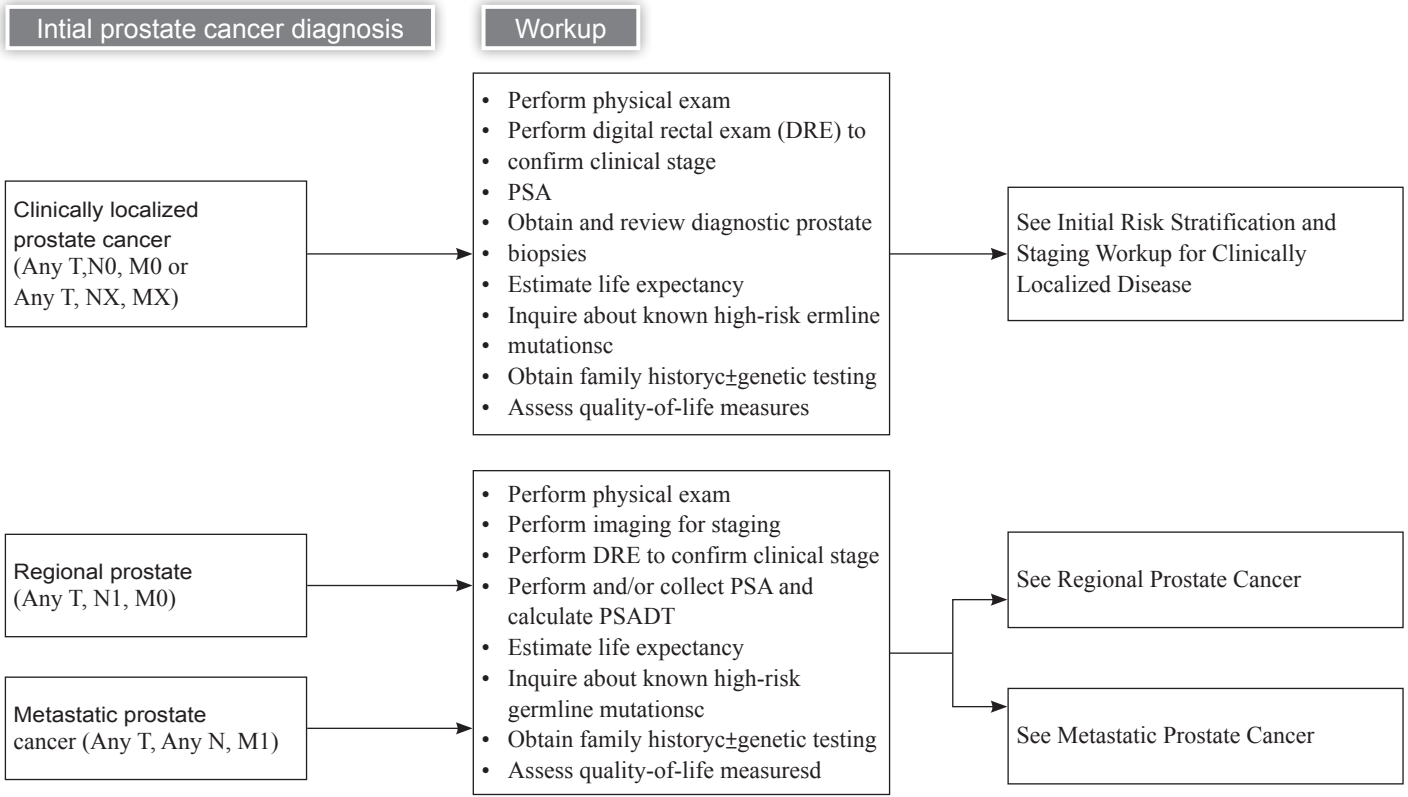
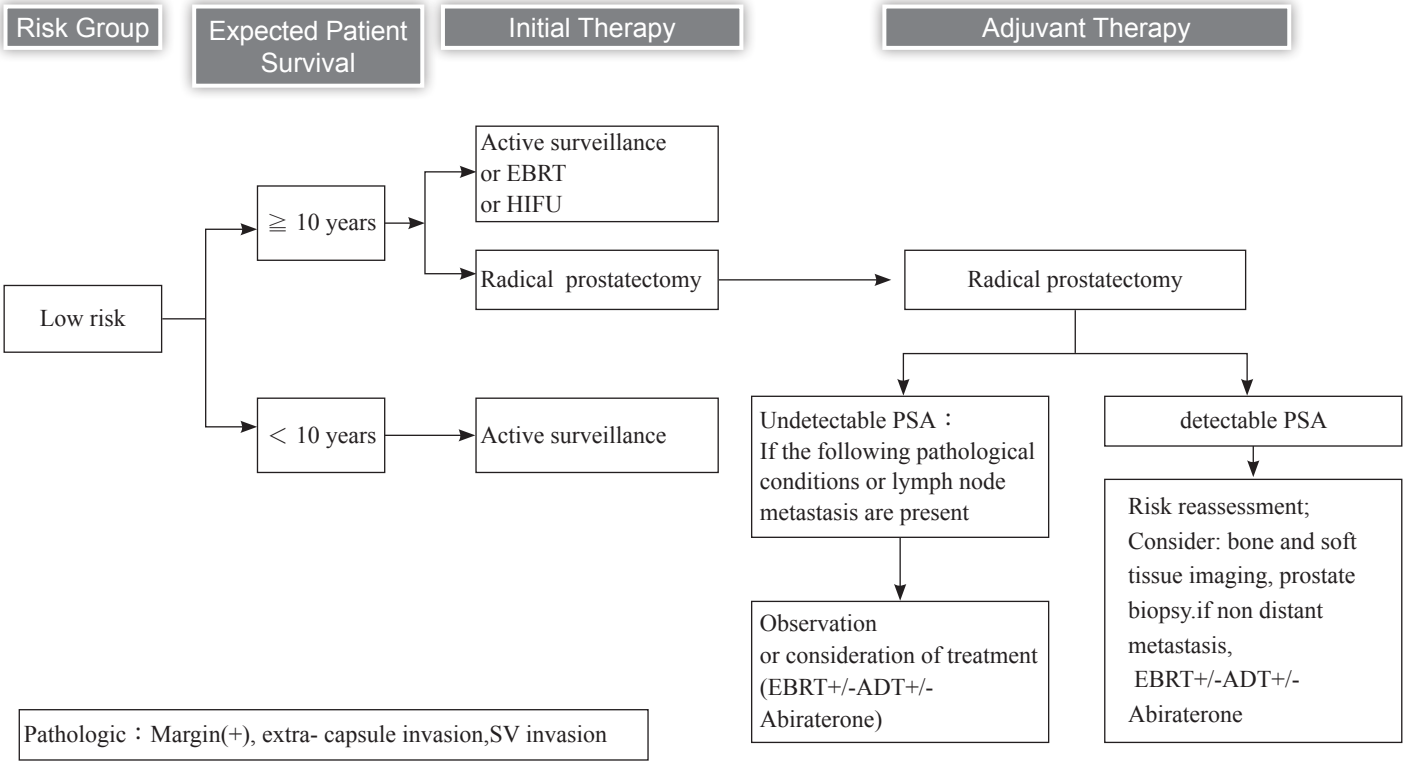
# Urinary Tract Tumors


Intial prostate cancer diagnosis
Workup
Clinically localized prostate cancer (Any T,N0, M0 or Any T, NX, MX)
• Perform physical exam
• Perform digital rectal exam (DRE) to
• confirm clinical stage
• PSA
• Obtain and review diagnostic prostate
• biopsies
• Estimate life expectancy
• Inquire about known high-risk ermline
• mutationsc
• Obtain family historyc±genetic testing
• Assess quality-of-life measures
See Initial Risk Stratification and Staging Workup for Clinically Localized Disease
Regional prostate (Any T, N1, M0)
Metastatic prostate cancer (Any T, Any N, M1)
• Perform physical exam
• Perform imaging for staging
• Perform DRE to confirm clinical stage
• Perform and/or collect PSA and calculate PSADT
• Estimate life expectancy
• Inquire about known high-risk germline mutationsc
• Obtain family historyc±genetic testing
• Assess quality-of-life measuresd
See Regional Prostate Cancer
See Metastatic Prostate Cancer

