# Full Thickness Endoscopic Colonic Resection – Data from the UK FTRD Registry

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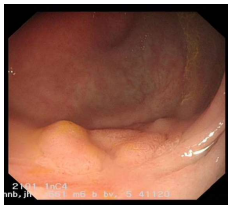
## Introduction

First multi-centre UK experience of colonic resections with the novel endoscopic full thickness resection device (FTRD).

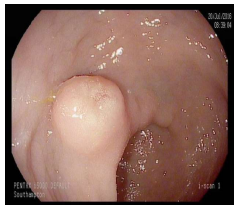
## FTRD

Novel tool, based on the over-the-scope clip (OTSC®) system, designed by Ovesco Endoscopy AG., for therapeutic full-thickness resection of colonic and rectal lesions.

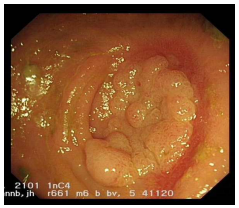


Non-lifting adenoma

Incomplete T1 tumour resection



Submucosal lesion



Adenoma involving the appendix

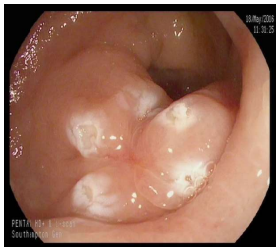
Compatible with all commercially available endoscopes, the FTRD System Set includes:

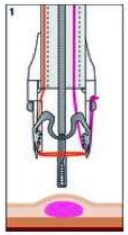
- Forceps for grasping of the target tissue and retrieval into cap.
- Cap with ready to use mounted FTRD clip and fitted snare. The clip ensures secure closure of potential defect before transection of tissue.

- Marker probe facilitates delineation, detection and complete resection of lesions.

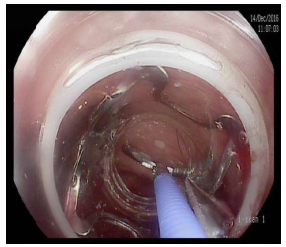
- Hand wheel and thread retriever. Turning the wheel releases the clip and firmly immobilises the target tissue.

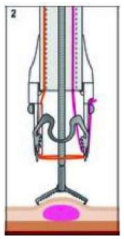
1) Marking of the lesion before mounting the FTRD System.



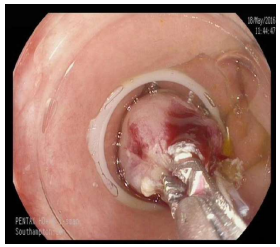


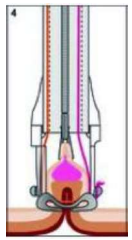
2) Grasping of the target tissue with the FTRD Grasper.



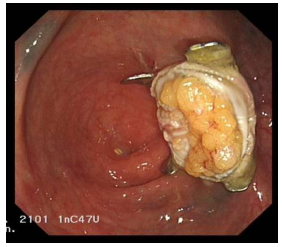


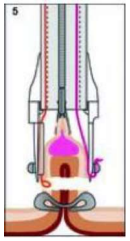
3) Retrieval of the target tissue within cap and fixation.
4) Release of clip with hand wheel.





5) Closure of snare and electrical cut of target tissue. Retrieval of the resected sample. Check of the resection site



## Registry

- 6 UK Institutions performed endoscopic full thickness resection (e-FTR) between from April 2015 – February 2017.
- A median of 2.5 cases were performed per centre (1 – 17)
- 29 patients were eligible for e-FTR, mean age of 68.7 (39 -93)
- Data was prospectively collected from consecutive patients at each centre, both at the initial e-FTR and 3 month endoscopic review.
- A database was created and online registry has now been established to assess: technical success, total procedure times, histological full thickness resection, R0 resection, technical failures and adverse events.

## Outcomes

- Indications:
  - 14 non-lifting adenomas
  - 7 submucosal lesion
  - 8 incomplete T1 tumour resection
- 28/29 (96.5%) target lesion were reached with FTRD
- 26/29 (89.7%) technical success (macroscopically)
- Median total procedure time: 38 mins (10 – 80)
- Median resection time: 5 mins (2 – 36)
- Median specimen size: 22 mm (13 – 30)

- 18/26 (57.7%) were day-cases and the remainder (8/26) had an overnight stay only
- 20/26 (76.9%) e-FTR were a R0 resection

## Follow-up

- No immediate or delayed complications
- 13/26 (50%) of patients have undergone follow-up
- 11/13 (84.6%) had R0 resection at index e-FTR.
- 2/13 (15.4%) patients demonstrated residual/recurrent lesion. Both patients were R1 resections at index e-FTR.
- FTRD clip remained in situ in 2/13 (15.4%) of cases.

## Technical Difficulties

- 10/29 (34.5%) cases experienced technical difficulties.
- 1 lesion could not be reached with FRTD device, due to sigmoid diverticular segment.
- 2 lesions could not be introduced into the FTRD cap,
- Of those where e-FTR could be completed there were technical difficulties in a further 7/26 (26.9%)
  - 5 due to snare failure (R0 still achieved in 4/5 by use of further snare after successful deployment of FTRD clip).
  - 2 slipped from forceps during clip deployment.

## Conclusion

- FTRD system is a promising technique allowing full thickness resection of difficult polyps that would otherwise require surgery.
- Our data demonstrates that it is a safe and effective technique requiring a short but significant learning curve before outcomes similar to European case series are achieved.
- The UK registry is an essential tool for recording outcomes, as to standardise practice and facilitate analysis, reflection and training. Its effectiveness will be enhanced by real-time online completion.

## Sites

We acknowledge the following sites for their contribution to the UK FTRD Registry: [1]University Hospital Southampton, Southampton, [2]Russells Hall Hospital, Dudley, [3]Queen Alexandra Hospital, Portsmouth, [4]Brighton & Sussex University Hospital, Brighton, [5]Charing Cross Hospital, London, [6]Musgrove Park Hospital, Taunton.