



# Outpatient Hysteroscopy in Action:

## A comprehensive review of a tertiary service

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### Background

Outpatient hysteroscopy (OPH) is an acceptable and established procedure for the investigation of abnormal uterine bleeding (AUB), including post-menopausal bleeding (PMB).<sup>1</sup> It enables direct visualisation and sampling of the endometrial cavity, without the need for theatre facilities or general or regional anaesthesia. This leads to a reduction in the overall cost when compared to a hysteroscopy and curettage performed in the theatre setting and less down-time for patients.<sup>1</sup>

### Objectives

To audit our practice in an OPH clinic at a tertiary hospital by evaluating the following outcomes:

- Rate of successful entry into the endometrial cavity
- Rate of adequate endometrial sampling by Pipelle
- Rate of adverse events such as vasovagal episodes and the effect of local anaesthetic gel instilled into the cervical os pre-procedure
- Rate of endometrial malignancy diagnosed in patients presenting with PMB (comparable to benchmarked rate of 10%)<sup>2</sup>

### Methods

A retrospective cohort analysis was performed of 309 out-patient episodes, of which 216 patients (69.9%) underwent OPH and/or Myosure with pipelle endometrial sampling at a single tertiary unit over a 2-and-a-half-year period

- July 2016 to December 2018

Demographics	Range	Mean
Ages range (years)	27 – 85	55.57
BMI range	15.6 - 64.9	31.43
Parity	0 - 8	2.29

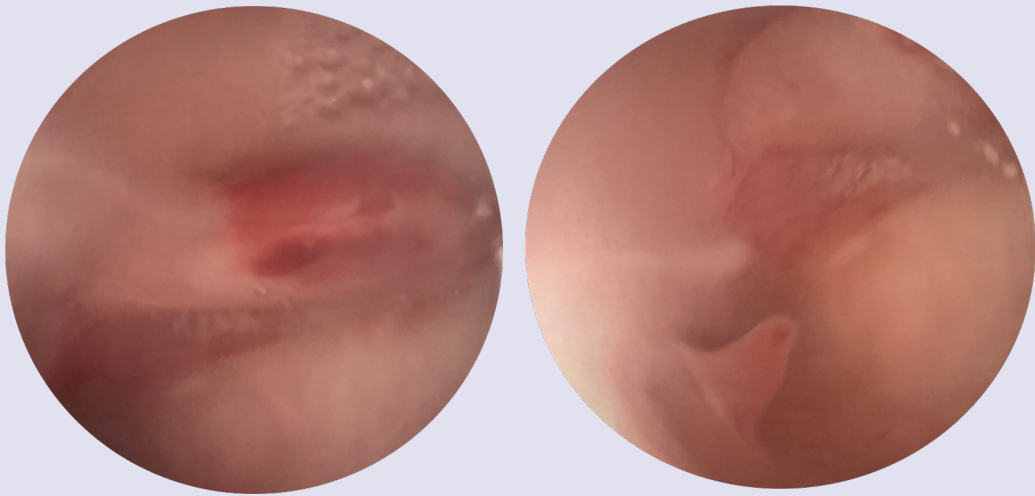


Figure 1: Endometrial polyps seen on OPH.

### Results

Initial introduction of the hysteroscope into the endometrial cavity (through the internal cervical os) was tolerated in 183/216 patients (84.4%), with 175 patients (81.0%) subsequently having a successful diagnostic hysteroscopy (complete visualisation of endometrial cavity).

The main indication for the OPH was PMB (64.4%), followed by AUB (19%), asymptomatic endometrial thickening (8.8%) and other indications (7.9%).

Of the 139 patients who underwent OPH for investigation of PMB, 2 histopathology reports confirmed malignancy (1.4%). Of all outpatient episodes referred to the OPH clinic for PMB (n=161), 6 patients were found to have endometrial cancer (3.7%). The main risk factor for these patients was diabetes mellitus. All patients had a negative family history of endometrial cancer. Of those found to have malignancy, the mean BMI was 42.9 and the mean age was 64.7 years.

Of endometrial pipelle biopsies taken at OPH clinic, 133/169 samples (78.7%) contained sufficient endometrial material and provided a result.

Forty patients (18.5%) required an outpatient Myosure procedure for resection of polyps/fibroids seen on hysteroscopy. The lesion was successfully resected in 32 of these patients (80.0%). Two patients experienced a vasovagal episode following OPH.

#### Mode of delivery for parous women (n = 191)

Vaginal	141 (73.8%)
Caesarean Section	26 (13.6%)
Vaginal/Caesarean	14 (7.3%)
Unknown	10 (5.2%)

### References:

1. Royal College of Obstetricians and Gynaecologists. Best Practice in Outpatient Hysteroscopy. London: RCOG; 2011.
2. Bakour SH, Timmermans A, Wol BW, Khan KS. Management of women with postmenopausal bleeding: evidence-based review. *The Obstetrician and Gynaecologist* 2012 Oct;14(4):243-249.
3. Mohammadian et al. Cervical Priming by Misoprostol before Diagnostic Dilatation and Curettage: A Randomized Clinical Trial. *Journal of Reproductive Infertility* 2015 Jul-Sept; 16(3):162-166

### Discussion

Our findings confirm that OPH is a safe and effective procedure for investigating PMB. The complication rate was very low, with only two patients experiencing a significant vasovagal episode and only one patient requiring admission to hospital following a vasovagal episode.

The primary reason for unsuccessful OPH was due to cervical stenosis, with the secondary reason being pain. In the 33 episodes where entry to the endometrial cavity was unsuccessful, 18 patients had a previous vaginal delivery, with the remainder having had a combination of vaginal and caesarean births (n=2), caesarean births only (n=7), nulliparous (n=5), or mode of delivery unknown (n=1).

Of the 25 unsuccessful hysteroscopies due to pain, local anaesthetic (as a gel or injection) was given to 3 patients. An increase in the use of local anaesthetic may improve the rate of successful OPH.<sup>1</sup> The primary reason for unsuccessful outpatient Myosure resection was pain, despite the use of injected local anaesthetic for these patients. The use of Misoprostol has also been used in the presence of cervical stenosis with good results.

The rate of malignancy found in patients with PMB was lower than the benchmarked rate of 10%. Patients with PMB and multiple risk factors or sinister ultrasound findings are often referred to the general gynaecological clinics for review and this may explain the lower rate of malignancy. Furthermore, the small sample size may have contributed to this lower rate. The average endometrial thickness measured on pre-visit ultrasound for non-diagnostic samples was 5.5mm compared to 7.0mm for pipelle samples yielding a result. Sampling a thin endometrium is therefore more likely to yield non-diagnostic pipelle results.

### Conclusion

Our findings demonstrate that OPH is a safe and effective procedure with a high success rate. The complication rate is low and the procedure well tolerated. We feel that more widespread use of OPH should be encouraged.