Disposable to Save Time & Life
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Introduction
Rigid sigmoidoscopy and Rubber band ligation (RBL) are diagnostic and therapeutic procedures for rectal bleeding patients, both procedures can be performed in ward, and reusable sigmoidoscope and ligator are used respectively. However, service gaps observed in these procedures in the Department of Surgery of NDH: a) Long Waiting Time Only 2 Sigmoidoscope and 2 Ligator in each ward, therefore for the 3rd case and so on, rectal examination cannot be provided immediately, the waiting time is usually 1-2 days. b) Insufficient Manpower RBL can be performed by a surgeon alone, however, the reloading of rubber band required extra nurses; and the post-RBL instrument disinfection is also time-consuming to ward nurses. Therefore, disposable Sigmoidoscope and Hemorrhoid Ligator are used to replace the reusable instruments.

Objectives
1) Shorten Waiting-time of Rigid sigmoidoscopy and RBL 2) Reduce procedure time and instrument cleansing time

Methodology
All reusable Sigmoidoscopes and Hemorrhoid Ligators were replaced by disposable type on 1 July 2017, the procedure time required for the Rigid Sigmoidoscopy, RBL, and instrument cleansing time were measured before and after the change. Duration required for the return of sterilized instruments was also measured. Finally, 5 Nursing Staff from each ward and 2 Medical Officers from each team were chosen by convenience sampling to rate the satisfactory score.

Result
Totally 200 rectal bleeding cases admitted on the first-half-year, 188 cases required Rigid Sigmoidoscopy, 133 needed RBL. The procedure time for rigid sigmoidoscopy was 2 minutes in average while each RBL required 8 minutes for a doctor plus a nurse; the post-procedure instrument cleansing time in ward was 4 minutes. And it took 2 days for the return of sterilized instruments from Sterile Supply Department. After introducing disposable instruments, there were 161 rectal bleeding cases admitted from July to December 2017, 147 cases required Rigid Sigmoidoscopy, 118 needed RBL. The procedure time for rigid sigmoidoscopy was also 2 minutes. But each RBL
just required 2 minutes as there were already 4 preloaded rubber band, RBL can therefore sometimes even be performed by a doctor without nurse; No cleansing time and no waiting time is required. The satisfactory score increased from 3.6/10 to 9.1/10, most of them reflected that much time was saved as no reloading and no cleansing was required. Patient can receive immediate investigations without delay as they do not need to wait for sterilized instrument.