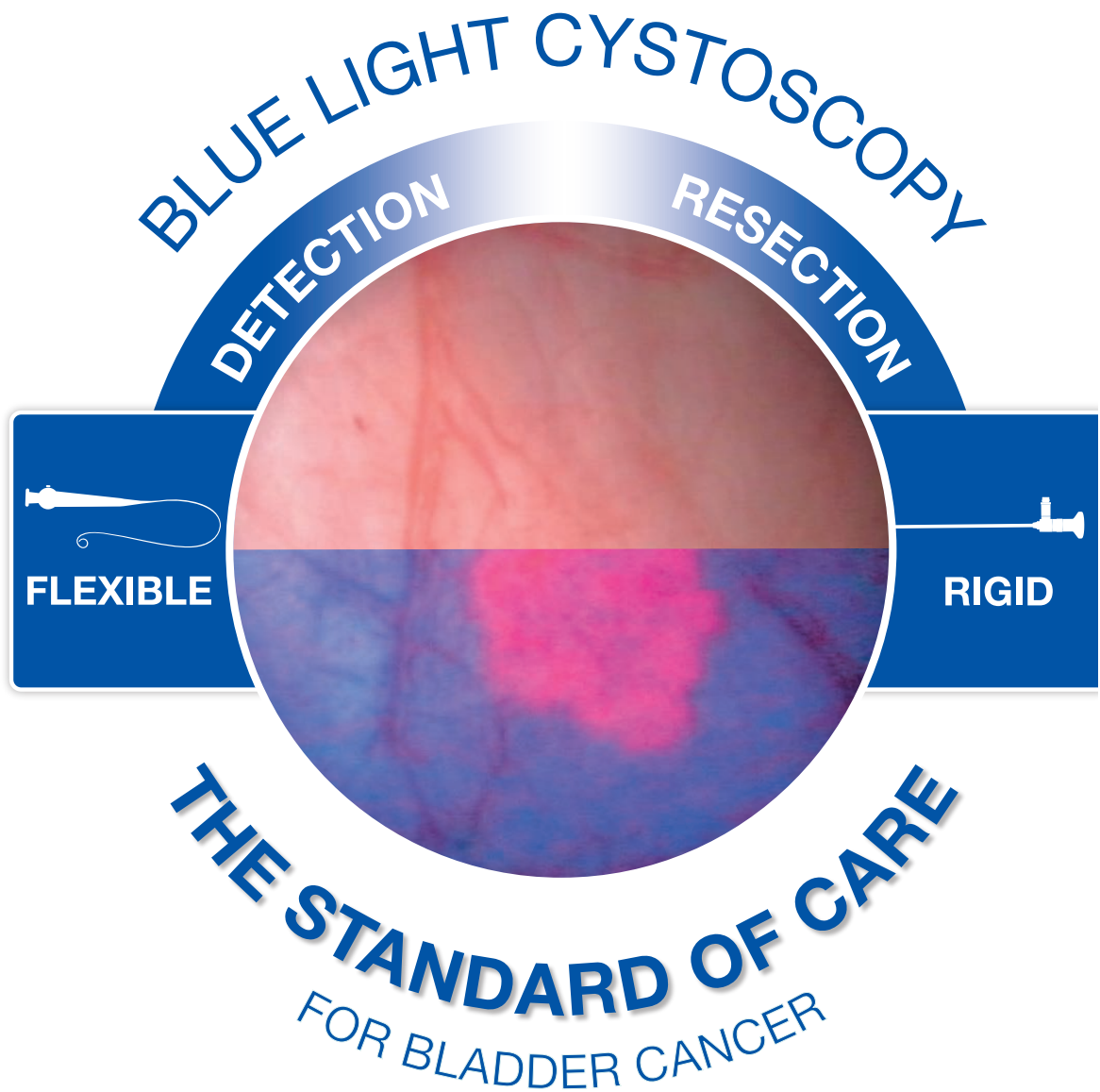


KARL STORZ Blue Light Cystoscopy with Cysview® System

Photodynamic Diagnosis (PDD)



