

Supplementary file 1. Survey Circulated to Training Urologists

Endourology Exposure in Training Urologists

Thank you for taking the time to complete this anonymous survey on your exposure to endourology. There are some basic questions and some scenarios - please answer honestly and without googling answers!

* Required

1. How many years have you been a urology registrar/SPR? *

Mark only one oval.

- ☐ 1 year
- ☐ 2 years
- ☐ 3 years
- ☐ 4 years
- ☐ 5 years
- ☐ 6 years
- ☐ 7 years
- ☐ 8 years
- ☐ 9 years
- ☐ > 10 years

2. How would you define your competence in the following operations *

Mark only one oval per row.

	Not competent	Can perform with supervision	Can perform straightforward case independently	Can perform complex case independently
Flexible ureterorenoscopy	☐	☐	☐	☐
Rigid ureteroscopy	☐	☐	☐	☐
Percutaneous Nephrolithotomy	☐	☐	☐	☐

3. How many times have you performed the following procedures? *

Mark only one oval per row.

	<5 times	5-10 times	10-20 times	20-30 times	40-50 times	>50
Flexible ureterorenoscopy	☐	☐	☐	☐	☐	☐
Rigid ureteroscopy	☐	☐	☐	☐	☐	☐
Percutaneous nephrolithotomy	☐	☐	☐	☐	☐	☐

4. For the following scenarios please select your preferred management option:

Mark only one oval per row.

	Primary rigid ureteroscopy + laser	Primary flexible ureterorenoscopy + laser	Ureteric stent with interval ureteroscopy	Percutaneous Nephrolithotomy	ESWL
45 year old man	☐	☐	☐	☐	☐

presents with renal
colic. CT

shows an 8mm proximal stone with mild hydronephrosis. He has no medical history,
normal laboratory investigations and is afebrile.

65 year old

woman

presents with

pyrexia, tachycardia

and flank pain. CT

shows a 6mm

left mid ureteric stone

with associated perinephric stranding. Medical history is significant for hypothyroidism.

33 year old man referred to outpatient clinic with non visible haematuria. Work-up shows a 1.5cm left upper
pole

stone. No

previous stone

history, normal

stone profile, no

previous medical

history.

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5. What initial laser settings do you use in your practice for stone dusting? (please give in Hz and
Joules)

6. What initial laser settings do you use in your practice for stone fragmentation? (please give in Hz and Joules)

7. After 1 second of lasering, what do you think is the temperature change in the ureter?

Mark only one oval.

☐ + 1°C

☐ - 1°C

☐ + 3°C

☐ - 3°C

☐ + 6°C

☐ - 6°C

☐ + 8°C

☐ - 8°C

☐ - 8°C

No change

8. Which part of the ureter do you think is the most compliant?

(Compliance is defined as the ability of a vessel to distend and increase volume with increasing transmural pressure) Mark only one oval.

☐ Distal

☐ Middle

☐ Proximal

9. In what part of the ureter is the force required to insert a 6/7.5Fr semi-rigid ureteroscope the greatest?

Mark only one oval.

- ☐ Middle
- ☐ Distal
- ☐ Proximal

10. Which of the following factors will increase the force required to insert a ureteral access sheath?
(Select as many as you think are applicable)

Check all that apply.

- ☐ Pre-stented ureter
- ☐ Presence of a safety wire
- ☐ Larger diameter sheath (e.g. 14/16Fr)
- ☐ Smaller diameter sheath (E.g. 11/14Fr)
- ☐ Pre-operative alpha blocker for one week (E.G. Tamsulosin)
- ☐ Warmed irrigation fluid

None of the above

11. What do you think is the maximum acceptable limit of force that can be used to insert a 12/14Fr access sheath before significant injury (>grade 3) will occur?

Newtons are a unit of force, one newton is equal to the force that would give a mass of one kilogram an acceleration of one metre per second per second. Tapping your finger on your phone is equivalent to 0.5 newtons of force.

Mark only one oval.

☐ 6 N

☐ 8 N

☐ 10N

☐

☐ >12 N

Other: