

# Magnetic double pigtail stent: an economically interesting innovative device ?

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## Background

- Removing of the standard **Double Pigtail Stent (DPS)** done
  - By the **couple surgeon/nurse**
  - With **Re-sterilisable Medical Devices (RMD)** including
    - **Flexible cystoscope** (in male)
    - **Rigide cystoscope** (in female)
- Procedure often **unpractical**
- Development of the **Magnetic Black Star Kit (MBSK)**
  - New device requiring only a nurse
  - identical procedure for male and female patients
  - Composition
    - a DPS fitted with a **magnet**
    - a **magnetic recovery system**

## Materials and methods

- **Economical comparison between**
  - **The classic procedures**
    - In male
    - In female
  - **The Magnetic black star procedure**
- **Parameters**
  - **The average cost of staff**
    - Timekeeping of several procedures
    - Surgeons and nurses salaries
  - **Costs linked to RMD**
    - purchase prices
    - depreciation prices
  - **sterilization costs**
  - **costs of each single used medical devices required for the procedure**
- **Common costs → not taken into account**

## Goal

Evaluate the cost of standard DPS and their removal in order to determine if MBSK can be economically relevant in our hospital

## Results & Discussion

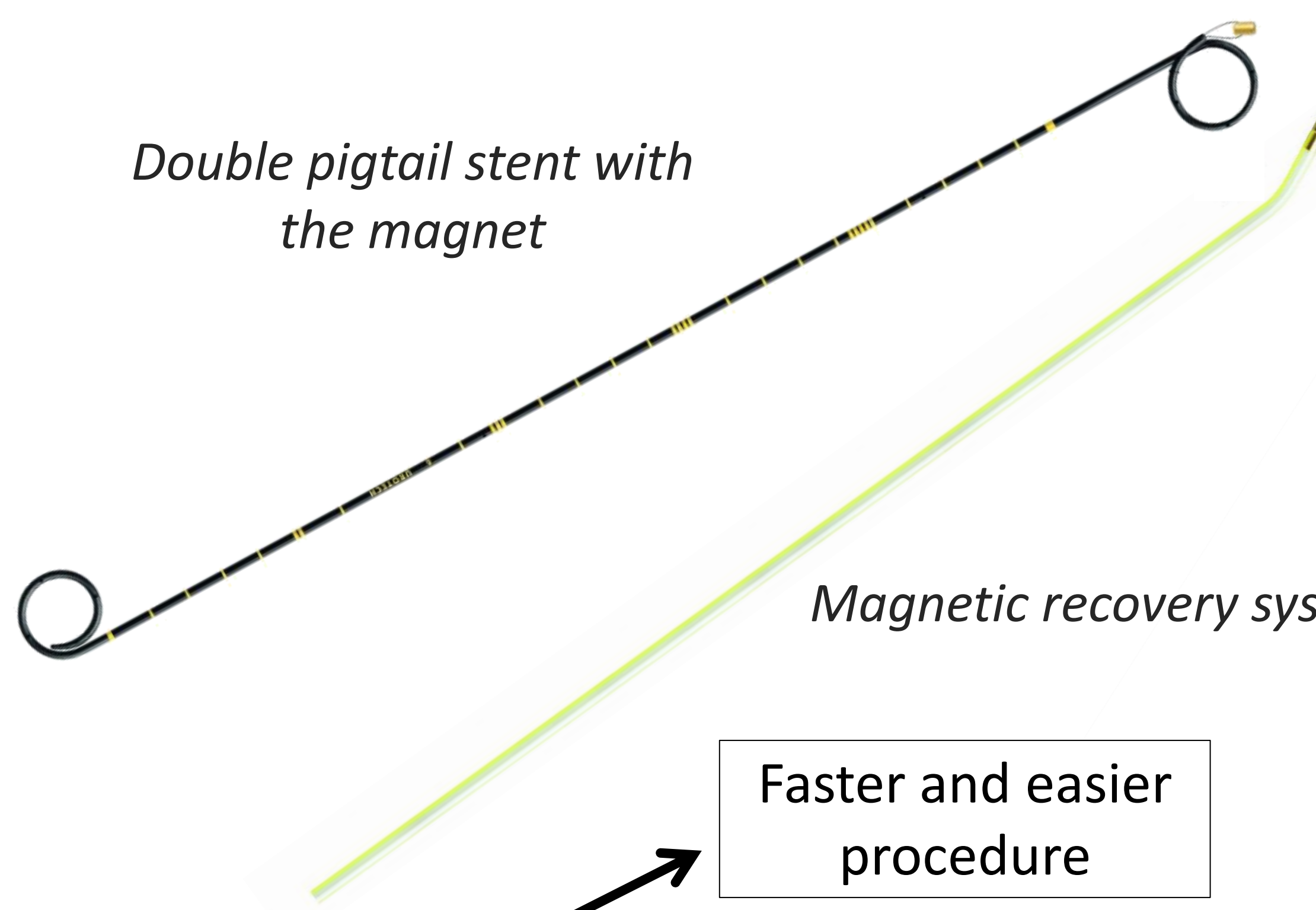
### Male procedure

With a flexible cystoscope



### Magnetic double pigtail stent procedure

Double pigtail stent with the magnet



Magnetic recovery system

Faster and easier procedure

### Female procedure

With a rigid cystoscope



Shorter time procedure than male procedure

- **Sterilization cost**
- **Outsourcing of sterilization**
- **Flexible cystoscope disinfection**

Average cost of staff	20,27€	2,20€	11,79€
Cost of resterilizable medical devices	84,92€		55,71€
Cost of single use medical device	69,14€	112,40€	69,14€

TOTAL

174,34€

114,60€

136,64€

**Gains: about 60€ per procedure in male**

**Gains: about 20€ per procedure in female**

## Conclusion

Using MBSK will be economically relevant in Argenteuil hospital and will avoid the use of fragile devices like the flexible endoscope.