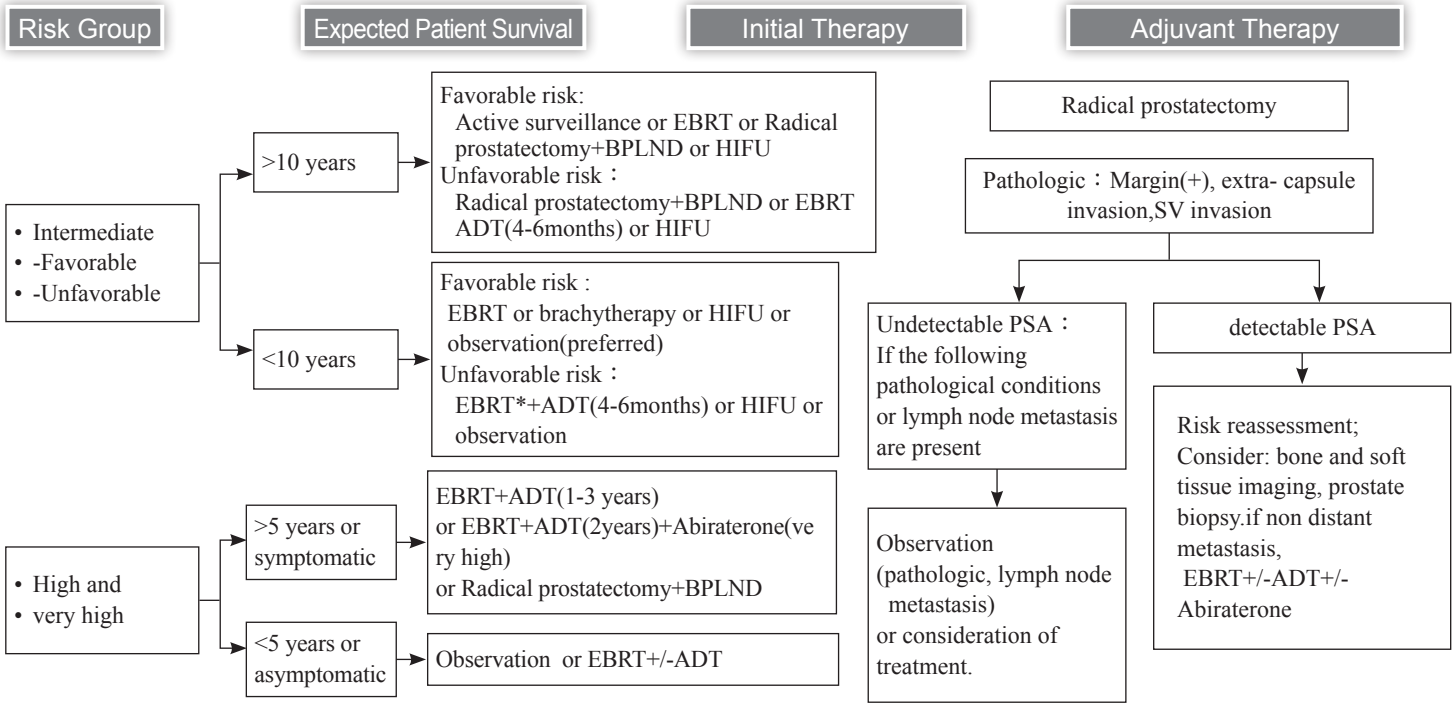
## 《Urology tumor-Prostate cancer treatment consensus-2》

### INITIAL RISK STRATIFICATION AND STAGING WORKUP FOR CLINICALLY LOCALIZED DISEASE

| Risk Group | Clinical/Pathologic Features | | | Additional Evaluationg,h | Initial Therapy |
|---|---|---|---|---|---|
| Lowe | Has all of the following but does not qualify for very low risk:<br>• cT1–cT2a<br>• Grade Group 1<br>• PSA <10 ng/mL | | | Confirmatory testing can be used to assess the appropriateness of active surveillance | See low Risk Group |
| Intermediate | Has all of the following:<br>•No high-risk group features<br>•No very-high-risk group features<br>•Has one or more factors (IRFs):<br>◗ cT2b–cT2c<br>◗ Grade Group 2 or 3<br>◗ PSA 10–20 ng/mL | Favorable intermediate | Has all of the following:<br>• 1 IRF<br>• Grade Group 1 or 2<br>• <50% biopsy cores positive (eg, <6 of 12 cores) | Confirmatory testing can be used to assess the appropriateness of active surveillance | See Intermediate Risk Group |
| | | Unfavorable intermediate | Has one or more of the following:<br>• 2 or 3 IRFs<br>• Grade Group 3<br>• ≥ 50% biopsy cores positive (eg, ≥ 6 of 12 cores) | Bone and soft tissue imaging | See Intermediate Risk Group |
| High | It has one or more high-risk characteristics, but does not meet the criteria for extremely high risk：<br>• cT3-cT4<br>• Grade Group 4 or Grade Group 5<br>• PSA >20 ng/mL | | | Bone and soft tissue imaging | See high Risk Group |
| Very high | Has at least two of the following:：<br>• cT3-cT4<br>• Grade Group 4 or Grade Group 5 OR<br>• PSA >40 ng/mL | | | Bone and soft tissue imaging | See Very high Risk Group |

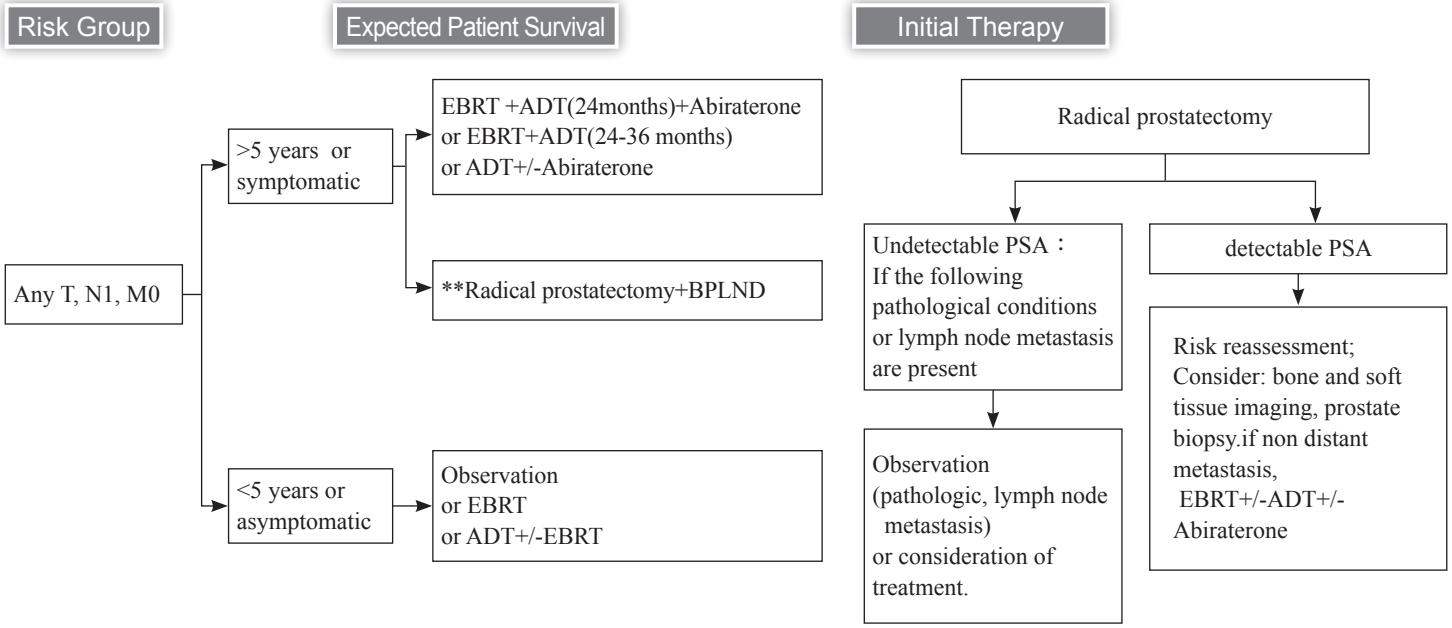

Risk Group
Expected Patient Survival
Initial Therapy
Adjuvant Therapy
Low risk
≧ 10 years
Active surveillance or EBRT or HIFU
Radical prostatectomy
< 10 years
Active surveillance
Radical prostatectomy
Undetectable PSA：If the following pathological conditions or lymph node metastasis are present
Observation or consideration of treatment (EBRT+/-ADT+/-Abiraterone)
detectable PSA
Risk reassessment; Consider: bone and soft tissue imaging, prostate biopsy.if non distant metastasis, EBRT+/-ADT+/-Abiraterone
Pathologic：Margin(+), extra- capsule invasion,SV invasion

