



## Service Priorities and Programmes Electronic Presentations

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**Structured quality and safety (Q&S) program significantly improved the complication rate of colorectal endoscopic submucosal dissection (ESD) in the department of Medicine and Geriatrics (M&G) in Tuen Mun Hospital (TMH).**

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### **Keywords:**

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### **Introduction**

Colorectal ESD is a technical demanding procedure. Pilot colorectal ESD service in TMH had been compromised with significant complication rate from 2012 to 2014. A structured Q&S program was carried out to improve the ESD service in 2015. The structured program included implementation of local and hospital Authority colorectal ESD guideline, collaboration with department of quality and safety and department of surgery and oversea hands-on training of a dedicated fellow at an expert center in Japan for technical training

### **Objectives**

An audit to review the impact of this structured Q&S program especially on the complication and patient's outcome of colorectal ESD service in TMH

### **Methodology**

Data was collected for all ESD patients in Department of M&G in TMH retrospectively. Audit standard included international consensus, reviews, audits on patient's outcomes and complications of colorectal ESD

### **Result**

Total 32 colorectal ESD cases performed in TMH (Department of M&G) were included from 2012-2015. Fifteen cases were performed in 2012 to 2014 (Group A) and seventeen cases were performed in 2015 after the Q&S program (Group B). Baseline demographic data were similar between two groups. Regarding the patient's complications, the perforation rate was 33.3% (5/15) in group A vs 0% (0/17) in group B ( $p=0.01$ , Fisher exact test, 2 tails). There are two patients (13.3%) in Group A required emergency surgery for perforation but no patient required emergency surgery in group B. The rebleeding rate is 1/15 (6.7%) in group A vs 1/17 (5.9%) in group B ( $p=0.5$ ) and all were treated by endoscopic means. The complication rate for

perforation and bleeding in group B are comparable with international expert centre (Perforation rate ranged from 1.2% to 20.4%; rebleeding rate ranged from 0.5% to 9.5%). Regarding patient's clinical outcome, both groups had low and similar recurrence rate. The recurrence rate after ESD is 6.7% (1/15) in group A vs 5.9% in (1/17) in group B. ( $p=0.5$ ). And it is comparable to international standard (0% to 11.1%). Regarding the pathology, the complete resection rate (R0) for adenoma, adenoma with high grade dysplasia and adenocarcinoma is similar in both group (73.7% in group B) vs (80% in group A) ( $p=0.5$ ). They were also comparable to international standard (ranged from 51.0% to 95.8%). In conclusion, a structure Q&S program significantly improved the complication rate while maintaining the standard of ESD with patient and pathology outcome comparable with international standard.