生的蛋白質，其生理功能是使射精後的精液液化，可能有助於精子游走和授孕。攝護腺的上皮細胞與癌細胞都會分泌PSA，但癌細胞會分泌數倍以上的量。血中PSA的正常值是小於4.0 ng/ml，若抽血檢驗PSA大於正常值，就要懷疑有攝護腺癌的可能。但由於攝護腺肥大、攝護腺發炎、肛門指檢、導尿管的置放、膀胱鏡的檢查、經直腸超音波檢查及攝護腺的切片，都會使PSA有不同程度的升高，所以一旦發現病人有PSA升高的情形，必頇先排除其他非攝護腺癌所引起的PSA升高因素，才能下診斷。
3. 攝護腺切片：取得攝護腺組織的方式有兩種，其一是經尿道攝護腺刮除手術，再者則是經直腸/會陰影像導引攝護腺切片。由於攝護腺是深埋在人體的一個小器官，一般的X光只能看到外形的影子，而肛門指診有時又會有人為因素的誤差，因此就發展出經直腸/會陰影像導引檢查，可由距離攝護腺最近的位置直接掃描，觀察攝護腺的變化。當發現病灶時，還可藉由影像導引，將病變切片送檢查；另外一種方式是經尿道攝護腺刮除手術，經由尿道將攝護腺中間近尿道部分刮除，缺點是攝護腺週邊的腫瘤無法測得。
4. 電腦斷層及核磁共振攝影：為了確實了解病灶與鄰近器官的關係，可以做電腦斷層及核磁共振攝影，較清楚的

評估骨盆腔內的淋巴結，及其他器官是否有被癌細胞侵犯。

5. 其他：倘若懷疑有骨頭的轉移，還要做骨骼掃描，或是胸部X光檢查，以觀察是否有肺部轉移。

三、組織病理分類與分化

＊格里森分級系統 (Gleason grading system)：

此為攝護腺癌分級中最常使用的分級系統，此系統是將腫瘤標本置於顯微鏡下，依據細胞分化的成熟度將其分成 1~5 級，分化最成熟的為 1 級，分化最不成熟的則為 5 級；而考慮攝護腺癌的多發性以及客觀評估預後，此系統從攝護腺癌組織切片中，取前二大面積者的級數相加而成格里森分數(2~10) (Gleason score)。格里森分數在 7 以上的病人預後明顯比格里森分數在 6 以下的病人來得差。

Grade Group	Gleason Score	Gleason Pattern(s)
1	≦6	≦3+3
2	7	3+4
3	7	4+3
4	8	4+4(3+5/5+3)
5	9 or 10	4+5,5+4,or5+5

四、臨床分期與病理分期

臨床T期可依肛門指診及影像學檢查來評估腫瘤是否於攝護腺包膜內 (T1, T2) 或包膜外 (T3,T4)

TNM staging system 為採用 AJCC 2017 出版的第八版。

PRIMARY TUMOR (T)	
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
T1	Clinically inapparent tumor that is not palpable
T1a	Tumor incidental histologic finding in 5% or less of tissue resected
T1b	Tumor incidental histologic finding in more than 5% of tissue resected
T1c	Tumor identified by needle biopsy found in one or both sides, but not palpable
T2	Tumor is palpable and confined within prostate
T2a	Tumor involves one-half of one side or less
T2b	Tumor involves more than one-half of one side but not both sides
T2c	Tumor involves both sides
T3	Extraprostatic Tumor that is not fixed or does not invade adjacent structures
T3a	Extraprostatic extension (unilateral or bilateral)
T3b	Tumor invades seminal vesicle(s)
T4	Tumor is fixed or invades adjacent structures other than seminal vesicles: such as external sphincter, rectum, bladder, levator muscles, and/or pelvic wall

PATHOLOGICAL(T)	
pT2	Organ confined
pT3	Extraprostatic extension
pT3a	Extraprostatic extension or microscopic invasion of bladder neck
pT3b	Seminal vesicle invasion
pT4	Tumor is fixed or invasion of adjacent structures other than seminal vesicl such as external sphincter ,rectum, bladder ,levator muscles and/or pelvic wall

Note: There is no pathological T1 classification.

Note: Positive surgical margin should be indicated by an R1 descriptor, indicating 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.

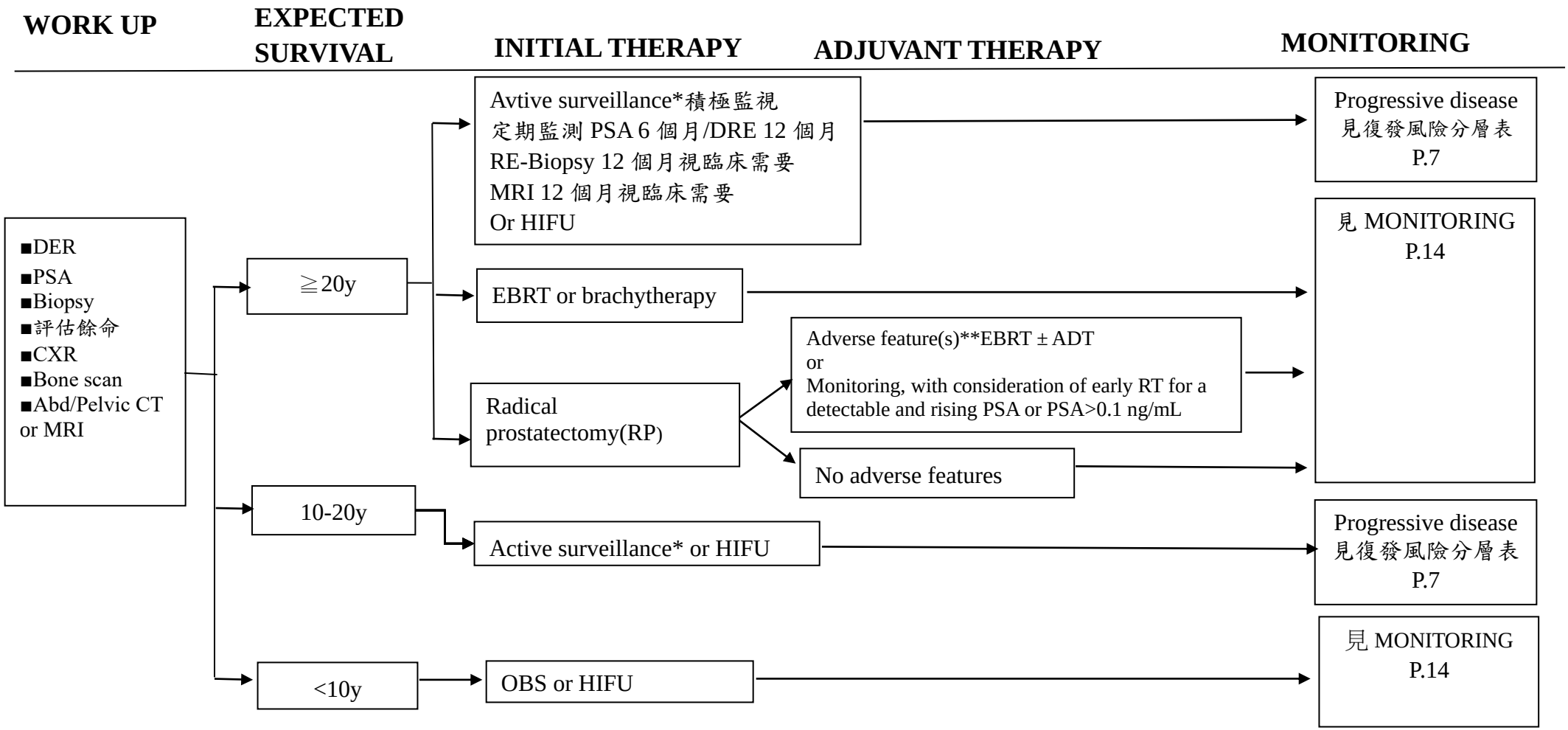
Anatomic Stage・Prognostic Groups					
☐CLINICAL ☐PATHOLOGIC					
Stage	**T**	**N**	**M**	**PSA**	**Gleason Score**
I	cT1a-c T2a	N0	M0	<10	≦ 6
	pT2	N0	M0	<10	≦ 6
IIA	cT1a-c	N0	M0	≧10<20	≦ 6
	cT2a	N0	M0	≥10 <20	≦ 6
	pT2	N0	M0	≥10 <20	≦ 6
	cT2b-c	N0	M0	<20	≦ 6
IIB	T1-2	N0	M0	<20	7(3+4)
IIC	T1-2	N0	M0	<20	7(4+3)
	T1-2	N0	M0	<20	8
IIIA	T1-2	N0	M0	≧20	6-8
IIIB	T3-4	N0	M0	Any	6-8
IIIC	AnyT	N0	M0	Any	9or10
IVA	AnyT	N1	M0	Any	Any
IVB	AnyT	AnyN	M1	Any	Any