## 《Urology tumor-Prostate cancer treatment consensus-4》



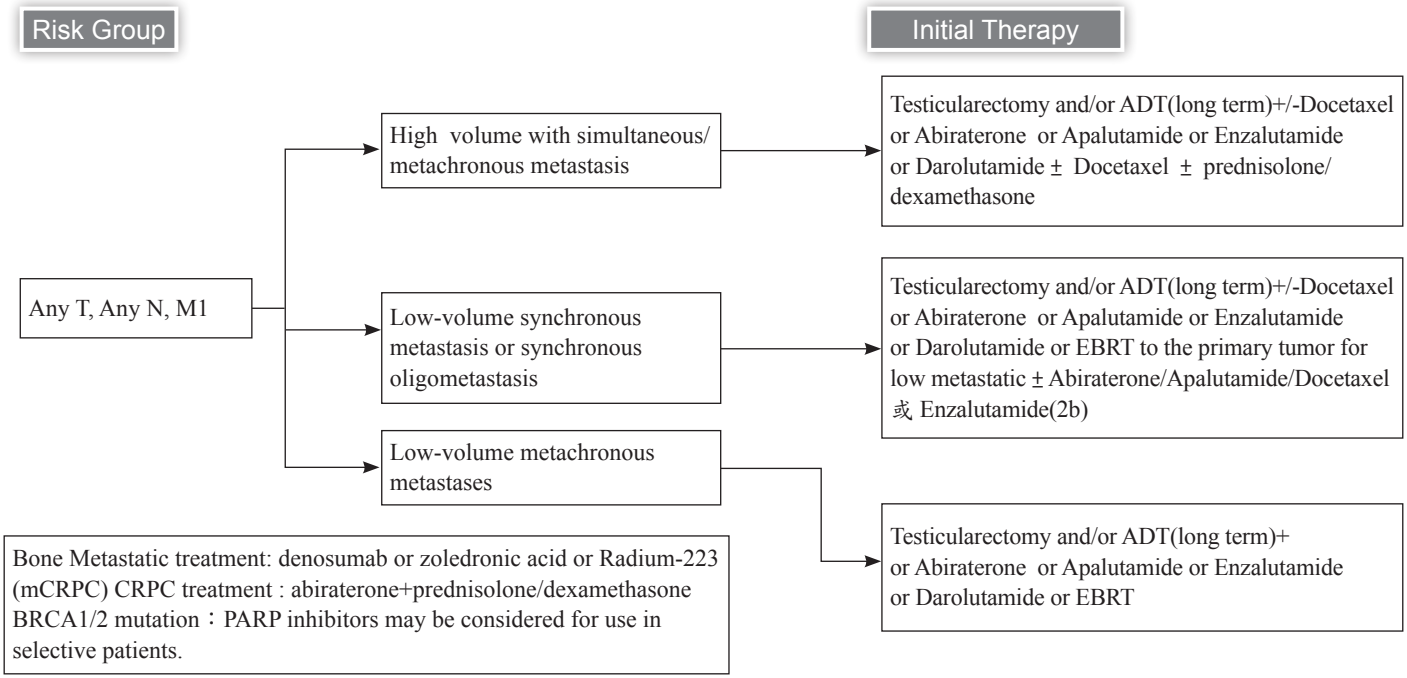

For patients with moderate risk and a life expectancy of >10 years, or high/very high risk and a life expectancy of >5 years, and with local lymph node metastasis (expected lymph node metastasis probability ≥ 2-7%), pelvic lymph node dissection is recommended.
Pathologic：Margin(+), extra- capsule invasion,SV invasion

# 《 Urology tumor-Prostate cancer treatment consensus -5 》




*Proton therapy is only applicable to selective patients.
**Patients with a mean life expectancy greater than 10 years, resectable lesions, and undergoing clinical trials or planned multimodal therapy.
PSMA-positive metastases: Radiotherapy may be considered for selective patients.
Pathologic：Margin(+), extra- capsule invasion,SV invasion

## 《 Urology tumor-Prostate cancer treatment consensus -6 》

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*Proton therapy is only applicable to selective patients.

**Patients with a mean life expectancy greater than 10 years, resectable lesions, and undergoing clinical trials or planned multimodal therapy.

PSMA-positive metastases: Radiotherapy may be considered for selective patients.

## Local treatment or total gland ablation therapy principles

**General principles**

- Local therapy as initial treatment for local prostate cancer is an experimental and emerging technology. There is a lack of randomized controlled trials and long-term follow-up evidence to prove that it is superior to or non-inferior to existing recommended treatments.

**Newly diagnosed or previously untreated prostate cancer**

- Pathological confirmation and risk stratification are essential before considering ablation or local treatment.
- For low-risk prostate cancer, active surveillance is recommended as the first-line treatment.
- The expert panel also believes that ablation or local treatment is not recommended for high-risk, very high-risk, regional, or metastatic prostate cancer unless it is being tested in a clinical trial.
- Currently, there is insufficient comparative benefit evidence to recommend local treatment for intermediate-risk prostate cancer patients. Ablation and local treatment for these patients are recommended to be used in clinical trials.
- Long-term follow-up is particularly important due to the high rate of repeat treatment required after local treatment and the increased risk of toxicity.
- Currently, there is no universally accepted standardized follow-up protocol; patients often require regular imaging and prostate biopsies.

**IRE (Irreversible Electroporation Ablation):**

The UK's National Institute for Health and Clinical Excellence (NICE) has issued national-level interventional procedure guidance (IPG 768) for IRE (irreversible electroporation ablation) in prostate cancer. It recommends use under "special arrangements" (not routinely adopted) and requires clinical management, informed consent, and review/registration or study monitoring. IRE for prostate cancer should be limited to environments with appropriate clinical management, informed consent and review, and

outcome registration/auditing or study monitoring. The guidance committee believes that while current evidence suggests the therapy is effective in the short to medium term with no major safety concerns, several uncertainties remain, including long-term efficacy, optimal indications, and which patients will benefit most. Based on these uncertainties, it is recommended that IRE be performed under controlled conditions rather than immediately incorporated into general clinical practice. ◦ (www.nice.org.uk/guidance/ipg768)

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## 《 Urology tumor-Prostate cancer treatment consensus-8》

### HIFU (High-Intensity Focused Ultrasound) Technique and Method:

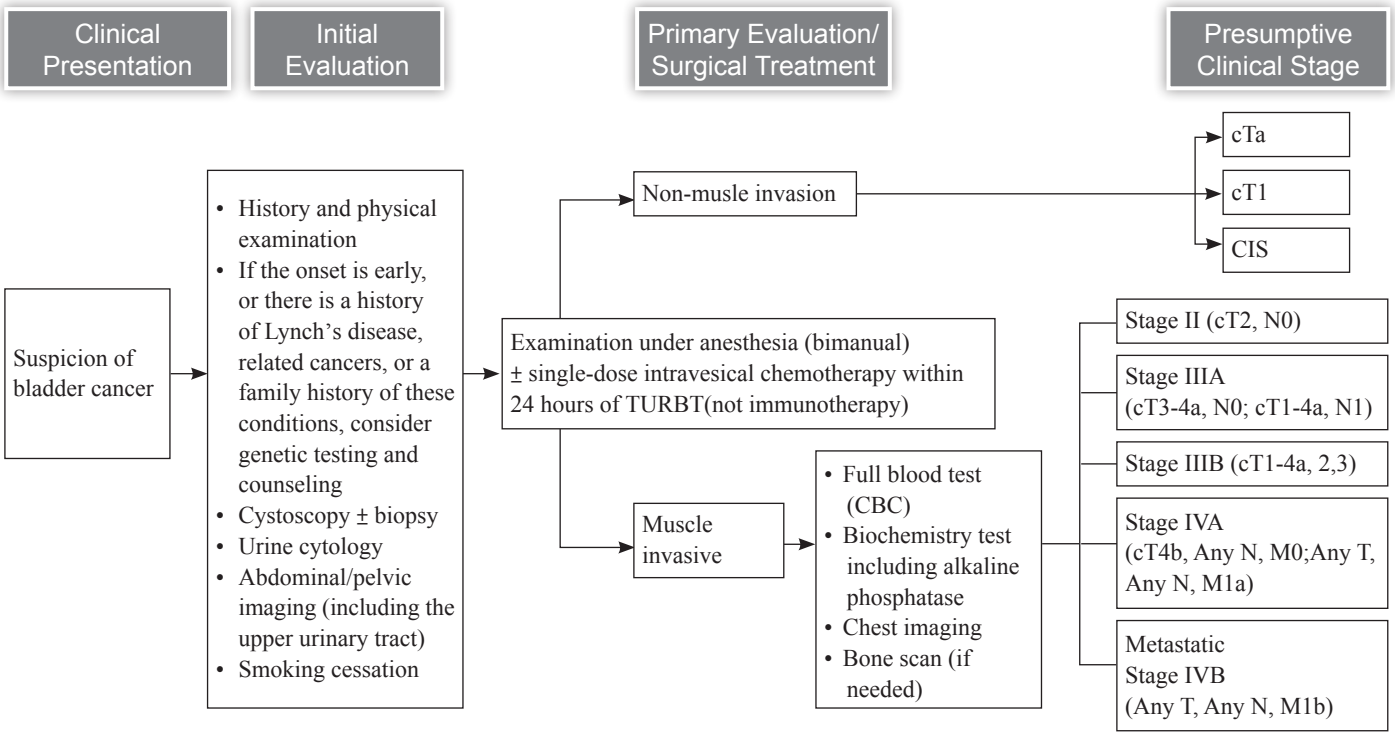
- HIFU is a type of thermal ablation therapy. High-intensity focused ultrasound (HIFU) is emitted through a transrectal or transurethral cavity. After focusing, it generates localized high temperatures (approximately 60–70 ° C) in the target tissue, leading to coagulative necrosis.
- The tissue destruction mechanism includes two main effects: thermal effect and cavitation.
- Treatment can be performed using a "total ablation" or "focal/subtotal ablation" approach.
- The current mainstream approach uses transrectal ultrasound, and it may also be combined with image guidance (e.g., ultrasound + MRI fusion, or direct MRI guidance) to improve localization accuracy.

### HIFU is suitable/recommended for:

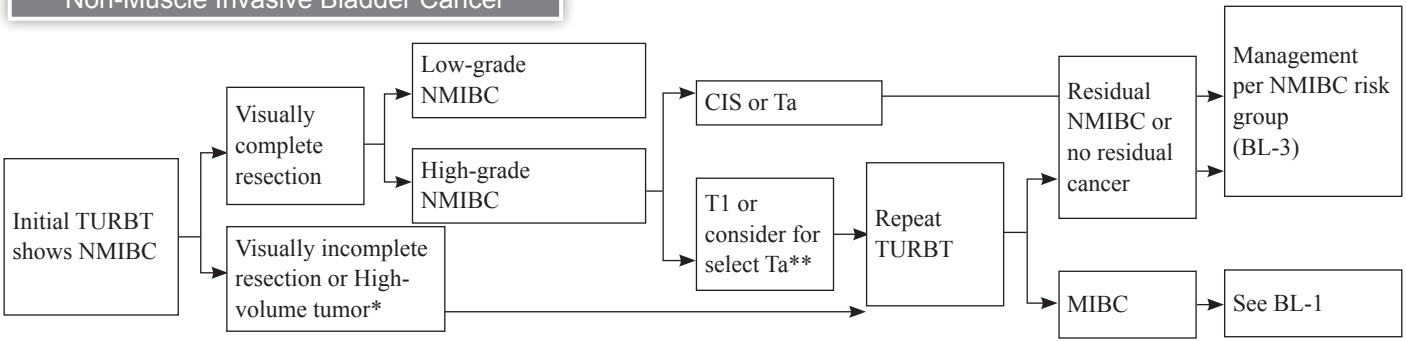
- Localized prostate cancer, i.e., cancer that has not spread beyond the prostate.
- Not recommended for high-risk or "intermediate-unfavorable risk" prostate cancer.

AFU Comité de Cancérologie. (2024). Recommandations françaises du comité de cancérologie de l' AFU – Actualisation 2024–2026 : cancer de la prostate – diagnostic et prise en charge de la maladie localisée. Urofrance. Progrès FMC, 7(34), F394.

