# A Review on the Outcome of Patient managed in One Stop Postmenopausal Bleeding Clinic in New Territories East Cluster, NTEC

Principal Investigator: Dr. CHEUNG Chun Wai

Co-investigators: Dr. FUNG Wen Ying, Linda

Dr. CHAN Wai Yin, Winnie

Prof. Lao Tzu Hsi, Terence

Department of Obstetrics and Gynaecology, the Chinese University of Hong Kong, Shatin, New Territories, Hong Kong.

Introduction:

Postmenopausal bleeding (PMB) is a common gynaecological complaint, accounting for up to 5 to 10 % of postmenopausal women being referred to gynaecological outpatient clinic (1, 2). It also comprised of up to 10% of our outpatient gynaecological referral. In general, 60 % of women with postmenopausal bleeding have no organic causes identified, whilst benign causes of PMB includes atrophic vaginitis, endometrial polyp, submucosal fibroid and functional endometrium. However, between 5.7 to 11.5% of women with postmenopausal bleeding have endometrial carcinoma (3, 4, 5), which is the fourth most common cancer among women (6), therefore, it is important to investigate carefully to exclude genital tract cancer.

In the past, often women with PMB require multiple clinic visits in order to reach a final diagnosis. This not only increase the medical cost as a whole, but also imposes an enormous stress and burden on patients, concerning about delayed or overlooked diagnosis of genital tract cancer.

A One-stop postmenopausal bleeding clinic has been established since February, 2002 by the Department of Obstetrics and Gynaecology, New Territories East cluster (NTEC) aiming at providing immediate assessment of women with postmenopausal bleeding in one single outpatient clinic assessment.

During the visit, a detailed history was taken in regarding the PMB and usage of hormonal replacement therapy or herbal medicine. A physical examination was performed and a cervical smear was taken if not been taken within a year. Transvaginal ultrasound (TVS) was then performed to measure the endometrial thickness (ET), examining ovaries then followed by an endometrial sampling. An outpatient hysteroscopy was performed only if TVS showed an ET >= 5mm, or an abnormal endometrial appearance or unsatisfactory ET. Benign looking endometrial polyp would be removed during the outpatient hysteroscopy if possible.

At the moment, there was very limited local data (7, 8) and lack of the long term result. We aim to retrospectively evaluate the clinical outcome of postmenopausal bleeding patients who has attended One Stop Postmenopausal Clinic in order to formulate better care and counseling in future.

Objectives:

1. To analyze histopathology in relative to history and ultrasound findings in PMB women presented to One Stop Postmenopausal Bleeding Clinic at NTEC
2. To correlate the clinical findings of transvaginal ultrasonography ( TVS) with outpatient hysteroscopy and endometrial assessment in The One Stop Postmenopausal Bleeding Clinic
3. To identify predictive and prognostic factors in women with PMB for possible use in triaging high risk patients

## Methodology

### A. Subjects

Postmenopausal women who attended the One Stop Postmenopausal Bleeding Clinic since year 2002

### B. Methods

All women with postmenopausal bleeding presented to One-Stop PMB clinic were enrolled for analysis. Menopause was defined as the cessation of menses for more than 1 year. These patients had a thorough history taken. A physical examination was performed. A vaginal ultrasound was performed to determine uterine dimension, the endometrial thickness (ET) and exclude other adnexal pathology. An Endometrial sampling was taken afterward. An outpatient hysteroscopy , a 2.7mm or 2mm 30 degree rigid hysteroscope was then inserted into the uterine cavity using either CO2 or normal saline as distending medium to identify uterine pathology if TVS showed an ET >= 5mm, or an abnormal endometrial appearance, or unsatisfactory ET. Benign looking endometrial polyps were removed during the outpatient hysteroscopy if possible. The management was determined by the finding on transvaginal ultrasonography and hysteroscopy. If surgery was indicated, appropriate surgery would be booked in the clinic. Patient was discharged from the clinic if the findings were normal. A call-back system was established to recall patients with abnormal pathology. A follow up appointment would be given in case of suspicious pathology or incomplete examination.

The data was transferred into a computer database which will be analyzed. Medical records of all patients who presented to our One- Stop clinic at New Territories East Cluster will be reviewed. Patient's demographic data, presenting symptoms, clinical assessments, investigations and treatments will be collected. If they had operations performed, surgical pathology, if any, will also be reviewed. The outcomes in terms of death or still being alive are also ascertained from the Computerized Medical System.

## Data and Analysis

Data will be analysed using SPSS 22.0 (SPSS Inc., Chicago, IL, USA) program. For comparison of frequencies, chi-square test or or a two-sided Fishers' exact test will be used where appropriate. The Mann- Whitney U Test will be used to compare nonparametric data and the Kolmogorov-Smirnov test for correlation analysis with $P<0.05$ as indication of significance.

Implication of Data

Postmenopausal bleeding (PMB) is a worrisome symptom that requires urgent investigation because of its association with genital tract malignancy. One-stop postmenopausal bleeding clinic is becoming a trend, which has been effective in reducing the number of hospital visits per patient as well as decreasing patient anxiety (9). The review of the results of our One Stop Clinic which allows us to have better understanding of our patient's characteristics, risk factors and underlying pathologies in causing PMB. These could provide a better local evidence for future clinical use and patient care. The data helps to provide the basis for further improvement and streamlining the service as well as finding new approaches in the organization of the service.

Reference

1. Munro MG, Southern California Permanente Medical Group's Abnormal Uterine Bleeding Working Group. Investigation of women with postmenopausal uterine bleeding: clinical practice recommendations. Perm J. 2014 Winter;18(1):55-70.

2. Newell S, Overton C. Postmenopausal bleeding should be referred urgently. Practitioner, 2012; 256(1749):13–15

3. Ferrazzi E, Torri V, Trio D, Zannoni E, Filiberto S, Dordoni D. Sonographic endometrial thickness: useful test to predict atrophy in patients with postmenopausal bleeding. An Italian multicenter study;Ultrasound Obstet Gynecol 1996;7: 315-21

4. Gredmark T, Kvint S, Havel G, Mattsson LA. Histopathological findings in women with postmenopausal bleeding. Br J Obstet Gynaecol 1995; 102: 133-6

5. Lidor A, Ismajovich B, Confino E, David MP. Histopathological findings in 226 women with post-menopausal uterine bleeding. Acta Obstet Gynecol Scand 1986; 65: 41-3

6. Top 10 cancers, Hong Kong Cancer Registry, Hospital Authority

7. Wong ASW, Lao TT, Cheung ECW, Yeung SW, Fan HL, Ng PS, Yuen PM, Sahota DS. Reappraisal of endometrial thickness for the detection of endometrial cancer in postmenopausal bleeding: a retrospective cohort study. BJOG. 2016 Feb;123(3):439-46

8. Wong ASW, Cheung ECW, Fung LWY, Lao TTH, Mol BWJ, Sahota DS. Development and Validation of Prediction Models for Endometrial Cancer in Postmenopausal Bleeding. Eur J Obstet Gyn R B 2016;203: 220 - 224

9. Sulaiman S, Chong KW, Gaudoin M. One-stop postmenopausal bleeding clinics reduce patient waiting times and theatre costs. Scott Med J. 2004 Nov; 49 (4):152-4.