

# Subsequent Intervention Rates Following Thermablate and NovaSure Ablations

Mohamed R, Qaiser A, Chen B.F, Vilos G, Powell MC  
Queens Medical Centre, Nottingham University Hospitals NHS Trust

**Introduction:** Heavy menstrual bleeding (HMB) is a common gynaecological condition affecting up to 30% of women during their reproductive years. Because of the risks associated with hysterectomy, NICE recommends a conservative approach to management first of all. For this reason both the Thermablate Endometrial Ablation System (TEAS) and NovaSure Ablation System (NAS) can produce amenorrhoea and consequently reduce the need for hysterectomy. However there is minimal literature comparing these two methods with regards to re-intervention rates and patient satisfaction

**Objectives:** To determine intervention rates following Thermablate Endometrial Ablation System (TEAS) and NovaSure Ablation System (NAS)

**Methods:** The study was conducted to look at the re-intervention rates following TEAS and NAS between July 2008 and July 2013 at the Ambulatory Menstrual Disorders Clinic at the CIRCLE Treatment Centre associated with the Queens Medical Centre in Nottingham, UK. These women were all identified as having menorrhagia which had not responded to conservative treatment. The women were offered TEAS or NovaSure under local anaesthetic or NovaSure under general anaesthetic.



Thermablate

Initial diagnostic hysteroscopy identified women as having a normal endometrial cavity and an endometrial biopsy was taken prior to or just before the endometrial ablation. Women were excluded if they were found to have malignancy or a submucous fibroid >3cm. Some women received preparation prior to the ablation in the form of the Mirena IUS or hormone such as Cerazette or Norethisterone. All procedures were carried out by the same surgeon.

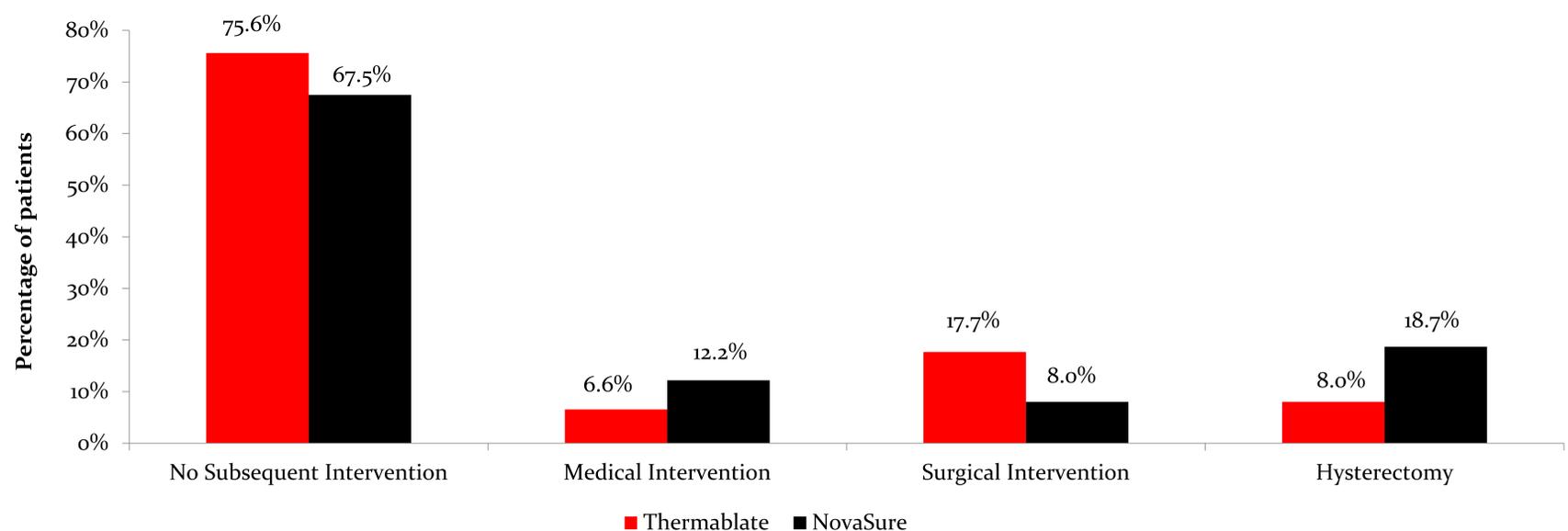


NovaSure

**Results:** 133 women had a NovaSure ablation. Of these 83 women did not require any post operative intervention. 8 women did not attend their follow up and were excluded from the final results. Medical intervention included hormonal interventions such as Cerazette or GnRH analogues as well as non-hormonal interventions such as analgesia. Surgical interventions were classed as interventions excluding hysterectomy such as TCRE/TCRF (Trans-Cervical Resection of Endometrium/Trans-Cervical Resection of Fibroid).

175 women had Thermablate ablation, of these 7 patients did not attend their follow up and were consequently excluded from this study. 127 women had no interventions following Thermablate.

In relation to interventions post ablation there is a statistical difference between the two types of ablations ( $p=0.001$ ); 67.5% of women did not require intervention after NovaSure compared to 75.6% after Thermablate. More women had conservative intervention in the NovaSure group. However in the Thermablate group many more women had surgical intervention such as TCRE/TCRF. The odds ratio of women having a hysterectomy in the NovaSure group compared to Thermablate was 2.8 with a confidence interval of 1.37 and 5.71.



**Discussion:** In this study the high rate of amenorrhoea with NovaSure is consistent with other studies compared to Thermablate. In most studies amenorrhoea is considered a successful primary outcome but the subsequent re-intervention rate is an important secondary outcome. There was a lower rate of hysterectomy in our Thermablate group. This may be because NovaSure destroys more of the uterine cavity than the Thermablate. Fewer conservative interventions such as endometrial resection are possible as there are adhesions in an Asherman-like scenario. This is seen in women with cyclical pain with or without persistent bleeding after NovaSure. A hysterectomy may be the only available option to women after a NovaSure. Penninx et al performed a RCT following 65 women up for 5 years post NovaSure and Hydro Thermablator System (Hydrotherm). They concluded that at 5 years, 55% of women had amenorrhoea following NovaSure whereas there was 35.4% amenorrhoea following Hydrotherm. 11 women in the NovaSure group and 23 women in the Hydrotherm group had a surgical re-intervention post procedure.

Our study has shown that Thermablate is likely the better 2<sup>nd</sup> generation ablation system compared to the NovaSure system. The patient satisfaction rates were similar across the two groups and the hysterectomy rate was lower for those women who had Thermablate. TEAS also has the advantage that it is simple to use and can be performed under local anaesthetic which overall reduces the cost.

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References: Daniels JP, Middleton LJ, Champaneria R, et al. (2012) Second generation endometrial ablation techniques for heavy menstrual bleeding: network meta-analysis. *BMJ*;344:e2564 doi: 10.1136  
Penninx, JPM, Herman, MC, Mol BW, Bongers MY. (2011) Five-year follow-up after comparing bipolar endometrial ablation with hydrothermablation for menorrhagia. *Obstet Gynecol*.116(4):819-26