## 《 Urology tumor-Bladder cancer treatment consensus-1 》



## Non-Muscle Invasive Bladder Cancer



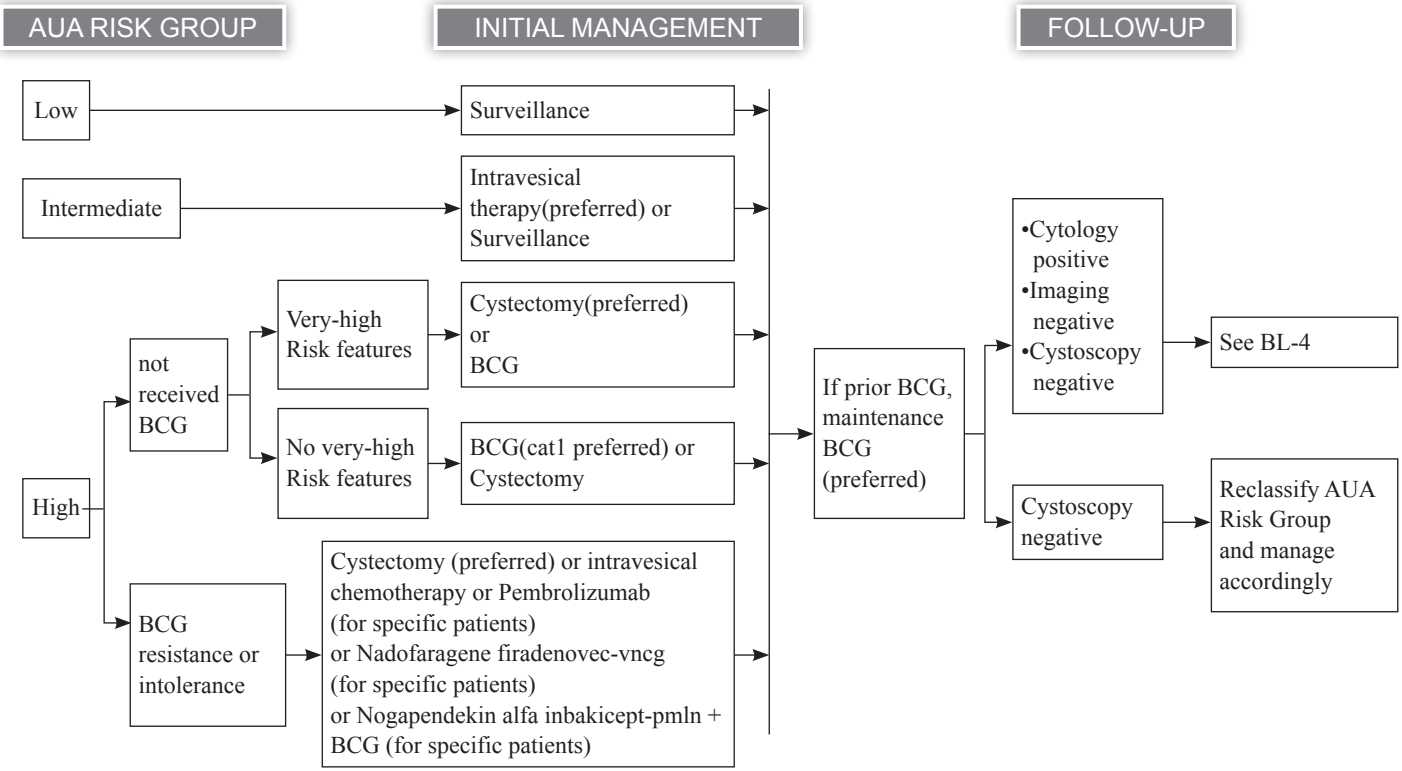

AUA Risk Stratification for Non-Muscle Invasive Bladder Cancer

| Low Risk | Intermediate Risk | High Risk |
|---|---|---|
| ● Papillary urothelial neoplasm of low malignant potential<br>● Low grade urothelial<br>▸ Ta and<br>▸ ≤ 3 cm and<br>▸ Solitary | ● Low grade urothelial carcinoma<br>▸ T1 or<br>▸ >3 cm or<br>▸ Multifocal or<br>▸ Recurrence within 1 year<br>● High grade urothelial carcinoma<br>▸ Ta and<br>▸ ≤ 3 cm and<br>▸ Solitary | ● High grade urothelial carcinoma<br>▸ CIS or<br>▸ T1 or<br>▸ >3 cm or<br>▸ Multifocal<br>● Very high risk features (any):<br>▸ BCG unresponsive<br>▸ Certain histopathologic subtypes<br>▸ Lymphovascular invasion<br>▸ Prostatic urethral invasion |

*Tumors >3cm or multiple lesions
**High-grade pathological sections did not include the muscle layer; the tumor was >3cm.

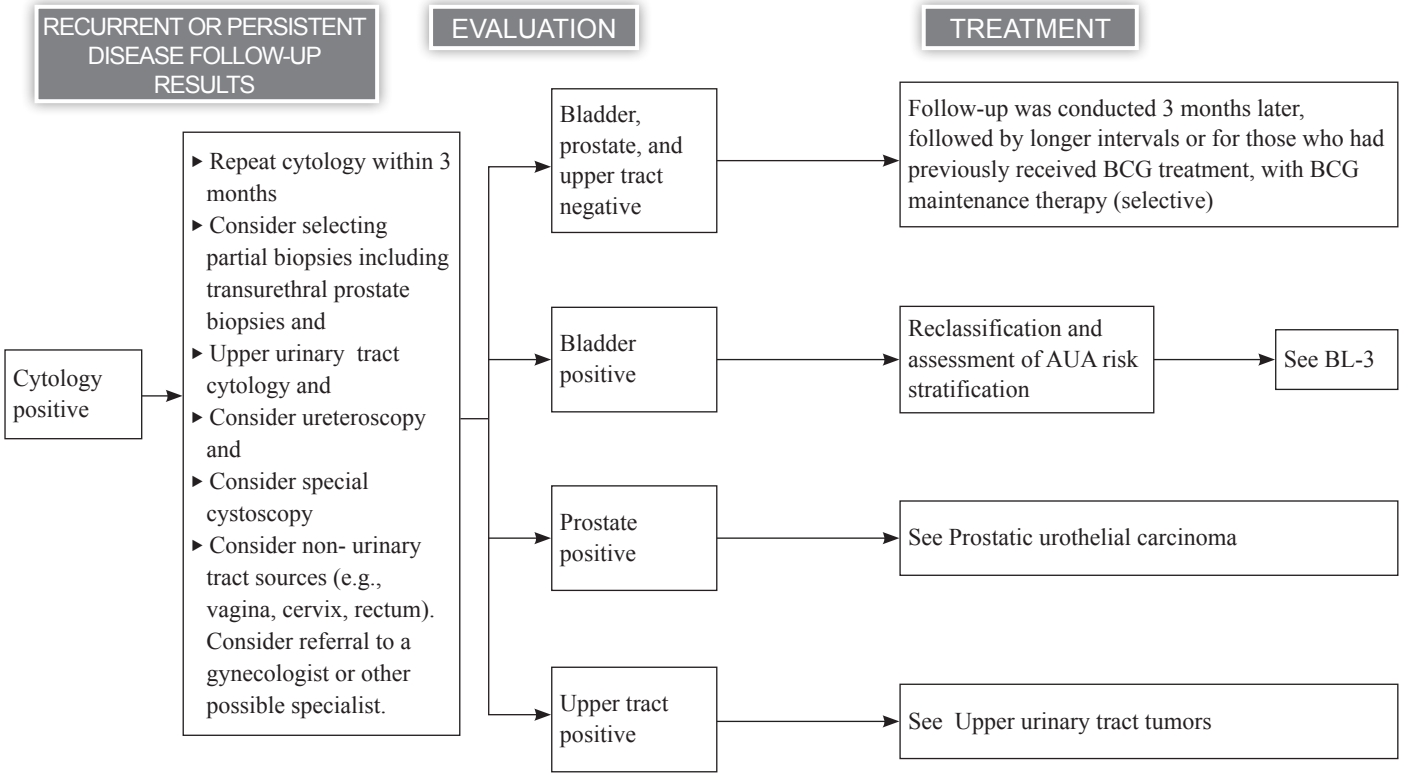
## 《Urology tumor-Bladder cancer treatment consensus-3》