復發風險分層表

RISK GROUP	臨床/病理期別			Initial Therapy
非常低度 **Very low**	Has all of the following: •T1c •Grade Group1 •PSA< 10 ng/ml •Fewer than 3 prostate biopsy fragments/cores positive, •≤50% cancer in each fragment/core • PSA density <0.15 ng/mL/g			見 P.8 頁
低度 **low**	Has all of the following but does not qualify for very low risk: •T1-T2a •Grade Group1 •PSA < 10 ng/mL			見P.9頁
中度 **intermediate**	Has all of the following: • No high-risk group features • No very-high-risk group features • Has one or more intermediate risk factors (IRF): ➢ T2b-T2c OR ➢ Grade Group 2-3 OR ➢ PSA 10-20 ng/mL	Favorable	Has all of the following: 1 **IRF and** Grade Group 1 or 2 and <50% biopsy scores positive	見P.10頁
		Unfavorable	Has one or more of the following: 2 or 3 **IRF and/or** Grade Group 3 and/or ≧50% biopsy scores positive	見P.11頁
高度 **high**	Has no very-high-risk features and has exactly one high-risk feature: T3a OR Grade Group4 OR Grade Group5 OR PSA >20 ng/mL			見 P.12 頁
非常高度 **Very high**	Has at least one of the following: T3b-T4OR Primary Gleason Pattern 5 OR 2 or 3 high-risk features OR >4 cores with Group4 or 5			見P.12頁

五、攝護腺癌臨床指引

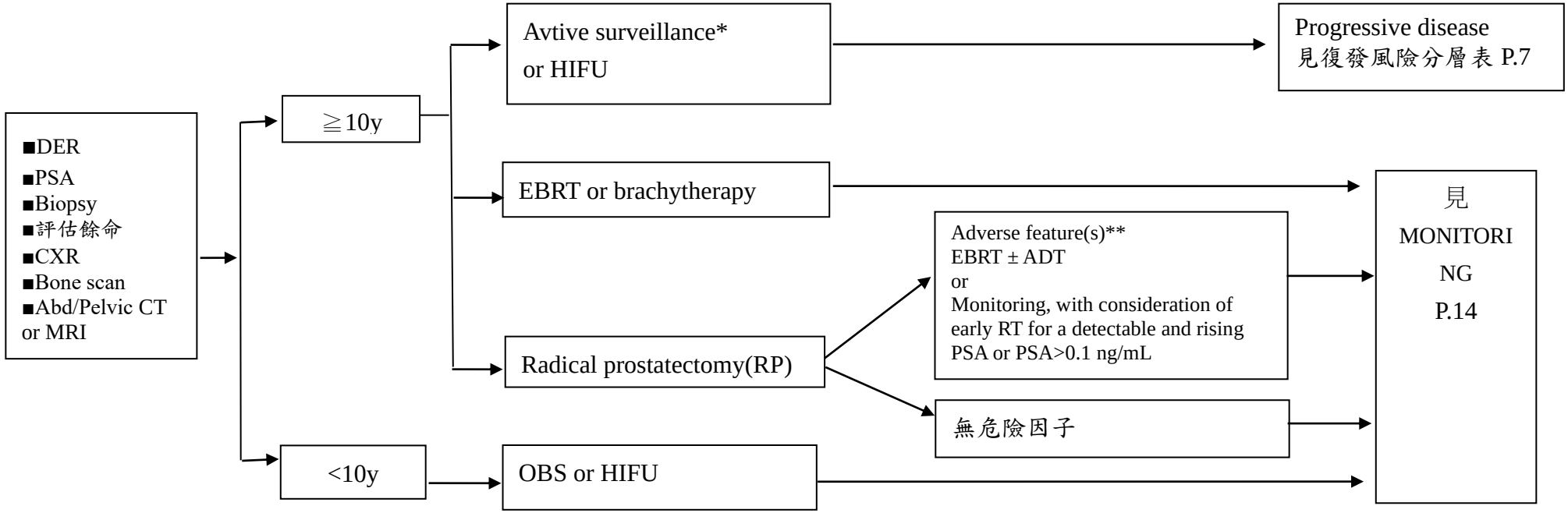
RISK GROUP-Very low



**Adverse laboratory/pathologic features include: positive margin(s); seminal vesicle invasion; extracapsular extension; or detectable PSA.

