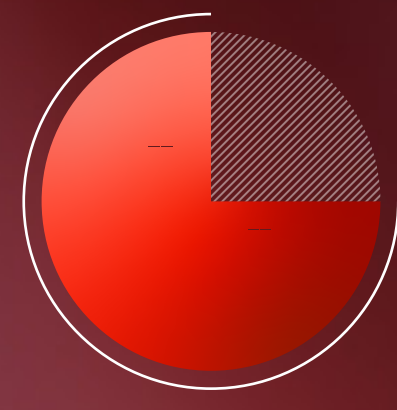
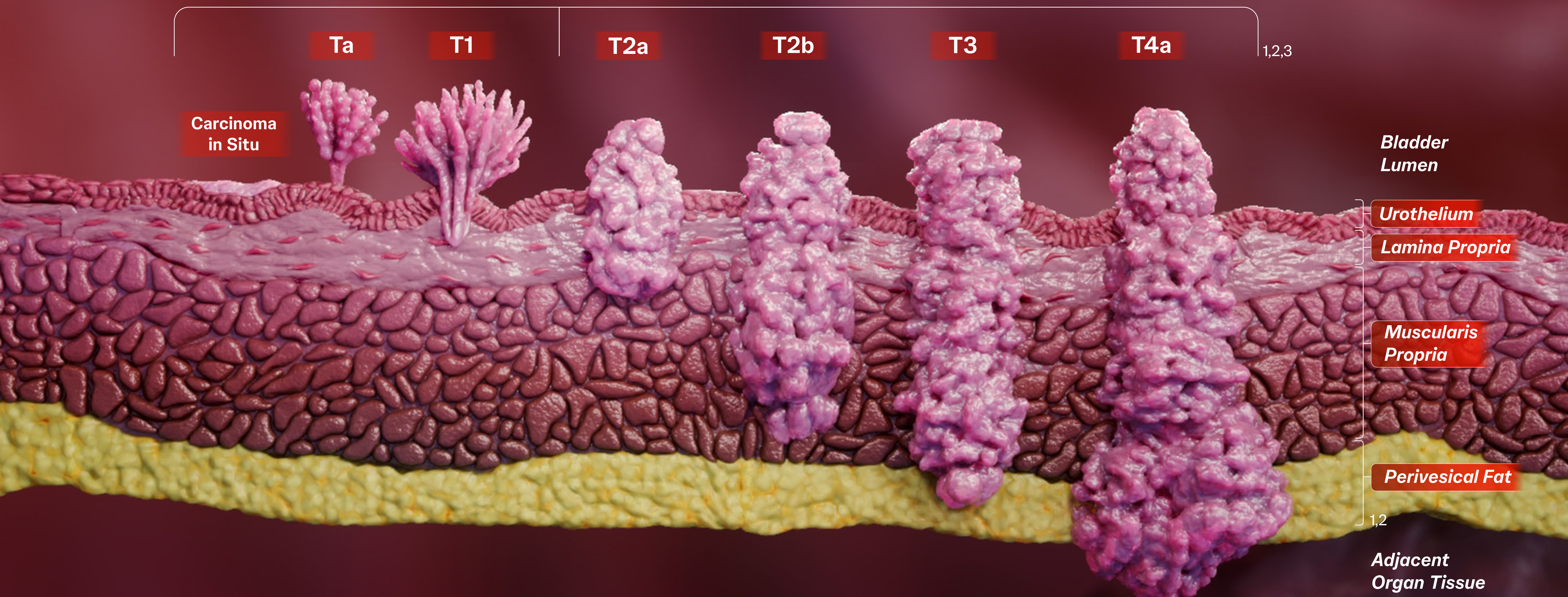
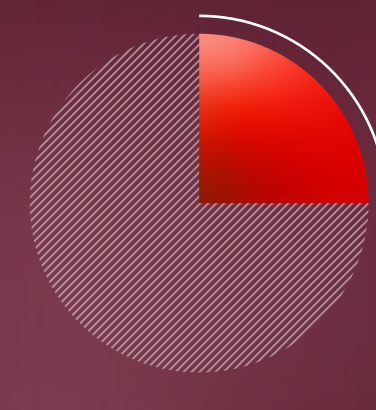