### MANAGEMENT PER NMIBC RISK GROUP

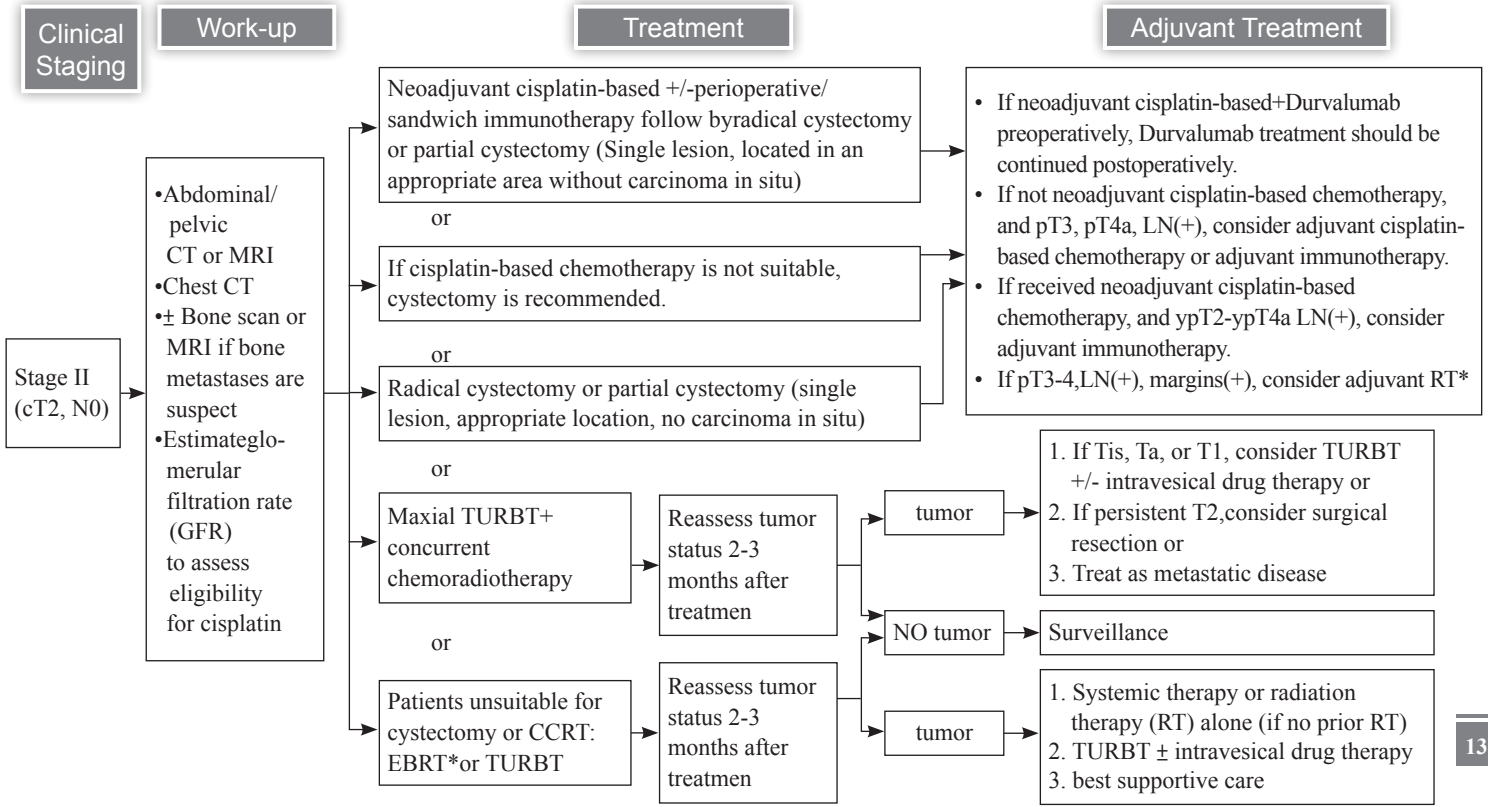


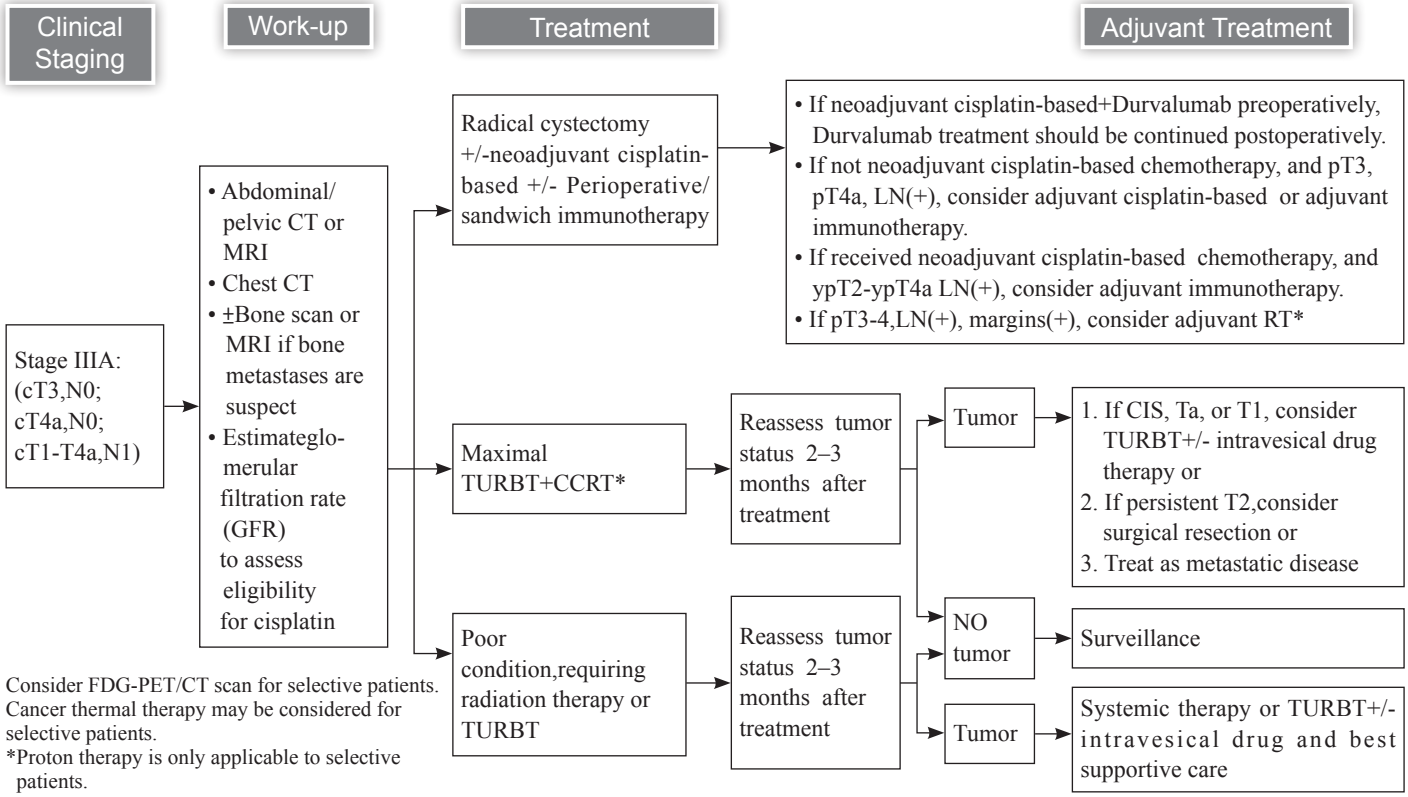
# 《 Urology tumor-Bladder cancer treatment consensus-4 》

Management of Positive Urine Cytology



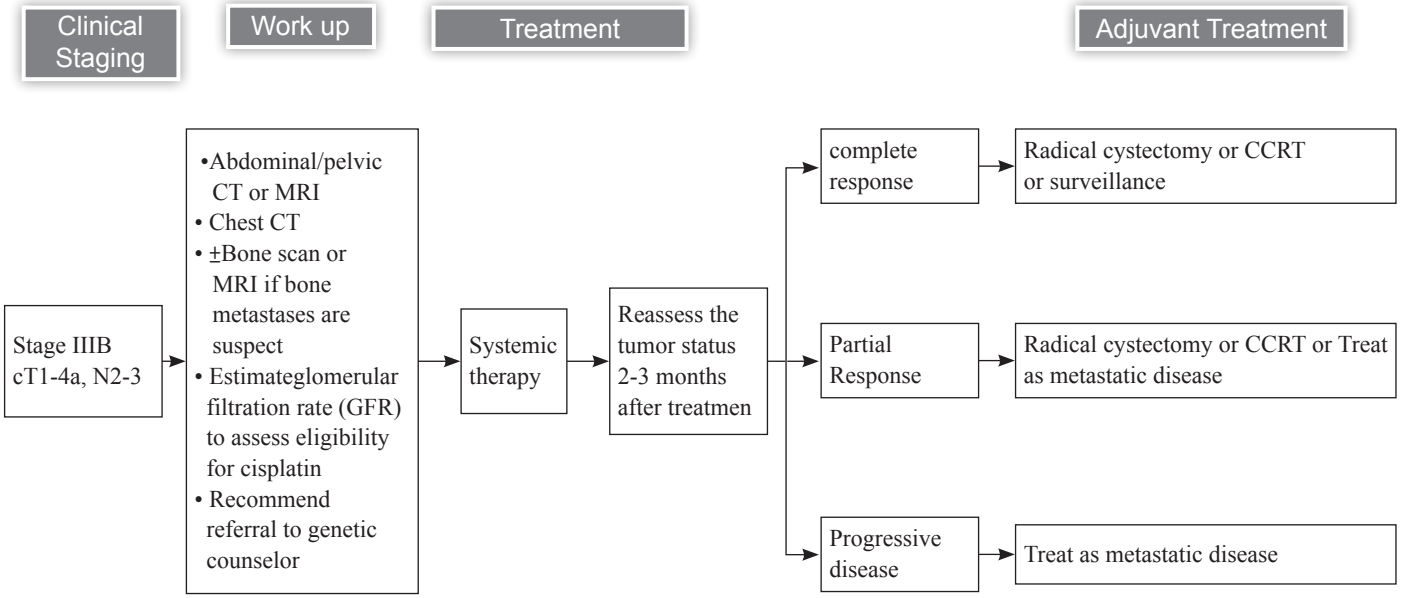
## 《 Urology tumor-Bladder cancer treatment consensus-5 》