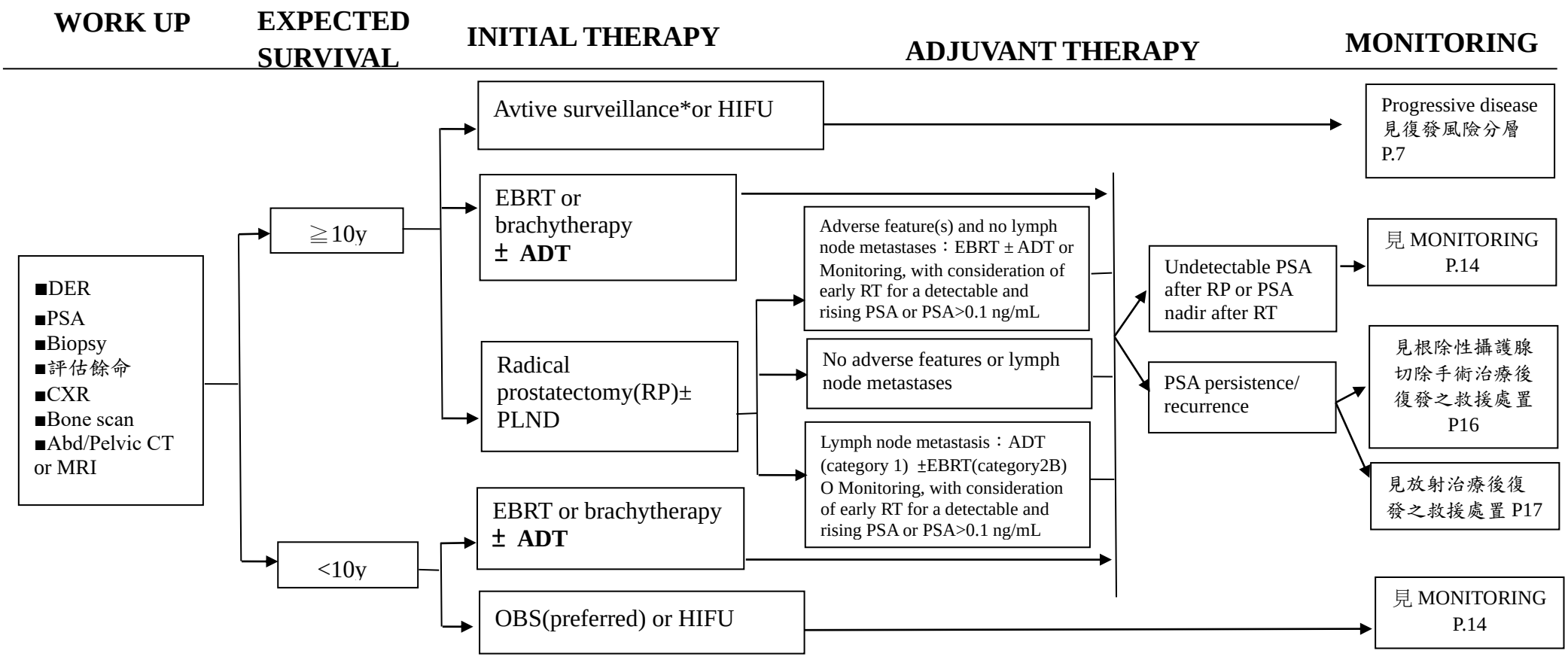
RISK GROUP - Low

WORK UP	EXPECTED SURVIVAL	INITIAL THERAPY	ADJUVANT THERAPY	MONITORING



**Adverse laboratory/pathologic features include: positive margin(s); seminal vesicle invasion; extracapsular extension; or detectable PSA.

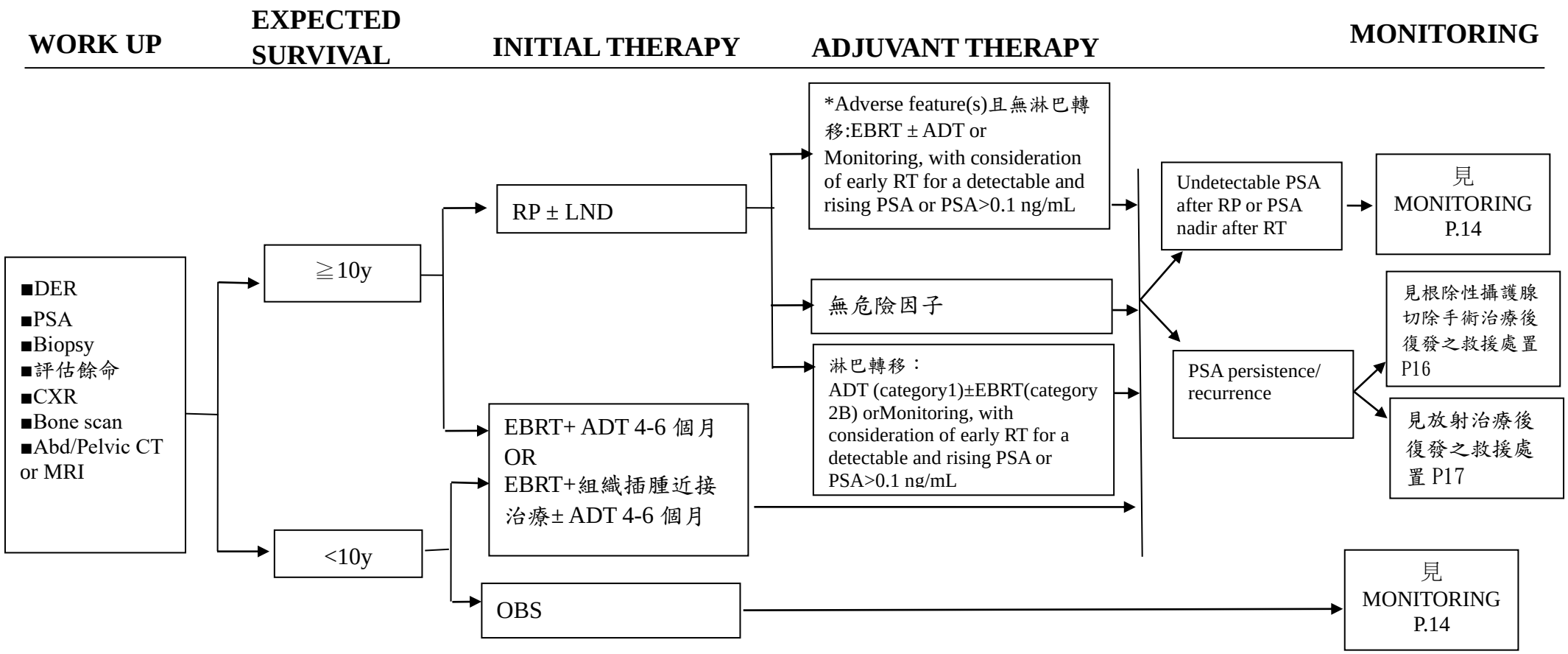
RISK GROUP - Favorable Intermediate



*Avtive surveillance 積極監視
定期監測：PSA 6 個月/DRE 12 個月
RE-Biopsy 12 個月視臨床需要
MRI 12 個月視臨床需要

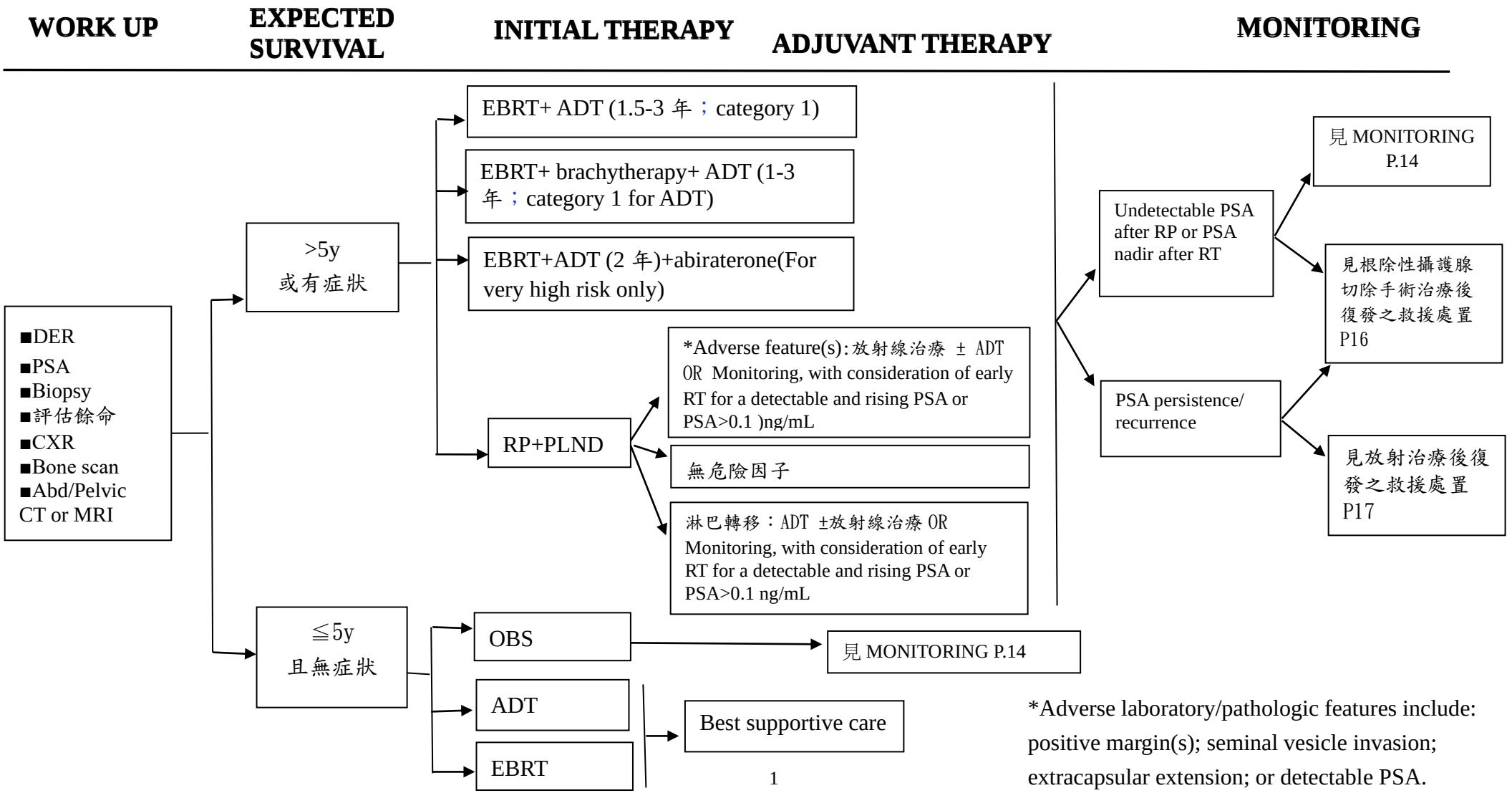
**Adverse laboratory/pathologic features include: positive margin(s); seminal vesicle invasion; extracapsular extension; or detectable PSA.

RISK GROUP - Unfavorable Intermediate



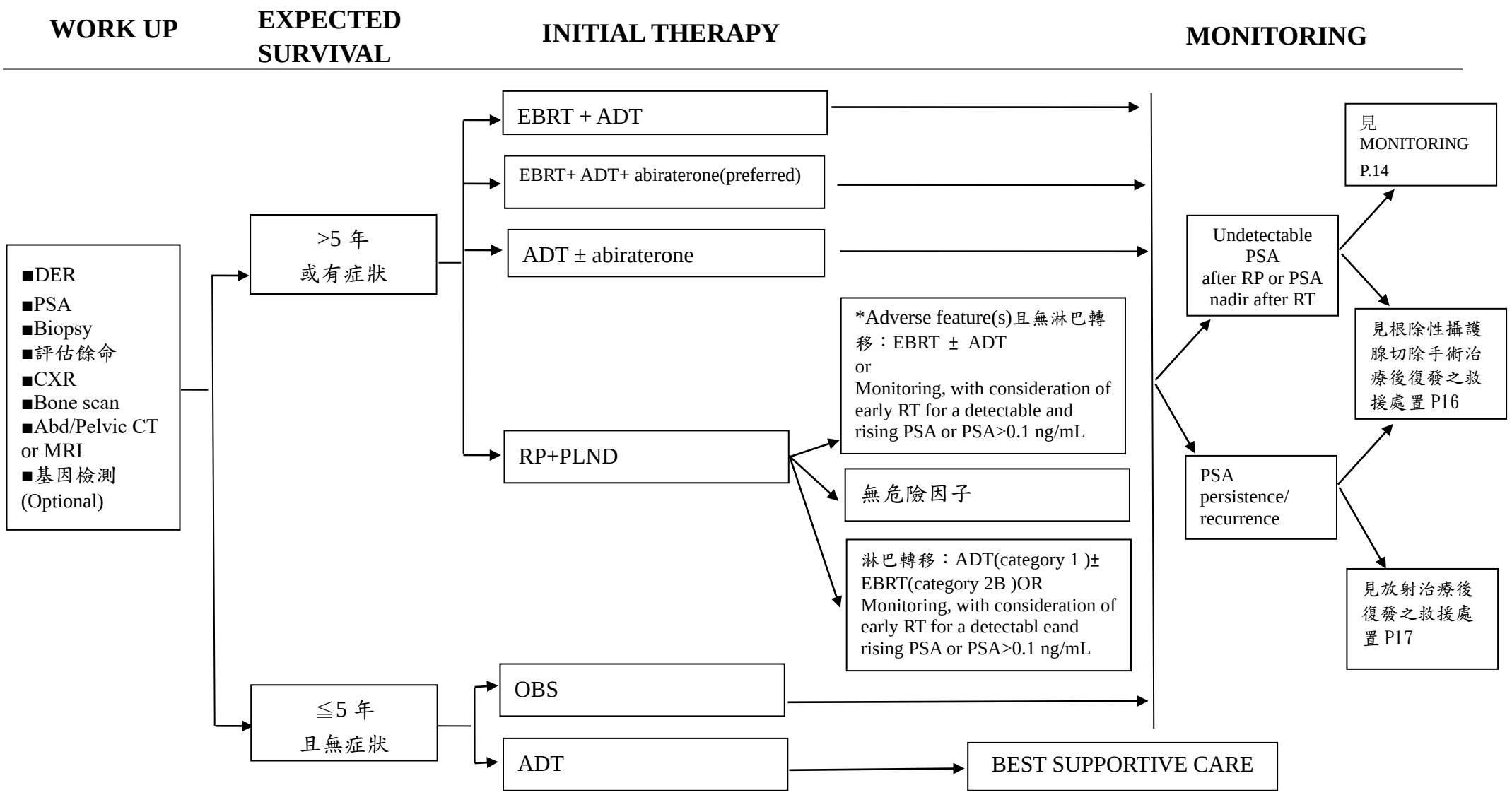
*Adverse laboratory/pathologic features include: positive margin(s); seminal vesicle invasion; extracapsular extension; or detectable PSA.

RISK GROUP -High or Very high



*Adverse laboratory/pathologic features include: positive margin(s); seminal vesicle invasion; extracapsular extension; or detectable PSA.

RISK GROUP-Regional(任何T期,N1,M0)



MONITORING

Initial definitive therapy

- PSA every 6 – 12 mo for 5 y, then every year
- DRE every year, but may be omitted if PSA undetectable

RECURRENCE

Post-RP → PSA persistence/ recurrence → 見根除性攝護腺切除手術治療後復發之救援處置 P16

Post-RT / HIFU → PSA recurrence or Positive DRE → 見放射治療後/海扶刀後復發之救援處置 P17

Radiographic evidence of metastatic disease without PSA persistence/recurrence → BIOPSY → 見 P15 M1(Castration-SENSITIVE Disease)

N1 on ADT or Localized on observation

- Physical exam + PSA every 3 – 6 mo
- Imaging for symptoms or increasing PSA

Progression → N1,M0 → 見 SYSTEMIC THERAPY FOR M0CASTRATION–RESISTANT PROSTATE CANCER (CRPC)P18

Progression → M1 → 見 SYSTEMIC THERAPY FOR M1 CRPC P19

RISK GROUP-Metastatic(任何T,任何N,M1)

Castration SENSITIVE Disease

WORK UP

■DER
■PSA
■Biopsy
■評估餘命
■CXR
■Bone scan
■Abd/Pelvic CT or MRI
■基因檢測 (Optional)

INITIAL THERAPY

ADT with one of the following:
• Preferred regimens:
■ Apalutamide(category 1)
■ Abiraterone(category 1)
■ Docetaxel
■ Enzalutamide(category 1)
or
ADT with docetaxel and one of the following:
• Preferred regimens:
■Abiraterone (category 1)
■Darolutamide (category 1)
Or
ADT with EBRT to the primary tumor for low-volume M1
Or
ADT

