# A Minimally-Invasive Medical Device for Non-Muscle Invasive Bladder Cancer Tumor Sampling

Multi4 Medical

Berkeley DEEP TECH Innovation Lab

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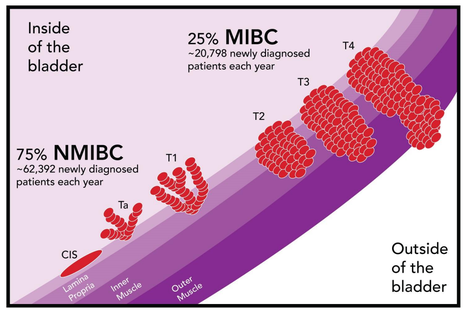
## BACKGROUND




- **9th most common cancer** worldwide
- **61,500 new NMIBC cases** diagnosed in the U.S. in 2023
- **65% of patients** get recurrent NMIBC
- **5+ years** of patient monitoring

## CURRENT STANDARD OF CARE

Scheduling delays leading to **long wait time**

**1.5-2.5 hour procedure** in the OR with general/spinal anesthesia

Insertion of **rigid resectoscope** into the urethra

## TECHNOLOGY OVERVIEW

### Four Key Functionalities

1. **Local anesthesia:** injected through needle at the tip of the device
2. **Electrified forceps:** removal of tumor sample
3. **Automatic sampling:** sample transported into tissue collection tube

**4. Burn electrode:** stop bleeding immediately to ensure clear vision

## CURRENT STAGE OF DEVELOPMENT

1 | 2 | 3 | 4

**Legal: Patents**
Three patent families across 11 jurisdictions

**Regulatory: FDA**
Submitted 510K to the FDA and Technical Mark for the European Union

**Operations: Manufacturing**
Manufacture small quantities within the EU

**Market: Reimbursement**
Existing CPT codes (55224 and 52234)

## VALUE PROPOSITION

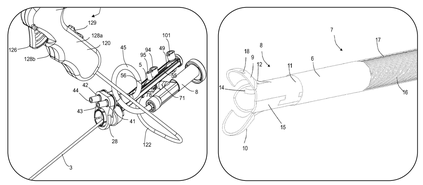
Immediate Intervention, 20 Minutes

Local Anesthesia, No Catheter, No Hospital Stay

2 Medical Personnel, Outpatient Procedure

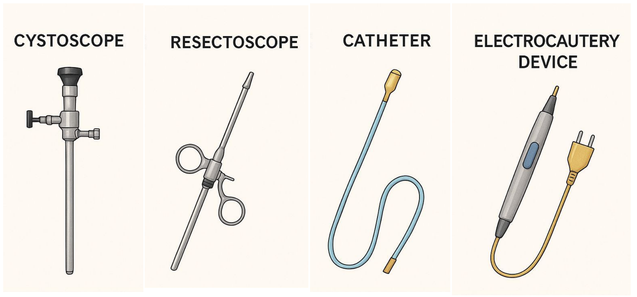
## IP ANALYSIS

**Trends in cystoscopic devices include:**
- Move to **single-use scopes**.
- Improvements in **imaging** for viewing of tumors.
- Expansion in growing markets.



Device Patents | Method Patents

**Multi4 has strong IP**, with **three patent families** and **34 applications**, including **13 granted patents** across 11 jurisdictions such as the U.S., Sweden, and Japan. The patents cover both the **novel device design** and the **method of use of the technology**.




**Multi4** intercepts with **four technologies**, limiting need for post-op **catheter** use, supplanting **resectoscope** use for small tumors, and improving upon **cystoscope** with **electrocautery** technology.

## COMPETITIVE LANDSCAPE

| | The Current Standard | Multi4 Medical |
|---|---|---|
| Training of Medical Staff | 2 – 3 Years | 2 – 6 Hours |
| Waiting Time | 2 – 4 Weeks | Immediate Treatment |
| Resources | 12 – 16 Healthcare Professionals | 1 + 1 Assistent |
| Fasting | 2 – 4 Hours | No Fasting |
| Environment | Sterile | Non-Sterile |
| Anesthesia | Full / Spinal Anesthesia | Local Anesthesia |
| Catheter | Needed | Not Needed |
| Treatment Time | Hospital Care (1 – 2 days) | 20 Minutes |
| Place of Surgery | Inpatient | Outpatient |

**Key Competitors** Olympus, Stryker, Karl Storz

## MARKET POTENTIAL