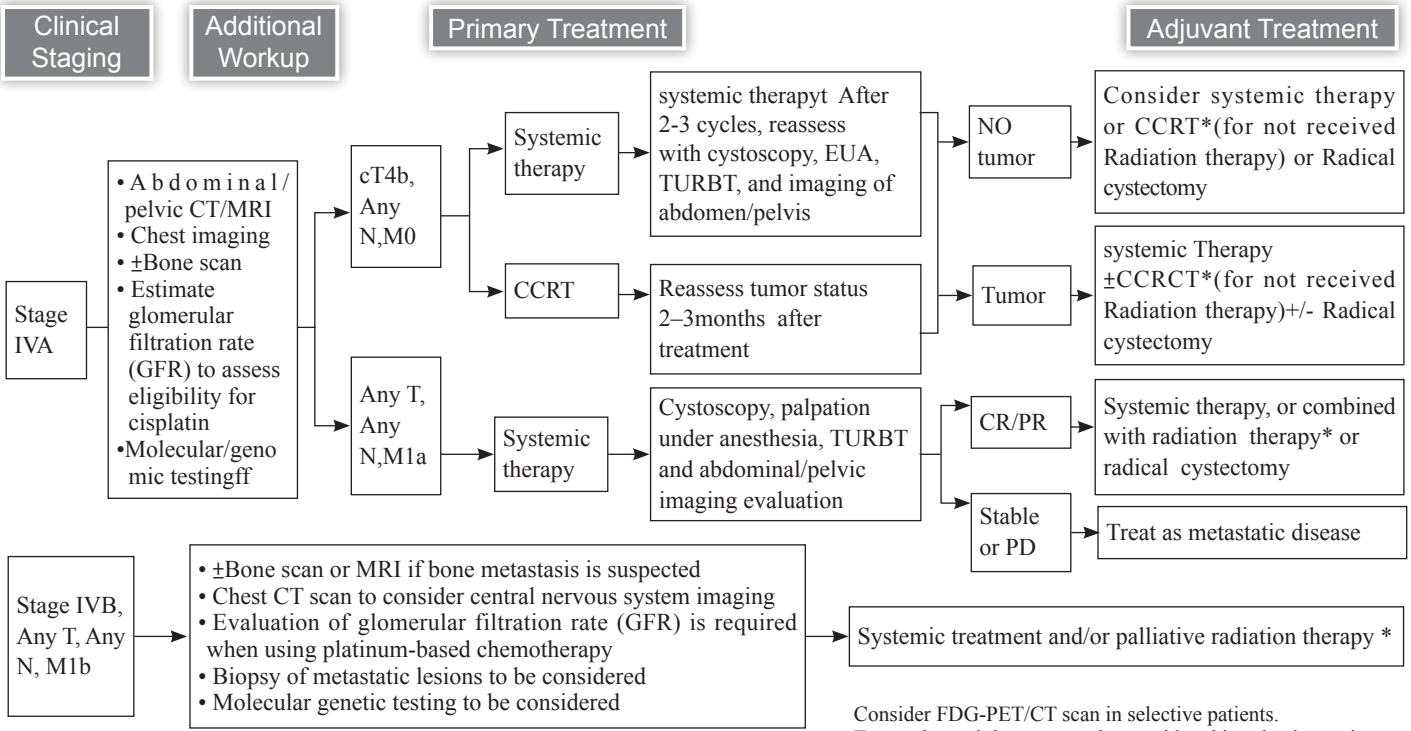

Consider FDG-PET/CT scan for selective patients.
Cancer thermal therapy may be considered for selective patients.
*Proton therapy is only applicable to selective patients.

## 《 Urology tumor-Bladder cancer treatment consensus-7 》



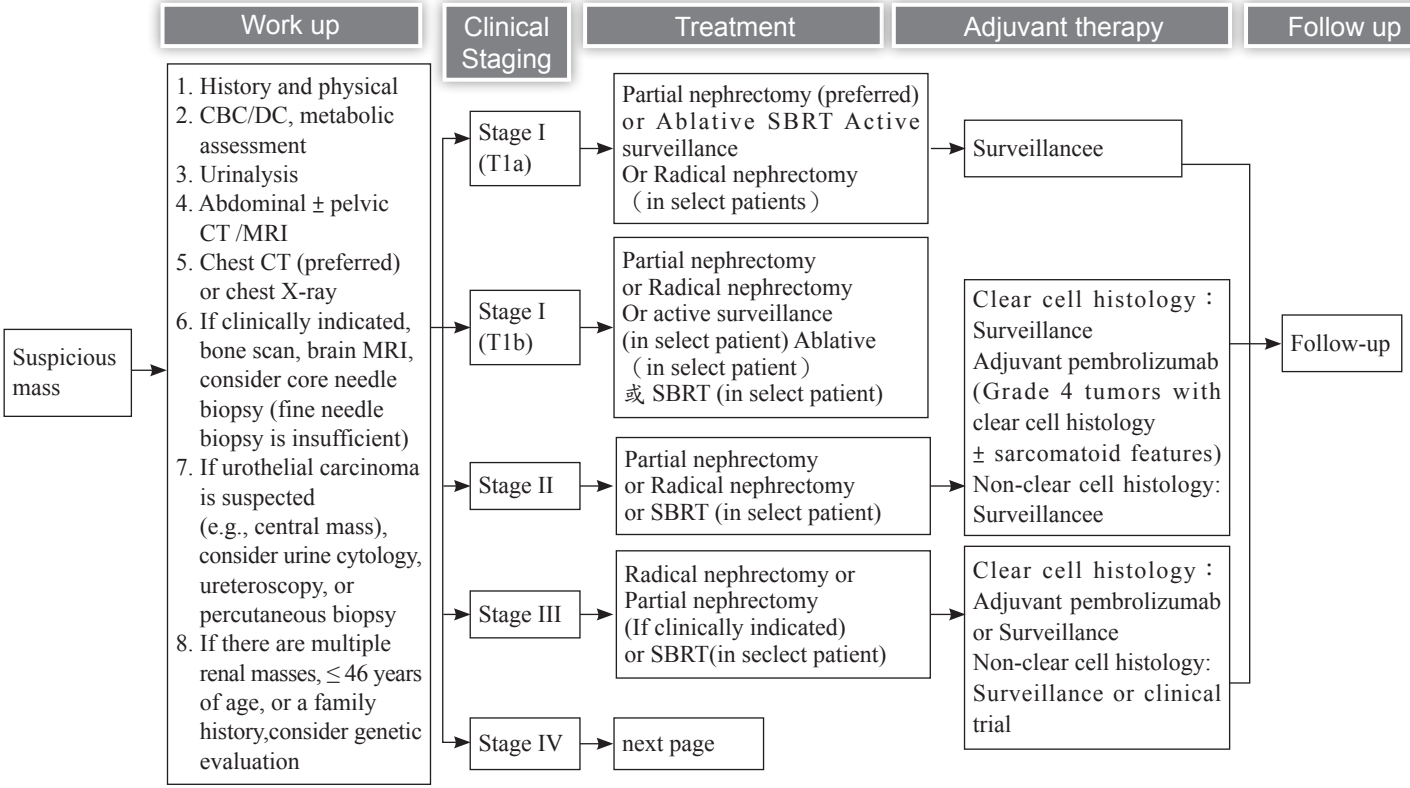

Tumor thermal therapy may be considered for selective patients.
* Proton therapy is only applicable to selective patients.
Consider FDG-PET/CT scan for selective patients.