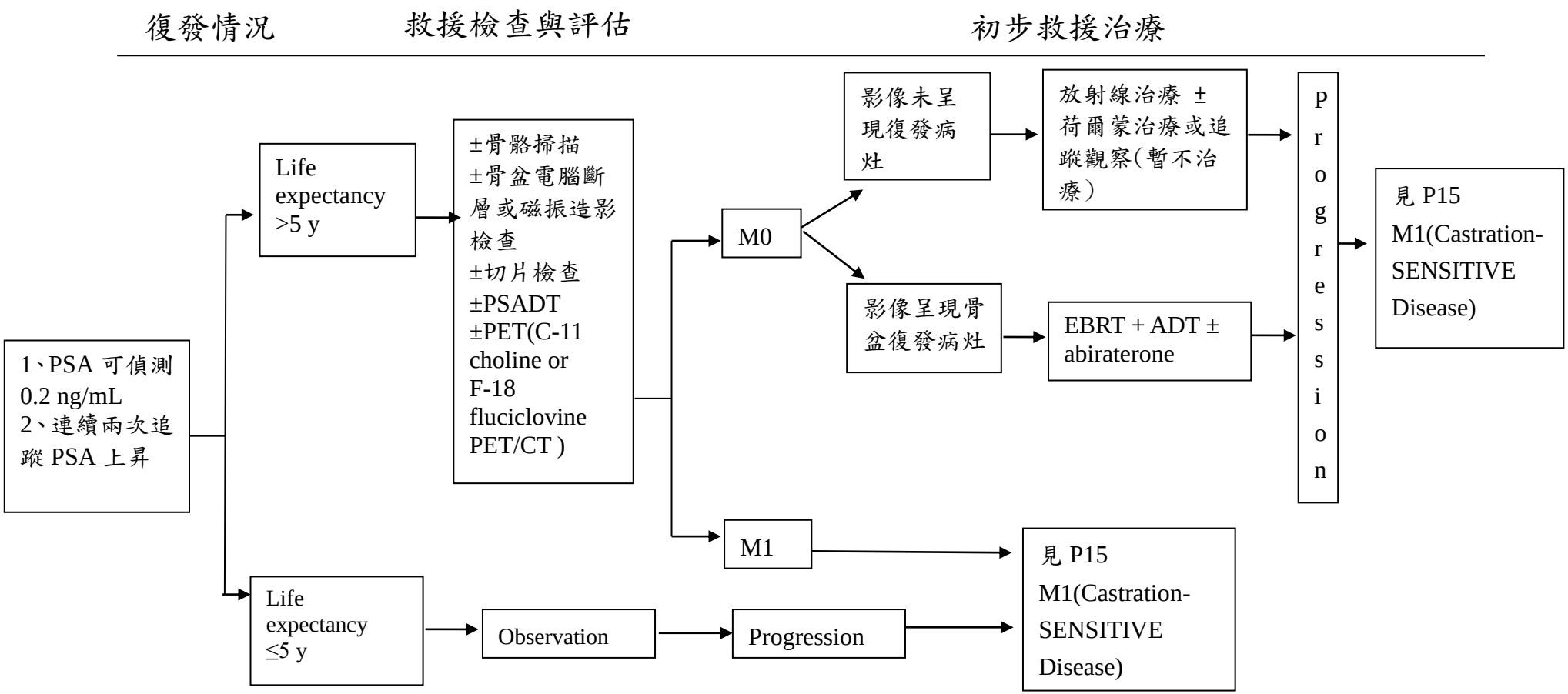
MONITORING

• Physical exam +PSA every 3–6 month
• Imaging for symptoms or increasing PSA

Progress 見 SYSTEMIC THERAPY FOR M1 CRPC

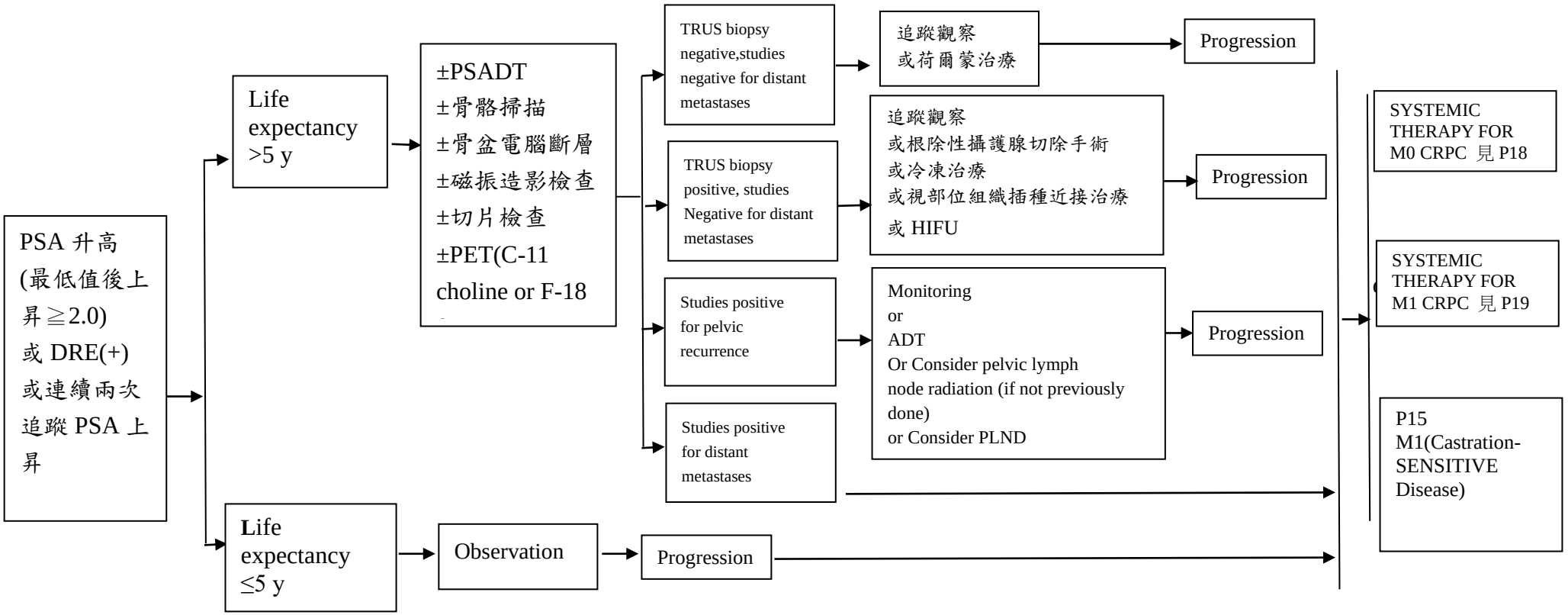
※2021 預期餘命依據內政部的男性簡易生命表為 77.67 歲

六、根除性攝護腺切除手術治療後復發之救援處置



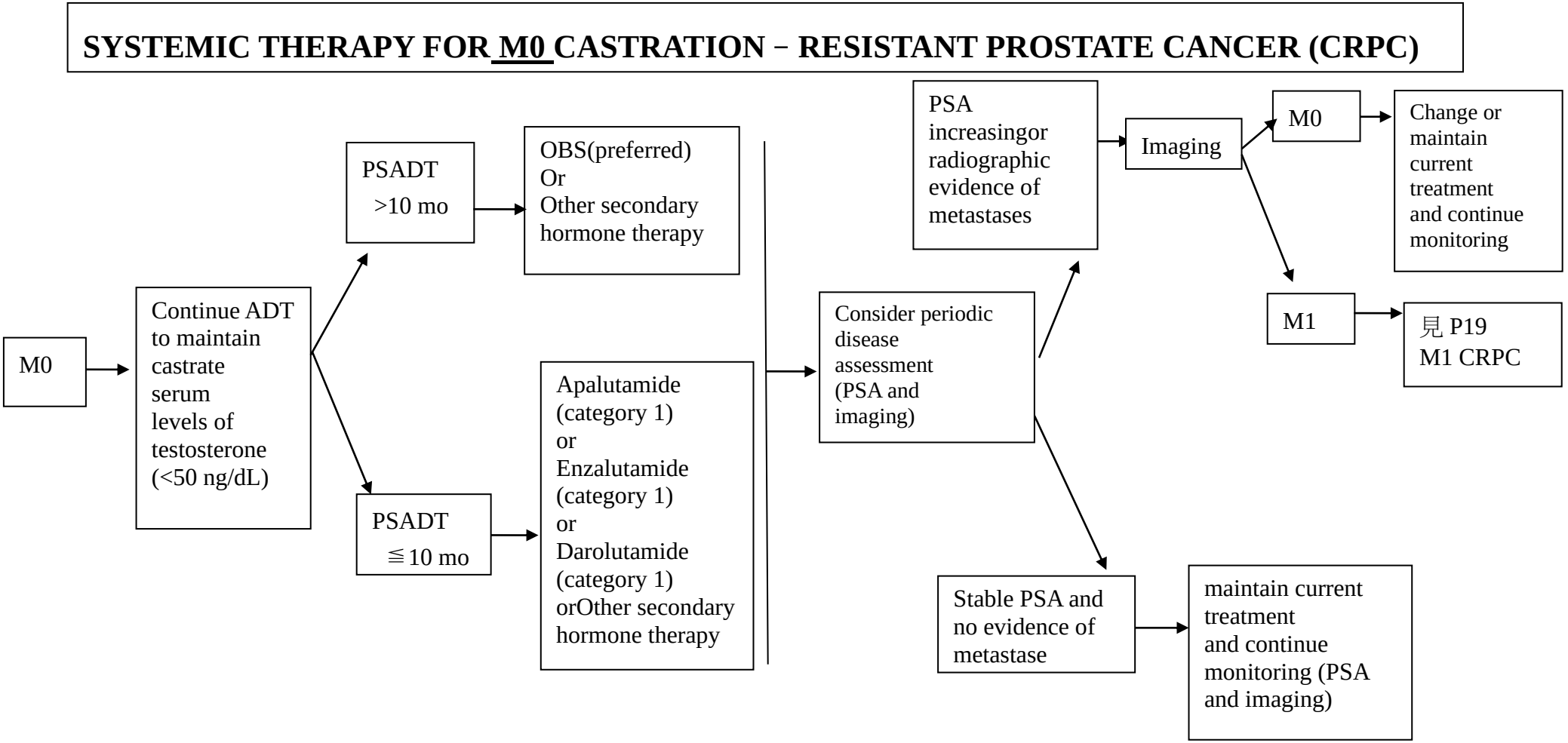
PSADT:Prostate-specific antigen doubling time
前列腺特異性抗原倍增時間

