



# i-MEET

## NEXT GENERATION

Multidisciplinary European Endovascular Therapy

# Is Foam the most cost-effective ablation technique ?

R. Milleret – Cluj

# Disclosure of Interest

Speaker name: ....R.Milleret

.....

- I have the following potential conflicts of interest to report:
- Consulting : Quali Med
- 
- Shareholder in a healthcare company : Miravas
- 
- 
-

Phlebology. 2016 Mar;31(1 Suppl):80-7. doi:  
10.1177/0268355516632999.

What is effective care for varicose veins?

Meissner MH1.

As long-term differences in recurrence and quality of life are small, overall cost effectiveness is driven primarily by initial treatment costs and ultrasound-guided foam sclerotherapy is the most cost-effective strategy in many models.

- [Eur J Vasc Endovasc Surg.](#) 2015 Dec;50(6):794-801. doi: 10.1016/j.ejvs.2015.07.034. Epub 2015 Oct 2.
- **A Cost-effectiveness Analysis of Surgery, Endothermal Ablation, Ultrasound-guided Foam Sclerotherapy and Compression Stockings for Symptomatic Varicose Veins.**
- [Marsden G](#)<sup>1</sup>, [Perry M](#)<sup>2</sup>, [Bradbury A](#)<sup>3</sup>, [Hickey N](#)<sup>4</sup>, [Kelley K](#)<sup>2</sup>, [Trender H](#)<sup>5</sup>, [Wonderling D](#)<sup>2</sup>, [Davies AH](#)

**RESULTS:**

All interventional treatments were found to be cost-effective compared with CS at a cost-effectiveness threshold of £20,000 per QALY gained. ETA was found to be the most cost-effective strategy overall, with an incremental cost-effectiveness ratio of £3,161 per QALY gained compared with UGFS. Surgery and CS were dominated by ETA.

**CONCLUSIONS:**

Interventional treatment for VV is cost-effective in the UK NHS. Specifically, based on current data, ETA is the most cost-effective treatment in people for whom it is suitable.

**ALUN , WHAT IS QALY ?**

[Health Technol Assess](#). 2015 Apr;19(27):1-342. doi: 10.3310/hta19270.

**Clinical effectiveness and cost-effectiveness of foam sclerotherapy, endovenous laser ablation and surgery for varicose veins: results from the Comparison of LAser, Surgery and foam Sclerotherapy (CLASS) randomised controlled trial.**

[Brittenden J](#)<sup>1</sup>, [Cotton SC](#)<sup>2</sup>, [Elders A](#)<sup>2</sup>, [Tassie E](#)<sup>3</sup>, [Scotland G](#)<sup>2</sup>, [Ramsay CR](#)<sup>2</sup>, [Norrie J](#)<sup>2</sup>, [Burr J](#)<sup>4</sup>, [Francis J](#)<sup>5</sup>, [Wileman S](#)<sup>2</sup>, [Campbell B](#)<sup>6</sup>, [Bachoo P](#)<sup>1</sup>, [Chetter J](#)<sup>7</sup>, [Gough M](#)<sup>8</sup>, [Earnshaw J](#)<sup>9</sup>, [Lees T](#)<sup>10</sup>, [Scott J](#)<sup>8</sup>, [Baker SA](#)<sup>11</sup>, [MacLennan G](#)<sup>2</sup>, [Prior M](#)<sup>2</sup>, [Bolsover D](#)<sup>2</sup>, [Campbell MK](#)<sup>2</sup>.

The health gain achieved in the AVVQ with foam was significantly lower than with surgery at 6 months [effect size -1.74, 95% confidence interval (CI) -2.97 to -0.50;  $p = 0.006$ ], but was similar to that achieved with EVLA. The health gain in SF-36 mental component score for foam was worse than that for EVLA

The trial-based cost-effectiveness analysis showed that, at 6 months, foam had the highest probability of being considered cost-effective at a ceiling willingness-to-pay ratio of £20,000 per QALY. EVLA was found to cost £26,107 per QALY gained versus foam, and was less costly and generated slightly more QALYs than surgery.



at 5 years, EVLA had the highest probability ( $\approx 79\%$ ) of being cost-effective at conventional thresholds, followed by foam ( $\approx 17\%$ ) and surgery ( $\approx 5\%$ ).

### **CONCLUSIONS:**

Considerations of both the 6-month clinical outcomes and the estimated 5-year cost-effectiveness suggest that EVLA should be considered as the treatment of choice for suitable patients

Systematic review, network meta-analysis and exploratory cost-effectiveness model of randomized trials of minimally invasive techniques versus surgery for varicose veins.

Carroll C, Hummel S, Leaviss J, Ren S, Stevens JW, Cantrell A, Michaels J.  
Br J Surg. 2014 Aug;101(9):1040-52.

12.

Cost and effectiveness of laser with phlebectomies compared with foam sclerotherapy in superficial venous insufficiency. Early results of a randomised controlled trial.

Lattimer CR, Azzam M, Kalodiki E, Shawish E, Trueman P, Geroulakos G.  
Eur J Vasc Endovasc Surg. 2012 May

**RESULTS:**

Changes in AVVQ, VCSS and VFI values (3 months) did not demonstrate any significant difference between groups. At 3 months, the above-knee GSV occlusion rate (without co-existing reflux) was not significantly different between the groups (74% vs 69%; EVLA vs UGFS;  $P = .596$ ). Of the 9 haemodynamic failures in each group, 7 EVLA patients and 4 UGFS patients had co-existing cross-sectional above-knee GSV occlusion at some point. However, UGFS significantly outperformed EVLA in cost, treatment duration, pain, analgesia requirements and recovery.

**CONCLUSIONS:**

UGFS is 3.15 times less expensive than EVLA (£230.24 vs £724.72) with comparable effectiveness but 56% (versus 6%) required additional foam

# Initial cost of treatment is still a limiting factor

- In many countries the patient has to pay for endovenous treatments .
- Specialists are concentrated in large towns meaning a long trip to be treated .
- Follow up thus not as thorough as in Western Europe .

## How can we lower the costs ?

- Ambulatory , local anesthesia
- Low costs generators : easy with RF ,  
 more difficult with Laser ( optics )
- \* Re Usable fibers and catheters :  
 not in the interest of industry  
 but feasible : coloscopes are re-usable ,  
 and work in a much worse environment ...

# Conclusion

- Cost effectiveness studies are necessary to guide re-imbursement policies
- We should use their results to improve our techniques in order to offer a better service to our patients .