# 《 Urology tumor-Bladder cancer treatment consensus-8 》

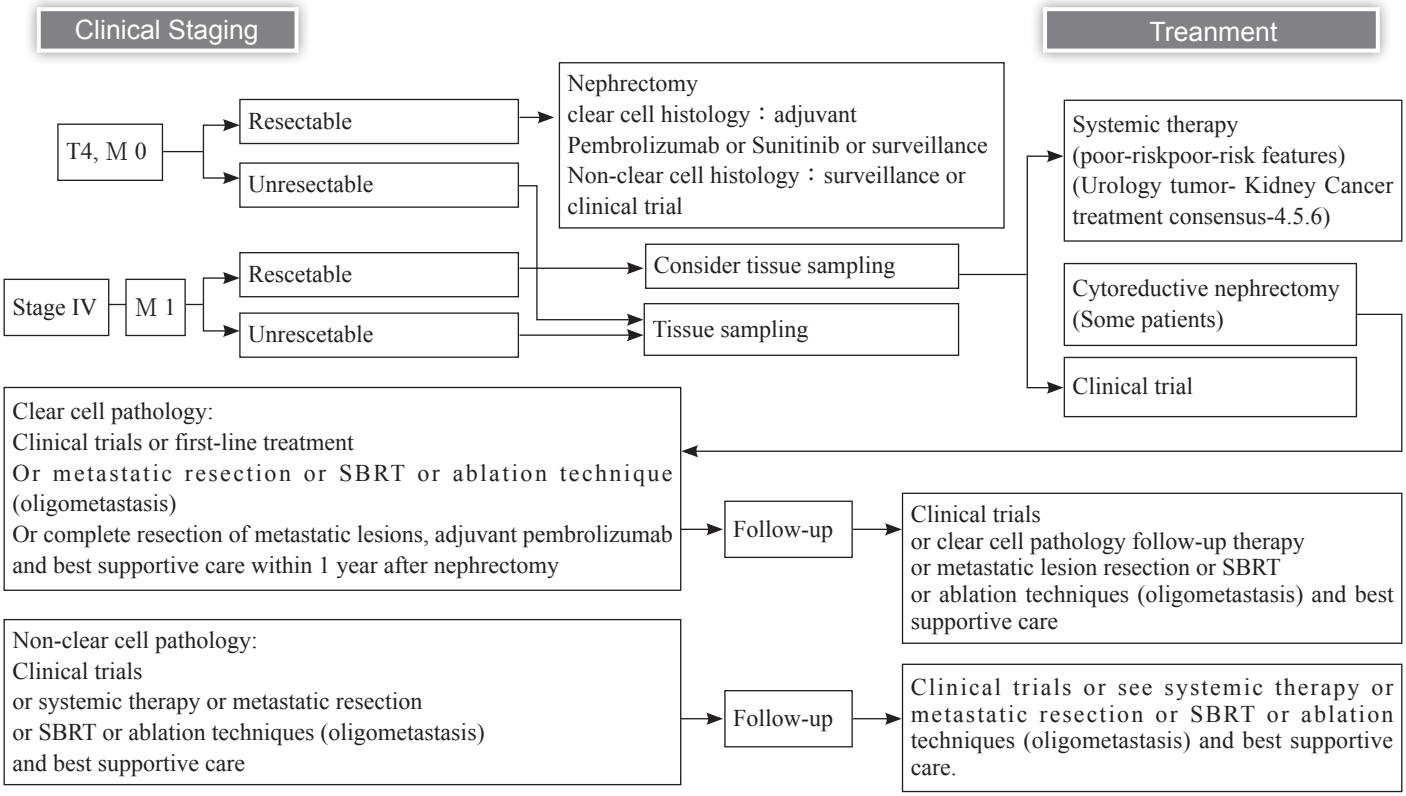



Consider FDG-PET/CT scan in selective patients.
Tumor thermal therapy may be considered in selective patients.
*Proton therapy is only applicable to selective patients.

## 《Consensus on Guidelines for Diagnosis and Treatment of Kidney Cancer -1》



# 《Consensus on Guidelines for Diagnosis and Treatment of Kidney Cancer -2》



## Memorial Sloan Kettering Cancer Center (MSKCC) Prognostic Model

Prognostic Factors

- Interval from diagnosis to treatment of less than 1 year
- Karnofsky performance status less than 80%
- Serum LDH greater than 1.5 times the upper limit of normal
- Corrected serum calcium greater than the ULN
- Serum hemoglobin less than the lower limit of normal (LLN)

Prognostic Risk Groups

- Low-risk group: no prognostic factors
- Intermediate-risk group: one or two prognostic factors
- Poor-risk group: three or more prognostic factors

## International Metastatic Renal Cell Carcinoma Database Consortium (IMDC) Criteria

Prognostic Factors

- Less than one year from time of diagnosis to systemic therapy
- Performance status <80% (Karnofsky)
- Hemoglobin < lower limit of normal (Normal: 120 g/L or 12 g/dL)
- Calcium > upper limit of normal (Normal: 8.5–10.2 mg/dL)
- Neutrophil > upper limit of normal (Normal: 2.0–7.0 × 109/L)
- Platelets > upper limit of normal (Normal: 150,000–400,000))

Prognostic Risk Groups

- Favorable-risk group: no prognostic factors
- Intermediate-risk group: one or two prognostic factors
- Poor-risk group: three to six prognostic factors

# 《 Consensus on Guidelines for Diagnosis and Treatment of Kidney Cancer -4》

## PRINCIPLES OF SYSTEMIC THERAPY FOR RELAPSE OR STAGE IV DISEASE

| First-line treatment for clear cell renal cell carcinoma | | | |
|---|---|---|---|
| Rish | Preferred option | Other recommended options | Useful in some situations |
| Favorable | •Axitinib + pembrolizumab(cat 1)<br>•Cabozantinib + nivolumab(cat 1)<br>•Lenvatinib + pembrolizumab(cat 1)<br>•Ipilimumab + nivolumab (cat 1) | •Axitinib + avelumab<br>•Pazopanib<br>•Sunitinib<br>•Cabozantinib (cat 2B) | •Active surveillance<br>•Axitinib (cat 2B) |
| Intermediate /Poor | •Axitinib + pembrolizumab (cat 1)<br>•Cabozantinib + nivolumab (cat 1)<br>•Ipilimumab + nivolumab (cat 1)<br>•Lenvatinib + pembrolizumab (cat 1)<br>•Cabozantinib | •Axitinib + avelumab<br>•Pazopanib<br>•Sunitinib | • Axitinib (cat 2B) |

PRINCIPLES OF SYSTEMIC THERAPY FOR RELAPSE OR STAGE IV DISEASE

| Subsequent treatment of clear cell renal cell carcinoma | | |
|---|---|---|
| Immunotherapy | Preferred | Useful in some situations |
| Never received immunotherapy | • Axitinib + pembrolizumab<br>• Cabozantinib<br>• Cabozantinib + nivolumab<br>• Everolimus + lenvatinib<br>• Ipilimumab + nivolumab<br>• Lenvatinib + pembrolizumab<br>• Nivolumab | • Axitinib<br>• Everolimus<br>• Lenvatinib<br>• Pazopanib<br>• Sunitinib<br>• Tivozanib<br>• Belzutifan (category 2B)<br>• Bevacizumab (category 2B) |
| Previously received immunotherapy | • Axitinib<br>• Belzutifan<br>• Cabozantinib<br>• Lenvatinib + everolimus<br>• Tivozanib | • Everolimus<br>• Ipilimumab + nivolumab<br>• Lenvatinib<br>• Pazopanib<br>• Sunitinib<br>• Axitinib + pembrolizumab (category 2B)<br>• Bevacizumab (category 2B)<br>• Cabozantinib + nivolumab (category 2B)<br>• Lenvatinib + pembrolizumab (category 2B) |

## 《 Consensus on Guidelines for Diagnosis and Treatment of Kidney Cancer -5》

PRINCIPLES OF SYSTEMIC THERAPY FOR RELAPSE OR STAGE IV DISEASE

| First-line treatment for non-clear cell renal cell carcinoma | | |
|---|---|---|
| Preferred | Other recommended options | Useful in some situations |
| • Clinical trial<br>• Cabozantinib<br>• Cabozantinib + nivolumab<br>• Lenvatinib + pembrolizumab | • Erlotinib+bevacizumab Suitable for patients with aggressive papillary renal cell carcinoma, including HLRCC renal cell carcinoma.<br>• Everolimus/ lenvatinib<br>• Nivolumab<br>• Pembrolizumab<br>• Sunitinib | • Axitinib<br>• Everolimus<br>• Everolimus+bevacizumab<br>• Ipilimumab +nivolumab (cat 2B) |

## 《 Reference 》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