七、放射治療後/海扶刀後 復發之救援處置

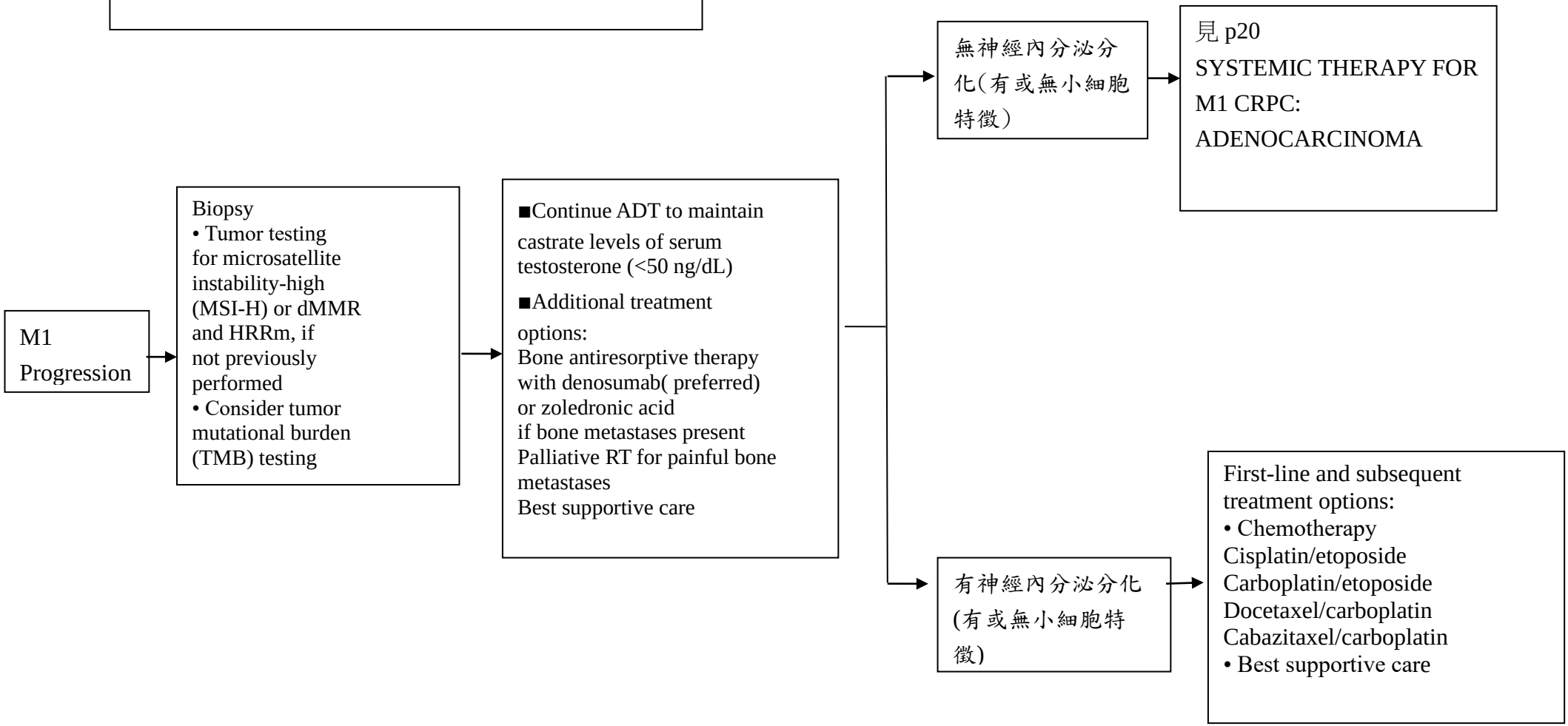


PSADT:Prostate-specific antigen doubling time
前列腺特異性抗原倍增時間

八、荷爾蒙治療失敗之救援處置



SYSTEMIC THERAPY FOR M1 CRPC



SYSTEMIC THERAPY FOR M1 CRPC: ADENOCARCINOMA

No prior docetaxel/no prior novel hormone therapy ● Preferred regimens ➢ Abiraterone (category 1) ➢ Docetaxel (category 1) ➢ Enzalutamide (category 1) ● Useful in certain circumstances ➢ Sipuleucel-T (category 1) ➢ Radium-223 for symptomatic bone metastases (category 1) ➢ Niraparib/abiraterone for BRCA mutation (category 1) ➢ Olaparib/abiraterone for BRCA mutation (category 1) ➢ Talazoparib/enzalutamide for HRRm (category 1) ● Other recommended regimens ➢ Other secondary hormone therapy	**Prior novel hormone therapy/No prior docetaxel** ➢ Preferred regimens ➢ Docetaxel (category 1) ➢ Useful in certain circumstances ➢ Olaparib for HRRm (category 1) ➢ Cabazitaxel/carboplatin ➢ Radium-223 for symptomatic bone metastases (category 1) ➢ Rucaparib for BRCAm ➢ Sipuleucel-T ➢ Niraparib/abiraterone for BRCA mutation ➢ Talazoparib/enzalutamide for HRRm ➢ Other recommended regimens ➢ Abiraterone ➢ Abiraterone + dexamethasone ➢ Enzalutamide ➢ Other secondary hormone therapy
Prior docetaxel/no prior novel hormone therapy Preferred regimens Abiraterone (category 1) Cabazitaxel Enzalutamide (category 1) Useful in certain circumstances Mitoxantrone for palliation in symptomatic patients who annot tolerate other therapies Cabazitaxel/carboplatin Radium-223 for symptomatic bone metastases (category 1) Sipuleucel-T Niraparib/abiraterone for BRCA mutation Olaparib/abiraterone for BRCA mutation Talazoparib/enzalutamide for HRRm	**Prior docetaxel and prior novel hormone therapy** • Useful in certain circumstances Lutetium Lu 177 vipivotide tetraxetan (Lu-177–PSMA-617) for PSMA-positive metastases (category 1) (All systemic therapies are category 2B if visceral metastases are present) Preferred regimens Cabazitaxel (category 1) Docetaxel rechallenge Useful in certain circumstances Olaparib for HRRm (category 1) Cabazitaxel/carboplatin Pembrolizumab for MSI-H or dMMR or TMB ≥10 mut/Mb Mitoxantrone for palliation in symptomatic patients who cannot tolerate other therapies

Other recommended regimens Other secondary hormone therapy	Radium-223 for symptomatic bone metastases (category 1) Rucaparib for BRCAm Other recommended regimens Abiraterone Enzalutamide Other secondary hormone therapy

九、放射治療、化學治療及荷爾蒙治療處置

1. Principles of radiation

(1)Regimen and Dose/Fractionation

Regimen	Preferred Dose/Fractionation	NCCN Risk Group					
		Very Low and Low	Favorable intermediate	Unfavorable intermediate	High and Very High	Regional N1	Low Volume M1
EBRT							
Moderate Hypofractionation	3 Gy x 20 fx 2.7 Gy x 26 fx 2.5 Gy x 28 fx	√	√	√	√	√	
	2.75 Gy x 20 fx						√
Conventional Fractionation	1.8 – 2 Gy x 37 – 45 fx	√	√	√	√	√	
Ultra-Hypofractionation	7.25 – 8 Gy x 5 fx 6.1 Gy x 7 fx	√	√	√	√		
	6 Gy x 6 fx						√