VALUE ANALYSIS BRIEF

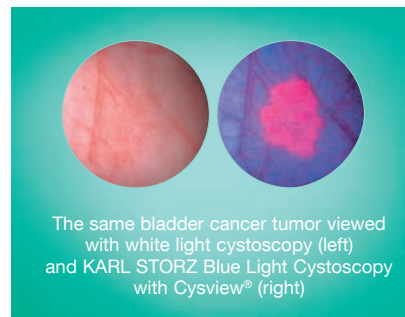
STORZ
KARL STORZ—ENDOSKOPE

KARL STORZ - Blue Light Cystoscopy with Cysview® System

The First and Only FDA-Approved Technology for the Enhanced Detection of Bladder Cancer

Blue Light Cystoscopy with Cysview utilizes **Photodynamic Diagnosis (PDD)** to highlight cancerous bladder tumors in a **bright pink color** during surgery. It offers the following advantages over standard white light cystoscopy:

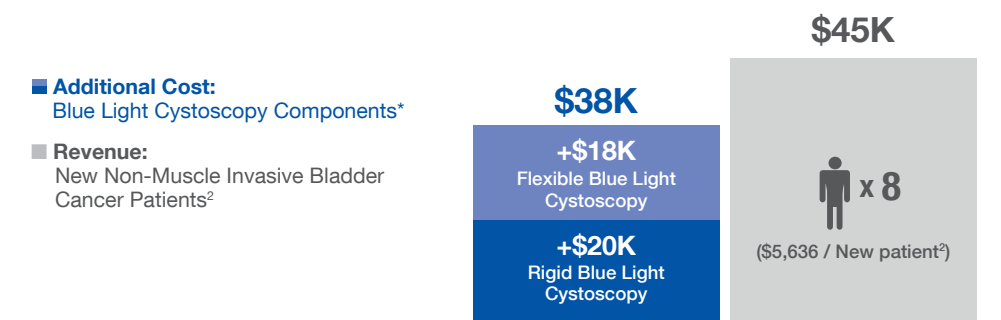
- **Enhanced detection of tumors**
- **Fluorescence-Guided Resection for complete tumor removal**
- **Best option for Decreased Recurrence** per AUA/ SUO Guidelines¹



Additional Cost for Blue Light Cystoscopy Components vs. New Bladder Cancer Patient Revenue

The 2-part system consists of Blue Light Flexible Cystoscopy for on-going surveillance while the patient is awake, and Blue Light Rigid Cystoscopy for fluorescence guided resection with the UH 400 Surgical generator.

Revenue from **8 new non-muscle invasive bladder cancer patients** more than offsets the **additional cost** for Blue Light Cystoscopy components over standard white light components.



*Standard equipped rigid or flexible Blue Light Cystoscopy system with 2 cystoscopes.

Recommended by AUA/SUO to Decrease Recurrence

Bladder Cancer affects over a **half million patients** in the US and >80,000 new cases are expected per year. It is the **#4 cancer in men** and is observed in men 3-4 times more than women.³ Treatment is difficult since **bladder tumors look similar to normal, healthy tissue**. Due to this challenge, bladder cancer can be **easily missed or incompletely removed** and it has the **highest rate of recurrence of all cancers** according to the National Institutes of Health (NIH).

AUA/SUO Guideline (American Urological Association/Society for Urological Oncology)

Enhanced Cystoscopy-In a patient with NMIBC, a clinician should offer Blue Light Cystoscopy at the time of TURBT, if available, to increase detection and decrease recurrence.

70% of cases⁴ are early stage **non-muscle invasive bladder cancer (NMIBC)**, and can be treated with the **Blue Light Cystoscopy** for enhanced detection of tumors and **fluorescence-guided** Transurethral Resection of Bladder Tumors (**TURBT**) with the UH 400 Surgical Generator to remove them.

