

Development of a simulator for ultrasoundguided vascular access for training and propagating Cochrane evidence

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Disclosures

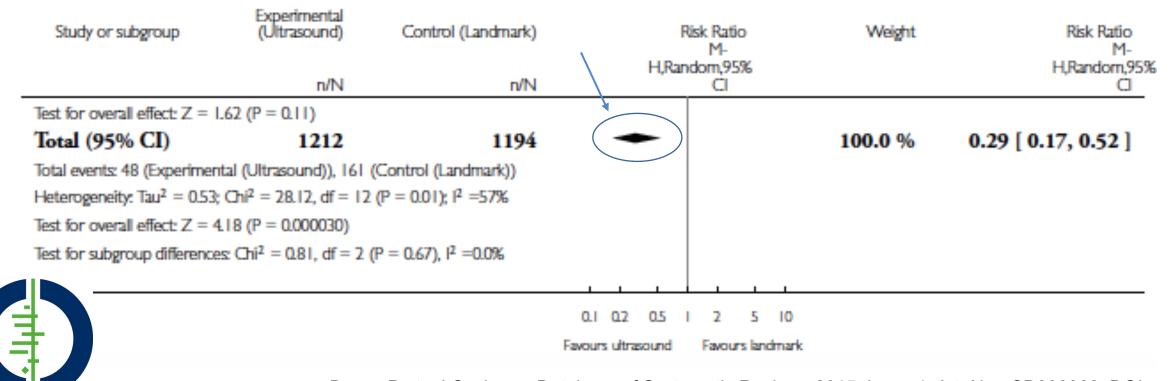
• I have no actual or potential conflict of interest in relation to this presentation



Introduction

Evidence-based medicine

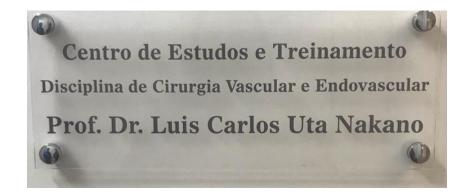
Analysis I.I. Comparison I Ultrasound guidance vs anatomical landmarks for internal jugular vein cannulation for central vein catheterization, Outcome I Complication rate total.



Brass P et. al.Cochrane Database of Systematic Reviews 2015, Issue 1. Art. No.: CD006962. DOI: 10.1002/14651858 CD006962 pub2

Introduction

- Simulation: practice and repetition
- Problems to face:
 - High cost
 - Brazilian economic reality

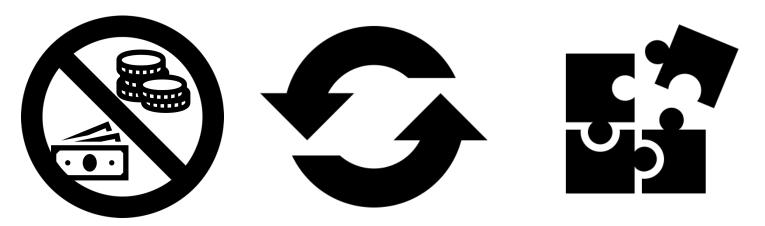


Researching center in realistic training area – Prof. Nakano
- UNIFESP



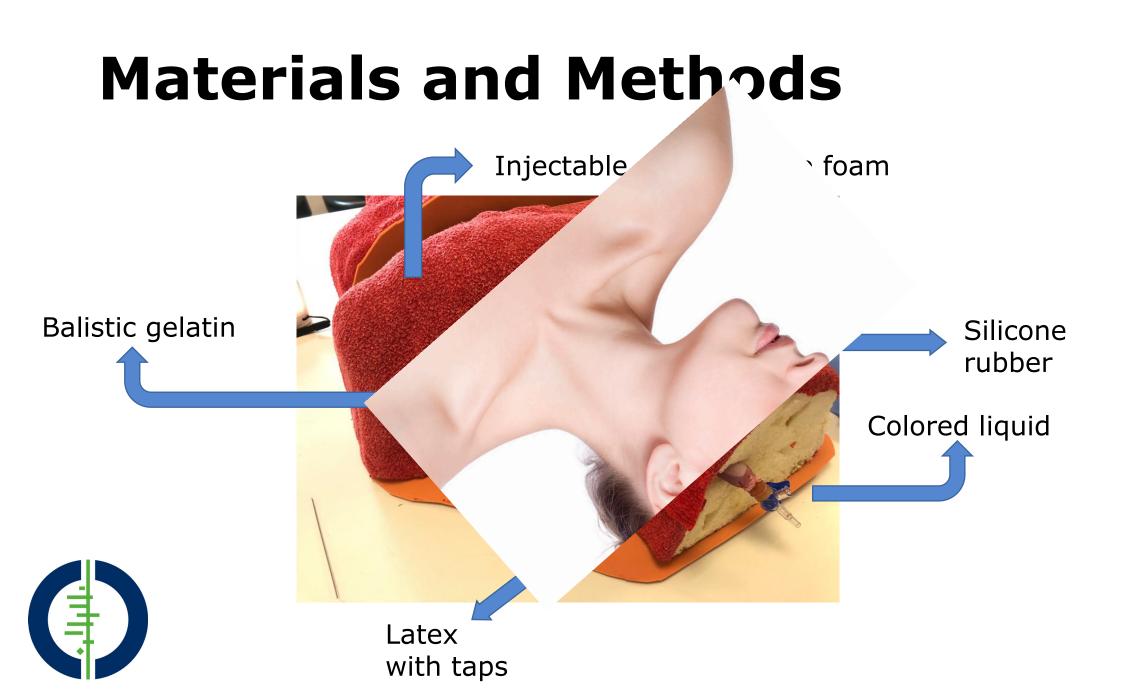
Objective

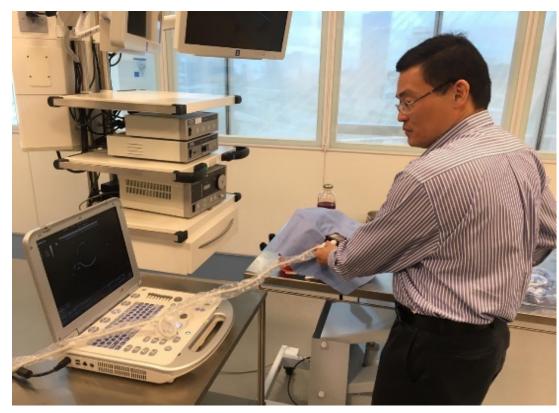
• Premises:



Low cost Easy reproduction Easy handling



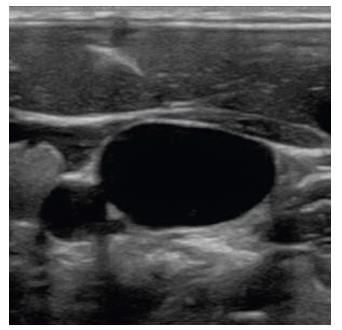




Professor Nakano



Practical test



Ultrasound image – Real Neck



Ultrasound image - Simulator



- Senior Medical StudentsResidentsBefore (anatomic landmarks)44%66%After training (ultrasound)100%100%
- Acceptance: >90%



• 81 Dollar (manufactured) X 8100 Dollar (industrialized)





100x reduction

Conclusion

• Achieved:



Low cost Easy reproduction Easy handling











Thank you very much!