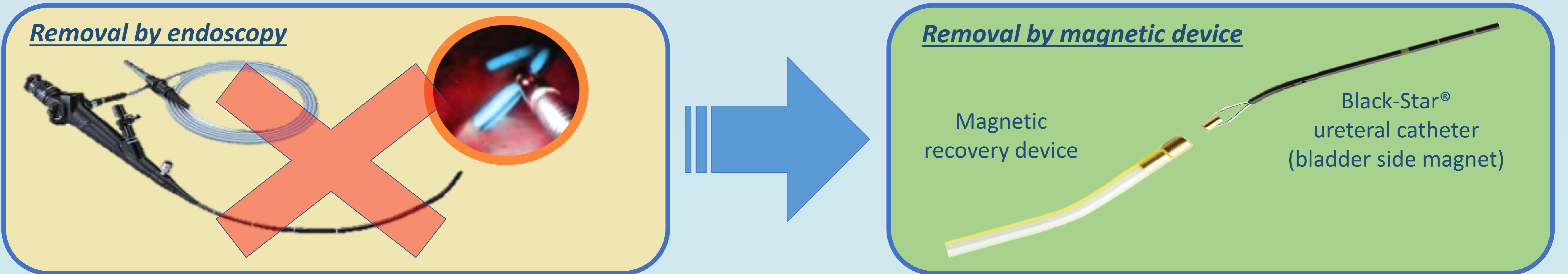


Background

During the urology device tender, a new ureteral catheter (UC) was proposed: the UROTECH's MAGNETIC BLACK-STAR[®] kit, which is 3 times more expensive than the traditional UC (non-magnetic rigid polyurethane double loop UC). Its bladder side magnet allows its removal thanks to a magnetic recovery device. As this new technique is faster and requires no endoscope or re-sterilizable equipment, the additional cost of purchase would be offset during the withdrawal and the discomfort would be reduced for the patient, according to the manufacturer.



Purpose

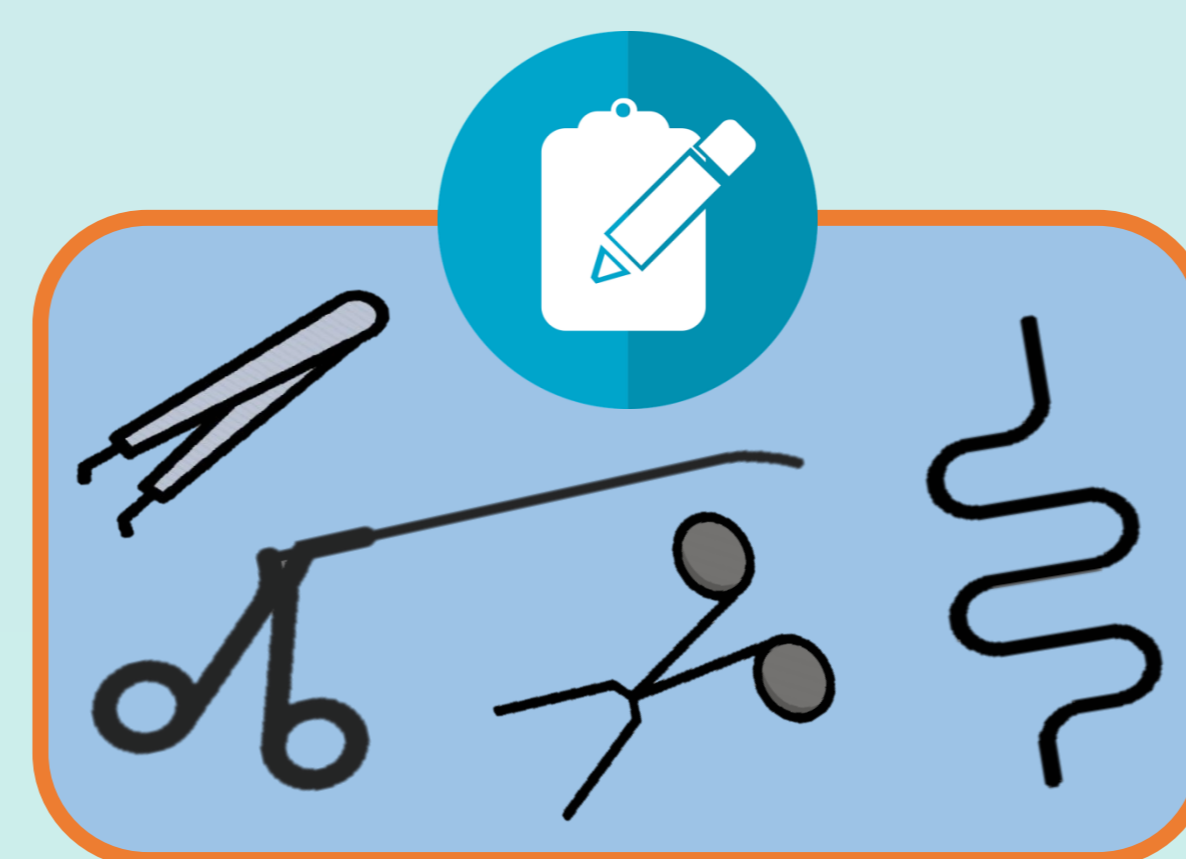
We wanted to estimate overall cost differences for our hospital between the BLACK-STAR[®] UC and a traditional UC, and compare our results with an estimation made by the manufacturer to another hospital.

Material and methods

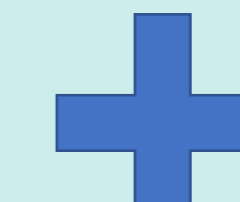
For the BLACK-STAR[®] UC and the usual UC, in men and women



Measurement of nursing and surgeon time for the removal procedure.



Exhaustive listing of the devices used during the removal procedure.



Assessment of the cost of using re-sterilizable equipment, including depreciation and sterilization.

Results

The table below details in men and women the cost of the usual UC and the BLACK-STAR[®] UC, estimated by our hospital and the manufacturer. As the positioning procedure is identical for both UC, the cost of the equipment associated was not evaluated. The cost of flexible endoscope use have been evaluated in 2015 in our hospital by integrating maintenance cost.

	Men				Women			
	Hospital		Manufacturer		Hospital		Manufacturer	
	Usual	Black-Star [®]	Usual	Black-Star [®]	Usual	Black-Star [®]	Usual	Black-Star [®]
Disposable device (= ureteral catheter)	41 €	124 €	69 €	102 €	41 €	124 €	69 €	102 €
Re-sterilizable equipment including flexible endoscope	168 € 158 €	0 € -	85 € 50 €	0 € -	43 € -	0 € -	56 € -	0 € -
Care staff	23 €	9 €	14 €	3 €	18 €	9 €	12 €	3 €
TOTAL	232€	133€_{,99€}	168€	105€_{,63€}	102€	133€_{+31€}	137€	105€_{,32€}

Hence the expected benefits of adopting the BLACK-STAR[®] UC at our hospital (271 poses in 2017 and sex ratio of 1: 1) :

	Men	Women	Total
Hospital	13 415 €	- 4 201 €	9 214 €
Manufacturer	8 537 €	4 336 €	12 873 €

Conclusion

The economic evaluation conducted in our hospital is largely in favor of the use of the BLACK-STAR[®] UC in men. Although this is not the case for women, its referencing to replace the current UC could save more than 9,200€ per year in our hospital, which is nevertheless 28% lower than the 12,900€ estimated by the manufacturer's data. It could be considered to reference the magnetic UC in addition to current UC, reserving it to male patients. Finally, the satisfaction of patients and surgeons also remains to be assessed.