If the cancer advances to late stage muscle invasive disease (30% of cases⁴) where it can spread to other parts of the body, treatment costs become around 6.5x higher² and patient satisfaction decreases significantly due to a lower quality of life associated to cystectomy (bladder removal) and chemotherapy.

THE KARL STORZ Difference: Blue Light Cystoscopy with Cysview® is THE STANDARD of CARE for Bladder Cancer

The value of KARL STORZ Blue Light Cystoscopy with Cysview® 2 Part System comes from treating more bladder cancer patients more effectively. It can attract new patients and retain current ones by offering a better standard of care, which has been proven through excellent real-world outcomes, a strong recommendation by the AUA/SUO, and increased adoption and patient volume at top medical centers.

Market Share

Increased Adoption at TOP Medical Centers

Over **100** institutions and counting



National Comprehensive Center Network (NCCN) Designated Cancer Centers



National Cancer Institute (NCI) Designated Cancer Centers



of the top 26 of Best Hospitals in Adult Urology ranked by U.S. News and World Report

Patient Satisfaction

In a recent survey of 550 NMIBC patients, approximately 90% were aware of Blue Light Technology and sought treatment at a Blue Light Center.⁵ This was further confirmed in a 2018 published study on patient reported outcomes, where 91% of patients would recommend Blue Light Cystoscopy with Cysview.⁶

91% of patients recommend Blue Light Cystoscopy



Patients are asking for Blue Light Technology



Attract new patients and retain current ones



Patients willing to travel long distances for treatment

Increased Patient Volume/Increased Revenue

Bladder Cancer Program

Number of Patients



173
New patients

Real-World Example: A leading NCI Designated Comprehensive Cancer Center almost doubled its patient volume within 2 years after purchasing a KARL STORZ Blue Light Cystoscopy with Cysview® System.⁷

Cysview® is an optical imaging agent indicated for use in the cystoscopic detection of non-muscle invasive bladder cancer including carcinoma in situ (CIS) among patients suspected or known to have lesion(s) on the basis of a prior cystoscopy. Cysview® is used with the KARL STORZ Photodynamic Diagnostic (PDD) system to perform Blue Light Cystoscopy (BLC) as an adjunct to the white light cystoscopy.⁸

1. Chang SS, et al. Diagnosis and Treatment of Non-Muscle Invasive Bladder Cancer: AUA/SUO Guideline, J Urol. 2016
2. Svatek RS, et al. The Economics of Bladder Cancer: Costs and Considerations of Caring for This Disease. Eur Urol. 2014
3. American Cancer Society: <https://www.cancer.org/cancer/bladder-cancer/about/key-statistics.html> (Accessed April, 2018)
4. Isharwal S, et al. Non-muscle invasive bladder cancer risk stratification, Indian J Urol. 2015 Oct-Dec; 31(4): 289-296
5. Data on File, Photocure, BCAN BLC with Cysview Patient Survey, 2017, 2018
6. Smith A, et al. Patient-reported Outcomes of Blue Light Flexible Cystoscopy with Hexaminolevulinat (HAL) in the Surveillance of Bladder Cancer: Results from a Prospective Multi-center Study, British Journal of Urology, 2018 doi: 10.1111/bju.14481
7. Data on File, Photocure, 2017
8. Cysview (Prescribing Information) Princeton, NJ: Photocure ASA; 2018



...evolution continues

STORZ
KARL STORZ—ENDOSKOPE

THE DIAMOND STANDARD

KARL STORZ SE & Co. KG
Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany
Postfach 230, 78503 Tuttlingen/Germany
Telefon: +49 (0)7461 708-0
Telefax: +49 (0)7461 708-105
E-Mail: info@karlstorz.com
www.karlstorz.com

KARL STORZ Endoscopy-America, Inc.
2151 East Grand Avenue
El Segundo, CA 90245-5017, USA
Phone: +1 424 218-8100
Phone toll free: 800 421-0837 (US only)
Fax: +1 424 218-8525
Fax toll free: 800 321-1304 (US only)
E-Mail: communications@karlstorz.com