Brachytherapy Monotherapy EBRT and Brachytherapy (combined with 45 – 50.4 Gy x 25 – 28 fx or 37.5 Gy x 15 fx) 見NCCN GUIDELINE

(2) Post-Prostatectomy Radiation Therapy

- Indications for adjuvant RT include pT3a disease, positive margin(s),or seminal vesicle involvement. Adjuvant RT is usually given within 1 year after RP and after operative side effects have improved/stabilized. Patients with positive surgical margins may benefit the most.

2.Hormonal Therapy

用於轉移性攝護腺癌或在高風險病人併用放射線治療。在轉移性攝護腺癌須終身使用，在合併放射線治療時通常使用六個月~二至三年

種類	藥物
1. LHRH agonist alone	**Goserelin(Zoladex) / Histrelin Leuprolide(Leuplin) / Triptorelin(Diphereline)**
2. LHRH agonist (as above) plus first-generation antiandrogen	**Nilutamide、Flutamide(護腺寧錠®)Bicalutamide(CASODEX)**
2. LHRH antagonist	**Degarelix(FIRMAGON®)、Relugolix**
3. First-generation antiandrogen	**Nilutamide、Flutamide、Bicalutamide**
4. Second-generation antiandrogen	**Enzalutamide、Apalutamide、Darolutamide**
5. Androgen biosynthesis inhibitor	**Abiraterone(澤珂®/阿比特龍)**

6. Other	**Ketoconazole** **Ketoconazole plus Hydrocortisone** **Corticosteroids(hydrocortisone, prednisone, or dexamethasone)** **Estrogens including diethylstilbestrol (DES) or other estrogen**

3.Principles of chemotherapy

Docetaxel + Prednisolone

Docetaxel	50-75 mg/m2	d1
Prednisolone	10mg/day	
Q3w		

Berthold DR et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer: updated survival in the TAX 327 study. J Clin Oncol 2008; 26:242 (link to the article).

Docetaxel + Prednisolone

Docetaxel	30 mg/m2	d1,8,15,22,29
Prednisolone	10mg/day	
Q6w		

Tannock IF et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer. N Eng J Med 2004; 351:1502.

Mitoxantrone + Prednisone

Mitoxantrone	12 mg/m2	d1

Prednisolone	10mg/day
Q3w	

Tannock IF et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer. N Eng J Med 2004; 351:1502.

Pembrolizumab

Pembrolizumab	200 mg	d1
Cycled every 21 days		

A. R.Hansen,C.Massard,P.A.Ott, et al.Pembrolizumab for advanced prostate adenocarcinoma: findings of the KEYNOTE-028 study.Annals of Oncology;Volume 29, Issue 8, August 2018, Pages 1807-1813

Cabazitaxel+ Prednisone

Cabazitaxel	20-25 mg/m2	d1
Prednisolone	10mg/day	
Q3w		

NCCN (National Comprehensive Cancer Network) Practice Guidelines in Oncology version 1. 2022 in Prostate Cancer.

Olaparib(Lynparza)

Olaparib(Lynparza)	300mg	po	BID
QD			

NCCN (National Comprehensive Cancer Network) Practice Guidelines in Oncology version 1. 2022 in Prostate Cancer.

十、安寧緩和照護原則

若預期疾病難以治癒時，病人存活期小於6個月便適合安寧療護(Pomeranz & Brustman, 2005；Waldrop & Rinfrette, 2009) 。若藉由症狀、檢驗數據、及確切的腫瘤診斷，證實臨床上該惡性腫瘤已經廣泛侵犯、或進展快速；功能分數（Palliative Performance Scale）低於 70%；拒絕進一步腫瘤治癒性治療，或者在治療之下仍持續惡化者，即可轉介緩和醫療團隊（彭等，2006）。

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十二、攝護腺癌各期治療完治定義

期別	治療方式	完治定義	備註
第 I 期 第 II 期	1.Active surveillance 2.OP 3.R/T ± ADT	1.Active surveillance—回診三次(或回診一次加個管師電訪兩次)判完治 or 2.完成手術 or 3.完成 EBRT	
第 III 期	1.OP 2.R/T + ADT	1.完成手術 or 4.完成 EBRT	
第 IV 期	H/T ± Palliactive RT	1.STAGE IV 接受荷爾蒙治療追蹤 serum PSA 3 個月一次若下降即完治。 2.STAGE IV 接受放射治療一個療程 3.STAGE IV 接受安寧照護	