

# Development of a sclerotherapy simulator for training and propagating medical evidence

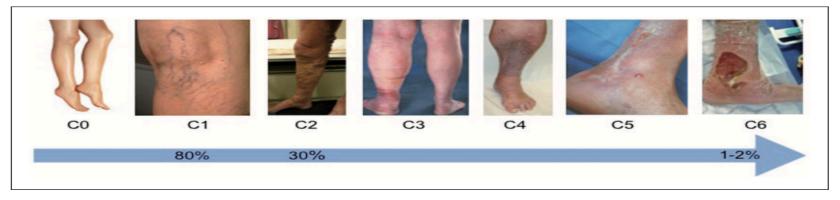
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#### **Clonflict of interest:**

✓ I have no actual or potential conflict of interest in relation to this presentation

#### Introduction:

- Chronic venous disease (CVD) is defined as a venous system dysfunction caused by valve incompetence, associated or not with venous flow obstruction;
- CEAP classification:



Onida S et al. Phlebology. 2016 Mar;31(1 Suppl):74–9 ESVS Wittens et al. Eur J Vasc Endovasc Surg. 2016 Jun;49(6):678–737

#### Background:

- Sclerotherapy is a technique used to treat telangiectasia as well as varicose veins that are subject to non-surgical intervention
- Simulation training can provide students and young doctors with the chance to practice their skills in a risk-free environment

### **Objective:**

 Develop a reproducible, low-cost, realistic simulator for sclerotherapy training in order to enable early stages of practising without risk for the patient

#### **Methods and Material:**

- Easily obtainable materials
  - Coloured or transparent silicon
  - Copper wires
  - Blue ink



## **Protocol:**

- Briefing
- Kit
- Instruction manual
- Table with 10 sessions of training
- After completing the training, three examiners assessed the student

#### **Results:**

- 50 medical students
  - 10 sessions with 10 catheterization attempts
- 1<sup>st</sup> Session:
  - average of success was 4 (3 to 6)
- 10<sup>th</sup> Session:
  - Average of success was 8.8 (7 to 10)
- Final assessment:
  - All the students catheterized seven or more 'vessels'

#### **Conclusions:**

- The simulator is:
  - Reproducible
  - Low-cost
  - Can be used as an educational tool

# Thank you! Muchas Gracias ! Obrigado !







