NMIBC – DIAGNOSIS AND TREATMENT

The Challenge in NMIBC Management
Reviewing the literature, 50–70% of NMIBC patients suffer from recurrences after the initial treatment in the form of superficial tumors. Missing small papillary tumors or CIS is an acknowledged risk and occurs at an estimated rate of 10–20%. Superficial tumors of the mucosa are typically indicated by specific capillary and vessel structures. Identifying these structures – especially small tumors under white-light conditions – is possible but could be improved.

Where HD-NBI Is available:
- Rigid and flexible cystoscopy
- TUR-B resection
- Flexible ureteroscopy for upper tract tumor management

Images from a CYF-VH Flexible Cystoscope in HD and HD-NBI

Excellent view of mucosal and vessel structures even with HDTV white light in flexible video cystoscopy
HD-NBI filters the white light and improves the visual contrast of mucosal and vessel structures

1 Sylvester et al., Intravesical bacillus Calmette-Guerin reduces the risk of progression in patients with superficial bladder cancer: a meta-analysis of the published results of randomized clinical trials, J Urol 2002; 168:1964–1970
**What Is NBI?**

NBI is an optical image-enhancement technology that improves the visibility of vessels and other tissues on the mucosal surface. Narrow-band illumination, which is strongly absorbed by hemoglobin and penetrates only the surface of tissues, is ideal for enhancing the contrast between the two structures. As a result, under narrow-band illumination, capillaries on the mucosal surface are displayed in brown on the monitor, and veins in the submucosa are displayed in cyan.

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**What Is PDD?**

When a photosensitive marker has been introduced transurethrally into the bladder, the inner surface of the bladder absorbs the drug over a period of 90–120 minutes and converts it into an endogenous pigment. This pigment is then selectively deposited in a tumor and, under blue excitation light, will emit red fluorescence. Nevertheless, in this condition, a sufficient contrast of the red fluorescence against the blue background is hard to obtain because the red fluorescence is too weak compared with the blue light. To emphasize this fluorescence, a yellow filter exclusively designed for PDD is built into the scope. As a result, the red fluorescence can be observed with excellent contrast.
HD and Full-Screen-Capabilities – for the First Time Ever in Flexible Cystoscopy

- Increased light output (20% brighter) for advanced Narrow Band Imaging (NBI)
- Enhanced visibility of superficial capillary and mucosal vessel system
- Potentially higher and improved detection rate of carcinoma in situ

HD-NBI: The Advanced Diagnostic Option in Bladder Cancer Follow-Up

- The combination of HD resolution and brighter NBI opens a new chapter in advanced bladder cancer follow-up diagnosis using flexible cystoscopy
- Higher tumor detection rate for HD-NBI (94.7%) vs. white light (79.2%)¹

¹ Cauberg et al., Narrow Band Imaging Cystoscopy Improves the Detection of Non-Muscle-Invasive Bladder Cancer, Urology 2010, 76:658–663
HD-NBI FOR ACCURATE TUMOR RESECTION

Crystal Clear, Brilliant, and True to Life

- Details and colors are sharp and true to life
- Significantly improved color reproduction compared with previous generation
- Advanced option for HD resection of BPH and bladder cancer due to improved visibility of vessels on the mucosal surface

HD Camera Head with NBI – a Unique Combination for Bladder Cancer Resection

- Combination of HD and NBI delivers 20% brighter light compared to prior camera-head systems
- HD-NBI reduces the recurrence risk of NMIBC by at least 10% at one year

Rigid Cystoscopy

- Durable all-stainless-steel design with maintenance-free stopcocks
- Gentle insertion due to smooth beak design
- Engineered and manufactured in Germany

Visibility of vessels and mucosal surface improved by NBI

1 Naselli et al., A Randomized Prospective Trial to Assess the Impact of Transurethral Resection in Narrow Band Imaging Modality on Non-Muscle-Invasive Bladder Cancer Recurrence, European Urology 2012; 61:908–913
TURis 2.0 BIPOLAR RESECTION

The Benefits of TURis 2.0

Safety
- Reduced risk of TUR syndrome
- Minimized stimulation of obturator nerve
- Extended operation times – way beyond monopolar
- Improved teaching options
- No need to reoperate

Bloodless
- Reduced perioperative blood loss due to safe bipolar hemostasis
- Plasma vaporization with the PlasmaButton provides continuous hemostasis

Time Saving
- Self-cleaning effect of loop wire through plasma activation
- Faster postoperative recovery
- Potentially decreased catheterization times

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NMIBC MANAGEMENT PLATFORM

VISERA ELITE Imaging Platform

- Patented HD-NBI filter
- Increase in brightness by 20% compared with the previous generation for optimized imaging

ESG-400 – Intelligent HF Technologies

The award-winning OES Pro resectoscopes and the established range of TURis electrodes can now be powered by the latest-generation universal HF generator – the ESG-400.

- Automated saline detection to ensure a safe procedure
- Leakage-protection sensor to permanently ensure the highest degree of safety for the user and patient
- High Power Cut Support (HPCS) – optimizing resection in saline
- Fast Spark Monitor (FSM) – constant cutting quality
- Large, illuminated touch-screen panel
- Three effect options – control the coagulation zone
## VISERA ELITE PORTFOLIO OVERVIEW

### Rigid Cystoscope
- **A20919A** 17 Fr. compact cystoscope
- **A22003A** Therapeutic cystoscope
- **A20972A**
- **A20934A**
- **O0122**
- **A3764A** 9.5 Fr. optical urethrotome
- **A37014A**
- **A37028A**
- **A37009A**
- **A22002A** Rigid optical forceps
- **A20713A**
- **A20913A**
- **A22001A** SurgMaster – TURs for resection in saline
- **WA22366A**
- **A22041A**
- **A22021A**

### Video Processor
- **WB91051W** HF unit ESG-400

### Monitor
- **N3629160** OEV261H – Olympus high-definition LCD monitor, 26"

### Insufflator
- **N3629670** UHI-4 – insufflator

### TURis Electrodes
- **WA22557C** PlasmaButton, 12° and 30° for plasma vaporization
- **WA22302D** Loop, 12°, medium
- **WA22558C** Angled loop, 12° and 30° for TUEB (transurethral enucleation)

### Flexible Videoscopes
- **N3828460** CYF-VH – cysto-nephro videoscope
- **N3828560** CYF-VHA – cysto-nephro videoscope with aspiration
- **N3828660** CYF-VHR – cysto-nephro videoscope with backward angulation

### Camera Head
- **N4488560** CH-S190-08-LB – HD urology ultralight camera head
- **N2487040** OTV-S7ProH-FD – PDD camera head

### Video Processor and Light Source
- **N3643860** VISERA ELITE – OTV-S190 video processor
- **N3643950** VISERA ELITE – CLV-S190 light source

### Full-HD Recording Platform
- **N3808460** IMH-10 – Blu-ray and HDD recording platform
- **N3808560** IMH-20 – Blu-ray and HDD recording platform

### Trolley
- **K10021613** VISERA ELITE – WM-NP2 mobile workstation

Specifications, design, and accessories are subject to change without any notice or obligation on the part of the manufacturer.