Bladder Cancer Tumor Stages, Grading, and NMIBC Risk Stratification

NMIBC
Non-Muscle Invasive Bladder Cancer
75% of Cases¹



MIBC
Muscle Invasive Bladder Cancer
25% of Cases¹



<p>NMIBC</p> <ul style="list-style-type: none"> Of patients diagnosed with NMIBC, ~25% have high-risk disease, defined as high-grade Ta, any T1 and any CIS^{3,4,5,6} NMIBC is associated with frequent recurrence and/or progression⁷ 	<p>Carcinoma in Situ</p> <ul style="list-style-type: none"> Seen in ~10% of patients with NMIBC² Flat, high-grade lesions confined to the mucosa¹ Can co-occur with papillary tumors² High recurrence rates² 5-year progression = 50%² 	<p>Papillary Tumors</p> <ul style="list-style-type: none"> Seen in 90% of patients with NMIBC⁸ Papillary tumors include Ta and T1 tumors¹
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WHO grading systems measure how aggressive the cancer is by comparing the pathology of the cancer cells to normal cells^{2,7,9}

Grade 1 Well differentiated	Grade 2 Moderately differentiated	Grade 3 Poorly differentiated	WHO 1973 ^{2,7,9}
PUNLMP Papillary Urothelial Neoplasm of Low Malignant Potential	Low-Grade Papillary urothelial carcinoma	High-Grade Papillary urothelial carcinoma	WHO 2004/2016 ^{2,9,10}

NMIBC risk stratification guidelines assess patients' tumor characteristics, including tumor stage and grade, to aid in personalized treatment decisions based on the risk of disease recurrence or progression^{2,3}

AUA/SUO NMIBC GUIDELINE RISK STRATIFICATION FOR NON-MUSCLE INVASIVE BLADDER CANCER ^{2,3}		
Low-risk NMIBC	Intermediate-risk NMIBC	High-risk NMIBC
<ul style="list-style-type: none"> Papillary urothelial neoplasm of low malignant potential Low-grade solitary Ta ≤ 3 cm 	<p>Tumor Characteristics</p> <ul style="list-style-type: none"> Low-grade: <ul style="list-style-type: none"> Ta recurrence within 1 year Multifocal Ta Solitary Ta > 3 cm T1 High-grade Ta ≤ 3 cm 	<ul style="list-style-type: none"> High-grade: <ul style="list-style-type: none"> T1 Any recurrent Ta Ta > 3 cm or multifocal Any CIS Any BCG failure in high-grade patient Any variant histology Any lymphovascular invasion Any high-grade prostatic urethral involvement

IBCG RISK STRATIFICATION FOR NON-MUSCLE INVASIVE BLADDER CANCER ¹¹		
Low-risk NMIBC	Intermediate-risk NMIBC	High-risk NMIBC
<ul style="list-style-type: none"> Primary, solitary Grade 1 / low-grade Ta 	<p>Tumor Characteristics</p> <ul style="list-style-type: none"> pTa low-grade / Grade 1: recurrent pTa low-grade / Grade 1: new diagnosis and multifocal or ≥ 3 cm pTa Grade 2: new diagnosis or recurrent pT1 low-grade / Grade 1-2: new diagnosis or recurrent 	<ul style="list-style-type: none"> Any high-grade Any CIS Variant histology

NMIBC: non-muscle invasive bladder cancer; MIBC: muscle invasive bladder cancer; CIS: carcinoma in situ; PUNLMP: papillary urothelial neoplasm of low malignant potential; HR-NMIBC: high risk non-muscle invasive bladder cancer; WHO: World Health Organization; AUA: American Urological Association; SUO: Society of Urologic Oncology; IBCG: International Bladder Cancer Group

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